

Barriers Hindering the Application of the Value Chain in Rural Smes in Malaysia

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ABSTRACT

This article explores the significant barriers hindering the effective application of the value chain framework in rural small and medium enterprises (SMEs) in Malaysia. Rural businesses face unique challenges, including limited access to financial resources, inadequate infrastructure, and technological gaps, which prevent them from fully participating in broader value chains. These barriers are compounded by a lack of skilled labour, bureaucratic hurdles, and limited market access, which collectively limit the growth potential and competitiveness of rural SMEs. The inability to integrate into supply chains reduces their productivity, market reach, and overall sustainability. Moreover, the digital divide between rural and urban businesses exacerbates the challenges, particularly with the rise of e-commerce and digital tools. Despite these obstacles, overcoming these barriers is essential for fostering inclusive economic development. The article highlights the urgent need for targeted interventions, including improved financing options, better infrastructure, and enhanced digital support for rural entrepreneurs. Additionally, addressing the skills gap through training and educational initiatives is crucial for empowering rural SMEs to innovate and compete. Collaboration among government agencies, private-sector partners, and rural businesses is vital to creating a supportive ecosystem for rural entrepreneurship. Ultimately, addressing these challenges will contribute to a more equitable distribution of economic benefits, bridge regional disparities, and foster sustainable growth, helping rural SMEs integrate more effectively into the value chain and enhancing their role in Malaysia's digital economy.

Keywords: Rural Entrepreneurship, Value Chain, Barrier

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1. INTRODUCTION

The barriers to applying the value chain in rural entrepreneurship in Malaysia represent a critical concern for both economic development and social equity. The value chain framework, introduced by Porter, emphasises the importance of optimising various activities within a business to enhance competitiveness and efficiency. In the context of rural entrepreneurship, the effective application of this framework can lead to improved productivity, better resource allocation, and increased market access for small and medium enterprises (SMEs) (Anthony, 2019). However, numerous barriers impede this process, including limited access to technology, inadequate infrastructure, and insufficient financial resources, which disproportionately affect rural SMEs compared to their urban counterparts (Saarani, 2023; Manzoor et al., 2021). The lack of comprehensive studies addressing these barriers further highlights a significant gap in the literature, as existing research often overlooks the unique challenges faced by rural entrepreneurs in Malaysia (Talib, 2023).

In today's digital economy, the importance of e-commerce ventures for Malaysian SMEs is undeniable. However, the barriers to applying the value chain directly impact these enterprises' ability to effectively leverage e-commerce. Rural SMEs, in particular, face significant challenges in adopting technology due to limited digital literacy and inadequate infrastructure, which restricts their ability to engage in the growing online marketplace (Chong et al., 2014; Faisal & Idris, 2020). Furthermore, there is a prevalent perception that e-commerce primarily benefits urban businesses, leading to insufficient investment and support for rural initiatives (Zhang et al., 2023). This creates a significant digital divide between rural and urban SMEs, limiting the growth opportunities for rural entrepreneurs. As such, there is an urgent need for targeted research to explore and address these gaps. Specifically, understanding how rural SMEs can overcome these barriers to enhance their digital capabilities is crucial for improving their competitiveness in the global e-commerce market (Kalesamy, 2021). By addressing these challenges, rural SMEs can better tap into the opportunities presented by the digital economy, fostering growth and sustainability in the rural business sector.

The influence of barriers to value chain application in rural entrepreneurship is clearly evident in Malaysia's current economic landscape. Many rural SMEs continue to struggle due to their inability to effectively integrate into broader supply chains, which severely limits their growth potential and market access (Jayashree et al., 2021; Hudin et al., 2017). This lack of integration leads to fragmentation of rural supply chains, resulting in high transaction costs and low value addition, further exacerbating the challenges these businesses face (Hota et al., 2019). Additionally, the lack of effective collaboration among key stakeholders, including government bodies and private-sector partners, hinders the development of a supportive ecosystem that could foster rural entrepreneurship (Rizos et al., 2016). Addressing these barriers is essential to creating an environment that promotes innovation and ensures sustainable growth in rural areas. By improving supply chain integration, reducing transaction costs, and encouraging collaboration between stakeholders, Malaysia can unlock the potential of its rural SMEs, driving economic development and resilience. These steps will be crucial for bridging the gap between urban and rural economies, creating a more inclusive and prosperous future for all regions of Malaysia.

