

IMPLEMENTATION OF THE PENTAHHELIX MODEL AS A BASIS FOR THE DEVELOPMENT OF FRIED ONION MSMEs (MICRO, SMALL AND MEDIUM ENTERPRISES) IN PALU

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ABSTRACT

In the aftermath of natural disasters and the COVID-19 pandemic, several MSMEs in Palu City, particularly shallot fritter MSMEs, have experienced a decline in production. To revitalize these businesses, a Pentahelix collaboration model has been implemented. This research aims to examine the involvement and interconnectedness of stakeholders in the Pentahelix model for MSME development in Palu City. The research was conducted from January to March 2024 in Palu City and involved government officials, academics, media representatives, community members, and business actors as respondents. A qualitative descriptive research method was employed, encompassing data reduction, data presentation, and conclusion drawing. The findings reveal that each stakeholder group engages in specific activities aligned with their respective roles. The government's initiatives include providing assistance, issuing business licenses, organizing exhibitions/expos/farmers' markets, conducting training sessions, and developing an E-catalogue application. Academics contribute by facilitating the adoption of appropriate technologies and enhancing MSME entrepreneurs' knowledge of digital marketing. Media outlets assist in promoting MSME products through social media platforms like Instagram. Community members, particularly members of shallot farming groups, play a crucial role in preparing raw materials, from planting to harvesting. Shallot fritter MSME entrepreneurs, as the core Pentahelix actors, also collaborate, synergize, and mutually support each other in revitalizing the shallot fritter MSME sector in Palu City.

Keywords: Pentahelix, MSMEs, Fried Shallot.

INTRODUCTION

Over the past two years, Indonesia has declared itself free from the pandemic period, prompting the government to recommend returning to normal work routines since the critical period has passed. A crisis period is a time that threatens the survival of individuals or groups. The pandemic period that has been overcome together is one such critical period (Rosita, 2020). Currently, all efforts to return to normal are being carried out by various sectors, including government, academia, financial institutions, and micro, small, and medium enterprises (MSMEs).

At present, MSME actors are actively working to restore assets, increase business revenues, regain customers, review contracts with raw material suppliers, and restore their expertise in marketing products. MSMEs play a significant role in Indonesia's economy. MSMEs contribute up to 60 percent of GDP, employment absorption can reach 90 percent, and total investment reaches nearly 60 percent. The data is shown in Table 1 below:

Table 1. Data on the Role of MSMEs in Indonesia's Economy

No.	Role of MSMEs	Percentage (%)
1.	Total Labour/workforce	89.20
2.	Providing Employment Opportunities	99.00
3.	National GDP	60.34
4.	Total Export	14,17
5.	Total Investment	58.18

Sumber: Ratnaningtyas, 2020.

In this new era, opportunities and challenges for MSME actors are wide open. Opportunities to rebuild businesses that were once or nearly in decline during the current pandemic are beginning to emerge. MSME actors can rediscover new marketing strategies by leveraging the latest technological opportunities.

In addition to technology utilization, collaboration from various sectors is also one of the things that MSME actors can do to restore the stability of their businesses. Collaboration from various sectors referred to in this context involves five related sectors, also known as Pentahelix Collaboration (Khusniyah, 2020).

The Pentahelix is a strategic model that expands upon the scope of the Triple Helix and Quadruple Helix models. Previously, the Triple Helix model consisted of three stakeholders: academia, the business sector, and government. It then evolved into the Quadruple Helix, which added a fourth stakeholder, society. This expansion aimed to incorporate societal perspectives into the development process, based on culture as a form of sustainable innovation (Park, 2014).

As time progresses and is accompanied by technological and cultural developments, the emergence of the Pentahelix concept appears to refine the involvement of stakeholders in the cycle of development of the creative economy. This cycle comprises academia, the business sector, communities, government, and media, which can be referred to as the ABCGM concept (Academics, Business Sector, Communities, Government, Media) (Muhyi, et.al., 2017). Media (both conventional and social) now play a significant role in the flow of globalization (Colapinto and Porlezza, 2012). This undoubtedly affirms elements that are independent and not directly influenced by other factors. The Pentahelix model serves as a reference in developing synergy among relevant agencies (ABCGM) to achieve goals. Pentahelix collaboration plays an important role in supporting common innovation goals and the socio-economic progress of regions.

