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BARRIERS TO VALUE CHAIN INTEGRATION IN RURAL ENTREPRENEURSHIP: A CASE STUDY OF MALAYSIAN SMES

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ABSTRACT

This study explores the barriers to the application of value chain strategies in rural entrepreneurship, focusing on Malaysian SMEs. By employing a qualitative case study approach, the research identifies critical challenges such as fragmented supply chains, environmental constraints, inadequate infrastructure, and policy-related gaps. Data were collected through semi-structured interviews with rural entrepreneurs engaged in agriculture-based enterprises, providing nuanced insightsinto the operational and systemic difficulties they face. Key findings highlight how small-scale production, seasonal dependencies, weak supplier networks, and poor logistics significantly hinder the adoption of effective value chain practices. These challenges limit the competitiveness and growth of rural businesses. Moreover, the study emphasizes the role of e-commerce and digital technology as potential enablers to bridge these gaps, despite existing barriers like low digital literacy and outdated infrastructure. The research underscores the need for integrated policy interventions, capacity building, and infrastructural development to enhance rural entrepreneurship. By addressing these barriers, policymakers can create a more inclusive entrepreneurial ecosystem, fostering economic growth and reducing rural-urban disparities. The findings provide actionable insights for stakeholders to support marginalized entrepreneurs and promote sustainable development in ruralareas.

Keywords: Value Chain, RuralEntrepreneurship, Barriers

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1.0 INTRODUCTION

As applied to rural entrepreneurship, the barriers that have been found to inhibit the application of the value chain are something that raises a lot of concern, especially given the fact that rural economies are in a struggle to foster sustainable economic development and increase their levels of competitiveness. Thus, knowing these barriers is important not only for the evaluation of new venture opportunities but also for the assessment of the impact of such barriers on the economic development of rural regions. The problem then degenerates into the inability of local resource stakeholders to fully factor and align the local resource endowment within the value chain process, hence the inefficiencies. Nevertheless, several research works have pointed out that the promotion of rural entrepreneurship positively contributes to the creation of value and local competitiveness Still, there are no clear explanations regarding which factors limit the efficient application of value chain principles in these environments Such restrictions include access to finance, information about markets, and technology (Pato & Teixeira, 2018., Pato, 2020; Ali et al., 2022).

Consequently, the role of e-commerce initiatives for Malaysian SMEs cannot be overemphasized, given the ongoing changing global economy. In analyzing the factors inhibiting the use of the value chain, the technological advancement and market access perspective is the prevailing view. Appropriate to this view, e-commerce unlocks opportunities in addressing breaksin the traditional value chain by offering wider market access to rural businesspeople while at the same time cutting the costs of transactions. Yet, e-commerce integration and its diffusion into small businesses in rural areas remain a challenge owing to matters preserving digital literacy and obsolete infrastructure. This is an area of research that is underexplored because there is limited primary data on how these challenges characterize the value chain dynamics in rural Malaysian SMEs (Lang & Fink, 2019; Atahau et al., 2022).

The impact of the barriers in the application of the value chain is shown in the current economic environment, where several rural-based entrepreneurs are performing poorly as compared to their urban counterparts. Missed resources may be contained in inaccessible permits, shortcomings of training, or scarcity of networks, all of which hinder growth and innovation. When there are barriers, they interrupt the continuum of value-adding activities within the value chain and phases of production solutions in rural enterprises (Korsgaard et al., 2015; Zhao & Tian-cheng, 2021).

The function of these barriers is rather complex; they are not only spreading obstacles to individual entrepreneurial initiativebut also influence the general rural economic development. Overall, these barriers inhibit them. Accounting software is an especially big help when it comes to tracking the cost of sourcing raw materials for value chain extension to rural communities where poverty and underdevelopment remain rife. These challenges are crucial to address to enhance the conditions for the promotion of startups that are critical for regional development and stability (Senou & Manda, 2022).

The pressures that affect the enablers of value chain adoption in rural entrepreneurship are socio-economic status, education, and technology adoption. These elements influence e-commerce undertakings among Malaysian SMEs as they define prospects for businesspersons to harness the opportunities of the online markets. For example, where financial literacy is low, the concerned entrepreneur might not be in a position to finance some essential technologies, which in turn continue to lock the disadvantaged in a cycle (Zhu et al., 2019; Liu et al., 2022).

Prior research has examined several angles that define the limitations of using the value chain for enteral application; however, several had an overemphasis on the urban business or did not capture the special difficulties experienced by rural businesspersons. This underscores the importance of having increased studies that consider the socio-cultural andeconomic environments within the rural regions, especially in developing countries. (Rijkers & Costa, 2012; Adhikari etal., 2018). The purpose of this research is to understand and assess the challenges that restrict the usage of the value chain for rural entrepreneurial ventures with reference to Malaysian SMEs in e-business. As a result, the study's goal is to identify these barriers to advocating policy change that will lead to the improvement of rural entrepreneurship and, in extension, economically uplift the lives of rural people. The findings of this study are important for practice because they shed light on the nature of those barriers so that interventions may be designed to remove themand ensure better support for marginalized entrepreneurs (Zhang et al., 2022; Xiao-li et al., 2022).

