

QUADRUPLE HELIX MODEL IN THE DEVELOPMENT OF HALAL MICRO BUSINESS IN NORTH SUMATRA

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ABSTRACT – This research explores stakeholder synergies in the development of halal micro-businesses in North Sumatra, Indonesia, focusing on the traditional Dodol business in Tanjung Pura, Langkat Regency. Using a qualitative, phenomenological approach, the study investigates stakeholders' perspectives within the Quadruple Helix model (Academics, Business Sector, Communities, Government), emphasizing the integration of Islamic banking. The findings reveal a lack of synergy among stakeholders due to differing visions, insufficient collective commitment and coordination, and limited financial support from banking institutions. Consequently, these factors have contributed to a discernible deceleration in the business's overall progress. Theoretically, key success factors in business development encompass shared mission, collective commitment, effective stakeholder coordination, and support from financial institutions. These empirical insights hold substantial significance, providing valuable guidance for governmental entities in formulating strategic approaches and implementing requisite support mechanisms to foster the growth and development of the Dodol business. Such support entails streamlining administrative procedures for small and medium-sized enterprises (SMEs), fostering collaborative partnerships with Islamic banks, optimizing business licensing processes, and facilitating the establishment of SME clusters to enhance financing opportunities for Dodol entrepreneurs.

Keywords: Quadruple Helix, Halal Micro Business, Islamic Banking, SMEs

ABSTRAK – Model Quadruple Helix dalam Pengembangan Usaha Mikro Halal di Sumatera Utara.

Penelitian ini bertujuan untuk menganalisis sinergisitas pemangku kepentingan dalam pengembangan usaha mikro halal di Sumatera Utara, Indonesia, dengan fokus pada usaha tradisional Dodol di Tanjung Pura, Kabupaten Langkat. Dengan pendekatan kualitatif fenomenologi, studi ini mengeksplorasi perspektif para pemangku kepentingan dalam kerangka Quadruple Helix (Akademisi, Sektor Bisnis, Komunitas, dan Pemerintah), dengan penekanan pada integrasi perbankan syariah. Temuan menunjukkan adanya kekurangsinergian diantara para pemangku kepentingan akibat adanya perbedaan visi, kurangnya komitmen kolektif dan koordinasi antar pemangku kepentingan, dan kurangnya dukungan pendanaan dari perbankan. Hal ini kemudian berdampak pada perlambatan perkembangan usaha ini. Secara teori, diantara faktor kunci kesuksesan dalam pengembangan suatu usaha adalah misi bersama, komitmen kolektif, koordinasi yang efektif para pemangku kepentingan, dan dukungan lembaga perbankan. Temuan ini berkontribusi dalam membahani entitas pemerintah terhadap bentuk-bentuk dukungan dalam pengembangan usaha Dodol ini. Dukungan tersebut meliputi penyederhanaan prosedur administratif untuk usaha mikro dan kecil (UMKM), memfasilitasi kemitraan kolaboratif dengan bank syariah, mengoptimalkan proses perizinan usaha, dan memfasilitasi pembentukan kelompok UMKM guna meningkatkan akses pembiayaan bagi para pengusaha Dodol.

Kata Kunci: Quadruple Helix, Usaha Mikro Halal, Perbankan Syariah, UMKM

INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) play a vital role in economic development, particularly in building the livelihoods of many individuals. MSMEs are considered the most strategic sector in the national economy, as they generate numerous employment opportunities (Srinivas, 2013). The progress of a business can be attributed to various factors, and MSMEs have been identified as one of the key contributors (Rahadi, 2016). Apart from providing ample job opportunities, MSMEs possess the flexibility to adapt to the ever-changing market conditions over time. Consequently, MSMEs are less susceptible to external changes and can capitalize on a wide range of labor opportunities (Ebitu, Glory, & Alfred, 2016).

As of 2019, Indonesia had a total of 65.5 million micro and small enterprises, while the country's population reached 270.6 million individuals in the same year (BPS, 2019). Similarly, in North Sumatra Province, based on data from the Cooperative Office, there were 418,240 MSMEs distributed across all districts and cities. One district with a relatively high number of MSMEs is Langkat, which has 2,343 MSMEs (Kemenkop, 2020). These MSMEs in Langkat operate in various sectors, including culinary, fashion, automotive, agribusiness, internet technology, and others, spread across several sub-districts. One specific MSME in this district is the *Dodol* Home Industry in Tanjung Pura sub-district, established by M. Isa in 1946. *Dodol* is a traditional local delicacy made from glutinous rice flour. It has a sweet and sticky taste and is renowned in regions like Mandailing Natal, Serdang Bedagai, and Langkat (Nida, 2018).