The role of barriers to value chain application is multifaceted, affecting not only individual businesses but also the broader economic landscape. These barriers create a cycle of underperformance among rural SMEs, which, in turn, negatively impacts employment opportunities and economic stability in rural communities (Manzoor et al., 2021; Ayesh et al., 2021). The lack of adequate support for rural entrepreneurs also drives increased urban migration, as individuals move to cities in search of better opportunities, thereby further exacerbating regional disparities (Ho, 2019). As a result, addressing these barriers is crucial for fostering inclusive economic development in Malaysia. By overcoming these challenges, rural SMEs can thrive, creating job opportunities and contributing to the overall economic stability of rural regions. Furthermore, providing targeted support to rural entrepreneurs can help mitigate urban migration and reduce disparities between urban and rural areas, leading to more balanced national development. Understanding and tackling these barriers is therefore essential to ensuring long-term economic resilience and equitable growth throughout Malaysia.

Several factors significantly influence the barriers to applying the value chain in rural entrepreneurship, particularly in the context of Malaysian SMEs. These factors include financial constraints, technological limitations, and inadequate managerial skills, all of which directly affect rural SMEs' ability to integrate effectively into value chains and adapt to evolving market dynamics (Yaakub & Mustafa, 2015; Faisal & Idris, 2020). The influence of these barriers is particularly pronounced in e-commerce ventures, where limited access to financing prevents SMEs from investing in essential technologies and digital infrastructure (Chong et al., 2014; Zhang et al., 2023). Additionally, the lack of managerial expertise hinders the strategic planning and execution required to drive innovation and sustainable growth in these businesses (Manzoor et al., 2021; Cabaran et al., 2023). As such, addressing these challenges is crucial to improving the

competitiveness of rural SMEs in e-commerce, enabling them to overcome these barriers and better position themselves within the broader value chain. Solutions must therefore focus on enhancing financial accessibility, providing technological support, and building managerial capacities to foster more resilient and innovative rural businesses.

A review of previous studies reveals a consistent theme: barriers to applying the value chain in rural entrepreneurship. Many researchers have emphasised the critical need for targeted interventions to support rural SMEs. These interventions include enhancing access to technology, offering financial assistance, and implementing training programs to equip entrepreneurs with the skills needed to navigate the challenges of rural markets (Karim et al., 2022; Zhang & Huo, 2013). Despite these findings, a significant gap remains in the development of comprehensive frameworks that address the unique challenges faced by rural businesses. Existing literature often overlooks the specific barriers that rural SMEs encounter, such as limited infrastructure, access to digital tools, and insufficient managerial expertise. This lack of targeted research highlights the need for further studies to develop tailored solutions for rural entrepreneurship in Malaysia. By synthesising the current body of work and identifying gaps, future research can contribute to a deeper understanding of the barriers rural entrepreneurs face and the strategies necessary to overcome them. This would enable policymakers, industry stakeholders, and academic researchers to collaborate to create more effective support mechanisms that help rural SMEs thrive and integrate successfully into the value chain, thereby boosting their sustainability and economic resilience (Chin et al., 2011).

The objective of this study is to examine the barriers to applying the value chain in rural entrepreneurship in Malaysia and identify strategies to overcome them. The research explores how these barriers interact with the broader economic environment, aiming to uncover insights to guide policy decisions and support initiatives to enhance the competitiveness of rural SMEs. By addressing these barriers, the study seeks to contribute to sustainable economic growth and improve the livelihoods of individuals in rural communities. The findings will be crucial for developing targeted interventions to help rural entrepreneurs integrate more effectively into the value chain, thereby increasing business sustainability and economic resilience. Ultimately, overcoming these obstacles is vital for fostering inclusive growth and reducing regional disparities in Malaysia.