Before the emergence of the Pentahelix model, there was the Triple Helix model, which had been developed as a recommendation for economic development. However, due to increasingly competitive market dynamics aimed at enhancing company competitiveness and

exporting to global markets, the latest model, the Quadruple Helix, was born (Tonkovic, et.al., 2015). The Quadruple Helix model, as recommended for corporate prosperity, is an evolution of the Triple Helix model that integrates innovation, knowledge, and civil society. There are four stakeholders collaborating in the Pentahelix model: Business, Government, Academia, and Social Society (Mulyana and Sutapa, 2014).

The Pentahelix model can be applied to revive MSMEs after disasters or pandemics because MSMEs will not recover and grow unless stakeholders and interested parties coordinate and collaborate. In this context, the government plays the leading role in mobilizing these five stakeholders because it has full authority in policy-making.

The research conducted by Beatrice and Hertati (2023) suggests that MSME development is crucial for economic recovery and increasing regional income. One approach that can be implemented is to synergize all actors involved in a model called the Pentahelix model. This synergy between the involved actors creates more competitive MSMEs and generates new sources of income.

The Pentahelix collaboration, which involves the government, academics, media, financial institutions, and the MSMEs themselves, is the collaboration addressed in this research. The focus of this research is to understand the role and impact of all these sectors in restoring the existence of MSMEs in the business world in Indonesia, specifically in the city of Palu. The Pentahelix concept is considered very effective in the redevelopment or recovery of MSMEs post-pandemic, according to research conducted by Ishak and Sholehah (2021). This research shows that the Pentahelix collaboration successfully revitalized MSMEs in Wonosari Village after the COVID-19 pandemic. The relationship pattern among the involved stakeholders includes networking, collaborating, cooperating, and coordinating.

In this scenario, the government acts as a policy maker and decision-maker in restoring the existence of MSMEs in Palu City. Academia plays a role in finding solutions based on research results regarding various strategies for MSME recovery. Media, financial institutions, and MSMEs themselves also play crucial roles as foundations in the recovery of MSMEs, which is the objective of this research.

RESEARCH METHODS

This research was conducted from January to March 2024. The research location is based on the location of several stakeholders who are the subjects of the research. Based on (Khusniyah, 2020; Park, 2014; Muhyi, et.al., 2017), pentahelix model consist of government, academision, media, community and the business it self. Therefore, the subjects of the research are the five sectors that are stakeholders in the Pentahelix model for the development of fried shallot MSMEs, all of which are located in Palu City:

1. Government: Department of Cooperatives and MSMEs of Palu
2. Academia: Tadulako University
3. Media: @soalpalu
4. Community: Shallot Farmers Group in Palu Valley
5. Fried Shallot MSMEs: UD. Hj. Mbok Sri, Sri Rejeki, Sofie Localfood, and SalHan

The type of this research is descriptive qualitative research, which presents data as it is without any other treatment. The purpose of this research is to provide a complete description of the data obtained so that it can provide accurate information. The data used are primary and secondary data. Primary data was obtained using direct interview methods with the help of semi-structured questionnaires, meaning that the questions are not fixed in order but follow the flow of responses given by the research subjects. Secondary data comes from scientific publications obtained from literature documents or the internet. All data is then analyzed using qualitative

descriptive analysis methods. In this research, the qualitative descriptive method used is the method found by Miles and Huberman (1992), which includes data reduction, data presentation, and conclusion drawing. Data reduction involves selecting data that aligns with the research objectives. In this case, the data further processed is related to the development of MSME Bawang Goreng (fried shallots); for instance, if the MSME under study produces products other than fried shallots, that data will be reduced so that the data used is purely for fried shallots. The next method is data presentation. At this stage, the overall data obtained through the reduction method will be narrated in detail so that the research objectives are clearly illustrated. The narrative presented will follow the explanation flow of the Pentahelix model, starting from the government, academics, media, community, and business actors, specifically MSME Bawang Goreng in Palu City. The final method is conclusion drawing. At this stage, the essence of all explanations in the data presentation process will be summarized into a conclusion.

RESULTS AND DISCUSSION

The five stakeholders involved in the development of MSME fried shallots in Palu City each have their own roles. The primary and foremost role is that of the government as the regulator. Several activities have been carried out by the government that are closely related to the development of MSMEs, including MSME fried shallots. The next role is played by academics, represented by scholars from Tadulako University. One of the roles performed related to the development of MSME fried shallots is conducting superior seed trials in the laboratory of the Faculty of Agriculture at Tadulako University.