Initially, *dodol* was served as a snack during festive occasions such as Eid al-Fitr, weddings, and births (Helmi, 2014). However, due to its popularity among the general public, the market demand for *dodol* expanded, especially in tourist destinations where it became a popular souvenir. Initially operating solely in Tanjung Pura sub-district, the *dodol* business gradually expanded its marketing reach beyond the local area, reaching cities like Medan, Padang, and Banda Aceh by the 1970s (Sitepu, 2021). The *dodol* business in Tanjung Pura continued to thrive and endure, evident from the increasing number of individuals opening new *Dodol* Home Industry businesses with different brand names along the Medan-Banda Aceh road in Tanjung Pura sub-district. The available flavors of *dodol* also vary, including original, peanut, durian, and sesame.



In terms of quality and taste, Tanjung Pura's dodol is considered superior compared to other regions. This is attributed to the use of authentic palm sugar in the production process, resulting in a sweet, savory, and soft texture (Yanti, 2020). Typically, the sellers of Tanjung Pura's dodol are also the artisans who produce it. However, despite its delicious taste, long-standing presence, and tradition passed down through generations, this business has relatively limited growth and market penetration, remaining popular only within the Tanjung Pura market area.

Therefore, a comprehensive study is needed to gain an overview of the various obstacles hindering the development of this product. One of the strategies to be examined is the Quadruple Helix Model. The Quadruple Helix concept was formulated by Loet Leydesdorff and Henry Etzkowitz (1998), prominent scholars in the field of innovation studies. Building upon the foundation of the Triple Helix model initially proposed by Etzkowitz, the Quadruple Helix model expands the scope of collaboration to include civil society as an essential actor in the innovation ecosystem. The Quadruple Helix emphasizes the four components of ABCG (Academia, Business, Community, Government) as key drivers in the development of the MSMEs (Carayannis & Campbell, 2010). This model is considered suitable because preliminary research indicates a lack of involvement from these key stakeholders in supporting the economic recovery of the *dodol* industry, especially in the post-COVID-19 era.

To the best of our knowledge, no specific study has been conducted on the development of the dodol industry in Tanjung Pura using the Quadruple Helix model and its linkage to the role of Islamic banking. Previous studies have only examined specific aspects without specificity. For instance, Nurmalia (2018) identified various relationships formed by the government with MSMEs, including networking, coordinating, cooperating, and collaborating. Meanwhile, Mulyana and Sutapa (2014) linked the Quadruple Helix model (Intellectual, Government, Business, Civil Society) with creativity. Furthermore, Yolanda (2021) found discrepancies in vision and mission among policy stakeholders and coordination issues among MSMEs in the banana fritters industry, leading to various challenges in business development. Another related study by (Latisia, 2017) revealed suboptimal performance in the empowerment strategy of the Cooperatives and MSMEs Office in empowering micro, small, and medium enterprises. The government's empowerment efforts during the initial phase played a significant role through training and education. Subsequently, in the participatory phase, collaboration



between the community and the government took place in developing MSMEs. However, in the subsequent phase, the government faced challenges in providing facilities and infrastructure for MSME development.

Investigating the synergy among stakeholders in the Quadruple Helix model is expected to enhance the well-being of MSME actors, aligning with the concept of the Five Finger Philosophy as a strategy for empowering micro, small, and medium enterprises (Nurmalia, 2018). The philosophy introduced by Bank Indonesia (2011) as part of its efforts to empower MSMEs encompasses the participation of the following components:

1. Thumb: Representing financial institutions as financial intermediaries.
2. Index Finger: Representing regulatory bodies such as the government and Bank Indonesia in creating a conducive environment as a source of financing.
3. Middle Finger: Representing catalysts that support banks and MSMEs, including promotion units for credit access (PEAC) and corporate credit borrowers.
4. Ring Finger: Representing facilitators who play a role in assisting MSMEs.
5. Pinky Finger: Representing MSMEs' roles in business, tax payment, and job creation.

This article is organized into five distinct sections, starting with an introduction that provides an overview of the study's purpose. The subsequent section comprises a literature review that examines pertinent theories and research studies related to the topic. Following that, the methodology section outlines the approach and techniques employed in conducting the study. The results and analysis section provides a comprehensive discussion of the findings and their implications. Finally, the conclusion section summarizes the key findings, acknowledges the limitations of the research, and proposes avenues for future research endeavors.



LITERATURE REVIEW

Development Strategy

Resource-Based View

Competitive advantage is essential for every company to compete in the industrial world. Ongoing research is being conducted to explore ways for a company to achieve a competitive advantage. From these research efforts, the resource-based view theory (RBV) emerged. This theory describes how the management of existing resources enables a company to compete with other companies (Porter, 1997, 2011).

Porter's Five Forces

Porter's Five Forces is a renowned analytical framework introduced by Michael Porter to evaluate the competitive dynamics of an industry (Porter, 2008). This model examines five essential forces: the threat of new entrants, the bargaining power of suppliers, the bargaining power of buyers, the threat of substitute products or services, and the intensity of competitive rivalry. By comprehensively analyzing these forces, businesses can assess the overall attractiveness of an industry, identify potential risks and opportunities, and formulate strategic initiatives to attain and sustain a competitive advantage.