2. LITERATURE REVIEW

2.1 The Barriers Hindering the Application of the Value Chain

Research on barriers to applying the value chain in rural entrepreneurship in Malaysia has evolved significantly over the years. Early studies primarily focused on identifying the fundamental challenges faced by rural entrepreneurs, including limited access to resources, inadequate infrastructure, and insufficient government support. For instance, Ataei et al. (2020) highlighted various barriers that impede the effective implementation of value chains in rural settings, emphasising the need for targeted interventions to address these issues (Ataei et al., 2020). Recent theoretical frameworks have integrated concepts of social capital and institutional support, as seen in the work of Lang and Fink (2019), which underscores the importance of social networks in enhancing rural entrepreneurship (Lang & Fink, 2019). Methodologically, contemporary research has employed mixed-method approaches, combining qualitative interviews with quantitative surveys to provide a comprehensive understanding of the barriers faced by rural entrepreneurs (Ataei et al., 2020; Azis, 2023). This evolution reflects a growing recognition of the complexities inherent in rural entrepreneurship and the necessity for multifaceted research designs that can capture the nuances of these challenges.

Various definitions of the barriers to applying the value chain in rural entrepreneurship have been proposed by scholars, reflecting the multifaceted nature of the issue. For example, Ghouse et al. (2017) define barriers as socio-economic and structural forces that inhibit entrepreneurial activities, while Yuan et al. (2022) emphasise inadequate financing mechanisms and policy frameworks (Ghouse et al., 2017; Yuan et al., 2022). Similarly, Azis (2023) identifies barriers such as limited market access and insufficient infrastructure as critical impediments to rural women's entrepreneurship in Malaysia (Azis, 2023). A synthesis of these definitions reveals common themes, including the significance of financial resources, infrastructural development, and supportive policy environments. These elements are consistently highlighted as essential for fostering an effective value chain in rural entrepreneurship, indicating that addressing these barriers is crucial for enhancing entrepreneurial outcomes in rural contexts.

Recent research on barriers to applying the value chain in rural entrepreneurship has focused on the interplay between digital infrastructure and entrepreneurial success. Studies such as those by Gwaka et al. (2020) have explored how the transformation of digital infrastructure can facilitate the integration of information and communication technologies (ICTs) into rural value chains, thereby enhancing sustainability and efficiency (Gwaka et al., 2020). Additionally, the

work of Pato & Teixeira (2014) has contributed to the understanding of rural entrepreneurship by examining the role of organisational characteristics and policy measures in overcoming barriers (Pato & Teixeira, 2014). Theoretical advancements have included the development of frameworks linking social capital and institutional support to entrepreneurial success, suggesting that a holistic approach is necessary to address these barriers effectively.

Several factors contribute to the barriers hindering the application of the value chain in rural entrepreneurship in Malaysia. Key contributors include inadequate access to financial resources, poor infrastructure, and limited market opportunities. For instance, Azis (2023) notes that rural women entrepreneurs face significant challenges related to financing and market access, which severely limit their ability to engage in value chain activities (Azis, 2023). Furthermore, Ataei et al. (2020) emphasise that the lack of targeted government policies and support mechanisms exacerbates these barriers, creating a cycle of disadvantage for rural entrepreneurs (Ataei et al., 2020). The cumulative impact of these factors highlights the urgent need for comprehensive strategies that address both the economic and social dimensions of rural entrepreneurship.

Recent trends in research methods for studying barriers to the application of the value chain in rural entrepreneurship have shifted towards more participatory and inclusive approaches. Qualitative methods, such as focus groups and case studies, are increasingly employed to capture the lived experiences of rural entrepreneurs, as seen in the works of Ghouse et al. (2017) and (Muhammad et al., 2017; Ghouse et al. (2017) (Muhammad et al., 2017); These methods allow for a deeper understanding of the contextual factors influencing entrepreneurial activities. The implications of these trends suggest a move towards more context-sensitive research that acknowledges the unique challenges faced by rural entrepreneurs, paving the way for future studies that can inform policy and practice.