Media and the community also have equally important roles. The media, represented by @soalpalu, has carried out various types of promotions for fried

shallot products from several MSMEs, both those with significant turnover and those just starting out. The community role, represented by fried shallot farming groups spread across various regions in Palu City, serves as the main provider of raw materials for fried shallots. Some of these communities have even successfully sold their own fried shallot products.

The last stakeholder is the MSME fried shallots themselves, represented by UD. Hj. Mbok Sri, Sri Rejeki, Sofie Localfood, and SalHan. These four MSMEs have fried shallots as their main product, so the efforts made in developing fried shallot products will be the main illustration that serves as the goal of this research.

The Role of Each Sector in the Development of MSME Fried Shallots in Palu City

Each stakeholder involved in this case includes the government, academics, media, the community, and the MSME fried shallot entrepreneurs.

Government's Role

The Palu City Government plays an active role in providing regulations that support the development of MSME fried shallots. This aligns with Karunia's (2023) research, which states that in the Pentahelix collaboration, the government acts as a regulator and also as a coordinator in the formulation of each policy. Training programs and provision of business capital assistance are concrete steps taken by the Palu City Government in the development of MSME fried shallots in Palu City, as follows:

1. Provision of MSME mentors for each sub-district, with one mentor per sub-district. The purpose of mentoring is to enrich MSME actors' skills in applying digital technology for production and marketing of their products.
2. Assistance to MSME actors in issuing a Business Identification Number (NIB) aimed at receiving funding assistance every six months.
3. Annual Central Sulawesi MSME exhibitions starting from 2021. This

event was initiated after natural disasters (earthquakes and liquefaction) and the COVID-19 pandemic. The main goal of this event is to revive the enthusiasm of business actors after going through the difficult times of natural disasters and the pandemic.

4. Annual expos or farmers' markets featuring various events such as regional dances, music performances, and exhibitions of agricultural products, both raw materials and finished products. This allows the entire community to visit and purchase products from MSMEs, including fried shallots from MSME fried shallots.
5. Business management training, production technique training, marketplace utilization, and digital marketing for several MSME actors, including those in the fried shallot business.

All activities facilitated by the government are not exclusively for MSME fried shallots, but generally, MSME fried shallots always participate because there is always a demand for fried shallots at events such as exhibitions, expos, and farmers' markets. Therefore, it is said that these activities have a direct impact on increasing the sales of fried shallot products from MSME fried shallots in Palu City. This will certainly have an impact on increasing the income of MSME fried shallots and provide opportunities to continue the production process, ensuring the sustainability of the fried shallot business.

In addition to these activities, the Palu City Government also provides a digital platform that can be accessed by MSME actors to sell their products in the digital market. The name of the digital platform is the "E-catalogue 'quick shopping the right way'." This application consists of several menus, including the main "MSME" menu, which contains choices of desired MSMEs, an "Innovation" menu with information for MSME actors who want to innovate their products, and several other menus that can

be utilized by MSME actors. The application's interface is as shown in the following image.



Figure 1. The visual of the e-catalog application

Academic's Role

Academics, in this case, several lecturers from Tadulako University, have contributed through research and the development of fried shallot processing technology. Some recent research results are closely related to the sustainability of the cultivation of Palu's distinctive fried shallots. Appropriate technology applications have also been implemented for the maintenance of shallot plants by several researchers working in the Faculty of Agriculture's laboratory at Tadulako University. One of these applications is ensuring that the seeds used are of superior fried shallot varieties. Some of the superior varieties available to fried shallot farmers come from varieties that have undergone laboratory tests at the Faculty of Agriculture, Tadulako University. Tests conducted include moisture content tests, shelf life, and others for several superior seeds: D1 = Bulupountu Jaya, D2 = Guntarano, D3 = Kayumalue, D4 = Maku, D5 = Oloboju, D6 = Soulove (Priyantono et al., 2013; Aziz et al., 2013).

Academics also provide training to MSME actors on more efficient and

hygienic fried shallot production techniques. This training includes the frying process, drying using large-capacity dryers, and the packaging process of fried shallots. Additionally, several faculties at Tadulako University have sent lecturers who are certified as MSME trainers to help them obtain halal certification.

The cooperation between MSMEs and academics operates on mutually beneficial and constructive principles. Academics need MSMEs for the dissemination of research conducted by university researchers, and MSMEs need academics for knowledge and skill enhancement. Tereshchenko, et al. (2024) stated that academics and MSMEs have a connection called the "Digital Space." The current effective interaction between academics and MSMEs is through digital media. There are three aspects related to university-industry collaboration (UIC): education, research, and management. These activities are part of the bond formed between university academics and MSME actors.