Figure 1. Porter's five forces model



Generic Strategy

The Generic Strategies, also known as Porter's Generic Strategies, are a set of strategic approaches that businesses can employ to achieve a competitive advantage (Porter, 1981). These strategies include:

1. **Cost Leadership Strategy:** This strategy focuses on achieving the lowest cost of production and delivery in the industry. Companies pursuing cost leadership aim to offer products or services at a lower price than competitors while maintaining acceptable quality.
2. **Differentiation Strategy:** The differentiation strategy aims to create unique and distinctive products or services that are valued by customers. By offering unique features, superior quality, or innovative design, companies can differentiate themselves and command premium prices.
3. **Focus Strategy:** The focus strategy involves targeting a specific market segment or niche and tailoring products, services, or marketing efforts to cater to the specific needs and preferences of that segment. This strategy allows companies to concentrate their resources and expertise to serve a particular customer group effectively.

These generic strategies provide a framework for companies to position themselves in the market and gain a competitive advantage by either offering products at a lower cost, differentiating themselves, or focusing on specific customer segments.

Micro Small Medium Enterprises

Micro, Small, and Medium Enterprises (MSMEs) refer to businesses that fall within a certain range of size criteria based on various factors such as the number of employees, revenue, or assets (Berisha & Pula, 2015). The classification of MSMEs varies by country, but generally, micro-enterprises have the smallest scale, followed by small enterprises, and medium enterprises (Anggadwita & Mustafid, 2014). MSMEs play a crucial role in the economy by contributing to employment generation, innovation, and economic growth. They are often seen as the backbone of the business ecosystem, particularly in developing countries (Arifudin, Rusmana, Tanjung, & Wahrudin, 2020; Arokiasamy & Ismail, 2009).

MSMEs in various regions exhibit similar characteristics, including inadequate company governance and relatively low-income levels. These businesses



typically lack legal registration, operate as family enterprises, and struggle to meet basic living needs. They often operate within the informal economy or the extra-legal sector (Harahap, 2016). The absence of legal recognition hinders these enterprises from receiving legal protection.

In Indonesia, the classification of MSMEs is determined by specific criteria outlined in Law No. 20/2008. The law provides guidelines for classifying businesses into Micro, Small, and Medium Enterprises based on the following criteria:

1. Micro Enterprises:
 - Have a net asset value of up to IDR50 million (excluding land and building used for business purposes).
 - Have an annual business turnover of up to IDR300 million.
2. Small Enterprises:
 - Have a net asset value of more than IDR50 million up to IDR500 million (excluding land and building used for business purposes).
 - Have an annual business turnover of more than IDR300 million up to IDR2.5 billion.
3. Medium Enterprises:
 - Have a net asset value of more than IDR500 million up to IDR10 billion (excluding land and building used for business purposes).
 - Have an annual business turnover of more than IDR2.5 billion up to IDR50 billion.

These criteria aim to provide appropriate recognition and protection to businesses within the MSMEs category at different levels. This enables the government and relevant institutions to develop suitable policies and programs to support the development and growth of MSMEs according to the needs and capacities of each category.

The Role of Banking

The role of banking in advancing Micro, Small, and Medium Enterprises (MSMEs) is crucial for their growth and development. Banks play a significant role in the financial ecosystem by mobilizing funds from the public through various deposit schemes and channeling them back into the economy through credit facilities and other financial services (Rinaldi & Ibrahim, 2013). According to Law No. 10/1998, banks are mandated to gather funds from the public in the form of deposits and utilize these funds to provide financial



support to individuals, businesses, and the community as a whole (Wardiah & Ibrahim, 2013). By providing access to credit, banks enable MSMEs to secure the necessary capital for business expansion, working capital, and investment in equipment and technology.

In addition to conventional banking, the emergence and development of Islamic banking in Indonesia have further strengthened the financial sector's support for MSMEs. With the enactment of Law No. 21/2008 on Islamic Banking, the legal framework for Islamic banking has become more robust. Islamic banks operate based on the principles of Shariah, offering alternative financing solutions such as profit-sharing arrangements (*Mudarabah*) and cost-plus contracts (*Murabahah*) that comply with Islamic principles. This development has expanded the range of financial services available to MSMEs and provided them with greater access to financing options .

The Financial Services Authority (OJK) reports a significant growth trend in the Islamic banking sector, with average asset growth of 65% per year over the past five years. This growth signifies the increasing importance and impact of Islamic banking on the national economy. By promoting financial inclusion and providing tailored financial products and services, Islamic banks contribute to the empowerment and advancement of MSMEs in Indonesia. Overall, the active participation of banks, both conventional and Islamic, in supporting MSMEs through funding, financial services, and expertise is essential for fostering their growth, enhancing their competitiveness, and driving economic development in Indonesia.

Dodol

Dodol is a traditional Indonesian confectionery that is widely enjoyed across the country. It is made by cooking a mixture of glutinous rice flour, coconut milk, palm sugar, and other ingredients. The mixture is cooked slowly until it thickens and achieves a sticky, chewy texture. *Dodol* has a distinctive flavor profile with hints of coconut and caramel, and it is often prepared with pandan leaves or durian fruit for added aroma and taste. *Dodol* is a popular sweet treat during festive occasions and cultural celebrations. It is typically cut into small pieces or rolled into bite-sized portions and wrapped in colorful papers or banana leaves.

