

UNIVERSITI TEKNOLOGI MARA

**EXPLORING AGRIBUSINESS
ACTIVITIES: A CASE STUDY OF
INFORMAL CROSS-BORDER
TRADE BETWEEN SERIKIN,
MALAYSIA – KALIMANTAN,
INDONESIA**

**MASHITAH MAHIRAH BINTI
MERALI**

MSc

May 2026

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MASHITAH MAHIRAH BINTI MERALI

Thesis submitted in fulfilment
of the requirements for the degree of
Master of Science

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ABSTRACT

Informal agribusiness trade at the Serikin market, located along the Malaysia–Kalimantan, Indonesia border, plays an important role in sustaining small-scale traders while contributing to local economic activity and tourism in Sarawak. Despite its significance, this trade operates largely outside formal regulatory frameworks, raising governance concerns, particularly in relation to border control and tax collection. Following the reopening of the border after COVID-19, trading activities resumed, yet empirical research focusing specifically on agribusiness at Serikin remains limited. This study aims to (i) explore the benefits of informal agribusiness trade, (ii) examine the challenges faced by agro-traders, and (iii) assess the future of the market from Malaysian stakeholder perspectives. A qualitative approach was employed, using semi-structured interviews with Indonesian agro-traders and Malaysian stakeholders, and the data were analysed thematically. The findings indicate that informal agribusiness trade provides critical livelihood support through income generation, market access, and cross-border economic opportunities, while also contributing to local food supply and market vibrancy. However, traders face significant challenges, including restrictive border procedures, regulatory complexities, limited infrastructure, and financial risks associated with perishable goods. Stakeholders generally support increased formalisation to improve security and governance, but also acknowledge the risk of marginalising small-scale traders if policies are not implemented inclusively. The study concludes that informal agribusiness at Serikin is structurally embedded in the regional economy and cannot be addressed solely through enforcement-based policies. A balanced and adaptive approach that aligns regulatory objectives with traders’ realities is essential to ensure the sustainability of the market. Future research should incorporate Indonesian stakeholder perspectives and comparative analysis across border markets to strengthen policy development.

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TABLE OF CONTENTS

	Page
CONFIRMATION BY PANEL OF EXAMINERS	ii
AUTHOR’S DECLARATION	iii
ABSTRACT	iv
ACKNOWLEDGEMENT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	ix
LIST OF FIGURES	x
LIST OF ABBREVIATIONS	xi
CHAPTER 1 INTRODUCTION	1
1.1 Research Background	1
1.2 Problem Statement	3
1.3 Research Objectives	5
1.4 Research Question	5
1.5 Significance of Study	5
1.6 Limitation of Study	6
1.7 Scope of Study	6
1.8 Research Framework	7
1.9 Definitions of the Terms	7
1.10 Summary of Chapters	10
CHAPTER 2 LITERATURE REVIEW	11
2.1 Informal Cross-Border Trade (ICBT)	11
2.1.1 Concept of ICBT	12
2.1.2 Informal Cross-Border Trade in Southeast Asian	13
2.1.3 Informal Cross-Border Trade in Peninsular Malaysia	14
2.1.4 Informal Cross-Border Trade in Borneo Island, Malaysia	16
2.1.5 Border Trade Agreement 1970 & Border Cross Agreement 1984	18

2.1.6	Empirical Studies on Informal Cross-Border Trade Variables	20
2.2	Agropreneurship Activities in Informal Cross-Border Trade Between Sarawak (Malaysia) – Kalimantan (Indonesia)	21
2.3	Benefits From Informal Agribusiness Activities in Serikin	22
2.4	Challenges Faced by Local Communities	24
2.5	Theoretical Framework	27
2.6	Summary of Chapter	30
CHAPTER 3	RESEARCH METHODOLOGY	31
3.1	Location of Study	31
3.2	Sample Size and Criteria	32
3.3	Sampling Method	35
3.4	Research Design and Data Collection	36
3.5	Data Analysis	37
3.6	Instrument	39
3.7	Pilot Study	42
3.8	Ethical Considerations	43
3.9	Research Gantt Chart	45
CHAPTER 4	RESULTS AND DISCUSSION	46
4.1	Introduction	46
4.2	Benefits of Agribusiness Activities Gained by Indonesian Agro-Traders In Informal Cross-Border Trade	46
4.3.1	Income Generation	47
4.3.2	Job Opportunities	50
4.3.3	Cross-Border Arbitrage	53
4.3.4	Educational Support Through Trade-Derived Income	55
4.3.5	Sustainability of Household Livelihood	57
4.3.6	Market Access	60
4.3.7	Product Diversification	64
4.3.8	Supply Chain Development	67
4.4	Challenges Faced by Indonesian Agro-traders in Informal Cross-Border Trade	71
4.4.1	Institutional and Procedural Challenges	72

4.4.2 Cross-Border Policy and Regulatory Mismatches	74
4.4.3 Market Access Limitations Beyond Serikin	77
4.4.4 Financial Losses from Perishable Goods	80
4.4.5 Inadequate Transport Infrastructure	83
4.4.6 Language and Communication Barrier	86
4.5 Future of Serikin Market from the Malaysian Stakeholders' Perspective	89
4.5.1 Anticipated Benefits of ICQS Establishment	90
4.5.2 Impacts on Informal Traders and Local Community	93
4.6 Summary of Key Findings	97
CHAPTER 5 CONCLUSION	99
REFERENCES	102
APPENDICES	114
AUTHOR'S PROFILE	123

LIST OF TABLES

Tables	Title	Page
Table 1.1	Definitions of the Terms	8
Table 2.1	Categories of Informal Cross-Border Trade	13
Table 2.2	The Lists of Scholar Perspectives as Theoretical Framework	28
Table 3.1	The Criteria of Sample in This Study	33
Table 3.2	The Indonesian Agro-traders Profile	34
Table 3.3	The Malaysian Stakeholder Profile	35
Table 3.4	The Interview Protocol Structure for Indonesian Agro-traders	41
Table 3.5	The Interview Protocol Structure for Malaysian Stakeholders	42

LIST OF FIGURES

Figures	Title	Page
Figure 1.1	The Research Framework	7
Figure 2.1	Theoretical Framework	29
Figure 3.1	Location of Serikin Weekend Market From the Border	31
Figure 3.2	Agriculture Product Traded in Serikin Market	32
Figure 3.3	The Process of Thematic Analysis by Braun and Clarke	39
Figure 3.4	Theoretical Mapping of Informal Economy Theory in the Development of the Interview Protocol	40
Figure 3.5	Research Gantt Chart	44
Figure 4.1	Key Themes of Benefits of Informal Cross-Border Trade	46
Figure 4.2	Key Themes of Challenges Faced by Indonesian Agro-traders	70
Figure 4.3	A Visual Synthesis of the Findings on the Dynamics of Informal Cross-Border Trade (ICBT) In Serikin	96

LIST OF ABBREVIATIONS

Abbreviations

BAA	Border Agreement Area
BCA	Border Cross Agreement
BTA	Border Trade Agreement
ICQs	Immigration, Customs, and Quarantine Services
ICBT	Informal Cross-Border Trade
M-FICORD	Ministry of Food Industry, Commodity and Regional Development Sarawak
PLB	Pas Lintas Batas
SARQIS	Sarawak Quarantine and Inspection Services
SPM	Sijil Pelajaran Malaysia
SOSEK MALINDO	Socio-Economic Exchange for Malaysia-Indonesia

CHAPTER 1

INTRODUCTION

1.1 Research Background

The term informal cross-border trade (ICBT) defines imports and exports of legitimately produced goods and services that either directly or indirectly evade the government's regulatory framework, consequently avoiding certain taxes and regulatory measures, and therefore remain either unrecorded or incorrectly recorded into official national statistics of the importing or exporting countries (Ogalo, 2010). Cross-border commercial activity is rising across many nations in the recent decade, including Africa, Malaysia, and Indonesia (Degbey et al., 2021). Numerous countries, like Malaysia and Indonesia, are attempting to foster economic activity among countries, which will lead to beneficial implications in the form of international links with various other countries. This is why cross-border entrepreneurship is becoming increasingly entangled with entrepreneurial activities, which are critical for creating commercial relationships across business groups (Prabowo & Sinaga, 2022). Generally, there are variety of products involved in ICBT, including agricultural products, which are an important commodity in the informal trade between countries sharing a border region. Recent studies on the cross-border trade of East Africa show that a large proportion of the agricultural produce trade still moves informally, such as bananas, rice, and palm oil (Bouët & Nimenya, 2023).

Malaysia is one of the countries actively engaged in ICBT, largely due to its strategic geographical proximity to neighbouring countries like Indonesia and Thailand (Osman et al., 2024). This close physical connection facilitates the movement of goods across borders, often through unofficial channels, as Malaysia leverages its location for economic interactions with nearby regions. In peninsular Malaysia, ICBT remains particularly active in two prominent regions bordering Thailand. Firstly, the trade between Kelantan, Malaysia and Narathiwat, Thailand, which primarily takes place along the Golok River, especially in the vicinity of Rantau Panjang and the Golok River. Secondly occurs between Perlis, Malaysia and Songkhla, Thailand, through Padang Besar serving as the central trading hub (Azmi et al., 2017). In the case of the Golok River, as reported by Gallien and Weigand (2020), the traders use small boats,

footbridges, or even shallow river crossings to transport goods across the border without passing through formal customs checkpoints. A diverse range of goods is traded through these informal channels, including fresh produce, seafood, fruits, clothing, processed food, cigarettes, and household items. The trade is driven by price differences, currency exchange advantages, and close ethnic and family ties between communities on both sides of the border (Weigand, 2020).

In contrast, the Perlis - Sadao border accommodates both formal and informal cross-border trade, primarily operating through Padang Besar, a major border town in Perlis. While Padang Besar is recognized for its legal trade and vibrant border market, many small traders still engage in informal trade due to economic incentives and the ease of access across the border (Azmi et al., 2017). A wide variety of goods from Thailand, such as textiles, agricultural produce, processed foods, and household items, are often transported into Malaysia through backroads and unofficial crossings, bypassing customs procedures. Conversely, subsidized Malaysian goods like fuel, cooking oil, and other essential items are frequently smuggled into Thailand, where they command a higher market value. While this trade is beneficial to local livelihoods and provides affordable goods, it also contributes to revenue loss for the government, smuggling, disruption of market pricing, and lack of quality control, posing challenges for border enforcement agencies in both countries (Rahim et al., 2023).

In addition, ICBT is also prominent between Malaysia and Indonesia, particularly due to shared geographical borders and cultural similarities, including language and ethnicity as the key success factors, leading to both nations taking proactive actions. The introduction of the New Economy Policy (NEP) in 1970 marked the beginning of rural entrepreneurship programs in Malaysia (Zainuddin, 2019). Before the establishment of the Border Cross Agreement (BCA) and the Border Trade Agreement (BTA) in 1970, cross-border merchants had already established border trade between Indonesia and Malaysia on Borneo Island (Suratman, Adji Samekto, & Trihastuti, 2020). There are two main ICBT routes between Malaysia and Indonesia on Borneo Island, which are cross border region of Nunukan-Tawau, and Serikin, Sarawak. The cross-border trade in Nunukan-Tawau strongly favours agricultural commodities over other commodities like cocoa and palm oil (Andri, 2018). Meanwhile, for Serikin, Sarawak remains the primary destination market for vegetables from West Kalimantan (Djafar et al., 2016).

The cross-border trade activities between Sarawak, Malaysia and Kalimantan, Indonesia continued to grow significantly. Serikin, a small border town, has been transformed into a Weekend Market that emphasises informal trade, despite the absence of an official cross-border route and the Immigration and Quarantine Services Checkpoint (ICQS) (Awang et al., 2013). This is ICBT between neighbouring countries, usually conducted by vulnerable, small, and unregistered traders. Typically, it is a proximity trade involving the move of produce between markets close to the border. The available products in this market include authentic Indonesian handicrafts, household items, and food ranging from vegetables and fruits to seafood and meats. Furthermore, the lack of a formal structure to oversee economic and social interactions in the Serikin market also serves to attract traders from West Kalimantan to capitalise on market transaction opportunities at this border. Additionally, the private ownership of border space has enabled landowners and households to utilise their property as an economic resource to facilitate activities in Serikin (Sulehan et al., 2013).

Many villages and fractions of the city outskirts are situated near the border region between Sarawak, Malaysia and Kalimantan, Indonesia (Awang et al., 2013), which allows for cross-border trading of agricultural items. People who live along the borders of Sarawak, Malaysia and West Kalimantan, Indonesia have exchanged cash crops ever since these two regions were colonised. The proximity, inaccessibility to the domestic market, and high-profit margins appear to be the most influential factors motivating Indonesian farmers to engage in informal trade in Sarawak (Djafar et al., 2016). Sarawak was likely chosen as the target market for vegetable farmers from West Kalimantan due to a lack of superior options for vegetable varieties in the domestic market (Djafar et al., 2016). The persistence of traders, especially from West Kalimantan, to come to do business in Serikin is caused by various factors. Despite the benefits, ICBT does have its issues and challenges, which formed part of the aim of this study.

1.2 Problem Statement

Indonesian producers have been selling agricultural products to Malaysia through unofficial border crossings for years. This activity is largely driven by price differentials, currency advantages, and high unemployment rates in West Kalimantan, which motivate Indonesians to participate in trade activities at Serikin Market in

Sarawak (Safriadi et al., 2021; Abao, 2020). The geographical proximity between Sarawak and Kalimantan further facilitates this exchange, and the planned relocation of Indonesia's capital to Kalimantan is expected to intensify cross-border economic interactions and bilateral business opportunities (New Straits Times, 2023). The reopening of the border at the end of 2022, allowed the popular Serikin Market to resume its trade operation, which enables the local community and tourists to flock to the market once again.

However, despite its economic relevance, little is known on the dynamics of the informal agribusiness trade in Serikin, particularly after the reopening of border. Existing studies have largely examined ICBT in general, with limited attention to agribusiness-specific activities and trader experiences in this market (Abao, 2020; Djafar et al., 2016). Djafar et al. (2016) focused on informal agricultural trade in Serikin, however, their study was conducted before to 2022 and therefore does not reflect the current trade conditions after the border reopening. Meanwhile, the study by Abao (2020) discussed the general opportunities and challenges in informal trade between Sarawak, Malaysia and Kalimantan, Indonesia but did not specifically address agricultural trades. Therefore, this study attempts to fill gaps in the literature by focusing on agribusiness activities within informal cross border trade in Serikin following the reopening of the border. This is particularly important as informal trade also presents governance challenges for Malaysia, including reduced tax revenue and enforcement limitations, which have prompted stricter border control mechanisms such as MAQIS to regulate trade flows and ensure compliance (Maritim, 2020; Amin et al., 2022).

Additionally, previous studies on ICBT have primarily employed quantitative approaches, with limited in-depth exploration of the challenges and benefits associated with informal agribusiness trade (Abdeljaber et al., 2021; Lord & Chang (2019). Moreover, existing studies often interpreted informality in a narrow way, mainly as either a survival strategy or regulatory avoidance, without being sufficiently grounded in a strong and coherent theoretical lens. For instance, Abao (2020) and Djafar et al. (2016) provide useful empirical insights on ICBT but lack of the clear theoretical frameworks to explain trader behaviour or the influence of institutional and border control systems.

Therefore, this study employed a qualitative approach to gain a deeper understanding of the benefits and challenges faced by Indonesian agro-traders in ICBT while also incorporating insights from key Malaysian stakeholders. It is grounded in

Informal Economy Theory as the central framework to interpret and explain the dynamics of informal cross-border agribusiness activities.

1.3 Research Objectives

The objectives of this study were developed from the research questions, which are as follows:

1. To explore the benefits of agribusiness activities gained by Indonesian agro-traders in informal cross-border trade.
2. To examine the challenges faced by Indonesian agro-traders in informal cross-border trade.
3. To explore the future of the Serikin Market from the Malaysian stakeholders' perspective.

1.4 Research Question

- i) What are the benefits of agribusiness activities in informal cross-border trade?
- ii) What are the challenges faced by the agro-traders in informal cross-border trade?
- iii) What is the future of the Serikin Market from the Malaysian stakeholders' perspective?

1.5 Significance of the Study

The significance of this study is to fill the gap in understanding the benefits and challenges of agribusiness activities in ICBT between Serikin, Malaysia and Kalimantan, Indonesia. The findings will be providing policymaker with important insights that can be used to more accurately manage and facilitate the ICBT in Serikin for both Malaysia and Indonesia. This will urge both countries' governments to propose policies that will assist both traders in the Serikin Market while retaining beneficial aspects for both countries. Thus, the result of this study will give ideas to local authorities to explore the best approach in dealing with informal business and strategies in managing cross-border trade. Through the implementation of those ideas, local authorities can effectively manage the current agrotraders and attract more agrotraders

to Serikin to expand their business in our country, while providing benefits to local communities as well. Additionally, the findings of this study, it significantly impacts on the nation and industry by having the possibility to come out with an effective migration policy in order to minimize transnational issues and maximize the good effect. By identifying an effective migration policy, it can improve security for both countries and become a lucrative opportunity to expand Malaysia's economy due to the increasing number of foreign visitors, making this research pivotal for improving agribusiness activities in ICBT, which has received little attention.

1.6 Limitation of Study

The primary constraint of the study is the absence of Malaysian agrotraders, as the available agriculture traders in Serikin's market are predominantly Indonesian. This limitation prevents a comprehensive analysis of informal agricultural trade from various perspectives - Malaysian and Indonesian. Additionally, the study is geographically restricted to the Serikin-Kalimantan border, meaning that the conclusions drawn may not fully represent the informal agribusiness trade patterns in other border regions. Furthermore, language barriers and cultural differences between traders and researchers may have impacted data collection and interpretation, leading to potential gaps in understanding. The process of transcribing and extracting the information from them will therefore be challenging. Subsequently, the limitation of this study is the difficulty in recruiting major stakeholders from Indonesia to gain their perspective on Serikin's market. This is due to the process of crossing the Indonesian border involves lengthy procedures, which could extend the study's timeframe. Understanding the viewpoints of both sides of the border would provide valuable input for developing effective strategies and collaborations to manage ICBT and maximize its benefits for both nations. Finally, since the Serikin market only operates on weekends, the researcher has limitations on the days to collect data, which leads to prolonged data collection.

1.7 Scope of Study

This study focuses on agribusiness activities within the ICBT between Serikin, Malaysia, and Kalimantan, Indonesia. The scope is limited to agricultural products, including a variety of vegetables, fruits, downstream agricultural products, and wood-

based goods. It does not cover manufactured goods such as clothing, cooking utensils, or fish products. Additionally, the study emphasizes the experiences of Indonesian agro traders engaged in the Serikin market, analysing both the benefits and challenges they face. It specifically examines traders and other key stakeholders involved in the informal agribusiness sector, with a primary focus on Indonesian traders operating in the market. The study also explores the influence of local policies, trade regulations, and economic conditions on agribusiness activities in this informal setting. By focusing on this specific cross-border trade environment, the research aims to provide insights into the opportunities and challenges faced by traders, as well as potential strategies to enhance trade relations and maximize economic benefits for both nations.

1.8 Research Framework

This study is grounded in a research framework designed to ensure clarity in the overall direction and commencement of the investigation. Figure 1.1 illustrates the relationship between the study context, research aims (issue), and the methodology employed to achieve the research objectives.

