



RESEARCH ARTICLE

Identification of MSME Needs to Enhance the Effectiveness of Entrepreneurship Education Based On Spice and Food Potentials in Ternate City

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ABSTRACT

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Micro, Small, and Medium Enterprises (MSMEs) play a pivotal role in Indonesia's economy, including in Ternate City. MSMEs significantly contribute to job creation, income distribution, and poverty alleviation. However, these enterprises often face numerous challenges such as limited capital, restricted market access, and inadequate managerial skills. Meanwhile, Ternate City boasts substantial potential in the local spice and food sectors, including cloves, nutmeg, kenari nuts, and sago. This potential has yet to be fully optimized, as many MSMEs continue to operate traditionally without utilizing modern technology and business strategies. This study aims to identify the specific needs of MSMEs in entrepreneurship education, examine the untapped spice potential, and formulate effective and sustainable empowerment strategies. A qualitative descriptive research method was employed, involving 30 MSME actors engaged in processing local spices and food products in Ternate City as research subjects. Data collection techniques included observation, surveys, in-depth interviews, and Focus Group Discussions (FGDs). The findings reveal that most MSME actors have varying levels of formal education, yet many have never participated in entrepreneurship training. They also lack the knowledge and skills needed to process spice and food potentials into high-value economic products. Additionally, challenges in financial management, product packaging, and online marketing were identified. Therefore, empowerment through entrepreneurship education is essential to enhance MSME capacity and effectiveness.

INTRODUCTION

MSMEs play a vital role in Indonesia's economy, including in Ternate City. They serve as a backbone of the local economy by significantly contributing to job creation, reducing unemployment, and alleviating poverty. However, MSMEs often face various challenges that hinder their growth and sustainability, such as limited capital, restricted market access, and inadequate managerial skills (Darsanto, Effendy, and Nuryanto 2021; Hadi et al. 2019).

On the other hand, Ternate City holds significant potential in the spice and food sectors. Historically, Ternate has been known as one of Indonesia's key centers for spice and food production, including cloves, nutmeg, ginger, kenari nuts, sago, and cinnamon (Insani and Irwandi 2022). This potential has not been fully optimized by MSME actors in the city. Many MSMEs still operate using traditional methods and have yet to leverage modern technology and business strategies to enhance the competitiveness of their products in both national and international markets (E. I. Hidayanti et al. 2022; Sirat et al. 2023).

The researchers' observations revealed that the majority of MSME actors in Ternate City, particularly micro-enterprises, lack adequate understanding and skills in transforming spices and food into high-value economic products. These findings align with the results of several previous studies (Ahmad, Renjaan, and Habsyi 2023; Hadi et al. 2019; Umasugi 2012), reported that the main challenge faced by MSMEs in Ternate City is the lack of product innovation, which diminishes consumer interest in the market. Studies by (Ahmad, Renjaan, and Habsyi 2023; Hafel, Umasugi, and Pratama 2021) concluded that enhancing the entrepreneurial competencies of MSME actors, particularly in creativity and innovation in spice and food production, is essential. Therefore, empowering MSMEs is crucial as an effort to improve the productivity of business actors.

Findings on the marketing strategies employed by MSME actors reveal that they still face significant challenges in promoting their products. These challenges primarily stem from inadequate product packaging quality and limited mastery of marketing technologies. This is supported by the findings of a study by (I. Hidayanti and Alhadar 2021) which reported that MSME actors in Ternate City have not fully utilized technology to expand their market reach and enhance business communication. While MSME actors have started using social media platforms like Facebook and Instagram to market their products, they have yet to adopt e-commerce platforms such as Bukalapak, Shopee, Lazada, and Tokopedia. Therefore, empowering MSMEs through entrepreneurship education and training programs is essential to enhance their competencies.