Dodol exhibits regional variations and in North Sumatra is particularly renowned in Mandailing Natal, Serdang Bedagai, and Langkat. Langkat, in



particular, boasts its own distinct characteristics in terms of diverse flavors and unique packaging, positioning Tanjung Pura *dodol* as a prominent center for this confectionery and a favored souvenir among tourists. However, the commercialization of *dodol* in supermarkets and malls presents challenges due to its limited shelf life. *Dodol* typically has a relatively short shelf life, ranging from 2 weeks to 1 month, primarily attributed to its high moisture content. Some variants may have even shorter shelf lives, lasting only 4-5 days. Hence, it becomes imperative to explore advanced innovations to enhance the longevity of *dodol*. By addressing the issue of perishability, the market viability and sustainability of *dodol* can be effectively augmented (Hutagalung, 2019).

Quadruple Helix

The quadruple helix concept is a framework that emphasizes the collaboration and interaction among four key stakeholders in innovation and socio-economic development processes. It extends the traditional triple helix model, which includes academia, industry, and government, by adding a fourth helix of civil society or the public (Steenkamp, 2019).

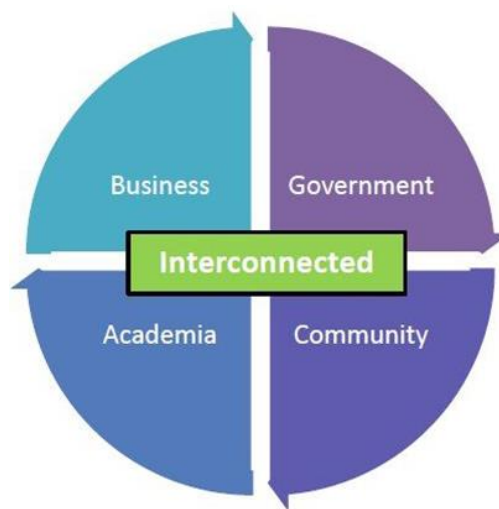


Figure 2. Quadruple Helix Model

In the quadruple helix model, each helix represents a distinct sector and plays a unique role in driving innovation and societal progress (Arnkil, Järvensivu, Koski, & Piirainen, 2010). The academia helix encompasses universities and research institutions, which contribute to knowledge creation, research, and education. The industry helix includes businesses and organizations that drive



economic growth and technological advancements. The government helix represents public authorities and policy-makers responsible for creating conducive environments, regulations, and funding mechanisms. The civil society helix comprises non-governmental organizations, community groups, and citizens who provide diverse perspectives, social values, and societal needs (Afonso, Monteiro, & Thompson, 2012).

The quadruple helix concept emphasizes the importance of collaboration, knowledge exchange, and co-creation among these four stakeholders. By fostering strong relationships and interactions between academia, industry, government, and civil society, the quadruple helix model aims to promote innovation, sustainable development, and inclusive decision-making processes. It recognizes that societal challenges are complex and require multi-stakeholder involvement to address them effectively (González-Martínez, García-Pérez-De-Lema, Castillo-Vergara, & Bent Hansen, 2021).

METHODOLOGY

This research utilizes a qualitative research design with an inductive analysis approach. The study involves data collection, organization, and description of current data and information. The data for this research can be categorized into two types: primary data and secondary data. Primary data refers to information gathered directly from original sources through interviews, questionnaires, and direct observations (Nazir, 1998). On the other hand, secondary data consists of information obtained from previously published sources such as books, academic papers, and relevant journals related to the research topic (Umar, 2007). The data collection methods employed in this study include interviews, observations, and document analysis (Sekaran & Bougie, 2009).

The collected data will be analyzed using descriptive, explanatory, and analytical approaches to accomplish the research objectives (Ibrahim, 2023). The study is conducted in Langkat Regency, specifically at STAI Jamaiyah Mahmudiyah Tanjung Pura for academic stakeholders, in the village of Pematang Tengah for dodol producers, and at the Cooperative Office of Langkat Regency in Stabat for government stakeholders. The research took place from October 1st to October 30th, 2022.

The informants in this study encompass stakeholders engaged in the production of dodol within the Quadruple Helix framework, including academia, business, community, and government.



1. **Academia:** In the Quadruple Helix model, academia serves as the conceptualizer. Academia provides knowledge based on relevant concepts and theories for business development, including human resource skills and business process standardization.
2. **Government:** The government plays a regulatory role, responsible for controlling business development regulations. The government coordinates with stakeholders to maximize business development.
3. **Community:** The community acts as an accelerator, comprising individuals with shared visions and missions for business development. The community serves as an intermediary between stakeholders and *dodol* producers, providing assistance and facilitating the transition to the digital era.
4. **Business:** In the Quadruple Helix model, businesses act as enablers, conducting business processes to create added value and sustain growth. Businesses play a crucial role in providing ICT infrastructure. The current digital era can contribute to the development of *dodol* producers in Tanjung Pura, Langkat Regency, making their operations more effective, efficient, and productive.