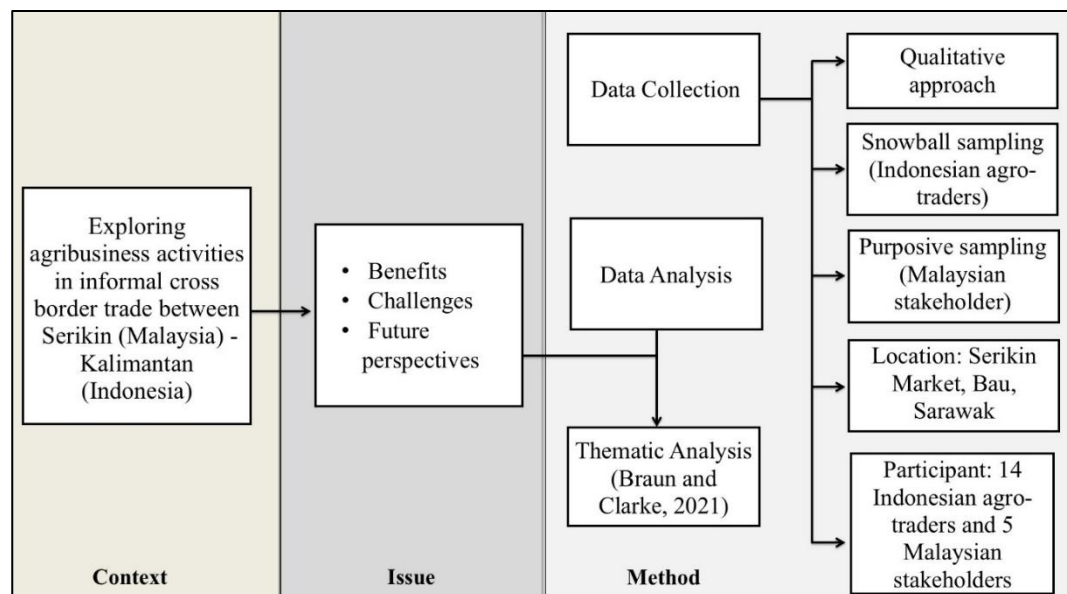


Figure 1.1 The research framework.

1.9 Definition of the Terms

To ensure clarity and a shared understanding of key concepts in this study, it is essential to define the terms used. These definitions provide a clear reference

point, guiding the reader and facilitating a better understanding of the problem the researcher aims to address. The following terms are specifically defined for this study:

Table 1.1
Definition of Terms.

Terms	Meaning
Agribusiness activities	Agriculture-related commercial activities include the production, processing, distribution, and marketing of agricultural products (Barnard et al., 2020). In this study, agribusiness is defined as the informal trade of agricultural items between Serikin, Malaysia and Kalimantan, Indonesia.
Informal Cross-Border Trade (ICBT)	The informal exchange of products and services across international borders, which frequently involves small-scale traders (Kahiya & Kadirov, 2020). This study focuses on unregistered agricultural trading along the Serikin-Kalimantan border, which is governed by the Border Trade Agreement and Border Cross Agreement 1970.
Serikin Market	A weekend market in Bau, Sarawak, Malaysia, is located near the border with Kalimantan, Indonesia. It serves as an informal trading market where Indonesian traders sell agricultural products and other goods.
Indonesian Agrotraders	Small-scale traders from Indonesia, who engage in informal cross-border trade at Serikin market, sell agricultural products

	such as vegetables, fruits, downstream and wood-based products.
Major stakeholder (Malaysian)	An individual, group, or organization that has a significant influence and role in informal cross-border trade. In the context of this study, major stakeholders refer to key participants in informal cross-border agribusiness trade between Serikin, Malaysia and Kalimantan, Indonesia, including government agencies, border officers, and community leaders.
Downstream Agricultural Products	Processed or semi-processed agricultural goods derived from raw farm produce, such as packaged spices, banana chips, and cooking utensils from wood.
Cross-Border Trade Dynamics	Economic and social interactions between traders, consumers, and government agencies in a cross-border trading context. This study examines these processes to better understand the problems and opportunities in informal agriculture trading.
Border Trade Agreement (BTA)	A bilateral pact designed to regulate and facilitate trade in border regions. It aimed to support local economic development by allowing border residents to engage in small-scale trade with minimal customs restrictions, meeting the needs of nearby communities (Arifin, 2012).

Border Cross Agreement (CBA)	A formal pact between neighbouring countries that regulates the movement of people, goods, and services across borders, promoting economic and social ties by easing travel and trade restrictions (Arifin, 2012)
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1.10 Summary of Chapters

Chapter One provides a background study of the informal cross-border study context, focusing on agribusiness activities, the statement of the research problem, research questions, objectives, and the significance of this investigation. In an effort to further explore the informal cross-border context globally and narrowing down to Serikin, Sarawak, the literature regarding the benefits and challenges of informal agribusiness activities is reviewed in Chapter Two. In Chapter Three, a thorough explanation of the research methodology for this inquiry is provided. Chapter Four presents the results and discussion gathered through this study. The themes that emerged from the participant interviews will be highlighted along with a discussion of interview data comprising each theme. Lastly, Chapter Five provides a conclusion and recommendations of this study.

CHAPTER 2

LITERATURE REVIEW

2.1 Informal Cross-Border Trade (ICBT)

ICBT has long been a significant aspect of economic activity, particularly in areas with porous borders and strong cultural or ethnic ties between groups. Historically, it evolved as a natural extension from traditional trade procedures that existed before, to the formalization of national borders (Nkoroi, 2015). The main socioeconomic processes that occur across an international border include the movement of both people and goods for trading purposes, which is an integrative conduct that connects individuals on both sides of the border through mutuality or trading activities (Ahmodu-Tijani & Olanrewaju, 2020). ICBT passes down artificially imposed policies and restrictions, allowing cross-border traders to engage. The movement of individuals across a border is considered within a nationality rather than between two geopolitical entities (Titus, 2018). Such movement of people is not typically considered migration, especially since the movers frequently stay for only a short period of time (Ahmodu-Tijani & Olanrewaju, 2020).

Several researchers have their own way to define the term of ICBT. According to the Economic Commission for Africa (ECA, 2023), the term ICBT refers to unrecorded economic transactions that take place across national borders through unofficial routes, involving both services and goods that bypass the government's regulatory framework. However, the United Nations Conference on Trade and Development (UNCTAD) offers a more comprehensive perspective, defining ICBT as trade between neighbouring countries carried out by small, vulnerable, unregistered traders. Typically, this involves proximity trade, in which goods are moved between markets close to borders. Meanwhile, Luke et al. (2020) define ICBT as requiring traders to cross borders to offer their goods and services on the other side. Much of this trade occurs between border villages with deep and unbreakable bonds. In addition, according to Kahiya and Kadirov (2020), they define ICBT in their research as market-based cross-border exchanges of freely produced or obtained goods that take place beyond the authority of official commercial activity. Because the traders may not be officially registered, the transactions may be irregular, and the commercial value may

be too little or difficult to measure for regulators to maintain interest, exchanges are not considered regulated.

In essence, ICBT refers to unregulated economic operations that cross national borders, frequently avoiding established regulatory structures. According to the Economic Commission for Africa (ECA, 2021), it involves unrecorded exchanges of goods and services through unofficial channels. UNCTAD broadens this perspective by underlining the importance of small, vulnerable, and unregistered traders involved in proximity trade near border markets. Luke et al. (2020) emphasize the social dimension, describing ICBT as transactions driven by strong inter-village links across boundaries, with traders personally transporting goods to the neighbouring areas.

2.1.1 Concept of ICBT

Cross-border trading is an economic activity that includes both internal activities within a country and international activities between nations. When defining buying and selling at the border, the trading activity becomes more complex, with product exhibition standing out as a distinct activity that includes everyday buying and selling, semi-formalized marketing activities, and other transactions (Ahmodu-Tijani & Olanrewaju, 2020). ICBT is the most important form of cross-border activity in terms of economic transactions across borders. Textiles, livestock, agricultural items such as fruits and vegetables, traditional jewellery, and many sorts of snacks are among the goods offered for trade in informal cross-border trading. In addition, the ICBT is significantly prevalent in numerous countries, particularly across Africa, where it acts as an important economic activity for many communities (Nakayama, 2022). Poverty, unemployment, and the demand for low-cost goods and services all contribute to ICBT. High transaction costs and rigorous regulations in official trade frequently drive small-scale dealers to operate informally (Ahmodu-Tijani & Olanrewaju, 2020). Social and cultural networks are particularly important, as they provide trust, and support develops that make these activities possible. Several researchers studied the origins of international connections, focusing particularly on cultural, religious, and historical ties, as well as proximity. According to Atozo and Ndalilah (2024), Kenya and Uganda share a similar history, geography, and cultural foundation, which has formed the core of their social and economic connections. This shows that social and cultural networks play a significant role in economic development between nations that share the same borders.

Therefore, there exist three different categories of ICBT who have been able to build sustainable livelihoods. This categorization of cross-border traders is based on their motivation to conduct ICBT, the main source of income, business turnover, and ploughing back of profits to the business, and ownership of a trading license.

Humphrey (2018) stated that cross-border trade involves a large number of economic actors operating on a small scale and is classified into three categories.

Table 2.1
Categories of ICBT.

Categories	Details
Trade carried out by informal industries - Unregistered - outside of formal labor legislation	Trade is isolated and avoided from labor legislation and carried out by formal economic systems.
Second, trade is carried out by formal industries - registered with state institutions - bound by labor legislation - the formal economic system	This trade avoids taxation, regulations, and legislation related to cross-border trade.
Trade that is carried out by the formal industry but avoids all regulations and legislation related to cross-border trade	Involves illegal practices such as reporting trade goods in amounts, different types of trade commodities, or not reporting trade goods, to pay only lower taxes or charges.

These three types of ICBT have succeeded in creating long-term sources of income. Cross-border traders are categorized according to their primary source of income, business turnover, motivation to engage in ICBT, return of earnings to the business, and trading license ownership.

2.1.2 Informal Cross-Border Trade in Southeast Asia

ICBT is especially prevalent in Southeast Asia due to a complex interplay of geography, economy, culture, and governance (Sarjono & Rudiati, 2022). The region

is characterised by porous and weakly regulated borders, extensive riverine and forest ecosystems, and remote borderlands with limited infrastructure, all of which facilitate cross-border mobility and informal economic exchange. Empirical evidence from the Thailand–Myanmar border demonstrates that geographical proximity, border porosity, and weak formal regulatory frameworks significantly contribute to the expansion of informal trade (Banki, 2024). However, beyond these structural conditions, social and cultural networks play a central role in sustaining ICBT, as cross-border communities often share ethnic ties, languages, and long-standing trading relationships (Atozo & Ndalilah, 2024). Taken together, these studies suggest that ICBT in Southeast Asia is shaped by a combination of structural enablers and embedded social systems, making the region uniquely interconnected across national boundaries. This interconnectedness is particularly evident in Malaysia, which actively participates in ICBT due to its strategic geographical location. Malaysia shares land and maritime borders with Thailand and Indonesia, especially in Peninsular Malaysia as well as Sabah and Sarawak, where border proximity and shared cultural linkages facilitate frequent and accessible informal trade. Thus, Malaysia exemplifies how Southeast Asia’s geographic continuity and socio-cultural integration collectively sustain ICBT across the region.

2.1.3 Informal Cross-Border Trade in Peninsular Malaysia

ICBT in Peninsular Malaysia represents a distinctive and often underexplored component of the national trade ecosystem, shaped by the interaction of geographic proximity, socio-cultural ties, and regulatory conditions. The most prominent ICBT activities are concentrated in border towns such as Rantau Panjang in Kelantan and Padang Besar in Perlis, where cross-border interactions are frequent, embedded, and economically significant.

Rantau Panjang, which borders Narathiwat in southern Thailand, exemplifies a highly informal and porous trading environment. The boundary is marked primarily by the narrow Golok River without substantial physical barriers, and this facilitates the continuous movement of goods and people, thereby encouraging informal economic exchanges (Sabri & Shaari, 2024). Existing studies suggest that the persistence of ICBT in this area is driven by a combination of structural and socio-economic factors. On one hand, shared ethnic ties, cultural similarities, and long-standing social networks foster trust and cooperation across borders. This normalises informal trade as part of everyday

livelihood strategies (Sarjono & Rudiatin, 2022). On the other hand, economic differentials, particularly unemployment in southern Thailand and favourable exchange rates in Malaysia, create strong incentives for Thai traders to participate in informal trade to access better income opportunities (Chaijaroenwatana et al., 2024; Anuar & Harun, 2018). These dynamics demonstrate that ICBT in Rantau Panjang is not merely a result of weak enforcement. Instead, it functions as a structurally embedded livelihood system supported by both economic necessity and deeply rooted cross-border social relations. The trade typically involves small-scale, high-frequency transactions of goods such as textiles, agricultural produce, food items, fuel, and household products, often transported through low-visibility methods to bypass formal customs procedures (Sabri & Shaari, 2024).

In contrast, Padang Besar reflects a more hybridised trading structure in which formal and informal systems coexist and interact. The presence of organised commercial infrastructures, such as the Padang Besar Business Arcade Complex (PBAC), alongside customs and immigration facilities, indicates a degree of formalisation that supports regulated trade flows (Kibat et al., 2019; Rahime et al., 2023). However, this formalisation is uneven and not fully inclusive. Small-scale traders often face barriers related to capital requirements, licensing, and compliance, which limit their participation in formal channels (Akaezuwa et al., 2020). As a result, informal trading activities continue to operate alongside formal systems, particularly through small, low-volume transactions that remain below regulatory thresholds (Sohaimi et al., 2024).

The comparison between Rantau Panjang and Padang Besar highlights an important analytical insight. ICBT in Peninsular Malaysia exists along a continuum of formality rather than as a binary distinction between legal and illegal trade. While Rantau Panjang represents a predominantly informal system driven by geographic permeability and social embeddedness, Padang Besar illustrates a layered economic structure in which formalisation coexists with persistent informal practices.

Overall, the literature suggests that ICBT in Peninsular Malaysia is sustained through the interaction of three key dimensions. These are structural conditions such as border porosity and geographic proximity, economic drivers including price differentials and employment opportunities, and adaptive trader behaviour reflected in flexible strategies to navigate regulatory environments. This synthesis reinforces the argument that informal trade is not a marginal or temporary phenomenon, but a resilient

and integral component of cross-border economic systems in the region.

2.1.4 Informal Cross-Border Trade in Borneo Island, Malaysia

Before the establishment of the Border Cross Agreement (BCA) and the Border Trade Agreement (BTA) in 1970, cross-border merchants had already established border trade between Indonesia and Malaysia on Borneo Island (Suratman, Adji Samekto, & Trihastuti, 2020). Prameswari et al. (2024) reveal that the Indonesian and Malaysian governments have border trade rules in place to help address the needs of Indonesians crossing the border, known as BTA 1970. The 1970 BTA strives to help individuals in border areas achieve their requirements. In order to regulate border trade, the Indonesian government published the Republic of Indonesia Government Regulation Number 34 of 2019. According to this Government Regulation, Border Trade is the exchange of goods and services between Indonesian individuals living in Indonesia's border areas and residents of countries nearby in order to meet everyday necessities.

In the Borneo Island of Southeast Asia, Sa'ad et al. (2023) found that Malaysia and Indonesia have active ICBT between Borneo Island, located at Tawau, Sabah – Nunukan, Indonesia through marine routes known as Pulau Sebatik, meanwhile, Sarawak, Malaysia – Kalimantan, Indonesia through land routes known as Serikin, Sarawak. This aligns with the study by Sarjono and Rudiatin (2022), which stated that Sebatik Island, located in the Nunukan Regency of East Kalimantan, is notably divided between Indonesia and Malaysia, fostering long-standing cross-border activities such as trade, exchange, and barter extending back before both countries' independence. Its strategic location as a cross-border commerce hub, aided by river and sea transportation, has brought the region into the global market. Informal trade is strongly established in border towns, fuelled by ethnic bonds and mutual reliance. Indonesian populations rely largely on Malaysia, notably Tawau, for everyday necessities, while Malaysia regards Sebatik as a source of supply, market, and alternative for its products. Key traded goods include agricultural products such as rice, tropical fruits, and seaweed, as well as marine products like fish, shrimp, crabs, and sea cucumbers, due to the abundant fisheries produced in Nunukan. Additionally, handicrafts, wooden items, and textiles such as Indonesian batik are traded. These goods are aimed toward Tawau's local marketplaces,

emphasizing the region's reliance on Indonesia for staple foods and traditional products (Meiji et al., 2022; Rahman et al., 2020; Sarjono & Rudiatin, 2022).

Meanwhile, in Sarawak, Djafar et al. (2016) identified that there exists a traditional Serikin market, which is one of the attractions in Sarawak, that was established due to a proximity trade involving the move of produce between markets close to the border. The available products in this market include authentic Indonesian handicrafts, household items, and food ranging from vegetables and fruits to seafood and meats. Serikin traditional market is open on weekends, from 6 a.m. to 6 p.m. on Saturday and half a day on Sunday. However, the vegetable traders arrive in Sarawak early on Thursdays and stay until Sundays. On Thursdays and Fridays, Sarawakian wholesalers typically buy vegetables in bulk to resell in the cities of Kuching, Sibul, and Bintulu.

In the context of the Serikin Market at the state border between Sarawak, East Malaysia, and West Kalimantan, Indonesia, Malaysia has jurisdiction over the BTA 1970, such as those governing the Serikin Market. Serikin's strategic location has made cross-border commerce a popular topic in Southeast Asian studies (Abao, 2020; Awang et al., 2013; Azmi et al., 2021; Djafar et al., 2016; Hsia, 2019; Hutahut et al., 2018; Sulehan et al., 2013). However, much of the focus of previous studies has only been on relations between border populations and informal trade relations, and does not specifically address the agricultural trade activities that significantly contribute to the economic and social relations between the nations, especially after the reopening of the Bau border. The persistence of traders from West Kalimantan to cross the border and head to Serikin to do business was caused by several factors, namely, the lack of job opportunities in their villages (Abao, 2020), their financial ability, available products to market, and support from their families. However, Kabonga et al. (2021) argue that the majority of traders lack formal education and raise capital through personal savings or loans from family and acquaintances. In many nations, the legal status of ICBT does not appear to be strictly enforced by governments (Djafar et al., 2016). ICBT cannot be considered strictly unlawful because local agricultural goods have been traded informally by people in border zones for a long time (Benjamin et al., 2013). At the Serikin market, trading activities are legally permitted under regulations that govern cross-border commerce; nevertheless, they are classified as informal due to the absence of formal facilities on the Malaysian side.

2.1.5 Border Trade Agreement 1970 and Border Cross Agreement 1984

Informal cross-border trade activities between Malaysia and Indonesia, particularly in the Serikin-Kalimantan border, had been taking place long before the establishment of any bilateral agreements. According to Suratman et al. (2020), this trade emerged through community-initiated practices among the local communities residing along the land border, driven by socio-economic interdependence.

Recognizing the importance of regulating cross-border activities, Malaysia and Indonesia signed the BTA on 24 August 1970 in Jakarta. According to Sarjono (2022), the BTA 1970 serves as the legal foundation and primary guideline for managing and legitimizing border trade between the two countries, including in the Serikin-Kalimantan border region. The agreement aims to facilitate the needs of border communities by providing a structured framework for trade. The BTA 1970 outlines several Standard Operating Procedures (SOPs) that must be followed by cross-border traders (Sarjono, 2022). For example, it specifies that the value of direct trade with neighbouring countries is limited to RM600.00 (Djafar et al., 2016). The main objectives of this agreement are to improve the social welfare of border communities, combat smuggling activities, connect marginalized border regions, and enhance local economic capacity. Furthermore, it defines a wide range of legitimate economic practices. Specifically, the SOPs detail provisions regarding designated trade zones, types of trade activities, border passes and crossing posts, as well as trade quotas and the categories of permitted commodities (Sarjono, 2018).

The establishment of these trades significantly shows that the ICBT between Malaysia and Indonesia, including in the Serikin market are governed by BTA 1970. However, Anuar and Raharjo (2022) argue that the effective implementation of the BTA 1970 requires complementary regulations from the Indonesian government to support and reinforce the agreement. The presence of mutual regulatory frameworks from both countries is essential to ensure that cross-border trade is structured, mutually beneficial, and granted the necessary legal authorization to continue operating legitimately.