In summary, previous studies on the barriers hindering the application of the value chain in rural entrepreneurship have identified critical factors such as inadequate infrastructure, limited access to financial resources, and insufficient government support. Methodologically, these studies have employed a range of approaches, from qualitative interviews to quantitative surveys, although many have faced limitations in sample size and generalizability (Ataei et al., 2020; Azis, 2023). Unique contributions include the identification of specific barriers faced by rural women entrepreneurs, as highlighted by Azis (2023). However, gaps remain in understanding the intersectionality of these barriers and their cumulative effects on different demographic groups within rural entrepreneurship. Future research should aim to address these gaps by exploring the nuanced experiences of diverse rural entrepreneurs and the effectiveness of targeted interventions.

2.2 Entrepreneurship in Malaysia

Entrepreneurship can be defined in various ways, reflecting its multifaceted nature. First, Ahmad and Xavier describe entrepreneurship as a vital economic strategy that contributes significantly to Malaysia's economic growth by fostering innovation, reducing poverty, and creating wealth through business ventures (Ahmad & Xavier, 2012). This definition emphasises the role of entrepreneurship in enhancing economic performance and social welfare.

Second, Noor et al. highlight that entrepreneurship, particularly among women, is characterised by the ability to identify and exploit business opportunities, which is crucial for economic empowerment and societal change (Noor et al., 2021). This perspective underscores the transformative potential of entrepreneurship, especially in marginalised communities.

Lastly, Adrutdin et al. define entrepreneurship as a mechanism for preserving national competitiveness in the face of globalisation, suggesting that it is not only about individual success but also about contributing to the broader economic landscape (Adrutdin et al., 2020). This definition situates entrepreneurship within the context of global economic dynamics, indicating its importance for national development.

The definitions of entrepreneurship are closely related to the dependent variables (DVs) across various studies, particularly those on economic growth and social empowerment. For instance, the findings from Ahmad and Xavier indicate that a conducive entrepreneurial environment is essential for growth, highlighting that factors such as financial support and institutional frameworks significantly influence entrepreneurial success (Ahmad & Xavier, 2012). This suggests that the DV of economic growth is directly impacted by the entrepreneurial ecosystem.

Moreover, Noor et al. found that women entrepreneurs face unique challenges affecting their business performance, including access to funding and social norms (Noor et al., 2021). These challenges not only hinder individual entrepreneurial success but also limit women's overall contribution to economic growth, thereby linking the DV of social empowerment to the entrepreneurial landscape.

Additionally, Adrutdin et al. emphasise that Bumiputera entrepreneurs must be proactive in seizing opportunities to enhance their economic standing, indicating that the DV of national competitiveness is influenced by the entrepreneurial activities of specific demographic groups (Adrutdin et al., 2020). This relationship illustrates how entrepreneurship serves as a bridge between individual agency and broader economic outcomes.

Despite the valuable insights provided by previous research, several limitations and gaps remain. For instance, while studies such as those by Noor et al. focus on women entrepreneurs, they often overlook the intersectionality of gender with other factors, such as ethnicity and socio-economic status (Noor et al., 2021). This gap suggests a need for more nuanced research that considers the diverse experiences of entrepreneurs across different demographics.

Furthermore, Ahmad and Xavier's research primarily utilises quantitative data from the Global Entrepreneurship Monitor, which may not capture the qualitative aspects of the entrepreneurial experience, such as personal motivations and cultural influences (Ahmad & Xavier, 2012). This limitation indicates a need for qualitative studies that explore the lived experiences of entrepreneurs in Malaysia.