The researcher selects samples from individuals directly involved in *dodol* production in Tanjung Pura, Langkat Regency, using a purposive sampling method based on criteria. The selected samples represent the Quadruple Helix components, namely academia, government, community, and business, as they are considered the most knowledgeable about the ongoing issues (Ritchie, Lewis, Nicholls, & Ormston, 2013).

Table 1. List of Informants

No	Remarks	Name	Position
1	Academia	Dr. Saleh, S.HI, MA Diani Syahfitri, M.Pd	Chairman, STAI JM Tanjung Pura Head of Department, PGMI STAI JM Tanjung Pura
2	Government	Suriono Nazaruddin	Head of Cooperative Office, Langkat Regency Head of Village, Pematang Tengah.
3	Community	Muhammad Suhaimi, SE Muhammad Muslim	Dept. of Economy, BKPRMI Langkat Regency Youth Association Management of Amir Hamzah.
4.	Business	Ibu Hamidah Ibu Sulastri Ibu Elvi Wahyuni	Business Owner of Dodol “Kios Mirna” Business Owner of Dodol “Ria” Business Owner of Dodol “PAK UL”



RESULT AND DISCUSSION

Results

Based on interviews conducted with multiple stakeholders representing the Quadruple Helix framework, the study yielded the following findings:

The Academia

The researcher conducted interviews with Dr. Shaleh, S.HI, MA, the Chairman of Jama'iyah Mahmudiyah Islamic College (STAI-JM), and Ms. Diani Syahfirti, M.Pd, Head of Department of PGMI Program, as the academic informants. The in-depth interviews yielded the following outcomes:

a. Perception

According to both informants, *dodol* Tanjung Pura is known for its delicious taste and various flavors, such as the original, durian, sesame, and pandan flavors. In terms of taste, *dodol* Tanjung Pura is described as rich, delicious, and sweeter compared to *dodol* from other regions.

b. Role and Efforts

According to Mr. Soleh, STAI Jama'iyah Mahmudiyah's role is currently confined to promoting entrepreneurship research among students and participating in selected events that engage academia and MSMEs, such as *dodol* producers. Ms. Dini further emphasized that there is no direct engagement with *dodol* producers in Tanjung Pura, with only students participating in Community Service Programs (KKN) in the communities involved in selling *dodol*.

c. Supporting Factors and Hindering Factors

Mr. Soleh underscored the significance of capital, emphasizing that the prosperity of *dodol* traders hinges on their access to adequate financial resources. He stressed the crucial role of Islamic banks in extending assistance, particularly in light of the capital constraints experienced by numerous *dodol* traders amidst the COVID-19 pandemic. Moreover, he advocated for direct government intervention in promoting and marketing Tanjung Pura *dodol* to the general public. Ms. Dini highlighted the necessity for more frequent events or bazaars within and beyond the Langkat region. She further accentuated the pivotal role of Islamic banks in facilitating capital access and engaging directly with *dodol* traders.

d. Synergy among Stakeholders



Both Mr. Soleh and Ms. Dini expressed agreement regarding the existence of collaboration among stakeholders, although they acknowledged limitations in terms of time and opportunities for extensive discussions. The Langkat Regency government has implemented various initiatives, such as organizing bazaars and exhibitions, to promote the MSME sector, including Tanjung Pura dodol producers. However, the extent and frequency of these activities are still limited. Mr. Soleh has been invited as an academic to participate in discussions focused on the post-COVID-19 development of MSMEs in Langkat Regency.

The Government

In this study, the government is represented by two individuals: Mr. Suriono, who holds the position of the Head of the Cooperative Office in Langkat Regency, and Mr. Nazaruddin, the Head of Pematang Tengah Village in the Tanjung Pura Sub-district, which is the location where the dodol traders operate.

a. Perceptions

Mr. Suriono expresses his delight in consuming Tanjung Pura dodol, highlighting its soft texture and suitability for individuals across different age groups. He appreciates the authentic flavor of the dodol, emphasizing that it does not contain any preservatives, resulting in a pleasant experience for the digestive system. On the other hand, Mr. Nazaruddin compares Tanjung Pura dodol favorably to other types, noting its softness, sweetness, and overall deliciousness.

b. Roles and Efforts

Mr. Suriono emphasizes that while the government has established regulations and policies for micro, small, and medium enterprises (MSMEs), there has been a lack of specific attention given to dodol entrepreneurs. To address this, an e-catalog has been created to enable the ordering of Tanjung Pura dodol for government events. Additionally, efforts have been made to enhance the packaging of Tanjung Pura dodol through training sessions and the involvement of experts, as the current packaging is deemed suboptimal. Mr. Nazaruddin highlights the consistent request made to the sub-district and regency governments to involve dodol traders in various events and exhibitions. He also urges the dodol traders to establish cooperatives as a means to facilitate their development. Furthermore, whenever assistance programs are available, Tanjung Pura



dodol is always proposed as a deserving recipient, whether it be for financial support or the provision of production equipment.