Several studies (Darsanto, Effendy, and Nuryanto 2021; Iskandar, Sirat, and Bailusy 2023; Pratama et al. 2022) indicate that MSMEs involved in processing local spices and food products have significant development prospects. However, priority should be given to fostering these enterprises through education and training to enhance product innovation and financial literacy among MSME actors. Consequently, empowering MSMEs through entrepreneurship education emerges as a viable solution to address these challenges. Entrepreneurship education aims to improve the human resource capacity of MSMEs across various business aspects, including management, marketing, and product innovation. With adequate education, MSMEs are expected to become more adaptive to market changes and capable of creating more competitive products.

The importance of entrepreneurship education in empowering MSMEs in Ternate City becomes increasingly relevant given the abundant spice potential in the region. Through the combination of entrepreneurship education and the optimization of spice resources, MSMEs in Ternate City are expected to enhance their competitiveness and contribute more significantly to the local and national economy. Therefore, identifying the challenges and empowerment needs of MSMEs is crucial. This study aims to identify the specific problems and needs of MSMEs to enhance the effectiveness of empowerment initiatives through entrepreneurship education.

1. METHODS

This study represents the initial phase of a six-stage research process aimed at developing an empowerment model for MSMEs involved in processing local spices and food products. This initial stage adopts the methodology of Design-Based Research (DBR), adapted from the Reeves model initially developed in 2000 and later cited by Cotton et al. (2009). The DBR methodology consists of six development stages, allowing for a systematic and iterative approach to addressing complex, real-world challenges.

This study specifically focuses on mapping the problems and analyzing the needs of MSMEs engaged in spice and local food production in Ternate City. A qualitative descriptive design was employed to gain an in-depth understanding of the issues and requirements faced by the target MSMEs. The study involved 30 MSME actors as research participants.

Data collection techniques included observation, surveys, interviews, and Focus Group Discussions (FGDs). These methods were employed to gather comprehensive insights into the challenges, limitations, and potential of MSMEs in utilizing local spice and food resources. The findings from this initial phase are

expected to provide a foundation for subsequent stages in developing a sustainable MSME empowerment model.

2. RESULTS AND DISCUSSION

In the initial phase of this research, the researchers carried out a deep process of problem identification and needs analysis. This phase began with collecting input from MSME actors through observation and in-depth interviews. During the observation, the researchers directly observed various activities and challenges faced by MSME actors. In-depth interviews were conducted to gain a more detailed understanding of the needs and obstacles they experienced. After the observation and interview stages, the results were analyzed and used as a basis for conducting FGDs. The FGD aimed to identify the main needs of MSME actors more comprehensively by involving various related parties, so that more accurate and effective empowerment strategies could be formulated.

3.1 Educational Profile of MSME Actors

This study aims to gather information regarding the educational levels of 30 MSME actors engaged in spice processing in Ternate City. The collected data includes both formal and non-formal education levels attended by the business actors. Data collection was conducted through surveys, with questionnaires distributed to 30 MSME actors to obtain a comprehensive overview of their educational backgrounds. The educational levels of these business actors were then analyzed and presented in Table 1 below, providing a clearer understanding of the educational profile of the MSME actors.

Table 1. Education Profile of MSME Actors

Formal Education					Non-formal Education	
Not graduated from school	Graduated from elementary school	Graduated from junior high school	Graduated from senior high school	Graduated from undergraduate college	Ever attended training	Never attended training
7%	13%	30%	43%	7%	30%	70%

Source: data processed (2024)

Based on the data presented in Table 1, it can be concluded that all MSME actors participating in this study have a formal educational background. However, 7% did not complete primary school, while 13% completed primary school, and 30% completed junior high school. The majority of MSME actors, 43%, are high school graduates, and 7% hold a bachelor's degree.

In terms of non-formal education, which includes technical education and training outside formal education, the majority of MSME actors (70%) have never attended any training, while 30% have participated in technical training programs. One of the challenges in MSME empowerment programs in Ternate City is that entrepreneurship training conducted by the Ternate City Cooperative and MSME Office has not been accompanied by a needs analysis to identify the priorities of MSME actors.