Therefore, according to Prameswari et al. (2024), the BTA 1970 was further supported by Government Regulation of the Republic of Indonesia No. 34 of 2019 concerning Border Trade. This regulation defines Border Trade as trade carried out by Indonesian citizens who reside in the border area with residents of neighbouring countries (Malaysia) to meet their daily needs. The border trade can only occur along

designated land or sea borders and must be based on bilateral agreements. Moreover, border trade activities are excluded from fulfilling export or import documents in the field of trade. As highlighted by Sosrosoediro and Siswanto (2024), this regulation shows the Indonesian government's effort to align domestic legal instruments with BTA 1970, ensuring that cross-border trade at the grassroots level is both legally recognized and socially beneficial, especially for the border communities. This is supported by Dzawanda and Matsa (2023), who emphasize that ICBT plays a vital role in regional economic development. It contributes to improving the livelihoods of border communities by generating employment opportunities and income, while also strengthening social interdependence between the two nations. Such dynamics contribute to sustainable bilateral cooperation and maximize the mutual advantages of regulated border trade. Therefore, the collaboration between Malaysia and Indonesia in regulating border trade by developing BTA 1970 and Government Regulation of the Republic of Indonesia No. 34 of 2019 indicates that this ICBT is crucial to address because it significantly impacts the socio-economic situation for border communities for both nations.

Moreover, Malaysia and Indonesia also signed the Border Crossing Agreement (BCA) in 1984, expanding the scope of bilateral cooperation beyond trade to include social visits, religious activities, and government functions that been given legal authorization by both states. Fauzan et al. (2023) found that the BCA was built on earlier arrangements made in 1967 and recognized the daily mobility needs of border communities, many of whom have family, cultural, or economic ties across the border. In response to these changing social dynamics, the agreement was revised and expanded, resulting in the development of the BCA 1984, which better addresses the socio-cultural demands of border citizens. BCA 1984 initially addressed the movement of people and trade across the border. According to Sarjono (2022), the BCA 1984 established specific regulations such as a 14-day visitation limit with a two-year validity period for border passes, but it does not explicitly details cross- border trade like BTA 1970. The BCA 1984 improves the operational environment for the BTA 1970 by regulating the human aspects of border interaction. This is supported by Abao (2020), who stated that this agreement serves as a legal foundation for informal and small-scale cross-border trading in areas such as the Serikin-Kalimantan market. Such trade is typically community-driven and relies on frequent, short-term cross-border visits, reflecting the daily economic and social interactions of border communities.

In a nutshell, the BTA 1970 and the BCA 1984 serve as essential legal frameworks that support the potential formalization of ICBT activities between Malaysia and Indonesia. While the Serikin market continues to operate informally due to the absence of a nearby ICQS (Immigration, Customs, Quarantine Services), these agreements present a strong legal basis for its potential formalization. Establishing a ICQS facility near Serikin market would significantly improve regulatory oversight and tax collection, but also align with the objectives of the BTA and BCA. This development could transform ICBT into a structured and mutually beneficial system, reinforcing long-term economic and social cooperation between the two nations.

2.1.6 Empirical Studies on Informal Cross-Border Trade Variables

Previous empirical studies on informal cross-border trade (ICBT) have identified a set of interrelated variables that explain the persistence and dynamics of such activities across border regions. These variables can be broadly categorised into economic, institutional, and socio-cultural dimensions.

Economic motivation is one of the most consistently examined factors. Studies by Djafar et al. (2016) and Abao (2020) highlight that profit differentials, favourable exchange rates, and limited domestic market access serve as key drivers influencing traders' participation in ICBT. Closely linked to this, livelihood outcomes have also been widely analysed, with research demonstrating that ICBT contributes to income generation, employment creation, and poverty reduction, particularly among border communities (Qin et al., 2024; Fleury, 2016). Institutional and regulatory factors represent another critical dimension. Scholars such as Ahmodu-Tijani and Olanrewaju (2020) and Humphrey (2018) emphasise that weak enforcement, high transaction costs, and complex formal trade procedures often discourage formal participation and instead incentivise informal trading practices. These findings suggest that informality is not merely a matter of choice, but a response to institutional constraints.

In addition, socio-cultural networks play a significant role in shaping ICBT activities. Empirical evidence indicates that shared ethnic ties, cultural proximity, and trust-based relationships facilitate market access and sustain trading networks across borders (Sarjono & Rudiati, 2022; Atozo & Ndalilah, 2024). These social structures reduce transaction uncertainties and enable informal systems to function efficiently despite the absence of formal governance mechanisms.

At the same time, the literature also highlights the challenges and risks associated with ICBT. These include security concerns, smuggling activities, lack of food safety regulation, and loss of government revenue (Afrika & Ajumbo, 2012; Rahim et al., 2023). This reflects the dual nature of ICBT, in which economic and livelihood benefits coexist with regulatory, economic, and social risks. However, despite the breadth of empirical research, existing studies tend to examine ICBT in a generalised manner, with limited attention given to sector-specific dynamics, particularly within informal agribusiness. There is a notable gap in understanding how variables such as agricultural supply chains, product flows, and stakeholder roles operate within informal cross-border contexts, especially in less-studied areas such as the Serikin–Kalimantan border.

Therefore, this study seeks to address this gap by focusing on key variables related to informal agribusiness activities, namely benefits, challenges, and future prospects, from the perspective of Malaysian stakeholders. By narrowing the scope to the agribusiness sector, this research aims to provide a more nuanced and context-specific understanding of ICBT dynamics.

2.2 Agropreneurship Activities in Informal Cross-Border Trade Between Sarawak (Malaysia) – Kalimantan (Indonesia)

Agropreneurship has grown in importance in both agriculture and entrepreneurship, particularly in the definition of new and modern agriculture (Yusoff, Ahmad, & Halim, 2017), where innovation, satisfaction, and new consumer expectations are the primary concerns in the agriculture sector (Nnodim & Aleru, 2020). For years, Indonesian farmers traded vegetables to Malaysia through unauthorized border posts. Due to the greater price of the product in Malaysia as opposed to Indonesia, Indonesians typically consider selling goods there to be profitable. The farmers have three options for selling produce to Sarawak. They can sell their vegetables directly to Sarawak, to other farmers who also assemble vegetables, or hire a transporter to carry produce to Sarawak (Djafar et al., 2016). Many villages and parts of the city outskirts are located along the border region between Sarawak, Malaysia and Kalimantan, Indonesia (Awang, Bakar, Abdullah, & Liu, 2013), allowing for cross-border trafficking of agricultural goods. People living on the border of West Kalimantan, Indonesia, and Sarawak, Malaysia, have traded cash crops since their

colonization (Obidzinski, Anrianto, & Wijaya, 2007; Eilenberg & Wadley, 2009). Due to the inaccessibility of the local market, Sarawak remains the largest destination market for West Kalimantan vegetables (Djafar et al., 2016). The proximity, inaccessibility to the domestic market, and huge profit margins appear to be the most powerful motivators for Indonesian farmers to engage in informal commerce in Sarawak (Djafar et al., 2016). The appreciation of the Malaysian ringgit (MYR) relative to the Indonesian rupiah (Rp), which was at Rp 3,590 per MYR1 in 2024, makes the products competitive in Malaysia. Farmers in West Kalimantan and vegetable wholesalers in Sarawak both stand to gain financially from such a scenario.

Furthermore, they desire to do business in Serikin because of the abundance of business opportunities (pull factor) and the risk of unemployment in their home country (push factor) (Bakar et al., 2012). Sarawak was most likely chosen as the target market for producers of vegetables from West Kalimantan due to a scarcity of superior vegetable varieties in the domestic market (Djafar et al., 2016). According to Djafar et al. (2016), at least 30 different varieties of vegetables are transported informally from West Kalimantan to Sarawak each day, totaling 18 tons and costing MYR42,000. In turn, this market can act as a gateway to support trade and economic activity with nearby nations. Proximity, limited choice in the home market, and high profit appear to be more key motivators for Indonesian farmers to sell informally in Serikin, Sarawak, than vegetable prices and cross-border informal trading expertise.

2.3 Benefits from Informal Agribusiness Activities in Serikin

Cross-border trade benefited merchants on both sides of the border in terms of local communities and the nations. This is supported by Suratman et al. (2020), which suggests that cross-border informal trade is one of the economic mechanisms that can be created to benefit the local economy. The nature of this opportunity is frequently determined by the level of economic development within the country's borders. There is mutual dependency on a country's economic level at the border, resulting in a strong reliance on the country's entire resource base. It provides opportunities for traders to acquire new markets, sources of supply, capital, labor, and technology, while the type of opportunity acquired depends on the level of economic development on both sides of the border (Awang et al., 2013). These opportunities promptly boost the livelihoods of participants in ICBT, which in turn improves the welfare of individuals, particularly

their families (Fleury, 2016). This statement supports Qin et al. (2024) and Shola and Olanrewaju (2020) which argues that ICBT becomes the primary source of family income or support income for spouses, freeing them from poverty. This is consistent with Abao (2020) who found that ICBT can improve traders' livelihoods by reducing high unemployment rates in neighbouring countries, such as West Kalimantan, in the context of the Malaysia-Indonesia border, by creating jobs on the other side of the border.

Moreover, according to Sholihah (2016), the border region is critical to achieving national growth and improving the socioeconomic welfare of the neighbouring communities. This trade is viewed as an opportunity to create a variety of jobs to satisfy the needs of the industry. For example, the presence of baggage and cargo lifting labour is an intriguing phenomenon along the ports of Tawau-Tanjung Batu, Sebatik, and Nunukan until the pattern of cross-border trade, barter trade, and cross-border informal trade is organized to Pare-Pare, South Sulawesi, Indonesia (Sarjono, 2018). This labour, which operates almost exclusively informally, illustrates the job opportunities generated by a society that relies on this trade.

Communities in Serikin gain benefits from the cross-border trade activities. According to Awang et al. (2013), local landowners put up stalls that they rent out to Indonesian traders for RM60-80 per month. This scenario formed the good business chains in ICBT as the two parties gain the benefits. In addition to commercial prospects and economic incentives, social networking encourages Indonesian traders to travel to Serikin (Sulehan et al., 2013). Datuk Hassan A Gani Pg Amir, an assemblyman from Sebatik, stated that relocating the Indonesian capital to Kalimantan will boost Sabah's economic development and indirectly benefit border residents (New Straits Times, 2023).

Last but not least, informal agribusiness activities serve to supply Sarawak's domestic vegetable demand. Malaysians have a significant demand for agricultural products from Indonesia due to a lack of better options in the domestic market, insufficient supply of vegetables, and relatively high prices (Djafar et al., 2016). As a result of Indonesia's larger farmer population, Indonesian traders have been unable to absorb vegetables in their country. Therefore, they see Sarawak as a potential destination for them to trade their vegetables, meeting local demand while also generating income.

This cross-border trade has significant benefits for the local agriculture sector, particularly those near Serikin. Local traders can get vegetables at lower prices, allowing them to compete in city marketplaces while offering supermarkets with fresh produce. Berezhnytska et al. (2022) stated that the cost-effective access to agricultural products benefits small and medium-sized agribusinesses by enhancing profit margins and ensuring economic viability. Furthermore, the consistent flow of goods promotes a more active agricultural supply chain in Sarawak, improving food security and market stability.

In terms of national perspectives, this trade benefits Malaysia's economy by increasing commercial activity, creating job opportunities, and circulating wealth throughout the country. ICBT benefits small business owners, reduces economic inequities, and promotes regional economic integration. Furthermore, the ongoing demand for Indonesian produce fosters corporate relations, hence strengthening diplomatic and trade connections between Malaysia and Indonesia (Dollah et al., 2024). Informal agribusiness activities in cross-border commerce improve the livelihood of the local agribusiness community while also contributing to national economic growth by providing local traders with access to affordable produce and boosting economic activity.

2.4 Challenges Faced by Local Communities

Informal cross-border trading is difficult and problematic for both nations. Tax collecting usually results in a loss for governments. Macroeconomic imbalances may arise from revenue losses in nations like Ethiopia, Benin, Togo, Niger, Mali, Congo, South Sudan, and Somalia that have low revenue bases but a significant prevalence of informal cross-border commerce along their borders (Afrika & Ajumbo, 2012).

In addition, cross-border informal trade operations are those that take place outside of national borders and are not subject to international government taxes. Additionally, this view suggests that trade in commodities, goods, and services like these is exempt from international regulations and taxes. Both gazette and non-gazette trade routes are included in this. Certain nations' usage of route gazettes may encourage economic players to take advantage of ICBT's opportunities and space by engaging in unlawful activities. Declared quota values, the classification of goods into different categories, the overlap of policies and knowledge of trade regulations between nations,

the failure to declare taxes on goods from the country of origin to the recipient country, or the avoidance of specific taxes and charges are all examples of illegal practices (Humphrey, 2018). This is supported by Ahmodu-Tijani and Olanrewaju (2020), who stated that the large informal sector could also avoid governments' necessary tax income (like VAT) that could have been used to fund infrastructure and energy development, two of both nations' top concerns.

Furthermore, if the market gets flooded with fake items, it might affect the markets for genuine goods. According to Afrika and Ajumbo (2012), local manufacturers may experience copyright violations or become unable to compete with lower-priced Asian goods, which would eventually reduce their market share. This is supported by Rahim et al. (2023), who mentioned that the smuggling of goods is also active at the Malaysia-Thailand border, particularly involving counterfeit branded goods and rice that can be found much cheaper and of better quality in Thailand. Therefore, the need to improve agricultural producers' access to markets for the growth of a nation's agricultural sector is underlined, as is the possibility of improving rules and regulations and moving closer to best practices (World Bank, 2016).

However, due to informal trade and a lack of expertise, traders do not fully implement all of the best practices. This may result in the spread of pests and diseases. One concerning aspect of agricultural informal trading is the region's prevalence of common and contagious international plant and animal diseases. Informality has a significant role in this, whereby it frequently bypasses official inspection authorities, allowing goods to cross borders without phytosanitary checks. This raises the possibility of spreading pests and diseases into new areas. This increases the risk of pests and diseases spreading to new areas. Recent broad outbreaks of Fall Army Worm and desert locusts show that pests and diseases continue to be a major productivity concern throughout the region. Due to the inefficiency of fungicides, *Panama* disease (Fusarium wilt) and *Black Sigatoka* can significantly affect local banana production and must be controlled by phytosanitary quarantining. While mangoes are mostly affected by fruit flies and anthracnose, which are challenging to control, pineapple output is harmed by mealybugs (Kenya & Africa, 2021).

Besides, food safety for consumption is also one of the issues that has arisen in ICBT, even though the price is relatively low. According to Grace and Little (2020), the informal sector has been compared to the "traditional sector," "wet markets," and other sectors that avoid routine sanitary inspections. The lack of regular sanitary

inspections or sample analyses of the quality, particularly of agricultural goods, would cause residents along the border to worry because there would be no assurance that the food is safe to be consumed. In the context of Serikin, Indonesian traders transport agricultural products from their villages and trade them in the Serikin market without following the proper procedure, because the absence of ICQS in Sarawak limits the application of regulations. In formal border cross-trade, the presence of ICQS, which strictly enforce the inspections based on the regulations to ensure that the products are safe to be imported into our country are not implemented in ICBT (Rahim et al., 2023; Suratman et al., 2020). The BTA 1970 permits the ICBT between Sarawak and West Kalimantan; however, because Sarawak lacks oversight infrastructure, the laws are not fully enforced.

However, from a security perspective, recognizing border economic activity and bolstering it with servitude can lessen illicit activity, which has been a major issue in the two countries' border regions. Smuggling, timber theft, and cross-border crime can all be decreased by tightening laws and promoting small-scale cross-border transaction rules (Suratman et al., 2020). According to Sarjono and Rudiatin (2022), illegal practices include cross-border trade that is not recorded, is not registered under any national laws, is hard to recognize, and occasionally does not adhere to any publications made by official international organizations. Whether intentional or not, this illicit activity frequently results in smuggled cross-border trade. This situation jeopardizes the safety of local residents and villages near the border. Therefore, to safeguard the safety of local residents, including traders, the government is required to implement the presence requirements by developing ICQS or other alternatives, such as a special border trade area.

In the context of Serikin, Djafar et al. (2016) stated that people can cross the border without alerting the border guard because of the wide area used to access Serikin and the border post's placement on the hill. The arrival and departure stamps must be obtained at the immigration office, which is located around four kilometres from the location of the vegetable transactions, while the guard verifies the BCP's legitimacy. Monitoring border crossers is made more difficult by inadequate border post control and the immigration office's non-strategic placement. Therefore, through bilateral cooperation, a Special Cross-Border Trade Area with full economic rights must be established in both Malaysian and Indonesian territory in order to better ensure the welfare of border communities.

In addition, the existing problems near the Sarawak-Kalimantan border are believed to stem from weak border control by local authorities and weak border infrastructure, especially in places prone to illegal routes. Indonesia has become a 'black market' for illegal products such as drugs and stolen cars. The public has low confidence in the quality of border control in Sarawak. Therefore, by implementing hard and soft infrastructure, such as new or updated ICQS laws and regulations, as well as policies and regulations that encourage cross-border cooperation, both governments are currently fostering cross-border investment and trade (Lord & Chang, 2019).

2.5 Theoretical Framework

Theoretical framework is essential as it provides the core concepts and perspectives that guide the analysis, interpretation, and overall direction of this study. Accordingly, this research adopts the Informal Economy (IE) theory as its foundation to ensure consistency in examining informal economic activities.

The concept of the informal economy was first introduced by anthropologist Keith Hart in 1971, based on this study of low-income activities in Accra, Ghana. The following year, the International Labour Organization (ILO) popularized the concept through its mission in Kenya, highlighting economic activities outside the formal sector and recognizing their potential for generating employment and reducing poverty.

According to Dell'Anno (2022), the informal economy cannot be fully explained by a single theoretical approach; it is best understood through a combination of dualist, structuralist, and legalist perspectives. Therefore, this study integrated these scholarly perspectives (refer to Table 2.2) as the theoretical foundation, providing a comprehensive basis for understanding the context and dynamics of the informal economy within the scope of this research.

Table 2.2.

Scholars' perspectives as a theoretical framework for this study.

Theory Name	Key Theorists	Core Concept of Theory	Relevance to the study
Dualist Theory	Keith Hart (Hart, 1973) ILO (1972)	The informal sector, initially portrayed as a lower-tier, autonomous segment of the economy consisting of small-scale, unregulated, and labour-intensive activities driven largely by the survival strategies of urban poor excluded from formal wage employment. It plays vital role in providing employment, goods, and services to lower-income urban populations.	This explains the motivation of individual Indonesian traders (farmers) who engage in this trade out of necessity, lack of formal market access, and a means of immediate livelihood survival.
Structuralist Theory	Martha Alter Chen (Chen, 2012) Alejandro Portes (Castells & Portes, 1989)	The informal economy is functionally linked to, and often exploited by, the formal economy for access to a cheaper source, labour and lower operating costs.	This framework assists in examining how Malaysian formal business (wholesalers) and consumers gain from the availability of low-cost agribusiness products sourced informally from Kalimantan, while simultaneously highlighting the potential power imbalances that position Indonesian traders as “price takers”.

Legalist Theory	Hernando de Soto (De Soto, 1989, 2000)	Informality represents a rational, entrepreneurial response to avoid burdensome regulations, bureaucratic procedures, and high taxation that can hinder the growth of small and medium-sized enterprises.	This view helps examine the challenges related to navigating two different regulatory environments and the rational decision by traders to operate informally to reduce costs and complexity. This informs policy recommendations for formalization.
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Dell'Anno (2022) further notes that the informal economy is highly heterogeneous, involving households, micro-enterprises, and even formal actors who rely on informal networks, shaped by individual motivations and socio-economic conditions. In the context of Serikin, this suggests that ICBT serves not only as a survival strategy but also a deliberate response to regulatory, structural, and livelihood constraints, illustrating how informal trade activities coexist and interact with formal economic systems (Figure 2.1).