c. Supporting Factors and Obstacles

Mr. Suriono highlights a couple of challenges in the *dodol* industry. Firstly, he points out that the unappealing packaging created by *dodol* traders hinders the product's potential as a sought-after souvenir. Moreover, the absence of a cooperative makes it difficult to access available assistance programs. The Cooperative Office has urged the North Sumatra Islamic Regional Bank (Bank BPD Sumut Syariah) to provide support for MSMEs in Langkat. While the bank has previously offered assistance in the form of production equipment, the Cooperative Office now seeks financial assistance. Mr. Nazaruddin addresses the issue of fluctuating raw material prices, which pose difficulties for *dodol* traders in determining appropriate pricing and ensuring profitability. Setting prices too high may lead to reduced demand while setting them too low might not cover production costs. It is worth noting that Islamic banks have yet to enter the scene or directly extend support to *dodol* traders.

d. Synergy among Stakeholders

Mr. Suriono and Mr. Nazaruddin concur on the significance of fostering synergy among stakeholders, particularly in light of numerous *dodol* businesses closing down due to the impact of the COVID-19 pandemic. They recognize that the government faces limitations and cannot effectively oversee MSMEs without the collaborative involvement of academics, *dodol* entrepreneurs, and the Tanjung Pura *dodol* community. Although some level of synergy has been achieved thus far, there is a pressing need for ongoing enhancement and steadfast commitment to this collaborative approach.

The Community

In this study, the community is represented by Mr. Muhammad Suhaimi S.E, who serves as the Chairman of the Economic Division of BKPRMI in Langkat Regency, and Mr. Muslim, a member of the Youth Association of Amir Hamzah (IPPA) in Tanjung Pura.

a. Perception

Mr. Suhaimi asserted that *dodol* holds a noteworthy position as a delectable and highly regarded culinary delight in Langkat Regency. Correspondingly, Mr. Muslim emphasized that the allure of Tanjung Pura *dodol* transcends



generational boundaries, with both the older populace and the younger demographic, including themselves, indulging in its flavorsome appeal.

b. Roles and Efforts

Mr. Suhaimi stated that within the context of their activities and events, they occasionally procure *dodol* for consumption and undertake promotional efforts. They actively engage in community outreach to facilitate the development of the *dodol* industry in Tanjung Pura, acknowledging its emblematic status within the Langkat region. Conversely, Mr. Muslim highlighted their organization's initiatives in organizing events where *dodol* traders were invited to participate in exhibitions. Additionally, they have facilitated small-scale discussions with *dodol* traders. Despite their youthful status and ongoing learning endeavors, they strive to provide support within their capacities.

c. Supporting Factors and Obstacles

According to Mr. Suhaimi and Mr. Muslim, key supporting factors for the *dodol* business include maintaining high product quality and ensuring consistent availability in the market. However, a significant obstacle to its growth lies in the limited marketing efforts due to the community's inadequate understanding of effective promotional strategies and the insufficient financial capital available. To address these challenges, it is crucial for the government, in collaboration with banking institutions, to provide enhanced support and allocate sufficient financial resources to facilitate the sustainable development of the *dodol* industry.

d. Synergy among Stakeholders

Mr. Suhaimi highlights the inadequate coordination among stakeholders and the community in fulfilling their roles effectively. He emphasizes the need for stronger and more tangible collaboration between business owners, academics, and the government. On the other hand, Mr. Muslim acknowledges the understanding among students regarding the prevailing circumstances. However, he expresses concern over the lack of cooperation between academics and *dodol* traders, despite the presence of higher education institutions or campuses in Tanjung Pura.

The Businesses

In this study, the business sector is represented by three individuals: Mrs. Sulastri, the owner of Dodol RIA; Mrs. Elvi Wahyuni, the owner of Dodol PAK UL; and Mrs. Hamidah, the owner of Dodol MIRNA.



a. Perceptions

All three business owners hold a positive perception of Tanjung Pura *dodol*, recognizing its enduring popularity among the community due to its excellent taste and superior quality. This positive perception has been instrumental in ensuring the ongoing success of their respective businesses.

b. Roles and Efforts

Mrs. Sulastri affirms her unwavering dedication to maintaining the standards of quality and affordability while effectively managing the ongoing rise in raw material costs. She emphasizes the significant customer base that includes both individual consumers and retailers, and also highlights her strategic distribution of *dodol* to various supermarkets in the city of Medan. On the other hand, Mrs. Elvi Wahyuni emphasizes her personal involvement in the entire *dodol* production process, ensuring meticulous attention to detail and the achievement of high-quality standards that meet the discerning expectations of customers. Furthermore, Mrs. Hamidah demonstrated remarkable resilience in her *dodol* business despite experiencing a noticeable decline in sales amidst the challenging circumstances of the COVID-19 pandemic. Rather than succumbing to inactivity, she proactively chose to persevere and continue selling her products.