3.2 Entrepreneurial Knowledge of MSME Actors

To understand the entrepreneurial needs of MSME actors, data were collected using various methods, including surveys, FGDs, and in-depth interviews. The survey results revealed that 70% of MSME actors had never participated in education or training programs. Among the 30% who had attended such programs, the content did not cover entrepreneurial knowledge and skills related to spice-based potential. Thus, it can be concluded that MSME actors involved in spice processing in Ternate City, particularly those included in this study, possess minimal knowledge and skills in entrepreneurship based on spice potential.

The FGD results further indicated that most MSME actors lack entrepreneurial knowledge and skills, which hampers their ability to develop their businesses. They also exhibit limited creativity and innovation in processing spices such as nutmeg, cloves, ginger, and turmeric. This lack of creativity and innovation has led to a strong demand for entrepreneurship training that can enhance their creativity and innovation in spice processing. Such training is expected to help MSME actors improve their ability to create products with higher economic value, enabling them to compete in broader markets.

3.3 Knowledge of MSME Actors in Processing Spices

Observations conducted by the researchers revealed that most MSME actors in Ternate City lack the knowledge and skills to process spices into high-value economic products. Although they recognize the abundance of spice resources such as nutmeg, cloves, ginger, and turmeric in the region, they struggle with creativity and innovation to transform these resources into economically valuable processed products.

In-depth interviews with MSME actors revealed that there is significant demand for spice and food products such as nutmeg syrup, nutmeg fried sambal, clove oil, spiced coffee, and ginger coffee. However, MSME actors lack the knowledge and skills to produce these products. The findings are supported by a needs analysis survey, which revealed that 80% of MSMEs require knowledge and skills in processing nutmeg, 70% in processing ginger, 65% in processing kenari nuts, and 70% in processing cloves.

Thus, it can be concluded that MSME actors urgently need empowerment through entrepreneurship education and training to enhance their knowledge and skills in processing the potential of local spices and food products.

3.4 Knowledge of MSME Actors in Processing Local Food

In-depth interviews with MSME actors revealed that those involved in processing kenari nuts lack the expertise and skills to produce kenari-based products. They acknowledged the significant potential of kenari nuts in North Maluku Province but stated that the only kenari-based products they currently produce for the market are *halua kenari* (a traditional sweet) and dried kenari nuts.

FGD results revealed that MSME actors require technical training to produce innovative kenari-based products. Most MSME actors expressed a need for technical training to produce kenari coffee, kenari jam, kenari chocolate, and kenari palm sugar. The high consumer demand for these products indicates their potential to increase MSME income.

Therefore, empowering MSMEs through entrepreneurship education based on the potential of local food resources is crucial to improving their capacity to produce innovative, high-demand products.

3.5 Financial Management of MSME Actors

The interviews conducted by researchers regarding the financial management of MSME actors revealed that many MSME actors, especially micro-enterprises, struggle to access formal financial institutions such as banks. This difficulty is primarily due to the lack of assets to be used as collateral for loans, as well as the absence of a credit history or a poor credit record. Limited capital hampers their ability to grow their businesses or innovate products.

The FGD, which involved representatives from MSME actors, empowerment facilitators, and the Ternate City Cooperative and MSME Office, revealed that most MSME actors lack adequate financial management skills. They do not maintain proper and systematic financial records and have limited knowledge of financial planning, implementation, and control. A survey indicated that 30% of MSME actors who had attended training did not receive financial management training, while 70% of those who had never attended training lacked a strong understanding of business financial management.

Thus, it can be concluded that MSME actors require financial management training to enhance their knowledge and skills in managing business finances effectively.

3.6 Online Marketing Strategies of MSME Actors

In-depth interviews revealed that most MSME actors are still unfamiliar with digital technology and how to use it for online marketing. They lack understanding of digital platforms such as social media, marketplaces, and websites. Moreover, MSME actors reported a lack of technical skills in managing social media accounts and creating engaging content, causing them to rely heavily on conventional marketing methods.