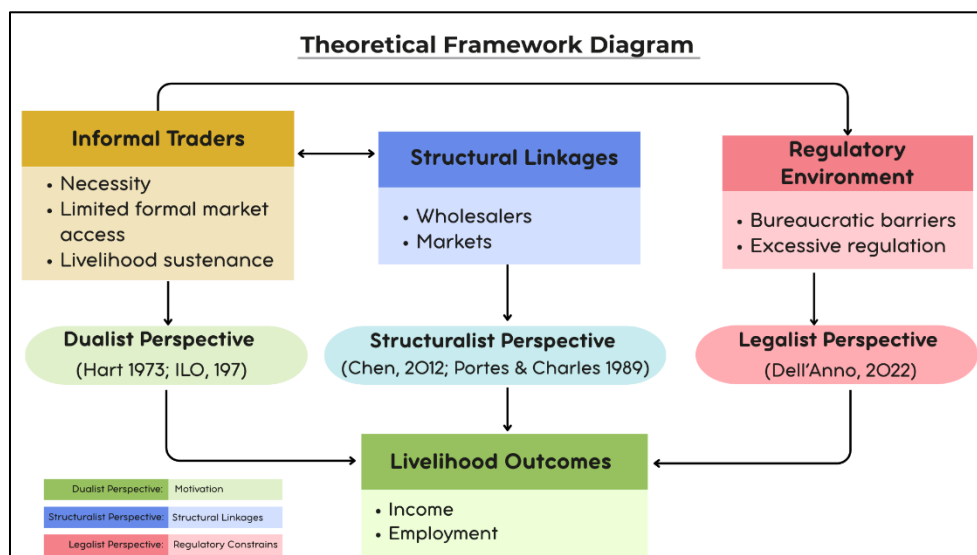


Figure 2.1 Theoretical Framework.

Figure 2.1 presents the framework that consolidates key arguments from the scholars by illustrating how each perspective explains the emergence and functioning

of ICBT. The dualist perspective emphasizes traders' motivation rooted in necessity, limited access to formal markets, and livelihood sustenance (Hart 1972, ILO 1973). The structuralist perspective highlights the functional linkages between informal traders and the formal economy through wholesalers and market systems, suggesting that informality is embedded within broader economic structures (Portes & Castells, 1998; Chen, 2012). Meanwhile, the legalist perspective focuses on the role of regulatory and bureaucratic constraints that compel traders to operate informally as a rational response to excessive formal regulations (Dell'Anno, 2022). Therefore, the figure demonstrates how trader motivations, structural linkages, and regulatory environments jointly influence livelihood outcomes such as income and employment. Consequently, Informal Economy Theory provides a lens to understand why agro traders engage in ICBT, the structural and regulatory factors sustaining it, and how informal trade contributes to regional economic resilience, offering a theoretical foundation closely aligned with the objectives of this study.

2.6 Summary of the Chapter

This chapter reviewed literature on the dynamics of informal cross-border commerce in Southeast Asia, focusing on ICBT between Serikin, Malaysia and Kalimantan, Indonesia. The benefits and challenges of ICBT have been addressed in this chapter based on existing research relevant to the subject. However, there is still a lack of research on the benefits and challenges of ICBT, particularly in agricultural products along the Serikin-Kalimantan border. This study is grounded in Informal Economy Theory, which provides a conceptual lens for analysing ICBT within informal economic contexts. Therefore, the objectives of this study are to explore the benefits and problems of informal agricultural activities, as well as the future of the Serikin Market from the perspective of Malaysian stakeholders.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Location of Study

This study was conducted at Serikin Weekend Street Market, locally known as Pasar Serikin, a key centre for ICBT between Malaysia and Indonesia, particularly in agricultural products. The market is located at latitude 1.333 and longitude 110.000, near the Jagoi–Serikin border post, approximately 65 km from Kuching city. Its proximity to the border facilitates active cross-border interactions, making it an ideal site for exploring agribusiness activities (Figure 3.1). Beyond its strategic location, Serikin holds significant socio-economic importance for both the local community and cross-border traders. It serves as a vital livelihood platform where Indonesian agro-traders generate income and sustain their households, while also reflecting real trading practices, challenges, and future development dynamics, thereby aligning with the objectives of this study.



Figure 3.1 Location of Serikin Weekend Street Market from the Jagoi-Serikin Border post (Google Map).



Figure 3.2 Agriculture's product traded in the Serikin Market.

3.2 Sample Size and Criteria

Qualitative research typically employs relatively small sample sizes, as the primary aim is to achieve in-depth understanding rather than statistical generalisation. Sample adequacy is therefore determined by the principle of data saturation, where no new themes or insights emerge from additional data collection (Islam & Aldaihani, 2022). Previous studies suggest that approximately 12 to 20 interviews per participant category are generally sufficient to reach saturation, particularly within relatively homogeneous groups (Bekele & Ago, 2022; Vasileiou et al., 2018). Similarly, Bernard (2013) recommends a range of 10 to 20 participants for studies focusing on lived experiences.

In the context of this study, the population of Indonesian agro-traders operating in Serikin is relatively small, and access to participants is limited. A total of 14 traders consented to participate, which represents a substantial proportion of the accessible population. In addition, five Malaysian stakeholders were interviewed to provide complementary perspectives, particularly in addressing Objective 3.

Based on these considerations, a total of 19 participants were included in the study, comprising 14 Indonesian agro-traders for Objectives 1 and 2, and 5 Malaysian stakeholders for Objective 3. This sample size is considered adequate, as it aligns with established qualitative research guidelines and is sufficient to achieve data saturation while capturing diverse yet relevant perspectives. The sampling criteria applied in this study are presented in Table 3.1.

Table 3.1

The criteria of the sample in this study.

Indonesian Agro traders	Major Stakeholder (Malaysian)
1. Indonesian who involved in trading of agricultural related products in Serikin market. 2. Engagement in cross-border trade between Kalimantan, Indonesia and Serikin, Malaysia 3. Traded products: • Vegetables • Fruits • Downstream products (chips) • Wood-based product	Malaysia's government agencies that involved directly on the control and manage cross-border activities and expertise in cross-border agriculture activities. • Immigration officer (Serikin Border Post Control) • Customs officer (Serikin Border Post Control) • Police Officer (Serikin area) • Agriculture officer (who involved directly in ICQS in Entikong border, which will provide valuable insights to manage the informal cross-border in Serikin) • Community leader of Serikin village.

For the Indonesian agro-traders, participant profile was gathered through the demographic section of the interview protocol and presented in Table 3.1 to provide a clearer understanding of the sample selected for this study. Most participants source their traded products from local farmers in their home villages rather than cultivating the vegetables and fruits themselves. Lack of land access and time constraints limit them from large-scale farming; even some traders grow small amounts of crops like limes, pumpkin, and sweet potato. However, their own production cannot meet market demand, so they rely heavily on village-based suppliers to maintain a steady and sufficient supply, particularly for bulk orders from Sarawak consumers.

In addition, the stakeholder's profile also presented in Table 3.2 to provide a clearer vision of the selected stakeholders involved in this study. The selected participants are directly or indirectly involved in ICBT in the Serikin market, making their perspectives significant for this research.

Table 3.2.
Indonesian Agri-traders Profile.

Participant	Gender	Age (Years)	Region of Origin	Involvement as Agrotraders in Serikin	Types of products traded	Sources of Product
1	Male	26	Sambas, Indonesia	8 years	Planting Material	Self-grown and purchased from local farmers
2	Female	52	Seluas, Indonesia	23 years	Vegetables	Purchased from local farmers
3	Female	55	Sambas, Indonesia	15 years	Handmade rattan products	Purchased from Sambas and Jawa
4	Female	38	Bengkayang, Indonesia	3 years	Vegetables	Purchased from local farmers
5	Female	56	Pontianak, Indonesia	15 years	Peanuts Snacks	Purchased from agent in Indonesia
6	Male	46	Sambas, Indonesia	5 years	Fruits	Self-grown and purchased from local farmers
7	Female	48	Singkawang, Indonesia	3 years	Vegetables and Fruits	Purchased from local farmers
8	Male	43	Sambas, Indonesia	18 years	Plating Material and Fruits	Purchased from local farmers (Sambas/Pontian ak)
9	Female	65	Seluas, Indonesia	21 years	Vegetables	Purchased from local farmers
10	Male	39	Kalimantan, Pontianak	19 years	Handmade wood products	Self-made and purchased from Kalimantan
11	Male	47	Seluas, Indonesia	25 years	Vegetables	Purchased from local farmers
12	Female	47	Sambas, Indonesia	25 years	Vegetables	Purchased from local farmers
13	Female	38	Indonesia	2 years	Vegetables and Fruits	Purchased from local farmers
14	Female	40	Seluas, Indonesia	8 years	Vegetables	Self-grown and purchased from local farmers

Table 3.3
Malaysian Stakeholder Profile.

Stakeholder (Malaysian)	Gender	Education level	Jobs Description	Organization
Customs Department	Male	Degree	Customs Officer	Border-Post Control Serikin, Bau, Sarawak
Immigration Department	Female	Degree	Deputy Director (Control) of Immigration	Immigration Department of Malaysia, Kuching
Police Department	Male	PhD	Officer in-Charge Police District (Ketua Balai Polis Daerah)	Police Headquarters, Bau District, Sarawak
Department of Agriculture	Male	Degree	Agriculture Officer (Biosecurity)	Department of Agriculture Kuching, Sarawak
Community Leader, Serikin village	Male	SPM	Community Leader of Serikin Village (Ketua Kampung)	Bau District Council

3.3 Sampling Method

This study employed a combination of snowball sampling and purposive sampling to ensure the selection of relevant and information-rich participants aligned with the research objectives. Snowball sampling was used to recruit Indonesian agro-traders, defined as individuals engaged in trading agricultural products such as vegetables, fruits, and downstream products within the Serikin market. This approach is particularly suitable for accessing hard-to-reach populations, as it relies on participant referrals to identify and recruit others within the same network (Parker & Scott, 2019). Given the diversity of traders operating in Serikin, including those dealing in non-agricultural goods such as clothing and handicrafts, snowball sampling enabled targeted access to agro-traders who meet the study criteria.

The sampling process began with a small number of initial participants, referred to as “seeds,” who fulfilled the eligibility requirements. These participants were then asked to recommend other traders within their networks who met the same criteria. This chain-referral process continued iteratively, allowing the sample to expand organically within the agro-trading community (Gierczyk et al., 2023). Recruitment was conducted until data saturation was achieved, defined as the point at which no new significant

insights emerged from additional interviews (Akkaş & Meydan, 2024). This approach facilitated efficient participant recruitment while also enhancing trust and access within the community, enabling the collection of rich, context-specific data on traders' lived experiences, challenges, and strategies in informal cross-border trade (ICBT).

However, snowball sampling is not without limitations. The reliance on participant networks may introduce bias, as referrals often occur within similar social or trading circles, potentially resulting in homogeneity of perspectives. To complement this, purposive sampling was employed to select Malaysian stakeholders who play critical roles in the regulation, facilitation, and monitoring of cross-border agribusiness activities. These stakeholders include immigration and customs officers, agriculture officers, police officers, and community leaders, all of whom have direct or indirect involvement in ICBT activities along the Serikin–Kalimantan border.

Purposive sampling enables the identification of information-rich cases that are most relevant to the research objectives (Mweshi & Sakyi, 2020). This approach ensures that selected participants possess the knowledge and experience necessary to provide in-depth insights into the institutional and regulatory dimensions of ICBT. Similar approaches have been adopted in studies on Sarawak–Kalimantan border issues, where key informants were selected based on their expertise and contextual understanding (Jalli & Sualman, 2020). Nevertheless, purposive sampling also has limitations. The selection process relies on the researcher's informed judgement, which, although guided by relevant literature, theoretical frameworks, and prior studies, may still introduce bias and potentially limit the diversity of perspectives if not carefully managed. To minimise this risk, participants were selected based on clearly defined criteria aligned with the research objectives.

Overall, the combination of snowball and purposive sampling in this study provides a complementary approach. Snowball sampling facilitates access to hidden trader networks, while purposive sampling ensures the inclusion of key institutional perspectives. Together, these methods enhance the depth, relevance, and credibility of the data collected and support a comprehensive understanding of informal cross-border agribusiness activities.

3.4 Research Design and Data Collection

This study used primary data as part of a qualitative research technique. Primary

data is information that the researcher gathers independently, such as through interviews, questionnaires, and observations (Walliman, 2021). The primary data was acquired through in-depth interviews with selected participants from Malaysian stakeholders and Indonesian agro-traders in Serikin Market to gather in-depth information on participants' motivation, perceived benefits, challenges, and perspectives on cross-border trade.

Qualitative research provides a comprehensive understanding of phenomena by collecting detailed data using flexible methods (Sileyew, 2019). Semi-structured in-person interviews enable researchers to ask questions, explore novel insights, and evaluate events from multiple viewpoints, resulting in a better knowledge of informal cross-border agribusiness activities as well as chances to improve collection methods. Tracy (2019) highlights that in-depth interviews are effective for obtaining detailed information on specific topics. A semi-structured interview guide was created to assist with this process, allowing participants to freely express their opinions while giving researchers the freedom to look for further information.

Semi-structured interviews were conducted face-to-face to foster deeper engagement with participants. Each interview was expected to last approximately 1 to 2 hours. The semi-structured method provides flexibility, allowing researchers to probe deeper into responses and explore emergent themes during the interviews. The interviews were held in convenient locations either within the market or at another suitable venue chosen by the participants. All the interviews were audio-recorded with participant consent and then transcribed for analysis. Nevertheless, several participants, particularly the Malaysian stakeholders, preferred manual documentation instead of audio recording due to their comfort and preferences during the interview sessions. Therefore, an integrated approach to data collection was employed, aligning with participants' preferences to ensure the efficiency and fluidity of the interview sessions.

3.5 Data Analysis

The recorded data were analysed using thematic analysis, which was an effective tool for discovering and analysing patterns in qualitative data. Thematic analysis facilitates researchers in comprehending a collection of thoughts, experiences, or behaviours in a dataset (Braun & Clarke, 2012, 2021). This approach is useful to search for a shared or common meaning in the data set (Islam & Aldaihani, 2022). It not only

describes data but also interprets the selection of codes or categories for theme development. Each interview will undergo a qualitative, manual analysis in which the recurrent themes in the data set will be found. Christou (2022) stated that doing manual analysis ensures the actual cognitive input of researchers may be a valuable tool in creating cognitive associations and identifying themes, consequently leading to theory-building.

This study used Braun and Clarke's (2021) six-phase framework for doing thematic analysis to analyse the data in this study (Figure 3.3). The initial stage in this technique is to systematically discover recurring themes, ideas, and patterns in the text. These codes reflected the essential elements of participants' responses, allowing researchers to organise the data meaningfully. After the coding procedure was completed, comparable codes were grouped into a broader subject consistent with the study's objectives. This process helped to structure the data into cohesive themes that address the study questions. Themes or patterns within data were identified in a theoretical or deductive or 'top-down' approach. The analysis was driven by the researchers' theoretical or analytic interest in the area. This method is also supported by Oscar et al. (2019), who stated that finding the most significant meanings in the gathered materials requires reading a data set repeatedly.

The final step in thematic analysis was interpretation, which involved synthesising the grouped categories to create a thorough picture of the dynamics of trade across borders. This involved analysing the interconnections between themes and concluding the motivations, benefits, challenges, and broader implications of informal cross-border trading activities. By following these systematic steps, thematic analysis ensured a robust and in-depth analysis of the study's qualitative data. Researchers are able to identify the emotive, cognitive, and symbolic elements of the collected data using these approaches.

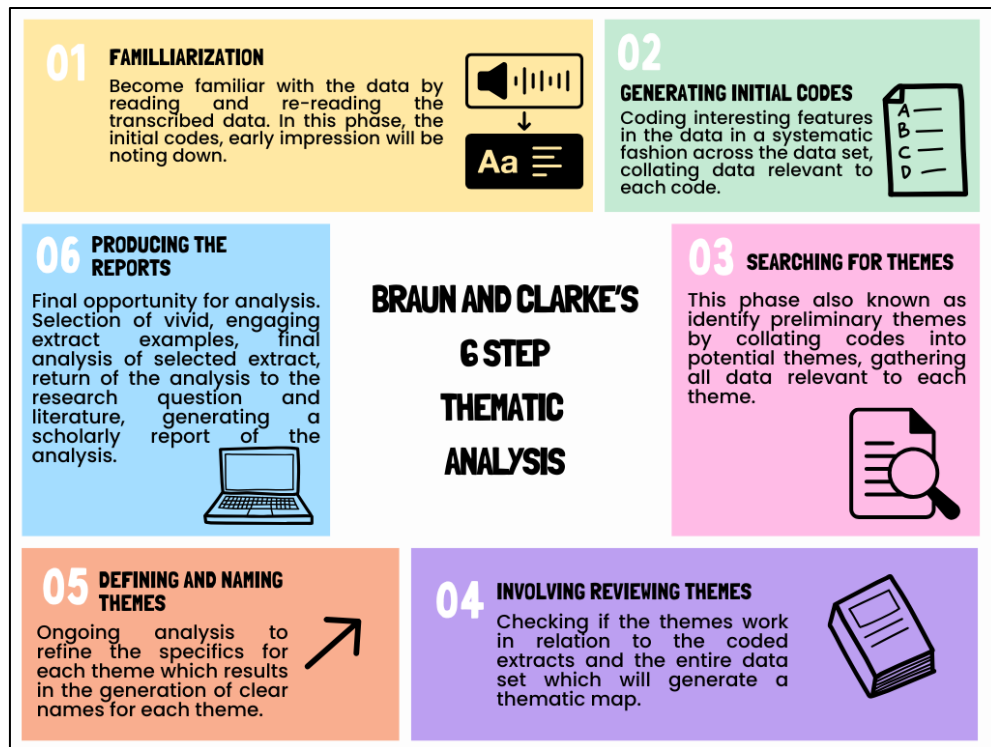


Figure 3.3 The process of thematic analysis by Braun and Clarke (2021).

3.6 Instrument

An interview protocol is a standardized guide that describes the process and essential areas of inquiry for conducting interviews, ensuring uniformity and reliability across the interview. It normally consists of the introduction, informed consent process, key interview questions, follow-up prompts, and closing procedures (Creswell & Poth, 2017; Schoch, 2020). Its significance lies in increasing the reliability and validity of qualitative findings by ensuring a consistent approach while still allowing flexibility for participants' unique perspectives.

In this study, two different interview protocols were developed to cater to the distinct participant groups, namely Indonesian agro-traders and Malaysian stakeholders. The stakeholders include immigration officers, customs officers, agriculture officers, police officers, and community leaders. Both instruments were validated by experts to ensure clarity and reliability prior to data collection. The Indonesian agro-traders protocol was specifically designed to gather information on traders' demographics and experiences (Part A), the benefits they derive from participating in cross-border trade (Part B), and the challenges they face in conducting informal trading activities at the Jagoi–Serikin border (Part C). In contrast, the Malaysian stakeholder protocol focuses

on the professional background of key informants (Part A) and their perspectives on the future of cross-border trade and agribusiness in the region (Part B), with particular emphasis on policy implications, governance issues, and potential strategies for enhancing cross-border trade dynamics.

Figure 3.4 illustrates the integration of Informal Economy Theory with the interview protocol, demonstrating how the instruments were systematically developed to ensure alignment between the theoretical framework, data collection process, and research objectives. By organising the dualist, structuralist, and legalist perspectives alongside their respective core concepts, interview themes, and guiding questions, the diagram shows how each theoretical lens directly informs the construction of the interview protocol. This structured alignment strengthens the study’s conceptual clarity and methodological coherence, ensuring that the interview questions are firmly grounded in theory and capable of capturing the multidimensional nature of ICBT. In addition, the inclusion of anticipated outcomes namely benefits, challenges, and future perspectives, highlights how the empirical findings are expected to connect back to the theoretical framework, thereby enhancing the overall analytical rigor of the study.