c. Supporting Factors and Obstacles

Mrs. Sulastri emphasizes the advantage of easy access to essential raw materials such as coconut, sugar, and glutinous rice in Tanjung Pura. However, she acknowledges the drawback of original and high-quality *dodol* having a limited shelf life. Meanwhile, Mrs. Elvi highlights the substantial demand for *dodol*, not only from the local community but also from commuters along the Medan-Banda Aceh highway. However, she anticipates a potential decline in sales with the construction of the toll road. On the other hand, Mrs. Hamidah identifies specific weaknesses in the *dodol* business, including the absence of halal certification and limited knowledge in marketing for online sales. Additionally, she recognizes that the production process for *dodol* still heavily relies on traditional methods.

d. Synergy among Stakeholders

Mrs. Hamidah expresses her willingness to receive government assistance but prefers to avoid taking loans from banks due to the repayment obligations, considering that the capital required for producing *dodol* is not substantial. Mrs. Sulastri emphasizes the significance of marketing as a crucial factor for the success of Tanjung Pura *dodol*. She suggests that the government should provide increased support in terms of promotional



activities and marketing initiatives to further enhance the visibility and reach of the product. Furthermore, Mrs. Elvi highlights that Tanjung Pura *dodol* has already gained widespread recognition among the public, even without explicit promotional efforts. The demand for *dodol* remains high, and whenever people visit Tanjung Pura, they frequently express their desire to acquire this delicacy.

Discussion

Quadruple Helix Perception on Dodol Business

The assessment of Tanjung Pura *dodol* reveals its highly esteemed status as a gastronomic delight, recognized for its exceptional taste and immense potential for fostering local economic development. Tanjung Pura *dodol* garners favorable reception from both the local community and non-residents alike. Moreover, the captivating array of flavors presented by Tanjung Pura *dodol* serves as an enticing factor, captivating consumer interest. This finding concurs with the study conducted by Mulia (2021). The research establishes the positive and substantial impact of product variation on consumer buying behavior. Consequently, by augmenting product quality and diversifying the range of offerings, it is anticipated that the revenues of business owners will witness growth, consequently propelling the overall expansion of the *dodol* industry (Hidayah & Rodhiah, 2019).

Roles and Efforts of Stakeholders in the Development of Dodol Business

Academics assume a supportive role in facilitating the marketing of *dodol* to the wider community. They actively contribute to the promotion of *dodol* through various channels such as social media platforms, discussions, and seminars. This is particularly crucial as a significant number of *dodol* producers have yet to harness the potential of social media as a marketing tool. Simultaneously, the government plays a pivotal role in establishing regulatory frameworks and providing essential support to the *dodol* industry by means of training programs and strategic marketing initiatives during significant government events.

The government's responsibilities encompass the formulation of comprehensive regulations, policies, and training modules aimed at improving product quality and expanding market reach. Moreover, it is imperative for the government to establish adequate infrastructural support and institutions



capable of accommodating the specific needs of *dodol* traders, including financial institutions and cooperative platforms. Additionally, comprehensive mentoring programs should be implemented to guide *dodol* entrepreneurs throughout the entire value chain, from production processes to effective consumer marketing. This aligns with the findings of a study conducted by Panggabean et al. (2019), which suggests that mentoring programs have a positive and transformative impact on the development of Home Industry Culinary Bread in Mangga Dua Village, Tanjung Beringin Subdistrict, Serdang Bedagai Regency.

Meanwhile, the active involvement of business owners and entrepreneurs is highlighted as a crucial element in driving the progress of the *dodol* industry. They emphasize the importance of delivering high-quality and hygienic products that align with consumer preferences and foster loyalty among customers in Tanjung Pura, Langkat Regency. To actively participate in the *dodol* market, business owners and entrepreneurs are encouraged to actively engage in mentoring programs and training sessions to enhance their knowledge and expertise in various areas, such as *dodol* processing techniques and effective marketing strategies. These findings align with a study conducted by Susanti et al., which underscores the positive impact of entrepreneur involvement in mentoring and training programs on consumer purchasing power and market dynamics (Susanti, Nugraha, & Hakimah, 2020). Furthermore, the community plays a crucial role in promoting and endorsing *dodol* products through their enthusiastic participation in diverse activities, extending beyond Langkat Regency to other communities.

Supporting Factors and Constraints in the Development of Dodol Business

The development of the *dodol* business in Tanjung Pura, Langkat Regency is influenced by various factors. Some of the supporting factors include the availability of raw materials, the expertise of *dodol* producers in resulting high-quality products, government support for the industry's growth, and the decline in COVID-19 cases due to government efforts. These factors contribute to the positive perception of *dodol* and its potential economic benefits for the local community.

However, the development of the *dodol* business encounters various constraints that hinder its progress. One such limitation is the limited marketing knowledge and skills possessed by business owners, which leads to passive marketing



strategies relying solely on customer walk-ins. Additionally, a lack of understanding regarding the Sharia system poses challenges in securing financing from Islamic financial institutions. Moreover, the utilization of traditional equipment in the dodol production process presents obstacles in terms of modernization and operational efficiency. These factors collectively impede the growth and advancement of the dodol industry in a dynamic and competitive market environment.