A survey on online product marketing showed that 65% of MSME actors still use traditional marketing methods. Meanwhile, 35% market their products online via social media platforms like Facebook and Instagram but have not yet utilized e-commerce platforms such as Shopee, Bukalapak, and Lazada. FGD discussions revealed that MSME actors have limited knowledge about online marketing strategies, leading to a strong desire for entrepreneurship training focused on online marketing strategies.

3.7 Product Packaging of MSMEs

Observations on MSME product packaging revealed that many MSME actors face challenges in designing attractive packaging due to a lack of knowledge and skills. Additionally, they struggle to access quality packaging materials, resulting in the use of simple packaging by most MSMEs. For instance, the packaging used for spice and food products such as nutmeg floss, nutmeg fried sambal, and kenari sweets remains basic, affecting the shelf life of these products.

The lack of attention to product packaging reduces the value-added potential and consumer appeal of MSME products, ultimately leading to decreased sales and jeopardizing the sustainability of these businesses.

3.8 Summary of MSME Problem Identification and Needs

The results of problem identification and needs analysis, conducted through interviews, surveys, and FGDs involving MSME representatives, revealed the specific needs of MSME actors. These needs are summarized and presented in Table 2 below.

Table 2: Summary of MSME Needs Analysis Results

Needs Analysis Method	Needs Analysis Findings
Interview and survey: Representatives of MSEs	<ul style="list-style-type: none"> • Knowledge of Processing Ginger and Turmeric • Knowledge of Processing Nutmeg into Nutmeg Syrup, Nutmeg Floss (Abon Pala), and Nutmeg Fried Sambal (Sambal Goreng Pala) • Knowledge of Processing Kenari Nuts into Kenari Coffee, Kenari Jam, and Other Products • Innovation in Creating Flavored Sagu Lempeng (Traditional Sago Snacks) • Knowledge of Online Marketing

<p>Focus Group Discussion: Representatives of MSME Actors</p>	<ul style="list-style-type: none"> • Training in Spice Processing Skills: Skills in processing nutmeg into products such as nutmeg syrup, jam, candy, floss (abon), fried sambal (sambal goreng), and other potential products. • Training in Kenari Nut Processing: Skills in producing kenari-based products such as kenari chocolate, kenari palm sugar (gulmer), sweetened kenari nuts, kenari jam, and kenari coffee. • Training in Sago Lempeng Production: Techniques for making flavored sago lempeng (traditional sago snacks) with variations such as chocolate, strawberry, orange, and chocolate sprinkle flavors. • Training in Online Marketing: Learning strategies to effectively use digital platforms for product promotion and sales.
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Source: Processed Data (2024)

The findings from the identified needs analysis of MSMEs were further confirmed through responses collected from MSME actors via a survey questionnaire. These findings are presented in Table 3 below.

Table 3. Survey Results on the Needs of MSMEs in Processing Local Spices and Food Products

No	Knowledge and Skills Aspects	Agree	Disagree
1.	Understanding the characteristics and principles of entrepreneurship	80%	20%
2.	Knowledge of creativity and innovation in entrepreneurship	87%	13%
3.	Understanding the basic capital requirements in entrepreneurship	77%	23%
4.	Knowledge of business planning	83%	17%
5.	Understanding business capital management	83%	17%
6.	Understanding business partnerships	80%	20%
7.	Skills and knowledge in processing nutmeg-based products	90%	10%
8.	Skills and knowledge in processing turmeric and ginger-based products	85%	15%
9.	Understanding the production of flavored sago lempeng	73%	27%
10.	Skills and knowledge in processing kenari nuts	90%	10%
11.	Knowledge of online marketing strategies	73%	27%

Source: Processed Data (2024)

3.9 Outline of Entrepreneurship Education and Training Materials

The survey results confirmed the identified needs of MSMEs, which were further discussed in FGDs with representatives of MSME actors to outline the key topics for entrepreneurship education and training materials. The formulated topics for the education and training program are presented in Table 4 below.