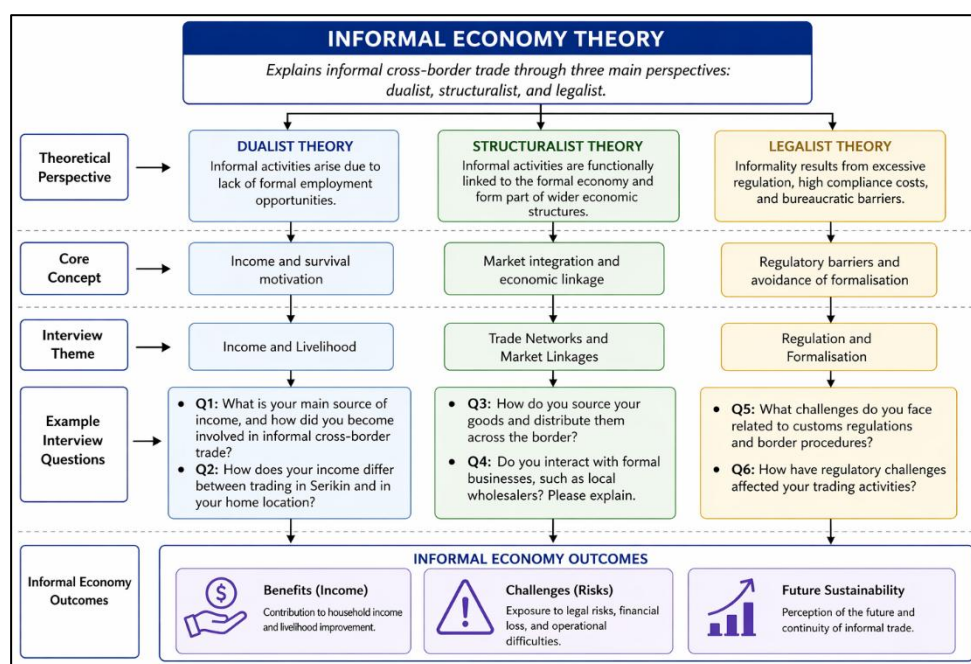


Figure 3.4. Theoretical Mapping of Informal Economy Theory in the Development of the Interview Protocol.

Table 3.4

Interview protocol structure for Indonesian Agro-traders.

Part A: Background	1. Can you tell me a bit about yourself? (name, age, educational background, race) 2. How long have you been involved in informal agribusiness in Serikin?
Part B: Benefits of informal agribusiness activities	1. What types of agricultural products do you trade? 2. What benefits do you derive from engaging in these activities? Probing Question - How does your involvement in agropreneurship affect your household income and livelihood? - Does agribusiness in informal cross-border trade in Serikin create job opportunities for entrepreneurs and farmers in Indonesia? - What is the difference in demand for your sales in Serikin compared to your home area? - How about the currency exchange from Malaysian Ringgit to Indonesian Rupiah?
Part C: Challenges faced in informal agribusiness activities	1. What are the main challenges traders face in informal agribusiness activities? 2. How these challenges impact your business operations? 3. What strategies do you use to overcome these challenges? Probing Question - How are the road conditions you use to travel to Serikin? - What are the changes of regulations you need to comply to entry Serikin after the reopening of border? - How do you communicate with foreign tourists? - What do you mean by difficulties in promoting your products?

Table 3.5

Interview protocol structure for Malaysian Stakeholder.

Part A: Background	1. Can you tell me a bit about yourself? (name, age, educational background, race) 2. How long have you been working here?
Part B: Future of informal agribusiness activities in Serikin from the perspective of Malaysian stakeholder	1. From your opinion, how did you see the future of agribusiness activities in Serikin? 2. How did the government agencies or other authorities can support the future of informal agribusiness activities in Serikin? Probing Question - How does your involvement in agropreneurship affect your household income and livelihood? - Does agribusiness in informal cross-border trade in Serikin create job opportunities for entrepreneurs and farmers in Indonesia? - What is the difference in demand for your sales in Serikin compared to your home area? - How about the currency exchange from Malaysian Ringgit to Indonesian Rupiah?
Part C: Challenges faced in informal agribusiness activities	1. What are the main challenges traders face in informal agribusiness activities? 2. How these challenges impact your business operations? 3. What strategies do you use to overcome these challenges? Probing Question - How are the road conditions you use to travel to Serikin? - What are the changes of regulations you need to comply to entry Serikin after the reopening of border? - How do you communicate with foreign tourists? - What do you mean by difficulties in promoting your products?

3.7 Pilot Study

Prior to completing the real study, pilot studies are used to create appropriate lines of inquiry and to aid in the process of refining data gathering methods and procedures

(Yin, 2009). In this research study, the pilot study was conducted prior to the actual data collection by interviewing two agrotraders in Serikin market and stakeholders to examine the suitability of the instrument for the participants. Pilot interviews, in which various components of the interview were tested with a small number of respondents, analysed, and revised (Walliman, 2021), are an example of good qualitative research that alternates between data collecting and analysis, revising and enhancing the technique as needed. In doing so, the interviewer discovers the most effective wording or topic kinds, as well as the ideal duration for interviews with patients who struggle to focus for prolonged periods of time (Busetto et al., 2020). Minor amendments were made after the pilot study to refine some words that were difficult for participants to understand, especially the Indonesian traders. This process made the actual data collection smoother and helped the probing session become easier to conduct, allowing for deeper insights to be gained.

3.8 Ethical Consideration

According to Bos (2020), research ethics refers to the study of right and wrong and the concept of what researchers should and should not do in their research. In the context of research, ethics are the norms and values that govern decisions regarding data collection, analysis, and distribution of results (Mirza et al., 2023). Research ethics application had been applied to the faculty before the commencement of the research. It is unethical to collect data without individuals' knowledge, their voluntary participation, and informed consent as well (Mirza et al., 2023). Ethical approval for this study was granted by the UiTM Sarawak Branch Ethics Review Committee (Approval Code: REC/07/2025 (PG/MR/398), ensuring compliance with institutional research integrity and ethical standards. Apart from the ethics approval, several practical measures were implemented to ensure strict adherence to ethical standards, particularly in relation to confidentiality, anonymity, and data protection.

Firstly, informed consent was obtained from all participants prior to their involvement in the study (Appendix 4). Each participant was provided with clear information regarding the purpose of the research, the voluntary nature of participation, and their right to withdraw at any point without any negative consequences. Consent was obtained prior to the commencement of interviews, ensuring that participation was fully informed and voluntary. Secondly, confidentiality was maintained by ensuring that all information provided by participants was accessible only to the researcher. All interview

recordings were transcribed solely by the researchers without involvement of any third party, thereby minimizing the risk of data exposure. All the audio not shared with any external individuals and stored securely in protected digital files. Besides, the anonymity was guaranteed by removing all personally identifiable information from transcripts and research outputs. Participants were assigned with coded identifiers such as Participants 1 instead of the real name. In addition, any indirect identifiers such as stall name, exact locations, or unique personal references were not presented in this study, which remain unknown to protect the participant identity. Lastly, the data protection measures were strictly implemented in accordance with the university's ethical guidelines and data management requirements. Digital recordings were stored in secure, access-restricted folders to prevent unauthorized access. Furthermore, all the raw data will be permanently deleted upon the completion of the research and validation process. Collectively, these measures ensured that all ethical considerations were rigorously upheld throughout the research process, thereby safeguarding participants' rights, privacy, and data integrity.

3.9 Research Gantt Chart

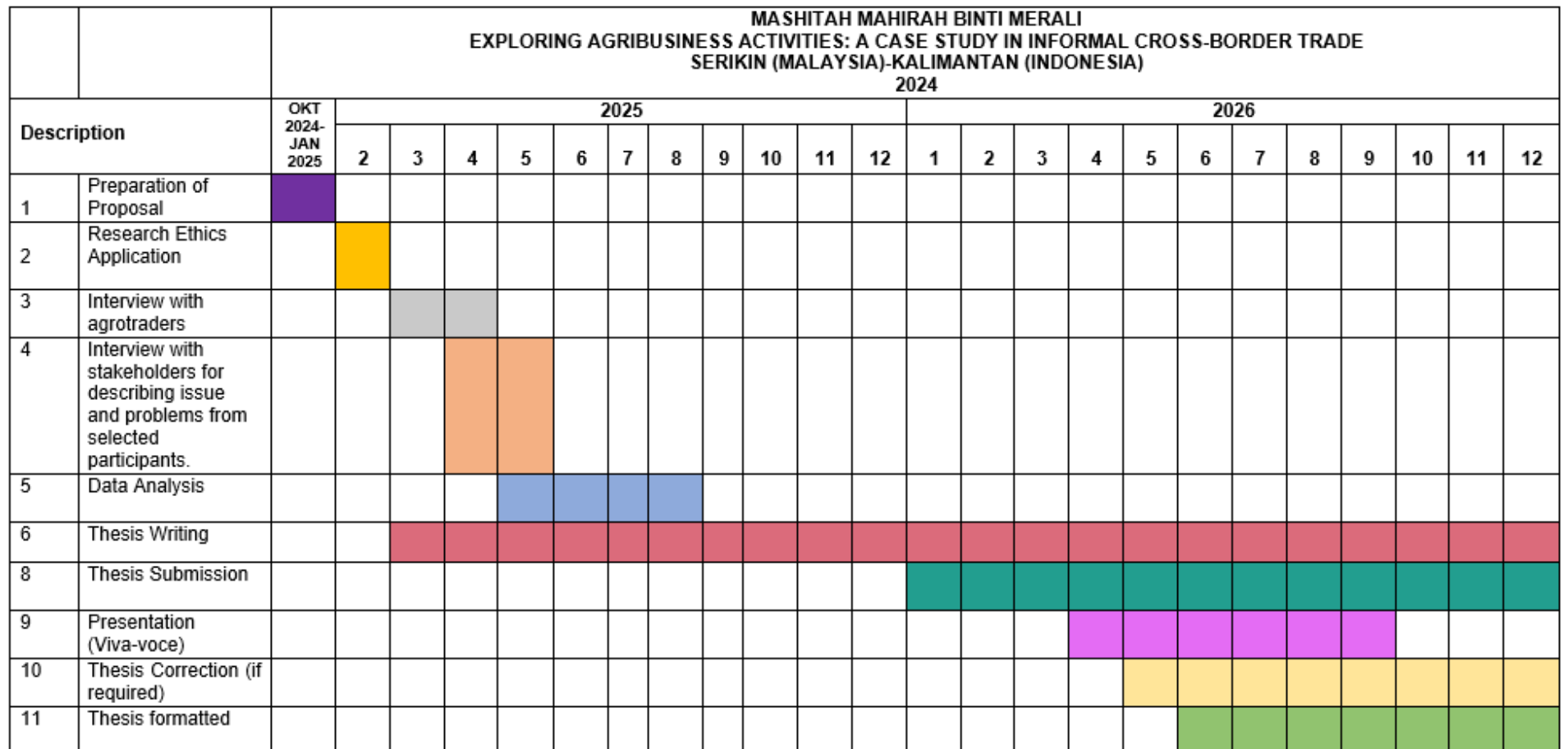


Figure 3.5 Research Gantt Chart

CHAPTER 4

RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the key themes and findings that emerged from the interview data and subsequent analysis. The chapter begins with a brief profile of each participant to provide context for the discussion. The thematic analysis identified three overarching themes that reflect dynamics of ICBT in the Serikin market, which are benefits, challenges, and future perspectives.

The first theme, benefits, corresponds to objective 1, which seeks to explore the advantages experienced by the Indonesian agro-traders engaged in ICBT in Serikin. Challenges emerged as the second theme, which addressed objective 2 by examining the constraints and difficulties encountered by these traders in their trading activities. Lastly, future perspectives as the third theme relates to objectives 3 and captures the views of Malaysian stakeholders regarding the future direction and potential development of the Serikin market. Each theme is discussed in detail in the next results and discussion sections. The themes are interconnected, and the analysis reveals that ICBT in Serikin has implications not only for the traders but also for the surrounding communities and the broader national context.

The purpose of the discussion is to interpret the findings in relation to the research problem and to highlight new insights that emerged from the study. The findings presented in this chapter are based on the analysis of data collected through in-depth interviews with nineteen participants who contributed to the research.

4.2 Benefits of Agribusiness Activities Gained by Indonesian Agro-traders in Informal Cross-Border Trade.

This theme captures the range of socio-economic benefits Indonesian agro-traders gain through their participation in ICBT between Serikin, Malaysia and Kalimantan, Indonesia. These benefits were organized into eight main themes, including income generation, job opportunities, cross-border trade arbitrage, educational support through trade-derived income, sustainability of household

livelihood, improved market access, product diversification, and supply chain development.

As illustrated in Figure 4.1, these themes underscore the significant role of ICBT in shaping the socio-economic well-being of agrotraders. They reflect the participants' lived experiences and the complex dynamics of informal agricultural trade. Each subtheme captures the participants' distinct insights into the advantages they gain, while simultaneously illustrating the diverse and interrelated dimensions of agribusiness within this informal trading context.

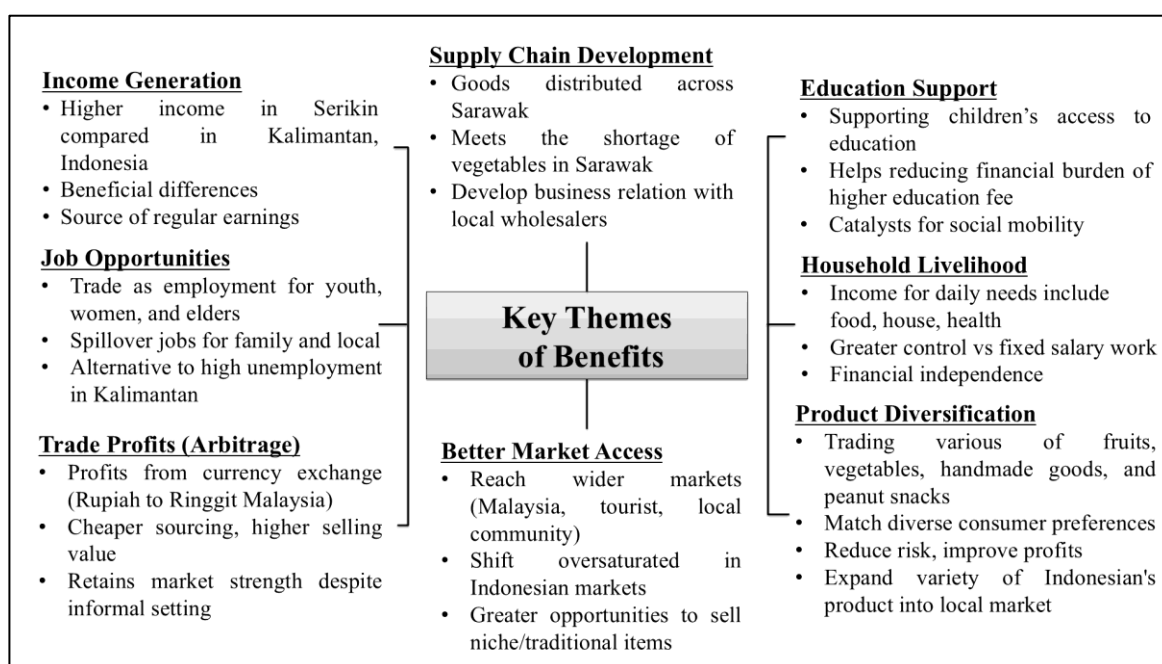


Figure 4.1. Key Themes of Benefits from the Thematic Analysis.

4.2.1 Theme 1: Income Generation

Participants consistently highlighted that ICBT serves as a vital source of income. Participating in the trading of agricultural products at the Serikin market generates reliable earnings that sustain their daily necessities. This activity offers an accessible economic avenue, especially for those with limited access to formal employment opportunities in their home regions.

Four participants emphasized that trading in Serikin is better compared to their hometown:

The income here is better than what we trade in Indonesia.

(Participant 3)

Here, yes, sometimes we do make a bit of profit compared to Indonesia, but there are times we don't earn anything at all. That's just how the business is.

(Participant 4)

The income here is better, even though we must follow the guidelines when crossing the border.

(Participant 7)

Trading in Serikin can increase our income because there are more opportunities for agricultural trade compared to Indonesia.

(Participant 8)

The sentiment was echoed by the others who described the efficacy of income generation, highlighting that earnings in Serikin are higher even with less time spent working:

The income I earn in three days here is equivalent to what I would earn in one week in Indonesia.

(Participant 6)

However, one of the participants mentioned that the significant price gap in traded products allowed them to earn a better income:

The income here is better than in Indonesia because the price of planting materials in Malaysia is higher. I can sell at a lower price and still earn more, especially since I already have regular customers here.

(Participant 1)

Another participant shared the monthly earnings from selling traded peanut snack products at Serikin's market:

Alhamdulillah, the income is enough for food and drinks, around RM1,000 plus a month... It's sufficient for two of us to live. All our children are already married.

(Participant 5)

I'm grateful to be here since I can increase my income to survive in Indonesia, as I no longer have any sources of income after my husband passed away.

(Participant 13)

In addition, two participants stated that Serikin's proximity to their homes helps reduce transportation costs, making it a more profitable trading location:

Yes, we do earn income from this. The difference is, Pontianak's a bit far, but here it's much closer. Over there, if we don't manage to sell enough, they might reject our goods or offer a relatively low price. So, it feels better doing business here, as it's nearer and more convenient for us.

(Participant 11)

It's more worthwhile for us to trade here than in Sambas. The journey from places like Aruk is much farther. Since it's closer here, it's more profitable for us.

(Participant 12)

This study found that ICBT play pivotal role as a primary source of income for Indonesian agro-traders operating in Serikin, Malaysia. Participants consistently reported that the income generated from trading agricultural products across the border far exceeded what they could earn within their local Indonesian markets. This finding aligns with prior research, which underscores the significance of informal trade as a coping mechanism for poverty alleviation and unemployment, particularly in borderland communities lacking access to formal economic opportunities (Owiso & Kasera, 2025; Suratman et al., 2020). The implicit flexibility of informal trading which characterized by lower operational costs and minimal regulatory burdens, enables participants to generate income independently, thereby fostering livelihood resilience (Kahiya & Kadirov, 2020). The persistent participation of Indonesian traders is also shaped by strong socio-cultural ties and geographical proximity between the

communities, reinforcing their continued presence in the Serikin market. Geographic proximity often facilitates informal trade by reducing transportation costs and strengthening cross-border social networks Fanjanirina (2023), which in turn enable the flow of agricultural trade between communities. Moreover, Sankaran (2022) asserted that the informal economy functions as a crucial fallback for the working poor in developing contexts. Consequently, ICBT in Serikin not only address immediate subsistence needs but also contributes to broader economic mobility for socially and economically marginalized rural populations.

4.2.2 Theme 2: Job Opportunities

The findings revealed that informal trade activities create job opportunities not only for the traders themselves but also for family members and local workers. These roles include selling, transporting, and sourcing goods, contributing to employment generation among communities where formal job opportunities are limited.

One participant highlighted the difficulty of securing employment after completing high school in Indonesia:

Now in Indonesia, if someone like me graduates from high school, it's a bit difficult to find a job, but here, opportunities do exist.

(Participant 1)

Five participants expressed that high unemployment in their hometowns pushed them to seek alternative opportunities, with informal trade in Serikin offering a practical solution:

Even housewives can participate. I am not sure about others, such as those who are getting married or unmarried youth, but for us, we are grateful; this is certainly better than being unemployed back home.

(Participant 3)

As we don't have any job in our hometown, coming here to get involved in the agriculture trade offers us a job opportunity.

(Participant 9)

Yes, being here opens up job opportunities. Rather than being unemployed in Indonesia, it's better for us to trade here.

(Participant 8)

That's how it is... since we don't have jobs in the village, we consider this as creating a new job opportunity for ourselves.

(Participant 11)

Before this, we were not working, but after coming here, we found a job. There are more opportunities here compared to back home. In a way, we are also gaining experience by interacting with local people and exchanging ideas.

(Participant 13)

This statement was supported by participant 12, who shared how this opportunity also extends to family members, such as her son:

It creates job opportunities... for example, my son helps carry goods here, and of course, we have to pay him. So, it provides employment opportunities for the younger generation and the future.