Media's Role

Local media, both print and electronic, provide significant support

through news coverage and advertisements for fried shallot products produced by MSMEs in Palu City. In this study, the focus is on media used as a source of information, namely the Instagram account *@soalpalu*, which is one of the online media platforms with the largest number of followers.

The role of Instagram media in developing Fried Shallot MSMEs is through endorsement or non-endorsement systems. Some MSMEs that are considered to have high turnover will have the account owner implement an endorsement system to promote fried shallot products. Conversely, MSMEs with minimal turnover usually will not be charged.

Every activity related to MSME development, such as exhibitions, expos, or farmers' markets, is also informed by the *@soalpalu* Instagram account. Some activities covered also include promoting fried shallot products from MSMEs. Below is a screenshot of the *@soalpalu* Instagram account related to promoting fried shallot products from MSMEs in Palu.

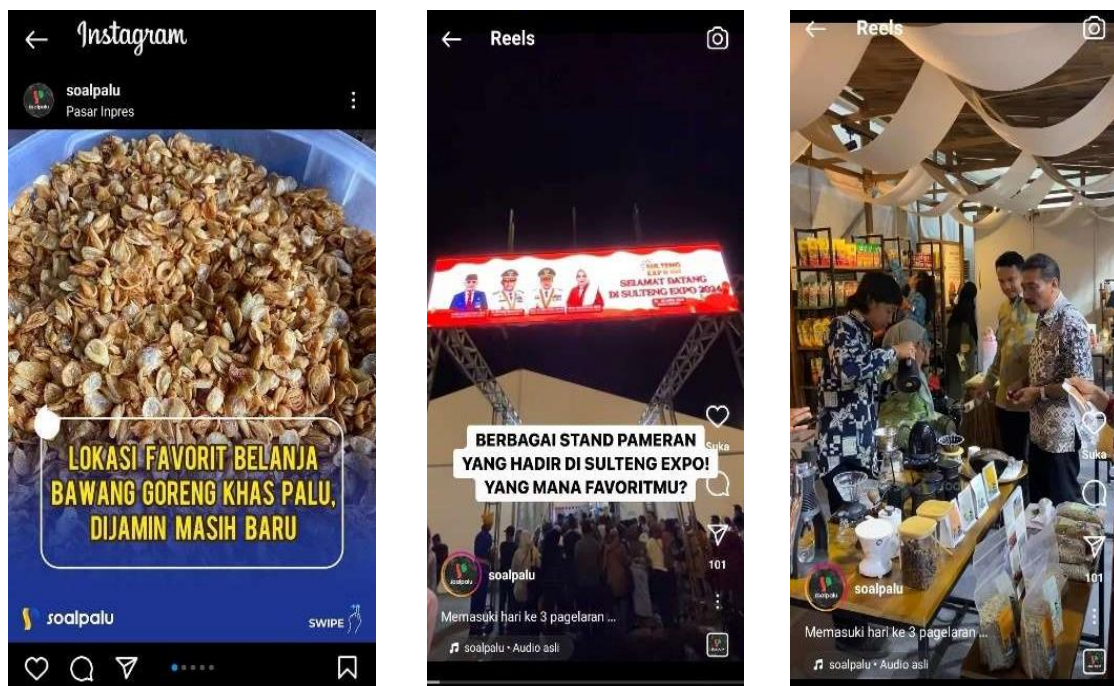


Figure 2. Post from *@soalpalu* related to Fried Shallot MSMEs in Palu

Marketing through social media is considered effective in increasing consumer awareness and interest in fried shallot products from Palu City. However, the continuity of coverage and media promotion diversification remain challenges for the future. Consistent with Beier and Wagner's (2016) research, the presentation of MSMEs using media as a promotional tool still stands at 35% of the total MSMEs studied. There are two main reasons for this: MSME operators feel that using social media might actually reduce their income because social media is primarily used for non-business activities. The second reason is that social media is not the primary focus of their customers.

Community's Role

The community in Palu City, including red shallot farming groups in the Palu Valley scattered across several locations such as Kayumalue, Duyu, Tavanjuka, and Petobo, plays a crucial role in supporting the sustainability of MSMEs.

One of their key roles is in providing raw materials, labor, and promoting products at the local level.