Lastly, while the studies highlight the challenges entrepreneurs face, there is a lack of comprehensive frameworks to systematically mitigate them. For instance, while Adrutdin et al. discuss the importance of seizing opportunities, they do not provide actionable strategies for overcoming barriers (Adrutdin et al., 2020). This gap presents an opportunity for future research to develop practical solutions to help entrepreneurs navigate the complexities of the business environment.

The current study aims to address the identified research gaps by providing a comprehensive analysis of the entrepreneurial landscape in Malaysia, with a particular focus on women entrepreneurs. By integrating qualitative and quantitative methodologies, this research will provide a holistic view of the challenges and opportunities entrepreneurs face, thereby enriching the existing literature.

Additionally, this study will contribute to policy discussions by proposing targeted interventions that address the specific needs of different entrepreneurial groups, particularly women and Bumiputera entrepreneurs. By doing so, it aims to enhance the effectiveness of government initiatives and support programs, ultimately fostering a more inclusive entrepreneurial ecosystem.

Furthermore, the research will explore the socio-economic impacts of entrepreneurship on communities, thereby highlighting its role in driving sustainable development in Malaysia. This contribution is crucial for policymakers and stakeholders seeking to leverage entrepreneurship to drive economic growth and social change.

3. METHODOLOGY

This study adopts a qualitative research approach to explore the barriers affecting the application of the value chain among rural small and medium-sized enterprises (SMEs) in Malaysia. A qualitative design is appropriate because it allows an in-depth understanding of participants' experiences, perceptions, and challenges related to technology, finance, supply chain access, and operational constraints within their real business context (Creswell, 2014). The study employs a cross-sectional design, where data were collected at a single point in time.

A purposive sampling technique was used to select participants who possess relevant knowledge and experience in managing SMEs and implementing digital transformation initiatives. Purposive sampling is commonly used in qualitative research to ensure that participants can provide rich and meaningful insights (Saunders et al., 2019). The study involved five SME owners or co-owners in Malaysia who are directly involved in organisational decision-making and the integration of digital technologies. Participants were selected based on inclusion criteria, including active managerial roles and firsthand experience with digital transformation processes.

Five participants were considered sufficient because recurring patterns began to emerge across interviews, particularly regarding access to technology, financial limitations, and supplier-related barriers. In qualitative research, small purposive samples are acceptable when the objective is to obtain rich and focused insights rather than statistical generalisation.

Data were collected through in-depth, semi-structured interviews. This method provides participants with flexibility to express their views while ensuring consistency across interviews (Kvale & Brinkmann, 2009). An interview guide consisting of open-ended questions was developed to explore key areas, including the adoption of digital tools, customer

engagement, operational efficiency, and challenges faced during the transformation process. All interviews were conducted online and recorded with participants' consent.

The collected data were transcribed verbatim and analysed using thematic analysis. This method enables the identification of patterns and themes within qualitative data (Braun & Clarke, 2006). The analysis followed several steps, including data familiarisation, initial coding, theme development, and refinement. Codes were assigned to relevant segments of the data and grouped into broader themes to capture recurring patterns and insights. Atlas.ti software was used to assist in organising, coding, and managing the qualitative data, enhancing the systematic nature of the analysis process (Frieze, 2019). Interview transcripts were analysed using thematic coding. First, all interviews were transcribed verbatim and read several times to familiarise the researcher with the content. Second, meaningful statements related to value chain barriers were assigned initial codes. Third, similar codes were grouped into broader categories and developed into themes such as technological barriers, financial constraints, and supply chain inefficiencies. Atlas.ti software was used to organise and manage the coding process.

To ensure the trustworthiness of the findings, several strategies were applied. These include maintaining an audit trail of the data analysis process, ensuring coding consistency, and carefully interpreting the data to reflect participants' perspectives. These practices are important in qualitative research to enhance credibility, dependability, and confirmability (Lincoln & Guba, 1985).

Ethical considerations were addressed throughout the study. Informed consent was obtained from all participants prior to data collection. Participants' identities were anonymised to ensure confidentiality, and all data, including recordings and transcripts, were securely stored. The study adhered to established ethical research guidelines to protect participants' rights and privacy (Creswell, 2014).