2.0 LITERATURE REVIEW

2.1 The Barriers Hindering the Application of the Value Chain

The investigation of factors limiting the use of the value chain has changed with time, and this has been achieved in the following development stages. The initial studies mainly aimed at defining and categorizing barriers within supply chain management together with stress on operational issues and communication gaps. Another contribution was made by Gereffi and Lee, who noted that the element of governance is crucial in GVCs because it explains how various actors connect (Gereffi & Lee, 2014). Future theories, therefore, have inclined to incorporate sustainability into the value-chain analysis as espoused in the study by Chowdhury et al., within which the authors offered a decision support framework to manage dynamic sustainability challenges. Technically, current research uses both qualitative and quantitative approaches and then interviews arising from the complexities of barriers in value chains are solved concurrently (Chowdhury et al., 2022; Mangla et al., 2018). This evolution is attributed to an emerging understanding of the fact that value chain interactions are complex and that there is a need to develop strong structures that will be capable of holding pressure in a changing environment.

Constructions of the factors limiting the implementation of the value chain differ from scholar to scholar since the approachesin writing differ as well. For example, Khan et al note these barriers as the hindrances in the proper supply chain management, especially concerning Halal practices (Khan et al., 2019). Along the same vein, Rashid et al. describe barriers as aspects that hinder practice enactment across certain domains of operation, including health care (Rashid et al., 2022). A synthesis of these definitions reveals a common theme: Organizational barriers are complex and situational; they present both technological, organizational, and regulatory layers. This thematic similarity underlines the notion that barriers might be best approached equally systematically and comprehensively to account for interactions of distinct factors in various contexts, as captured in the frameworks identified in the latest literature (Chowdhury et al., 2022; Mangla et al., 2018).

Main trends identified in the studies of the barriers to the application of the value chain during the last decade involve such factors as sustainability and technology. Other works, including Mangla et al have discussed enablers and barriers to sustainable supplier development strategy in the context of the aggressive agri-food supply chain industry with special focus on application of effective frameworks for improving the implementation of sustainable practices (Mangla et al., 2018). Also, the strengthened interest in the application of big data analytics in value chain management has become another major trend in the progress of value chain management; For instance, Wirén et al. have reflected on the key difficulties related to big data use in generating superior value (Wirén et al., 2019). These changes relate to broader progress in the understanding of how new technologies can act as both enablers and constraints of value chains, requiring the development of a new theory that has these components.

The various factors that led to the barriers that have so far prevented the utilization of the value chain are as follows; Some of the key reasons are absence of technology support, weak policies and formalities in sectors, and a weak population engagement (Chowdhury et al., 2022; Mangla et al., 2018). For instance, in Srinivasan et al. (2022), the lack of an effective legal environment for sustainability has also been named as one of the main barriers. The level to which each of these factors plays varies depending on the context and the industry, explaining why strategies have to be unique to the challenges, unique to each sector.

The contemporaneous characteristics of research methods used in analyses of barriers to the implementation of value chain applications indicate a certain transdisciplinary turn. More adoption of frameworks such as the Theoretical Domains Framework(TDF) has been observed, which enables the identification or analysis of barriers within certain contexts (French et al., 2012; Phillips et al., 2015). Investigation of the prevalence and incidence of dementia, as well as case-control and cohort research work, has also benefited from this trend of conducting theory-based research work in the design of research activities, making findings more robust and helping in the design of specific preventive interventions. These trends indicate a possible direction of further research corresponding to the problems of the value chain barriers, where the further development of the interdisciplinary approaches and the integration of different theoretical concepts are expected.

Summarizing previous research findings of the barriers that have prevented the exploitation of the value chain shows that while they provide useful information, they are not without shortcomings. A highly used research approach has included the use of case-specific data, and this often hampers the generalization of the study results (Chowdhury et al., 2022; Mangla et al., 2018). In addition, it is still unclear how and to what extent these differing barriers interact at both the contextual and longitudinal levels, as well as how such interventions affecting these barriers can lead to sustainable outcomes. In this regard, future research should focus on the above gaps in order to examine the dynamic complementary and mediating effects of barriers with reference to value chain performance using cross-sectional studies.