Some red shallot farmers outside Palu City, for instance in Sigi Regency, have successfully sold fried shallot products independently. Typically, these red shallots are packaged in smaller quantities compared to those found in MSME stores or displays. Products like these also serve as a comparative advantage in local competitiveness (Asy'Ary, Damayanti, & Effendy, 2018). Undoubtedly, this also impacts the growth of fried shallot MSMEs in Palu City.

Business actor's Role

The role of business actors is crucial in the development and sustainability of Fried Shallot MSMEs in Palu City. These business actors, including UD. Hj. Mbok Sri, Sri Rejeki, Sofie Localfood, and SalHan, among others, contribute significantly to various aspects of the fried shallot industry.



Figure 3. Business Actors of Fried Shallot MSMEs in Palu

Firstly, they play a pivotal role in production, ensuring the efficient processing and packaging of fried shallot products. This involves implementing quality control measures to maintain the standard and consistency of their products, which is essential for building trust and reputation among consumers.

Secondly, these business actors are actively involved in marketing and distribution efforts. They utilize various channels, including traditional markets, supermarkets, online platforms, and collaborations with local media and influencers, to promote their products and expand their market reach.

Additionally, they contribute to innovation and product development within the fried shallot industry. By experimenting with new flavors, packaging designs, and production techniques, they can cater to changing consumer preferences and stay competitive in the market.

Furthermore, these business actors also play a role in supporting the local economy by creating employment opportunities and fostering economic growth within the community. Overall, the active participation and contributions of business actors are instrumental in driving the growth and success of Fried Shallot MSMEs in Palu.

The role of business actors in this collaboration is considered crucial due to their interconnectedness, which impacts the sustainability of fried shallot businesses in Palu City. Several aspects that MSME operators still need to improve include harnessing Information and Communication Technology (ICT). According to Yanti and Ong (2020), the proficiency of business operators in ICT skills will have a positive impact on the development of small and medium-sized enterprises (SMEs).

Pentahelix Collaboration in the Development of Fried Shallot MSMEs in Palu City.

The Pentahelix collaboration involving government, academia, media, community, and fried shallot MSME

operators in Palu City plays a crucial role in fostering the growth and sustainability of the fried shallot industry. Each sector contributes uniquely to supporting MSMEs, from regulatory support and technological advancements to market promotion and local resource utilization. This collaborative approach not only enhances the competitiveness of fried shallot products but also strengthens the overall business ecosystem in Palu City.

The roles of each stakeholder in developing Fried Shallot MSMEs in Palu City can be described as follows:

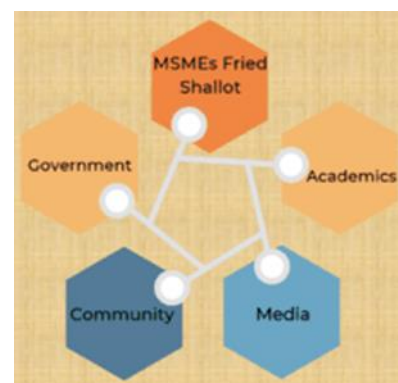


Figure 4. Pentahelix Collaboration in the Development of Fried Shallot MSMEs.

It can be seen in Figure 4 that all parties are interconnected and form a pentagon with equal angles. This indicates that each party supports and integrates with each other towards the common goal of developing fried shallot MSMEs in Palu City. The government acts as the regulator, academia as the educator and researcher, media as the promoter, the community as the supplier, and MSME operators themselves as the executors. If all these components are executed effectively, they will strengthen the Pentahelix collaboration and positively impact the development of fried shallot MSMEs in Palu City.

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CONCLUSION

The implementation of the Pentahelix model in the development of fried shallot MSMEs in Palu City has shown positive interconnectedness, although there are still several challenges to overcome, particularly in the relationship between academia and MSMEs. The role of academia needs further development, especially in education, research, and management. Similarly, MSME operators in the fried shallot industry need to enhance their Information and Communication Technology (ICT) competencies to further grow their businesses. Synergy among government, academia, business operators, community, and media is key to the success in enhancing the competitiveness and sustainability of fried shallot MSMEs in Palu City.

Recommendations.

To strengthen the implementation of the Pentahelix model, several recommendations can be provided, including:

1. Enhancing coordination and communication among the five actors of the Pentahelix.
2. Improving bureaucracy and expediting the licensing process for MSMEs.
3. Encouraging more applied research that can be directly applied by MSME actors.
4. Conducting continuous training for communities and MSME actors on business management and production technology.

5. Maximizing the use of digital media for product promotion.

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