4. FINDINGS AND DISCUSSION

4.1 Participant Profile

The analysis focuses on five rural businesses in Malaysia, each with unique workforce compositions and operational scales. These businesses span various industries, including food services (takoyaki stalls, traditional snacks, seafood restaurants), and steakhouses. The respondents represent diverse operational structures, with workforce sizes ranging from 3 to 15 employees.

4.2 Descriptive Statistics Analysis

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

4.3 Research Findings One: The primary Barriers

4.3.1 Low Technological Adoption

In interviews, street vendors in rural Malaysia highlighted a lack of access to technology as a key barrier to improving their businesses. Limited internet access and the high cost of digital tools prevent them from reaching broader markets and streamlining operations.

Vendors expressed interest in using technology but lack the training and support needed to build efficient, competitive value chains. “To be fair, one of the biggest issues for rural entrepreneurs like us is not having access to good technologies, tools, or machinery. Without those, productivity goes down, and it is hard to really get into the value chain.” Respondent Company C. This finding supports Ataei et al. (2020), who identified limited technological access as a major barrier to value chain participation among rural entrepreneurs.

4.3.2 Environmental Challenges

Seasonality of Production: Many rural businesses, particularly those in agriculture, face seasonal challenges that disrupt continuous participation in the value chain and lead 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 harder to source locally, which can strain both our budget and the consistency of our supply.

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 Access to Finance

In the interviews, street vendors identified insufficient financial literacy as a major challenge. Many vendors struggle with budgeting, tracking expenses, and understanding credit options, which limits their ability to make informed financial decisions.

Without basic financial skills, they face difficulties managing costs, investing in growth, and accessing formal financing. This gap in financial knowledge hinders their ability to effectively integrate value chain improvements, preventing them from maximising profitability and business sustainability.

“Honestly, a lot of us just do not have the know-how or skills to tap into financial resources that are out there. It ends up holding us back from growing and makes it tough to really get into value chains.” Respondent Company C

Similar findings were reported by Azis (2023), who found that financial limitations restrict rural business expansion.

4.4.2 Supply Chain Inefficiencies

Weak Supplier Networks: Limited access to raw materials, inputs, or specialised 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 such as bonito flakes or Takoyaki sauce arrives late or fails to meet quality standards, the entire operation can stall, resulting in lost sales and reduced 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. CONCLUSION

This study suggests that among the interviewed rural SMEs, several barriers continue to hinder effective participation in the value chain, particularly limited access to technology, weak supplier networks, and financial constraints. These barriers affect business operations and limit rural entrepreneurs’ ability to expand their market participation.

Despite these obstacles, overcoming them is crucial for fostering sustainable economic development and improving the livelihoods of rural entrepreneurs. The findings of this study highlight the urgent need for targeted interventions, such as improving access to financing, better infrastructure, and enhanced technological support. Furthermore, addressing the skills gap through comprehensive training and educational programs is essential for empowering rural entrepreneurs, enabling them to integrate more effectively into the value chain and strengthen their competitive advantage.

Collaboration among government agencies, private-sector partners, and rural SMEs is pivotal to creating a supportive ecosystem that encourages innovation and growth. Through such partnerships, Malaysia can unlock the full potential of its rural SMEs, driving economic resilience and fostering greater inclusion in the digital economy. Moreover, addressing these barriers will contribute to a more equitable distribution of economic benefits across urban and rural areas, ultimately helping to bridge the gap and reduce regional disparities. By facilitating the integration of rural SMEs into broader value chains, Malaysia can ensure a more inclusive and sustainable economic future for all its citizens. In doing so, the nation can create a more balanced, thriving economy that empowers entrepreneurs and promotes long-term social and economic growth. A limitation of this study is that it involved only five food-service SMEs, which means the findings should be interpreted as exploratory rather than representative of all rural SMEs in Malaysia.

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