(Participant 12)

Another participant noted that the work opportunities are extended to his relatives as well:

There are also job opportunities here. We can even bring our relatives over, so they too can find work here.

(Participant 14)

The participants also recognized that the Serikin market provides a more structured and supportive trading environment compared to Indonesia, which helps facilitate income-generating activities:

In Indonesia, we don't really have opportunities; they're limited. But here, we can rent the stall. So, if we don't use the opportunity, it's a waste. Even though it's a

foreign country which required us to follow the regulations, but it's fine. We're just here to earn a living.

(Participant 2)

Here, it also creates job opportunities. In Indonesia, many people face difficulties such as displacement or poor development of trading spaces that are not well managed or suitable.

(Participant 10)

Job opportunities emerged as second subtheme, reflecting benefits of ICBT between Serikin, Malaysia – Kalimantan, Indonesia, particularly for Indonesian agro-traders, their family members, local wholesalers and supporting local workers involved in logistics such as transporting goods via lorries and motorbikes. Participants revealed that the persistent lack of formal employment opportunities in their Indonesian hometowns compels them to engage in informal trade as a practical and accessible alternative for livelihood strategy. This is particularly relevant considering Indonesia's ongoing challenges with high unemployment rates, especially among youth and rural populations where formal employment avenues remain scarce due to limited industrialization and weak economic diversification. According to Badan Pusat Statistik (2024), Indonesia's national unemployment rate in August 2024 was 4.91%, marking an increase from February 2024. The informal sector, therefore, acts as a crucial safety net for small-scale traders, many of whom face capital constraints and structural unemployment in their hometowns. This statement is consistent with a previous study by Abao (2020), which emphasized that the high unemployment rate in West Kalimantan is the primary reason for the migration of Indonesians to Malaysia to engage in trade and economic activities at the Serikin Market, which is located in Sarawak, East Malaysia. The Serikin market offers an accessible economic platform, particularly benefiting women, the elderly, and those with limited formal education. It gives them practical avenues for cross-border agribusiness. Indonesian traders' perception further reinforced Malaysia as a more favourable and stable economic environment compared to their own home. As stated by participant two, their willingness to travel long distances to Serikin and comply with cross-border requirements reflects the severity of unemployment in Indonesia. Therefore, this indicates that ICBT can be seen as an essential socio-economic buffer and economic inclusion for borderland populations who

are otherwise excluded from the benefits of national economic growth and formal sector expansion.

4.2.3 Theme 3: Cross-border Trade Arbitrage

Participants revealed that ICBT enables them to benefit from price and currency exchange differences between Indonesia and Malaysia, allowing them to earn a profit through trade arbitrage. By sourcing agricultural products at lower prices in Indonesia and selling them in Serikin, traders can capitalize on market imbalances to secure profit margins.

Five participants highlighted that the significant currency exchange rates between Malaysia Ringgit and Indonesia Rupiah are a key factor in boosting profitability:

It can be helpful, for example, when we exchange it into Indonesian currency. Currently, the exchange rate is 3,500 Rupiah for 1 Ringgit, so with just 1 Ringgit, we get 3,500 Rupiah.

(Participant 2)

Here, the currency is in Ringgit, while over there it is in Rupiah. So, when we sell goods here, we buy them as if using Rupiah but sell them in Ringgit, we make a profit, sometimes even double. That's why people choose to come here, even if they have to follow certain rules.

(Participant 4)

We usually use Ringgit, while people in Indonesia usually use Rupiah. Here, if we get RM3, alhamdulillah, that equals about 3,500 Rupiah. In Indonesia, it's 1,000-Rupiah, 1,000 Rupiah. That's the difference that we like here.

(Participant 9)

The real profit comes from the currency exchange. Here, one ringgit can be exchanged for 3,000 Rupiah, which means double. The price of goods is similar in both countries, but the exchange rate is what gives us an advantage.

(Participant 12)

We exchange our earnings into Ringgit. In Indonesia, one Ringgit equals around 3,000 Rupiah. Over there, the wholesalers can't buy many goods, but here, wholesale dealers buy in large quantities. So, the profit multiplies.

(Participant 14)

One participant explained that the value of the Ringgit helps her offset the expenses she has to bear:

Because in Indonesia, the market is small. For example, here, even if we incur losses, the Ringgit can still help us cover the costs. But in Indonesia, any loss would be a complete loss.

(Participant 7)

She further emphasized that despite the smaller market size in Serikin, trading there offers better returns due to currency strength, which allows her to support her family:

It's better to sell in Malaysia... even though the market is smaller, the currency is the Ringgit. In Indonesia, the market may be larger.

(Participant 7)

The currency exchange definitely helps entrepreneurs here. If we did business in Indonesia, maybe my son would not go to school because the fees are much higher.

(Participant 7)

Other participants echoed that currency exchange significantly increases their income, especially when compared to the highly competitive trading environment in Indonesia:

The currency exchange helps increase income. In Indonesia, we have to be smart because the competition is high. Sometimes, we only make a profit of 20

or 30 cents, and some even only 10 cents. That's the kind of competition there in Indonesia.

(Participant 8)

It can help with income... a little extra. When the Ringgit drops, we earn less... but when it rises, we make a good profit, which makes us smile a bit.

(Participant 11)

The third subtheme identified in this study is cross-border trade arbitrage, which represents one of the most strategic benefits pursued by Indonesian agro traders. Participant reported the ability to exploit both price differentials and currency fluctuation between Malaysia and Indonesia, thereby maximizing the profit margins. In particular, the currency exchange rate is the key driver influencing traders to engage in ICBT (Titeca, 2021). Participants noted that purchasing agricultural products in Indonesian Rupiah but selling them in Malaysian Ringgit increases their margins through exchange rate arbitrage. These insights are consistent with broader literature that identifies ICBT as a rational economic response to market inefficiencies and currency imbalances. Dzawanda et al. (2023) mentioned that such arbitrage opportunities are common in sub-Saharan Africa, where traders capitalize on currency and price differences to earn modest yet vital profits. Similarly, Sitko et al. (2020) further contend that currency arbitrage in informal trade offers a competitive edge for small-scale traders who often lack access to formal economic institutions. In the context of Serikin, such arbitrage enables micro-traders to build a financial foothold in Malaysia without requiring formal market entry, effectively positioning informal trade as both a livelihood strategy and economic advancement in the face of limited opportunities at home.

4.2.4 Theme 4: Educational Support Through Trade-Derived Income

Several participants highlighted that income earned from ICBT plays a critical role in supporting their children's education. The income helps cover school and university fees, purchase educational supplies, and reduce the overall financial burden on their household.

The participants expressed that the income earned allows them to fund their children's university education:

My two children's same as you, currently doing their degree, so I need to find more money to support them.

(Participant 2)

It's sufficient for the family and for the children's education expenses. I have two children; one is still in university, while the older one has already graduated.

(Participant 6)

Alhamdulillah, the income helps to support our children's education. We need to manage our finances wisely. My second child holds a master's degree and is now the deputy head at Astera Company, while my eldest is the head of a bank.

(Participant 5)

Other participants stated that their earnings allow them to consistently meet both household and school-related expenses:

Yes, it really helps with household needs and pays for the children's education. We're able to meet all the essential expenses.

(Participant 12)

Yes, it can help with household needs, help pay for the children's school... I can say that everything can be fulfilled.

(Participant 14)

One of the benefits is paying children's school fees, in addition to generating income.

(Participant 3)

This statement was particularly emphasized by single mothers, who rely heavily on trade-derived income to ensure their children can continue their education:

Yes, it helps to support my children live and pay the school's fee, since I'm a single mother. Without this income from this trade, my son might not go to school, due to the higher fee.

(Participant 7)

I've been a single mother since my children were very young. My husband passed away in 2002, and by 2004 I came here with my younger sibling to raise my children and support their education. Alhamdulillah, they've completed their studies, and two of them even hold degrees.

(Participant 9)

Educational support derived from the informal cross-border income of Indonesian agro-traders eases the financial burden of higher education expenses. Participants highlighted that they rely on these agribusiness activities to support their children's lives, enabling access to quality education that is essential for their future development and success. This reflects how informal trade can catalyze social mobility and intergenerational advancement. The findings align with literature suggesting that informal economic activities contribute significantly to human capital development in underserved regions. According to Chikanda and Tawodzera (2017), their findings, indicate that participants who engaged in ICBT often use the income they earn to pay for their children's school fees. In addition, participants express that single mothers heavily rely on trade income, highlighting its crucial role in maintaining their children's access to education after the loss of a spouse. This is supported by Abayisenga (2024), who asserts that informal trade offers economic empowerment to marginalized women, especially in regions with limited formal employment opportunities. Hence, ICBT supports long-term investment in education, which is a key to breaking cycles of poverty.

4.2.5 Theme 5: Sustainability of Household Livelihood

The findings revealed that ICBT plays a vital role in sustaining household livelihoods for Indonesian agrotraders. This trade provides a consistent source of

income that enables them to afford food, shelter, healthcare, and other basic needs from the perspectives of the participants. In the absence of stable employment or formal business opportunities in their hometowns, informal trade becomes a sustainable livelihood strategy.

Three participants shared how income from trading directly contributes to their household well-being:

Yes, it can. If we see the income per month, it can help to support family livelihoods

(Participant 3)

The income here is quite helpful, which supports my family back home and also benefits my children.

(Participant 6)

Yes, when the exchange rate from Ringgit to Rupiah is high, it's good. It can help support the family's economy.

(Participant 10)

One participant mentioned that involvement in ICBT supports a single mother to support her life:

After covering food expenses, since I am a single parent, I gain income by myself for my family, and this income is used for daily living costs.

(Participant 7)

Apart from that, another participant appreciated the additional income, which lessened her financial dependence on her children:

Yes, the income I earn here really helps with household needs—it puts food on the table and gives me a little extra, on top of what my children are able to give. I'm truly grateful for that.

(Participant 9)

Participants emphasized that their main reason for engaging in ICBT is to support household needs:

The income we earn here definitely helps support our household, and that's the main reason we trade here, which is to provide for our family's needs.

(Participant 1)

Yes, it can help meet household needs and support the children's schooling because we trade here to fulfil the needs at home.

(Participant 12)

Absolutely, that's for sure. We do this business mainly to support our household needs; that's the purpose of trading here.

(Participant 13)

One participant pointed out the challenge of working under fixed-income jobs, noting that despite working longer hours, the pay remains the same:

It's better than working for someone else, where the salary is fixed, like RM100, no matter what. Here, since we run our own business, sometimes we make a profit, which can support the cost of living.

(Participant 11)

One participant reveals the monthly income she gains, which enables her to fulfil the household's needs:

Yes, it can help to support our living and children's education. Sometimes we gain some extra profit here. The monthly income is around RM1,000, but that's before deducting other expenses.

(Participant 14)

The next subtheme discovered in this study was that ICBT is a key livelihood

strategy for Indonesian agro-traders in Serikin, enabling them to sustain household welfare in the absence of formal employment. Participants consistently reported that income earned through trading was used to meet essential needs. Historically, ICBT in Serikin has catered to the subsistence needs of borderland communities (Sulehan et al., 2013; Suratman et al., 2020), reinforcing earlier studies that identify ICBT as a viable and adaptive economic strategy offering flexibility and resilience (Dzawanda et al., 2023; Othman & Othman, 2024). This is particularly evident among traders who rely entirely on their trade income to maintain household stability, with the respondents noting that their participation in ICBT was motivated primarily by the need to support their families financially. The significance of this trade is even more pronounced among vulnerable groups such as single mothers. As shared by Participant Seven, ICBT allows single parents to independently manage daily living costs. These findings are supported by Abayisenga (2024), who acknowledge the economic empowerment of women in informal trade. The comparative advantage of informal trading over fixed-income employment was also emphasized. In contrast with salaried jobs with rigid pay structures, informal trade offers income variability and potential for profit, which traders perceive as a more sustainable means of livelihood. In a nutshell, this reflects the wider understanding that informal economic activities, despite their unregulated nature, play a significant role in sustaining household welfare and ensuring long-term socio-economic stability for marginalized rural populations.

4.2.6 Theme 6: Market Access

The findings show that ICBT provides Indonesian agrotraders with improved access to a wider and more diverse market. The traders are able to reach Malaysian wholesalers, local customers, and tourists, allowing them to sell their products more efficiently and on a larger scale than what is possible in Indonesia.

Three participants noted that selling fresh produce in their hometown is challenging due to saturated markets and high competition:

The income here is slightly better. People come from far away, so there's a bit more profit compared to back home, where the competition is intense.

(Participant 8)

He added that in Indonesia, the market's proximity to industries is one of the factors contributing to the high level of competition:

In Indonesia, the market is crowded, and we are located near major industries, so it's difficult for people to buy directly from the main producers.

(Participant 8)

The market in Indonesia is relatively small. However, trading here gives us a better chance, even if we experience some losses; the stronger value of the ringgit helps offset them. In contrast, back in Indonesia, if our products don't sell well, our business is likely to fail due to intense competition.

(Participant 7)

Another participant reveals that trading in Malaysia offers new opportunities that are hard to find in their hometown due to product oversupply:

In Indonesia, our chances of running a business are quite limited. Besides, even if we bring a lot of goods there, it's hard to sell because many people are already selling the same items, most of them originally from Indonesia anyway. But here, in another country, we have more opportunities to exchange and sell our products in different places.

(Participant 2)

This statement is consistent with the experience of a participant who sells handmade wood products, highlighting the lack of proper stalls and intense competition in Indonesia:

In Indonesia, many people are already selling these kinds of products, so competition is high (Jagos in Indonesia). We are just trying to find opportunities. We don't even have a proper stall there. So instead, goods are sent there, and we bring them here to sell.

(Participant 13)

One participant disclosed that the Serikin market provides space for small-scale sellers who might be excluded from larger markets in their home country:

I am just a small trader, so I can't compete with the bigger ones who have more capital. For me, it's just enough for me to trade here. Therefore, there are still opportunities here, even if small, they exist.

(Participant 5)

One participant acknowledged that Malaysian customers show stronger interest in traditional rattan products compared to Indonesian buyers, contributing to better sales in Sarawak:

Here in Sarawak, I notice that people really value handmade crafts more than in Indonesia. Back home, especially in the area where I live, people are more modern and live closer to the city, so there's less interest in traditional crafts. But in Sarawak, items like "Cerindak" are quite popular, especially among villagers and farmers. Sometimes there are cultural festivals, and even the police or other officials will buy from me.

(Participant 3)

Participant eleven explained that, due to the accessibility of the Serikin market, they can help the local community get vegetable supplies from Indonesia that are not available here:

For the people here, it's easier to make a living now that they can sell locally. In the past, when there was no access, it was hard for the villagers. But now, since the market has opened up, it's easier to earn and share food among the community.

(Participant 11)

One participant described that trading planting materials in Indonesia is less viable due to oversupply, whereas in Serikin, the demand is higher:

In my hometown, it's easier to find planting materials like seedlings, and in Sambas, many people are already selling them. So, I can't really compete there. That's why the demand is higher in Serikin compared to Sambas, Indonesia.

(Participant 1)

He further explained that price differences between the two countries further increase the attractiveness of selling in Malaysia:

In Malaysia, plant prices are much higher than in Indonesia. So, we can still make a profit by selling at a slightly lower price than the local Malaysian market.

(Participant 1)

The findings reveal that ICBT enhances market access for Indonesian agrotraders, particularly through the Serikin market, where traders are able to reach Malaysian wholesalers, rural consumers, and even tourists. Participants noted that back in Indonesia, the local markets are saturated, marked by vegetable oversupply and high competition. In contrast, Serikin offers a potential trading platform due to its geographic proximity and the long-standing tradition of cross-border trade between the two regions. As stated by Djafar et al. (2016), the vegetable surplus in Indonesia has driven West Kalimantan farmers to target Sarawak, where demand is higher due to limited domestic supply. In addition, Serikin's appeal lies in the abundance of business opportunities (pull factor) and unemployment risk in the place of origin (push factor) (Bakar et al., 2012). The participants observed that Serikin offers proper market stalls for trading, which is in contrast with the Indonesian market, where facilities are largely absent in their hometowns, which limits the small-scale traders' ability to participate effectively in the domestic market. This wider market exposure enables higher sales volume, improved profit margins, and more stable income compared to trading in Indonesia. These statements are consistent with Shafique and Islam (2022) who assert that ICBT in Bangladesh created new market opportunities to small scale traders from economically disadvantaged regions. Moreover, in the informal settings, these markets allow traders from the regulatory leniency, that allows them to operate with lower

overhead costs and greater pricing flexibility compared to formal cross-border trade that involves complete facilities (Prichard & Van den Boogaard, 2017). Therefore, ICBT functions as both an economic enabler and a market equalizer for agrotraders in border areas.

4.2.7 Theme 7: Product Diversification

Indonesian agrotraders in Serikin shared that ICBT helps expand the availability of Indonesian agricultural goods in Sarawak. By offering a wider range of fruits, vegetables, and handmade items, they meet diverse consumer needs while boosting sales and providing affordable, unique options in the local market (Saili et al., 2024).

Two participants noted that selling a broad range of products attracts customer attention and encourages spontaneous purchases, particularly because many of these goods are not widely available locally:

The reason is to offer more variety because sometimes customers don't just want two or three types; there needs to be a wide selection.

(Participant 1)

If we sell only a few items, it doesn't attract much attention. When there's a large variety, customers may get excited or even overwhelmed. They might say, "I want this one... I want that one," and some even immediately request ten items.

(Participant 3)

The other five participants emphasized that consumer preferences vary, and offering Indonesian products helps fill market gaps in Sarawak, especially when certain products are limited or unavailable from local sellers:

When there's variety, the taste differs, and people have different preferences. So, we don't limit the options. With variety, they can try this and that.

(Participant 4)

Different products have different tastes, and people's preferences vary. So, I don't push just one type; it's important to offer variety so they can try different flavors.

(Participant 5)

Since everyone has different tastes, some want Salak, others want Lime. People's preferences vary, and offering choices helps attract customers.

(Participant 6)

Sometimes customer preferences really differ. Some like this, some like that. When there are many options, even if they don't like one, they'll find something else they do like.

(Participant 13)

One participant spoke about his efforts to meet local demand, noting that it helps expand the variety of plant types brought from Indonesia to Sarawak:

Some customers ask for specific plant types, while others ask for different ones. Whatever the locals request, we try to bring it in as long as it's not prohibited. Often, the plants we have aren't available from local sellers here.

(Participant 8)

This expanded product offering includes handmade and traditional items that are unique to Indonesian craftsmanship, further diversifying the local market, as mentioned by participant ten:

Sometimes customers have different tastes—some like one thing, others prefer another. When we offer a variety of products, even if they don't like one, they might choose something else. In Sarawak, I've noticed that not many people sell unique items like these, especially handmade wood ladles (Belian) like ours. I can see the opportunity to bring diversification product in Serikin market.

(Participant 10)

In addition to variety, price competitiveness is also a key factor. One participant explained that Indonesian vegetables are often more affordable due to lower production costs, making them an appealing alternative to local produce:

Vegetables from Indonesia are lower in cost compared to local produce. Local vegetables use netting and other inputs, so the production cost is higher, and the price must be increased.

(Participant 12)

Another participant reinforced that offering multiple types of vegetables not only increases profitability but also serves the needs of both wholesale and retail buyers in Sarawak:

Trading a variety of vegetables increases our chances of making a profit. If we only offer one type and it doesn't sell well, we earn nothing. But with more options, there's a higher chance that some will be purchased. We also want to bring in more vegetable choices from Indonesia to attract both wholesale and retail customers.