Regarding the *dodol* processing, various challenges need to be addressed. These include the volatility of raw material prices, limited access to capital, the remote location of the market, which experiences high activity only during holidays, and the manual mixing process conducted by middle-aged women in the village. The manual mixing process necessitates specific expertise and techniques to ensure the desired quality of *dodol*. These challenges were identified and discussed in a study conducted by Herlina and Husin (2021).

Moreover, marketing activities present additional challenges for the *dodol* industry. These challenges encompass the inconsistent implementation of government policies, inadequate utilization of government functions, and a lack of synergy among Quadruple Helix stakeholders, thereby hindering the progress of the industry. In addition, SMEs within the *dodol* sector face inherent weaknesses, including limited access to capital, inadequate human resources, difficulties in procuring raw materials, and reliance on outdated equipment. These constraints were identified and discussed in a study conducted by Jatmika (2016).

In terms of financing, *dodol* entrepreneurs primarily rely on personal funds, which results in limited availability of capital. Only a small proportion of entrepreneurs are able to access financing facilities from banks, primarily due to the challenges they encounter in meeting the requirements set by Islamic banks. In this context, government intervention becomes essential to assist entrepreneurs in fulfilling the necessary documentation for financing applications to Islamic banks. Collaborating with the Cooperative Office to establish SME groups and obtain business permits would streamline the process and support the development of *dodol* businesses. Therefore, the involvement of Islamic banks can play a pivotal role in facilitating *dodol* business owners in the Tanjung Pura district and promoting the growth of SMEs.



The Synergy among Stakeholders

The synergy among stakeholders, including academics, businesses, communities, and the government, in the development of the *dodol* industry in Tanjung Pura, Langkat Regency, has been established, although its full realization has yet to be achieved in the post-COVID-19 economic recovery phase. The main focus of attention lies in enhancing the marketing aspects of Tanjung Pura *dodol*, particularly through the improvement of packaging to appeal to the growing number of tourists in the aftermath of the COVID-19 pandemic. It is imperative for stakeholders to convene and engage in collaborative discussions to address the challenges faced by *dodol* traders effectively.

The Role of Islamic Banking

The involvement of Islamic banking plays a crucial role in supporting the development of halal SMEs, particularly the *dodol* business in Tanjung Pura. This role becomes even more significant in the context of the post-COVID-19 economic recovery. One strategy employed to promote the growth of *dodol* businesses is the provision of financing facilities by Islamic banks. *Dodol* entrepreneurs face various challenges in expanding their businesses, including a lack of well-structured management practices that hinder the achievement of maximum profitability. Additionally, the use of traditional production equipment and limited collateral pose obstacles to accessing adequate capital. Therefore, financial institutions, particularly Islamic banks, are essential in addressing the needs of the *dodol* business and facilitating the further development of this business in Langkat Regency.

This significance can be observed in the Islamic Banking Statistical Report, which reveals that as of February 2022, the Gross Assets, Total Financing, Third Party Funds, Financing to Deposit Ratio (FDR) for Islamic Commercial Banks, and Islamic Business Units in Langkat Regency were recorded as 0.00%. Islamic banks not only provide assistance in terms of production tools but also offer financial support to *dodol* traders, enabling them to expand and diversify their businesses. This assistance aligns with the fundamental functions of banking institutions, as mandated by Law No. 10/1998.

CONCLUSION

The findings of this study can be summarized as follows: Firstly, the involvement of stakeholders, including Academia, Government, Community,



and Business, in the economic recovery of dodol business in Tanjung Pura post-COVID-19 has been suboptimal. Although the government has provided some assistance, the focus on *dodol* business in Tanjung Pura within the SMEs of Langkat Regency has not been adequately addressed. Academia, community, and business have played their respective roles, but their collaboration has been hindered by a lack of shared vision.

Secondly, the involvement of Islamic banking in supporting *dodol* owners, as indicated by the stakeholders, has been limited. *Dodol* owners have demonstrated a limited understanding of Islamic banking systems and have predominantly relied on conventional banks, neglecting the potential financing options offered by Islamic banks. Considering the significant Muslim population in Langkat Regency and the prevalence of halal businesses, coupled with the existence of Islamic banks such as Bank Syariah Indonesia, Bank Muamalat, and Bank Sumut Syariah, further research is necessary to explore the challenges faced by the *dodol* industry.

By identifying these obstacles, policymakers, Islamic banks, and other relevant stakeholders can develop targeted interventions and solutions to enhance the accessibility and utilization of Islamic banking facilities in the *dodol* industry. This research will not only shed light on the specific financial needs and requirements of *dodol* entrepreneurs but also contribute to the overall development and expansion of their businesses. By better understanding the constraints and addressing them through tailored financial products, educational initiatives, and awareness campaigns, Islamic banks can play a more significant role in supporting the growth and sustainability of the *dodol* industry in Tanjung Pura and potentially serve as a catalyst for economic development in the region.

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