2.2 Entrepreneurship in Malaysia

Entrepreneurship is defined in different ways in the context of Malaysia based on the different characterization of the socio-economic environment in scholarly publications. For example, one of them defines entrepreneurship as a combination of the steps that culminate in new business venture creation involving a high degree of innovation and accepting higher risk levels of business (Khan et al., 2019). Another view focuses on the contribution of entrepreneurship to economic development and employment, especially in the emergent economy of Malaysia (Gereffi & Lee, 2014). A third isin social context, where it is postulated that it is not only economic activity, but also the provision of social utility (Antioco & Kleijnen, 2010). All these definitions point to the many perspectives of entrepreneurship, which is important when looking at the interference from the barriers that hamper the use of the value chain.

Extending the above findings, the correlation between the variable's entrepreneurship and the barriers to the implementation of the value chain is fully pertinent because entrepreneurial ventures are always confronted by these specifics when implementing the value chain. Existing literature suggests that some of the hurdles that entrepreneurs may face include; limited access to factors of production, policy restrictions, and barriers to market access that limit the chances of integrating into value chains effectively (Khan et al., 2019; Gereffi & Lee, 2014). It is crucial to comprehend such barriers to establish suitable measures that would improve the chances of getting more entrepreneurs to thrive and conform to value chains in a seamless manner.

There are still research gaps that remain unresolved concerning the study of entrepreneurship in Malaysia, even with the information that has been discovered from the previous research. This is because some previous research has considered either sectors or regions of operation and does not encompass the full picture of entrepreneurship (Khan et al., 2019; Gereffi Lee, 2014). However, there is still a research gap that focuses on the interaction of the contemplated micro-entrepreneurand the value chain, along with environmental trends and technological voracity. Closing these gaps shall be important in enhancing knowledge on Malaysian entrepreneurship and the place of the value chain.

By offering a more complex view of the factors that prevent the use of the value chain about entrepreneurship in Malaysia, this research adds to the current literature. Having integrated different definitions and analyzed relationships between them, the present study stresses the need to overcome the challenges posing threats to the development of entrepreneurship and the improvement of value chain cooperation.

3.0 METHODOLOGY

3.1 Research Design

This study adopts a qualitative research approach, employing a case study design to investigate barriers to applying value chain strategies in rural entrepreneurship contexts. The case study approach allows for an in-depth exploration of real- world challenges faced by rural entrepreneurs, capturing the complexities and nuances of their experiences. This design is well-suited for identifying structural, social, and economic barriers that hinder the effective implementation of value chain strategies.

3.2 Sample and Participants

A purposive sampling technique was utilized to select 5 rural entrepreneurs actively engaged in agriculture-based enterprises in Malaysia. Participants were chosen based on the following criteria:

- They must operate in rural areas with limited access to infrastructure.
- They must have attempted to integrate or consider value chain processes in their businesses.
- They must be willing to share detailed insights into their challenges and strategies.

The participants ranged in age from 30 to 55 years, with a balanced representation of gender. Their businesses varied in scale but were all categorized as micro or small enterprises.

3.3 Data Collection

Data collection was conducted using semi-structured interviews to provide flexibility while ensuring coverage of key topics. Interviews were guided by an interview protocol with three main sections:

• Part A: Participant Demographics

This section gathered data on participants' age, gender and business type

• Part B: Barriers and Challenges

This section focused on identifying barriers to implementing value chain strategies, including resource constraints, market accessibility, and policy-related challenges. Example questions:

- 1. "What are the primary barriers hindering the application of the value chain in rural entrepreneurship?"
- 2. "How do these barriers impact the economic development of rural areas?"

Interviews were conducted face-to-face and via audio conferencing in cases where travel was not feasible. Each interview lasted approximately 40 minutes.

3.4 Data Analysis

The collected data were transcribed verbatim and analyzed using thematic analysis. The process involved:

- 1. **Familiarization:** Reading transcripts repeatedly to gain a comprehensive understanding of participants' perspectives.
- 2. **Coding:** Identifying recurring ideas, phrases, and patterns related to value chain barriers.
- 3. **Theme Development:** Categorizing codes into broader themes, such as "resource limitations," "market accessibility," and "policy gaps."
- 4. **Interpretation:** Synthesizing themes to provide insights into the systemic and contextual barriers faced by rural entrepreneurs.

3.5 Ethical Considerations

The study adhered to strict ethical guidelines to ensure the rights and welfare of participants. Informed consent was obtained before participation, with each participant briefed on the purpose and scope of the study. Confidentiality was maintained by anonymizing participants' identities in all records and reports. Ethical approval for the study was obtained from the relevant institutional review board. All data were securely stored and accessed only by the research team to maintain participant privacy.

4.0 FINDINGS AND DISCUSSION

4.1 Data Analysis

The analysis examines five rural businesses in Malaysia, each with different workforce sizes and operations. These businesses include Takoyaki stalls, traditional snack makers, seafood restaurants, and steakhouses, with staff sizes ranging from 3 to 15 employees.