(Participant 14)

Product diversifications emerge as other benefits by Indonesian agrotraders in Serikin, as it enables them to expand their product offerings, which significantly enhances their competitiveness and income potential. By introducing a wider array of agricultural goods, including fruits, vegetables, planting materials, and traditional handmade items, these traders meet the varied preferences of Malaysian consumers, especially in Sarawak, where certain Indonesian products are either scarce or unavailable locally. Participants emphasized that offering a broad selection draws greater customer attention, encourages impulse purchases, and increases the likelihood of repeat buyers. This diversity allows traders to tap into multiple consumer segments, from tourist and rural consumers to wholesalers. Cultural and consumer preferences in Sarawak also support demand for traditional goods like rattan crafts and agricultural products, which are less valued in urban Indonesian settings. This is in line with Kahiya and Kadirov (2020) who observed that cross-order trade is often shaped by cultural

complementariness and differentiated demand across borders. Their views are further echoed by Lesser and Moisé-Leeman (2009) and UNCTAD (2019) who argue that product diversity in ICBT facilitates market penetration across neighboring countries. Therefore, this market offers a range of agricultural goods from vegetables to rattan crafts, which helps increase sales and traders' adaptation to fluctuating market demands. Diversification not only improves sales consistency but also enhances trader competitiveness in informal market settings.

4.2.8 Theme 8: Supply Chain Development

The trade activities have also led to the development of informal supply chains connecting producers, transporters, and sellers. These networks support the smooth flow of goods across borders and contribute to the resilience and continuity of informal agricultural trade in the region.

Seven participants shared that most of the fresh produce they bring from Indonesia is purchased by local wholesalers on Thursdays and Fridays, who then distribute it to the city and their respective hometowns:

Those who buy in bulk usually resell the vegetables. They are traded in places like Samarahan and Lundu. I was informed that some were sold in Satok, but I heard the market has moved. Still, they continue to sell there.

(Participant 12)

Usually, wholesalers or traders come directly and request large quantities, sometimes 40 to 50 kilograms packed in sacks.

(Participant 4)

Wholesalers come from Sibul, Bintulu, and Kuching, especially during the "petai" (bitter bean) season. Usually, on Thursdays and Fridays, they come here to collect goods.

(Participant 7)

I don't bring too much fresh produce at once, usually just 10 to 30 kilograms, because it's tiring, and I can't carry too much. Some wholesalers purchase from

me, and one of them resells at Kubah Ria in Kuching.

(Participant 9)

Wholesalers usually come on Thursdays and Fridays to select and purchase goods.

Sometimes, they take 10 to 20 kilograms to resell in Kuching.

(Participant 5)

Yes, that's true. Here in Sarawak, there is a shortage of vegetables. People from Sibu often buy in bulk here and take it back to sell in Sibu. Some wholesalers also come here on Thursdays. The sweet potato was the leftovers were bought by a trader yesterday.

(Participant 2)

There are buyers here who purchase plants in bulk, especially Black Thorn durian and citrus trees. If some plants don't sell, I usually send them to a friend in Kuching who helps me resell them there.

(Participant 1)

Another two participants acknowledge that Sarawak faces a shortage of fresh produce, such as vegetables, which leads to higher prices in supermarkets:

Some goods are commonly in demand but are not available here. I know that many Malaysians do not engage much in farming because they prefer office jobs. However, they still rely on local vegetables. Those with low incomes cannot afford them because the prices are too high.

(Participant 13)

Yes, we help them. Sometimes, it's difficult for them. If vegetables from Indonesia didn't come in, the prices would be extremely high. By bringing vegetables here, we also help them, whereby they get the goods at a slightly lower price.

(Participant 11)

One participant emphasized that traders have strong business connections with local people, especially landowners and consumers:

We depend on each other. People here need our goods, and we also rely on them. For example, we rent their stalls or spaces, so they earn money from us too. Some landlords here can collect over RM10,000 a month just from rental fees.

(Participant 12)

She further explained how these connections also extend to local wholesalers:

We need each other. When local wholesalers request certain items, we ask for their phone numbers. After that, they'll inform their friends too.

(Participant 12)

This statement is also echoed by another participant, who pointed out that some wholesalers place orders in advance for specific items:

There are wholesalers who place orders in advance for the items they want. We will then source the goods from Indonesia, and they will collect them in Serikin on Thursday.

(Participant 13)

The last subtheme that emerged is supply chain development, which benefits from ICBT between Serikin, Malaysia and Kalimantan, Indonesia. These supply chains, through informal mechanism are structurally vital in facilitating the flow of agricultural goods across the borders. Participants shared that fresh produce brought into Serikin is often purchased in bulk by local wholesalers, who then distribute these goods across Sarawak's districts. This practice maintains a steady supply of affordable produce to local markets, thereby reinforcing food accessibility. As noted by Karkare et al. (2021) and Sarjono et al.(2022) informal trade networks often rely on trust-based relationships and mutual dependence, rather than formal contracts or regulatory frameworks. The

evidence from this study highlighted that Indonesian traders maintain strong ties with local stall owners, transporters, and wholesalers, allowing for efficient coordination and rapid response to demand fluctuations. These local community such as the transporters and landowners, also gain significant income from this trade (Awang et al., 2013; Djafar et al., 2016). Additionally, the persistent shortage of fresh vegetables in Sarawak further elevates the relevance of these informal supply networks, whereby the Indonesian imports meet the demand of low domestic agricultural output. This is consistent with Rauschendorfer and Shepherd (2020) who stated that ICBT plays a stabilizing role in regions with limited local production. Hence, informal supply chain development not only benefits Indonesian agrotraders through sustained demand and predictable income but also contributes significantly to local food supply and economic interdependence in Sarawak.

Overall, the findings collectively align with both the dualist and structuralist perspectives of the Informal Economy (IE), offering a comprehensive interpretation of Indonesian agro-traders' participation in ICBT. From the dualist perspective, as described by Hart (1973) and the ILO (1972), the informal sector functions as a critical livelihood pathway for individuals excluded from formal employment. This is clearly reflected in the agro traders' dependence on Serikin's informal market to secure income, flexible work opportunities, and diversified trading activities that buffer them against economic instability in their hometowns. Their ability to capitalize on price differentials, currency fluctuations, and product diversification further demonstrates how the informal economy provides adaptive strategies that sustain daily welfare, educational aspirations, and long-term financial resilience for low-income households. In addition, the findings also strongly support the structuralist perspective advanced by Castells and Portes (1989) and Chen (2012), which emphasizes how informal economic activities are shaped by and embedded within the broader structural inequalities. Indonesian agro-traders rely heavily on trust-based supply chains, informal logistics networks, and cross-border social ties to maintain the flow of agricultural products, yet they simultaneously face structural vulnerabilities such as limited bargaining power, regulatory ambiguity, and dependence on Malaysian wholesalers who benefit from a stable supply of low-cost produce. Therefore, these theoretical lenses reveal that ICBT in Serikin is not merely a marginal economic activity but a structurally conditioned and strategically essential livelihood system, enabling economically marginalized traders to navigate institutional gaps while reinforcing regional economic interdependence.

4.3 Challenges faced by Indonesian Agro-traders in Informal Cross-Border Trade.

The qualitative analysis showed that all fourteen participants faced various challenges in their engagement in ICBT between Serikin, Malaysia and Kalimantan, Indonesia, particularly among Indonesian agro-traders operating in the Serikin market. These challenges were categorized into six main themes, including institutional and procedural challenges, cross-border policy and regulation mismatches, market access limitations beyond Serikin, inadequate transport infrastructure, financial losses from perishable goods, and language and communication barriers. These themes, summarized visually in Figure 4.2, highlight the significant challenges that impact the Indonesian traders in their daily engagement in ICBT. They reflect the participants' efforts to survive in this trade sector as a means of sustaining their livelihoods. Each theme captures the participants' personal experience and underscores the need for strategic support systems to help small-scale traders overcome these obstacles.

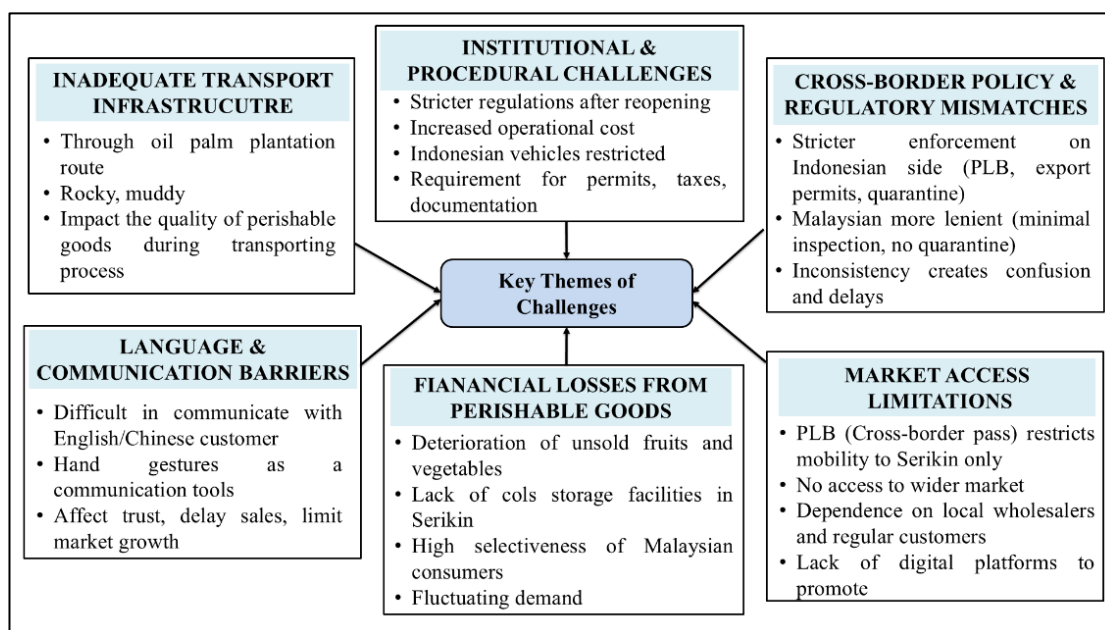


Figure 4.2. The key themes of challenges faced by Indonesian agro-traders.

4.3.1 Theme 1: Institutional and Procedural Challenges

A key challenge faced by Indonesian agro-traders involves institutional and procedural challenges, such as mobility restrictions, taxation issues, and inconsistent enforcement at the border. Traders reported difficulties related to crossing the border without formal documents, facing unpredictable checks, and vehicle restrictions. These processes often delay access to the market and increase operational costs, limiting the traders' ability to participate consistently in the Serikin market.

Four participants described the changes they experienced after the reopening of the border, highlighting stricter procedures and increased costs that have made it more difficult to transport goods compared to before:

Before COVID, it was quite easy for us to sell because we could move in and out freely, on our own time, and the prices of goods were relatively affordable. But after COVID, we couldn't move freely; we had to rely a lot on motorcycle taxis, and we had to pay a lot along the way.

(Participant 2)

In the past, cross-border mobility was far more flexible. We could cross the border using an Indonesian motorcycle and transport one or two sacks without difficulty. Currently, stricter controls require us to register, declare our goods, secure permits, pay taxes, and pass inspections before entry is permitted.

(Participant 9)

We have to handle all the documents ourselves; without an official trading letter from the Indonesian border control, we are not allowed to enter Serikin. We also bear all the associated costs, including the fees for the required documents, such as the import-export form and taxation. Thus, we also need to pay for the Malaysian lorry services used to transport our goods. These expenses are very high.

(Participant 7)

Previously, we did pay tax to bring goods in, but it wasn't so complicated. Now, we need documents and must pay duties; it's probably the standard procedure now.

(Participant 13)

This statement was echoed by one participant who highlighted that all goods brought into Serikin are now subject to taxation at the border, a significant shift from the pre-COVID period:

Before COVID, there were no immigration taxes yet, so we could still cross the border at lower costs. But now, everything is taxed; whatever goods we bring in are all subject to tax.

(Participant 3)

Two participants shared that Indonesian's vehicle are no longer allowed to enter the Serikin market due to new regulations, which have resulted in mobility challenges:

Yes, it's a bit troublesome now because there are fewer people delivering goods. Back then, when regulations weren't so strict, Indonesian motorcycles could enter freely to deliver items.

(Participant 4)

Before COVID, our vehicles could enter, but now they cannot. So, our transportation budget has increased.

(Participant 13)

Another participant explains that the cost of hiring motorcycle transport services (i.e., *OJEK*) is high, and informal chargers are sometimes requested by authorities:

*The tax and stamping process can sometimes be difficult. Since Serikin is seen as a business area, immigration officers sometimes even ask for money. Here, even *ojek* (motorcycle taxis) charge a high fee.*

(Participant 5)

This situation was further supported by another participant, who not only highlighted stricter procedures but also a decline in the volume of goods purchased by local wholesalers:

Back then, it was much easier because we could move freely across the border. Indonesian motorcycles could enter without restriction. Now, that is no longer permitted. Even using our own cars used to be allowed, but that has also changed. The number of local wholesalers is not the same as before; nowadays, they have reduced.

(Participant 14)

The institutional and procedural challenges faced by Indonesian agro-traders at the Serikin border highlight the complex and often burdensome regulatory environment of ICBT. Participants in this study shared a common narrative of increasingly restrictive border procedures post-Covid 19, including the need for documentation, taxation, and formal inspections, which the elements that were previously either informal or loosely enforced. These institutional constraints particularly disadvantage small-scale traders who lack the financial and legal resources to comply with formal procedures, consistent with the findings of Abayisenga (2024) and Akaezuwa et al. (2020). These institutional frictions excessively affect small-scale traders who lack the resources or legal literacy to navigate formal procedures (Kaur & Verma, 2021). The increased reliance on intermediaries, such as paid transportation services, underscores the ways in which structural inequalities force traders to incur additional costs to participate in the market. Similar observations were made by McCartan-Demie and MacLeod (2023), who noted that mobility restrictions in ICBT affect the profitability of the traders. Ultimately, such procedural barriers exemplify how formal institutions, while designed to regulate trade for revenue and security, can marginalize informal actors when support mechanisms or simplified procedures are absent.

4.3.2 Theme 2: Cross-Border Policy and Regulatory Mismatch

Differences in how Malaysia and Indonesia regulate ICBT reveal cross-border policy and regulatory mismatches that complicate and destabilize the trading experience. While informal trade may be loosely regulated or tolerated in one country, it may be more strictly enforced or bureaucratically managed in the other. This

mismatch generates confusion, increases trader vulnerability, and underscores the absence of harmonized bilateral mechanisms for facilitating small-scale economic activities across the Serikin, Malaysia – Kalimantan, Indonesia border. Participant consistency pointed to the more stringent and bureaucratic process on the Indonesian side, which they felt created unnecessary difficulties.

One participant emphasized how border procedures in Indonesia are often more complicated, especially compared to the relatively relaxed procedures in Sarawak:

It's different, whereby at immigration on our side, there are a lot of questions, and things are made difficult. But here in Sarawak, there's no such issue. It's only at the Indonesian border that procedures are complicated, while entry through Malaysia's border side remains manageable.

(Participant 2)

Another participant noted that the discrepancy in documentation requirements, acknowledging that while Malaysian policy must be followed upon entering, the Indonesian side imposes additional layers of compliance:

For us, coming from Indonesia to here, we are required to have all the necessary documents. Since we are trading here, which is under Malaysian jurisdiction, we must follow their rules. Previously, there was a permit fee of RM100. Things in Indonesia are not the same as in Malaysia.

(Participant 7)

Several participants highlighted the stark differences in customs enforcement. On the Indonesian side, customs inspections are routine, while on the Malaysian side, traders are only required to report at a control post, which is far from the Serikin market, without undergoing inspections:

There is no customs inspection on the Malaysian side, but in Indonesia, customs officers do check the goods—we have to report to them. On the Malaysian side, we also report at the control post, usually once a month, for example.

(Participant 6)

At the border, we are required to present the PLB documents along with the letter of import-export approval. However, inspections are only conducted on the Indonesian side. In Malaysia, there is no goods inspection; we simply report our entry at the control post.

(Participant 13)

Participant 12 reinforced this regulatory imbalance by explaining that formal border export procedures are already enforced in Indonesia but not yet implemented in Malaysia:

Before entering here, we have to register first, using export documents and PLB. In Indonesia, it's already implemented, but not yet in Malaysia. We must use those documents, and I even have them with me... like this. If we don't have them here, we can't bring the goods in. In Indonesia, it's already official, which shows that we are exporting goods to Malaysia like that.

(Participant 12)

In addition, two participants who brought in agricultural produce pointed out that Indonesia enforces a three-day quarantine, while Malaysia lacks such procedures due to the absence of a quarantine facility at Serikin's border:

We first report to the quarantine officers in Indonesia. They will inspect the goods before they are allowed to enter. Once they approve, we can bring the products in. If they say the goods cannot enter, then we are not allowed to proceed. In Sarawak, there is no such inspection because there is no quarantine office yet at the border.

(Participant 8)

We bring the goods from the border and quarantine them for three days on the Indonesian side. In Malaysia, there is currently no quarantine process. We're not sure about the future, as the ICQS facilities are still under development at the Malaysian border.

(Participant 1)

The second subtheme highlights cross-border policy and regulatory mismatches, which have a significant impact on disrupting the informal trading experience in the Serikin market. Malaysia appears more lenient in its approach, especially in terms of customs inspection, while Indonesia imposes rigid and bureaucratic procedures, including documentation, permits, and quarantine enforcement. These regular mismatches create confusion and vulnerability for small-scale traders, who must navigate conflicting requirements depending on which side of the border they are dealing with. For instance, quarantine protocols for planting materials are mandatory on the Indonesian side but absent in Malaysia due to a lack of a quarantine facility. These asymmetries lead to delays, increased costs, and frustration among traders, who perceive Indonesian's policies as unnecessarily complex. These findings echoes Golub (2015) who highlighted the lack of regulatory harmonization as a major challenge in ICBT across Africa, an issue also relevant in Southeast Asia. Furthermore, this finding also supports the Business Roundtable (2019) that mismatches between formal and informal governance structures often marginalize small traders, who struggle to comply with overlapping rules from different national jurisdictions. Without a coordinated bilateral framework to regulate and facilitate informal trade, traders are left to bear the burden of policy inconsistencies. Developing mutual recognition of border protocols, streamlining export-import requirements such as ICQS, and providing supportive mechanisms for small traders in the Serikin market could reduce trade friction, enhance compliance, and ultimately contribute to more stable and equitable cross-border economic exchanges.

4.3.3 Theme 3: Market Access Limitations Beyond Serikin

Many traders face challenges in market access limitations beyond Serikin, which prevent them from reaching a broader customer base. Without proper branding, marketing strategies, or digital tools, their products remain limited to foot traffic and word-of-mouth. Participants noted that despite crossing borders, their reach does not extend to larger Malaysian markets or urban buyers. This limits their income potential and keeps them in a cycle of subsistence trade.

One participant emphasized that for perishable products such as fruits and vegetables, there is consistent demand from local wholesalers, which often eliminates the need for promotion. However, due to border restrictions, this demand is limited to the Serikin area only:

For regular customers or those who already know us, promotion is unnecessary, because they return on their own. If they are satisfied with the quality of produce, they will place repeat orders, often via WhatsApp, and we will bring the order from Kalimantan. However, reaching customers outside this area is challenging, as our movements are restricted within Serikin only due to the limitations of the PLB permit.

(Participant 14)

The statement echoed by another three participants, who shared that they are unable to promote their products outside Serikin, particularly in Kuching, due to the limitations of the PLB permit:

It's difficult because the PLB (Border Pass) is only valid here. It can't be used to go to Kuching. If we want to go to Kuching, we have to use a different route. So, when customers want to buy again, they can only come here.

(Participant 3)

In Serikin, it's easy to promote because we can do it ourselves. But outside, it's difficult because we're restricted here and can't go out.

(Participant 2)

I don't do promotions outside; I only stay here because I'm just a small trader, and we're limited to this area since we use the PLB permit.

(Participant 6)

Another participant explained that, due to restricted access, he simply brings in goods based on customer demand rather than engaging in wider promotional activities:

It's quite difficult to promote outside because we, as Indonesians, are restricted here. But in Serikin, I just bring whatever my customers order.

(Participant 8)

Participant seven expressed her hope that larger market outlets such as supermarkets could provide opportunities to purchase her products, as she faces difficulty leaving Serikin to expand her business reach:

It's difficult... like for me, I'm not brave enough to go far. I always hope that if there were a supermarket or other markets interested in sourcing goods from Serikin, I would be willing to become a supplier of fresh produce from Kalimantan for them.