Table 4. Outline of Learning Materials and Objectives

No	Topics of Learning and Training Materials	Learning Objectives
1.	Characteristics and Principles of Entrepreneurship	<ul style="list-style-type: none"> • MSME actors understand the concept of entrepreneurship • Ability to identify the traits and characteristics of successful entrepreneurs • Ability to identify the principles of successful entrepreneurship
2.	Creativity and Innovation in Entrepreneurship	<ul style="list-style-type: none"> • MSME actors possess knowledge of creative and innovative thinking • Ability to implement creative and innovative ideas
3.	Business Planning	<ul style="list-style-type: none"> • Understanding business planning • Understanding the functions and objectives of business planning • Understanding the stages of business planning
4.	How to Get Business Capital	<ul style="list-style-type: none"> • MSME actors understand the definition of business capital • Understand the types of business capital • Understand the sources of business capital • Understand the requirements for obtaining business capital from banks
5.	How to Choose the Type of Product Packaging	<ul style="list-style-type: none"> • MSME actors understand the definition and functions of packaging • Understand the elements of packaging • Understand packaging technology • Understand how to select appropriate packaging
6.	Recipes for Processing Nutmeg into Various Products.	<ul style="list-style-type: none"> • MSME players understand how to make nutmeg sweets • Understand how to make nutmeg syrup. • Understand how to make nutmeg jam • Understand how to make shredded nutmeg. • Understand how to make nutmeg fried

7.	Recipe for Processing Turmeric and Ginger	<ul style="list-style-type: none"> • MSME players understand how to make sour turmeric juice • Understand how to make instant ginger coffee • Understand how to make spice coffee.
8.	Four Secret Recipes for Processing Walnuts	<ul style="list-style-type: none"> • MSME players understand how to make chocolate walnuts • Understand how to make walnut gulmer • Understand how to make walnut jam • Understanding how to make spiced walnut coffee
9.	Recipe for Making Sago Lempeng Various Flavors	<ul style="list-style-type: none"> • MSME players understand how to make chocolate-flavored sago plates • Understand how to make strawberry-flavored sago plates • Understand how to make orange-flavored sago plates • Understand how to make messi sago plates • Understand the standard procedure for making sago plates of various flavors
13.	Online Marketing Strategy	<ul style="list-style-type: none"> • MSME players understand the meaning of online marketing • Understand how to market products through social media such as facebook, instagram, whatsapp, and twitter • Understand how to market products through marketplaces such as Shopee, Bukalapak, Tokopedia, Blibli.com • Understand how to do online promotion

Source: **data** processed (2024)

3. CONCLUSION

MSMEs play a crucial role in Indonesia's economy, particularly in Ternate City, where they serve as the backbone of the local economy with significant contributions to job creation, income distribution, and poverty alleviation. However, MSMEs in Ternate continue to face various challenges that hinder their growth and sustainability, including limited capital, market access, and managerial capabilities. The vast potential in Ternate's spice and local food sectors remains underutilized by MSME actors, who predominantly operate using traditional methods without leveraging modern technology and business strategies.

The study reveals that MSME actors lack sufficient knowledge and creativity in processing local spices and food into high-value economic products. Therefore, empowering MSMEs through entrepreneurship education is essential to improve their knowledge, skills, and motivation. Entrepreneurship education is expected to help MSMEs become more adaptive to market changes and capable of creating more competitive products, thereby contributing more significantly to the local and national economy.

This study aims to identify the specific needs of MSMEs in entrepreneurship education, examine the potential of spices that can be optimized, and formulate effective and sustainable empowerment strategies.

The findings are expected to serve as a reference for local governments, educational institutions, and MSME actors in designing and implementing targeted empowerment programs.

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