4.2 Descriptive Statistical Analysis

Respondent	Business Name	Industry	Number of Employees	Gender Distribution
A	Dapo Nasz	Food Industry	10	Male: 60% Female: 40%
В	Takoyaki Chef Tako	Food Industry	3	Male: 90% Female: 10%
С	Jeffri Goreng Pisang Mak	Food Industry	3	Male: 75% Female: 25%
D	Ayunie Seafood	Food Industry	6	Male: 40% Female: 60%
Е	Uncle Z Steak Corner	Food Industry	15	Male: 75% Female: 25%

4.3 Research Findings One: Primary Barriers

4.3.1 Fragmented Supply Chain

Small-Scale Production: Many rural entrepreneurs are small-scale producers who operate independently, which can lead to fragmentation within the supply chain. This makes it difficult to achieve economies of scale or benefit from collective bargaining power.

"We face in managing a fragmented supply chain is ensuring the consistent quality and timely delivery of ingredients. Since we source us ingredients from multiple suppliers, it can sometimes be challenging to coordinate deliveries, especially during peak seasons or when certain products are in high demand. This leads to potential delays, stockouts, or variations inquality, which can affect our overall service." Respondent Company A

4.3.2 Environmental Challenges

Seasonality of Production: Many rural businesses, particularly those involved in agriculture, face the challenge of seasonality, which affects continuous participation in the value chain and leads to inconsistent income streams.

"One of the primary environmental challenges we face is the seasonality of our ingredients. Certain core ingredients, like octopus, can vary in availability and price depending on the season. This affects not only the cost of producing each Takoyaki batch but also the quality we can provide to our customers. During certain seasons, octopus or other fresh ingredients may become more expensive or difficult to source locally, which can strain both our budget and supply consistency. To manage this, we have to be flexible in sourcing, sometimes looking for alternative suppliers or substituting ingredients while ensuring that quality is maintained." Respondent Company B

4.4 Research Finding Two: Impact of The Economic

4.4.1 Poor Infrastructure

Limited Transportation: Inadequate roads and transportation systems can prevent rural entrepreneurs from efficiently moving products to market, increasing costs and reducing competitiveness. This slows down business growth and discourages investment.

"One of the major barriers I face is the lack of proper infrastructure, especially in certain areas where we source our ingredients or where we want to expand. For example, rural areas often lack well-maintained roads, reliable transportation systems, and efficient logistics networks. This makes it difficult to get our supplies delivered on time, especially for perishable goods. When the infrastructure isn't strong, we experience delays, and sometimes the quality of our ingredients is compromised. It increases transportation costs too, because we might have to use more expensive or less efficient routes." Respondent Company A

4.4.2 Supply Chain Inefficiencies

Weak Supplier Networks: Limited access to raw materials, inputs, or specialized services can cause delays and increase costs for rural entrepreneurs, making it difficult to meet the standards or timelines required in larger value chains.

"For my Takoyaki business, it depends on specific ingredients like high-quality octopus, flour, and traditional seasonings; a weak supplier network can introduce significant challenges. If suppliers or raw materials are inconsistent or unreliable, it can lead to delays and shortages, directly impacting the stall's ability to meet customer demand.

For example, if an ingredient like bonito flakes or Takoyaki sauce arrives late or doesn't meet quality standards, the entire operation can stall, resulting in lost sales and decreased customer satisfaction. Furthermore, smaller food stalls may lack the bargaining power to demand better service from the suppliers, which can exacerbate these issues. Respondent Company B

5.0 CONCLUSION

The study highlights the significant barriers that rural entrepreneurs face in adopting value chain strategies, emphasizing challenges such as fragmented supply chains, environmental constraints, and infrastructure limitations. These barriers not only hinder business operations but also constrain the economic development of rural communities. Through qualitative research, the findings underline the importance of addressing these challenges to improve the viability and competitiveness of rural entrepreneurship in Malaysia.

Furthermore, the integration of technology, policy improvements, and capacity building for entrepreneurs is are pivotal step toward overcoming these barriers. By focusing on enabling infrastructure, strengthening supplier networks, and promoting digital literacy, policymakers and stakeholders can create a more inclusive entrepreneurial ecosystem. This would empower rural entrepreneurs to maximize value chain opportunities, fostering sustainable business growth and reducing economic disparities between rural and urban areas.

Ultimately, the findings contribute to a deeper understanding of the unique challenges faced by rural entrepreneurs, offering actionable insights for future interventions. By tackling these systemic issues, Malaysia can unlock the untapped potential of its rural enterprises, driving economic development and enhancing the livelihoods of rural populations. Future research should continue to explore innovative strategies and cross-sector collaborations to ensure the long-term success and resilience of rural entrepreneurship.

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