(Participant 7)

One participant highlighted the limited access to online platforms, which further restricts their market outreach. As a result, they rely heavily on tourists visiting the Serikin market:

It is quite challenging because we do not have access to online platforms and cannot travel beyond Bau. We mainly rely on buyers coming here, and beyond that, there's nothing much we can do.

(Participant 10)

A significant constraint faced by Indonesian agro-traders operating in Serikin is their limited access to markets beyond the immediate border area. Despite high demand for perishable products such as fruits and vegetables, Indonesian agro-traders are unable to access larger urban markets like Kuching or participate in formal retail networks. This limitation is largely due to mobility restrictions imposed by the PLB, which confines their activities to the Serikin area (Abao, 2020; Suratman et al., 2020) and prohibits travel to other parts of Sarawak for business purposes. Participants repeatedly highlight that, despite the high quality and strong demand for their products, especially the perishable ones such as fruits and vegetables, they are unable to penetrate a broader market due to regulatory constraints and the absence of promotional tools. The absence of digital marketing platforms or branding opportunities further restricts growth potential, resulting in subsistence-level trading practices. Similarly, Mazorodze (2025) and Igwe et al. (2020) observed that the limitation of structured retail channels or online platforms often traps the informal traders in localized economies with limited

income mobility. Without digital literacy or logistical support, many of the traders depend entirely on the physical market environment, which restricts scalability. Therefore, enhancing cross-border market access through improved mobility permits, providing opportunities for digital marketing, and partnering with formal market outlets could create opportunities for traders to grow beyond Serikin. Such intervention would not only improve their economic sustainability but also strengthen cross-border trade relations between Malaysia and Indonesia.

4.3.4 Theme 4: Financial Losses from Perishable Goods

One of the most pressing financial challenges involves losses incurred from unsold perishable goods. Since most of the products, such as vegetables and fruits, are time-sensitive. Fresh produce left unsold by the end of the trading day is often wasted due to deterioration. Traders emphasized that these goods cannot be returned or resold, resulting in a double financial blow, including the loss of capital and the absence of income. This situation underscored the economic vulnerability of agro traders who operate with minimal profit margins and limited support systems.

Four participants highlighted the challenges of post-trade losses due to unsold agricultural goods, particularly perishable items. These products often deteriorate quickly, forcing traders to discard them when they are no longer sellable:

Certain crops, including Chinese chives, are more resilient, with buyers sometimes purchasing seedlings for replanting. Similarly, ginger and sweet potatoes tend to last longer. But for perishable vegetables that don't last, such as eggplants, sweet corn, chilies, and leafy greens. We either discard them or give them away to others rather than let them go to waste. We don't think too much about the losses, we just see it as not our sustenance.

(Participant 2)

Yes, when the goods don't sell out, that's what makes it difficult for us. If there's a lot of stock and people don't buy it, it becomes a problem. In the end, we still have to throw it away, and that's what makes things hard for us.

(Participant 4)

If the goods cannot be sold, we are often forced to throw them away. Some of the goods can be brought back to our hometown. However, the transportation process is tiring and incurs additional costs.

(Participant 9)

Sometimes, the goods can be sold out within a week. But for more durable items, like this one, they can last up to a month without spoiling. However, if we are unable to sell them and they eventually spoil, we are left with no choice but to throw them away.

(Participant 11)

Sometimes, products that are damaged or of low quality often remain unsold, and in such cases, we bear the costs, as it is entirely our own risk.

(Participant 14)

Similarly, another participant shared that he was willing to accept minimal profit to recover his capital rather than allow perishable goods to spoil:

For fruits that don't last long, we usually bring them back or share them with fellow traders before they spoil. We try to finish selling them even if the profit is small; we're willing to accept that, rather than letting them go to waste.

(Participant 6)

One participant pointed out the differing consumer preferences between Malaysians and Indonesians, noting that Malaysian customers are more selective and less likely to purchase lower-grade or slightly damaged produce, even at discounted prices:

We have to throw it away, because Malaysia's customer is not the same as those in Indonesia. When produce is already considered 'rejected', even if we sell it cheaply, customers here are not willing to buy.

(Participant 7)

Additionally, participant twelve highlighted that oversupply of vegetables often leads to financial losses, as the surplus stock becomes unsellable and must be discarded:

Our challenge is when there is an oversupply of fresh produce in Serikin. When the produce arrives, it may not be able to be sold or fully distributed, yet we still have to pay the farmers. Consequently, unsold items are frequently discarded, resulting in financial losses.

(Participant 12)

She further noted that this situation worsens when visitor numbers at the Serikin market decline, reducing sales opportunities for traders:

Sometimes, in certain months, it's quiet with no visitors... that's what we experience. We can only make plans, but God decides everything.

(Participant 12)

Another participant shared that some unsold agricultural products are resold in Indonesia at lower prices to avoid total losses. However, this strategy incurs additional transportation costs, which further reduce profit margins:

Leftover goods from here, such as chilies, we sometimes resell them in Indonesia at a lower price, rather than letting them go unsold. However, if the produce is in bad condition or already rotten, we have no choice but to throw it away in the bin. For items we bring back to Indonesia, we also have to pay additional weighing charges to the Malaysian lorry to transport them back to the border.

(Participant 13)

A critical operational challenge is the frequent loss of perishable goods due to spoilage. Fruit and vegetables constitute the bulk of traded products and are highly susceptible to deterioration if unsold within a short period of time. As participants reported, unsold produce is often discarded at the end of the trading day, resulting in not only a loss of income but also capital, which amplifies the financial vulnerability of traders operating on narrow profit margins. The absence of cold storage facilities, coupled with high-quality standards from Malaysian buyers, exacerbates these losses. This indicates that informal agricultural trade is particularly vulnerable to losses of perishable goods, due to limitations in applying effective post-harvest practices within informal operational settings. These findings are consistent with Bisht and Singh

(2024), who emphasized that postharvest losses in developing country markets are often exacerbated by quality standards, poor handling practices, and limited cold-chain infrastructure. Furthermore, surplus stock resulting from fluctuating demand, particularly during off-peak seasons, adds to the traders' burden. Some traders attempt to recover minimal losses by reselling in Indonesia at lower prices, but this incurs additional costs, including transportation and border handling fees. As highlighted by Neves (2020), such losses not only affect traders' livelihoods but also contribute to broader issues of food waste and inefficient supply chains in informal agricultural trade. Addressing this issue requires targeted support, such as better storage facilities, demand forecasting, flexible logistics, and market diversification. The absence of these supports, the economic sustainability of informal cross-border agro-traders remains precarious

4.3.5 Theme 5: Inadequate Transport Infrastructure

Traders consistently highlighted inadequate transport infrastructure along the route from the Indonesian border to the Serikin market, particularly on the Malaysian side. While roads in Kalimantan were generally described as paved and in good condition, the journey into Serikin often involved unpaved, rocky, or muddy paths through oil palm plantations. Participants attributed these challenges to the ongoing construction of Malaysia's immigration facilities and incomplete road infrastructure. These conditions not only slow down transportation but also increase the risk of damage to goods, especially perishable items such as fruits and vegetables during transit (Jefrin & Saili, 2025). As a result, traders face losses from spoiled produce and increased transportation strain.

Two participants described the poor road condition from the Indonesian border to Serikin market, noting that the route passes through oil palm plantations and becomes muddy during the rainy season:

The road in Indonesia up to the border is good, but the road from the border into Serikin is in poor condition because it's still unpaved. It is a dirt road through the oil palm plantation. So, during the rainy season, it gets muddy.

(Participant 1)

To get to Serikin, we have to use the palm oil plantation road. There are soldiers stationed there, but it's still just a plantation road.

(Participant 10)

Other participants echoed this concern, attributing the poor road conditions to the ongoing construction of Malaysia's immigration facilities, which further complicates travel:

From the border to Malaysia, the immigration facility is still under construction, so the road is still rocky. We have to stop at the border area.

(Participant 3)

It's okay, but not fully developed yet, and still manageable for travel, since the Malaysian immigration facility is still under construction.

(Participant 11)

The road is still undergoing improvements and has yet to be tarred. However, it is fairly good as it is wide enough.

(Participant 13)

Participants emphasized the disparity in road conditions between the Indonesian and Malaysian sides of the border, consistently noting that infrastructure on the Malaysian side remains incomplete and underdeveloped:

It's not fully developed yet, as there are still small stones all the way to the border. From the border to Indonesia, the road is in better condition compared to the Malaysian side, where the construction of the road hasn't been completed yet.

(Participant 7)

The roads in Indonesia are already in good condition, even up to the border point. However, on the Malaysian side, the road is still under construction and not yet completed.

(Participant 12)

Up to this point near here, the Indonesian side is already good. It's the Malaysian side that hasn't been completed yet.

(Participant 14)

Additionally, participants highlighted that the poor road conditions, particularly gravel and muddy surfaces, can affect the quality of perishable products during transport:

Usually, there are also some vegetables and fruits that get damaged, especially the perishable types, because of the poor road conditions, but not too much affected.

(Participant 4)

Sometimes, there are also damaged goods due to stacking during transport. It's common to have around 1 to 2 kilograms of spoiled produce.

(Participant 14)

Inadequate transport infrastructure emerged as a prominent and recurring concern among Indonesian agro-traders transporting goods to the Serikin market, particularly on the Malaysian side. While roads in Kalimantan were generally well-paved, participants described the Malaysian route as rocky, unpaved, and muddy, especially during the rainy season. This finding is consistent to Abao (2020), who mentioned that the road from the border to the Serikin market remains inadequate, as it passes through oil palm plantations. Studies by Trianto et al. (2021) highlight that the poor road conditions increase the risk of accidents, particularly for lorries carrying heavy goods, a situation reflected in Serikin. This suggests that traders face considerable risk when travelling across the border through oil palm plantation routes. Moreover, many participants attributed these challenges to the ongoing construction of Malaysia's immigration facilities and incomplete infrastructure. This finding aligns with existing literature that emphasizes how poor rural and border infrastructure hampers informal trade (Abayisenga, 2024; Ndumba, 2020). Participants reported losses of perishable goods such as fruits and vegetables during transport due to poor road conditions, which can reduced product quality and the shelf life. This is consistent with the findings

reported by Nevi and Trivedi (2021) and Panjee et al. (2025). Therefore, inadequate transport infrastructure on the Malaysian side of the Serikin border presents a significant barrier to efficient trade. Improving this infrastructure is essential to reducing spoilage, minimizing trade losses, and supporting the overall sustainability of informal agro-trade regions.

4.3.6 Theme 6: Language and Communication Barrier

Language and communication barriers remain a persistent challenge for Indonesian agro-traders in the Serikin market, particularly when engaging with foreign customers and certain Malaysian visitors. While communication with local Malay-speaking Sarawakians is generally manageable, traders often struggle to converse in English or Chinese, limiting their ability to interact effectively with tourists and non-local buyers. These difficulties affect day-to-day transactions, delay the selling process, and sometimes lead to missed sales opportunities.

Four participants specifically noted challenges when interacting with foreign customers, particularly English or Chinese-speaking tourists. Their limited language skills often prevent effective management in cross-cultural transactions:

Yes, it is quite hard to speak with Chinese or Western customers because we do not understand them.

(Participant 10)

Weak proficiency in English makes it difficult for us, whereas for people from Sarawak, it is easier since they have been here for a long time.

(Participant 6)

Well, for tourists from peninsular Malaysia, the communication is manageable since both of us Malay, but I face challenges with English. I can understand basic concepts such as numbers from one to ten, yet I am unable to speak them fluently.

(Participant 13)

It is fairly easy for me to understand, except for Western languages. However, tourists usually just look around and purchase in small quantities.

(Participant 14)

One participant also expressed difficulties in communicating with certain Malaysian customers, particularly those from Sabah, citing unfamiliar accents as a barrier to smooth transactions:

The language can be a bit difficult; for example, those who come from far places like Sabah their language is a bit different. So sometimes, it can interfere with the buying and selling process because I do not fully understand them.

(Participant 1)

To overcome these challenges, several participants reported relying on non-verbal communication, especially hand gestures, to negotiate price and facilitate basic transactions with foreign buyers:

Usually, if they do not understand our language, they simply point at items or use hand gestures to communicate.

(Participant 4)

Yes... It is difficult to talk to foreigners because we do not understand their language. So, we just use hand gestures to tell them the price.

(Participant 7)

It is difficult when people speak English because I really do not understand, so we just use hand signals. I do not understand Chinese either.

(Participant 2)

We don't really understand them either, since we only speak Indonesian. If a Western customer comes, they just point to what they want, and we help weigh the items. Then we use hand signals to show the price. That's all, we don't know how to speak their language.

(Participant 9)

Interestingly, two participants shared that when faced with language barriers, they sometimes rely on the help of nearby individuals or the translators that come along with tourists to interpret or clarify customer requests:

If they do not bring a translator, such as a Chinese visitor who speaks very quickly, it can be confusing. We often have to rely on observing the items they choose. There was a situation when neither the customer nor we understood each other, requiring us to ask someone nearby for help. However, customers from Brunei or Japan are among those most attracted to this market.

(Participant 3)

Yes, it's difficult with foreign customers because we do not understand what they want. I just show them the prices. Sometimes, if they are accompanied by someone, that person helps us to communicate. But if they come alone, it becomes quite difficult and slows down the buying process.

(Participant 8)

Effective communication is critical in agribusiness, yet Indonesian traders face challenges when interacting with non-local Malaysians and foreign tourists due to limited English or Mandarin proficiency. These language limitations impact day-to-day transactions, slow down the selling process, and at times lead to missed sales opportunities, as mentioned in a case study in Zimbabwe Magura (2021). This is consistent with Akaeze et al. (2022) who noted that language barriers reduce market efficiency and limit traders' access to a broader customer base. Indonesian traders often rely on non-verbal communication, such as hand gestures and pointing at items of interest, to cope with these challenges. This mirrors Ishchuk and Ishchuk (2023) findings that nonverbal cues are essential for cross-cultural business interactions, especially in informal trade settings. In more complex situations, some traders mentioned they are turning to bystanders or accompanying translators for assistance. However, while these strategies facilitate basic interaction, they are often insufficient for conveying detailed information or building customer trust, especially involving agricultural products. This is supported by Padhiary and Roy (2025) who highlight that effective communication is essential in agribusiness, as it allows traders to clearly

convey product value and details to encourage customers' purchases. In a nutshell, addressing language and communication gaps through multilingual signage, phase cards, or digital tools could enhance traders' interaction and support smoother transactions at the Serikin market.

Across all six subthemes, the challenges faced by Indonesian agro-traders demonstrate how informal actors operate within a structurally unequal trading system. Regulatory complexity, mobility restrictions, limited market access, post-harvest losses, inadequate infrastructure, and communication barriers are compounding constraints shaped by formal institutions, dominant market actors, and fragmented governance. Structuralist theory by Castells & Portes (1989) and Chen (2012) explains these challenges as outcomes of systemic power asymmetries, where informal traders occupy subordinate positions with restricted regulatory, higher exposure to risk, and limited access to resources. This perspective highlights that the difficulties observed are not merely operational but are embedded in broader socio-economic and institutional arrangements. Recognizing these structural forces is crucial for designing policies and interventions that can support equitable and sustainable cross-border trade, ensuring that small-scale traders are not consistently disadvantaged by the systems in which they operate.

4.4 Future of Serikin Market from the Malaysian Stakeholders' Perspective

This theme explores Malaysian stakeholders' perspectives on the future of the Serikin market, with a particular focus on the establishment of the ICQS facility at the Serikin, Malaysia – Kalimantan, Indonesia border. Data were collected from Malaysian stakeholders, including police, immigration and customs officers, agricultural officers, and local community representatives. Ethical considerations and participant preferences limited direct quotes, so the findings are presented through paraphrased narratives based on field notes and interview summaries. While the perspectives primarily reflect Malaysian stakeholders, relevant insights from Indonesian agro-traders are included to illustrate cross-border expectations or to support stakeholder viewpoints. Two subthemes that emerged were the perceived benefits of the ICQS facility and its unintended impact on informal traders and local livelihoods.

4.4.1 Theme 1: Anticipated Benefits of ICQS Establishment

Most stakeholders viewed the proposed ICQS facility as a crucial step toward improving border governance and regional development. The police noted that the facility is expected to enhance national security by reducing vehicle theft and smuggling activities that frequently occur via an unregulated route. The planned location, close to Serikin market, is seen as strategically beneficial for strengthening border governance compared to the current locations, where the control border post is far away from the Serikin market.

However, one police officer offered an alternative view, suggesting that rather than focusing solely on establishing the ICQS, it may be more impactful to formally recognize the Serikin market as an official trading hub supported by an efficient PLB system and a strategic framework. He also added that such recognition could lead to infrastructure upgrades, such as improved facilities that may attract investors and stimulate local economic growth.

Immigration officers expressed that the future ICQS facility could support more systematic control over the movement of people. They highlighted current enforcement limitations caused by the distance between the control border post and the market, which complicated the registration of Indonesian traders. The ICQS facility is expected to streamline this process and strengthen border management due to the efficient system.

In addition to security and governance improvements, immigration officers pointed to the facility's potential to promote tourism and elevate Serikin's status as a formal trade destination. The introduction of a passport-based entry system could attract tourists and foreign traders, potentially boosting local commerce. A community leader also expressed optimism that ICQS could lead to a safer border and increased tourists:

Once the ICQ facilities are completed, the border will be more secure, and there will likely be more visitors since we'll be using passports.

(community leader)

Moreover, the Department of Agriculture (DOA) emphasized the significant role of the ICQS facility in strengthening food safety control, especially in the context of importing fresh produce from Kalimantan. However, without a ICQS facility in place, these

responsibilities are difficult to enforce effectively. They also mentioned the necessity to develop the ICQS in the Serikin market:

When we look across the border, they already have the PLBN facility at Jagoi Babang, and it is officially operating. So, we should also have a ICQS facility on our side to ensure two-way protection, like in Biawak, and Tebedu, Sarawak

(DOA)

The Department of Agriculture is responsible for inspecting agricultural imports and ensuring compliance with Maximum Residue Limits (MRLs) on pesticides, which are the legal limits of pesticide residues in food. However, they expressed concern over unmonitored agricultural trade at Serikin, especially the import of planting materials such as seedlings, which may carry plant diseases. They emphasized that one-site inspection will enable systematic testing of pesticide residues (MRL compliance) and quarantine of high-risk planting material, which is currently impossible because officers are not stationed at the market:

Planting materials (seedlings, saplings) pose the greatest phytosanitary risk. Our presence is not established over there. Trading is supposed to happen over there only, but we can't monitor it 24 hours a day since we don't have officers stationed there. There are a few limitations at the moment. But once the ICQS are in place, any entry of planting materials will definitely receive more attention.

(DOA)

In addition to planting materials, they also mentioned the food security of fresh produce being traded in the Serikin market because of the loose inspection from the Indonesian side. The inspection practice on the Indonesian side often relies heavily on the visual inspection, instead of taking a sample for laboratory testing:

But our main concern is food safety, for example, regarding MRL (maximum residue limits) and the use of pesticides in food crops. That's our current concern. We're not sure whether the vegetables brought into Sarawak meet the correct pesticide residue levels or not.

(DOA)

The DOA shared its ongoing plans in collaboration with M-FICORD to establish a unified agency known as the Department of Quarantine and Inspection Services Sarawak (SARQIS) to overcome this concern. SARQIS would integrate the veterinary, fisheries, and plant departments under one body to manage pre-border, border, and post-border processes more efficiently:

For Sarawak, we want a comprehensive approach, whereby we aim to cover pre-border, border, and post-border stages. It's still in the planning phase. Currently, the ministry's vision under M-FICORD is to establish a new organization that combines the authority of the veterinary, fisheries, and plant departments. This organization will be known as SARQIS. The idea is to better utilize manpower by integrating all these sectors under one body.

(DOA)

Malaysian stakeholders view the future of the Serikin market as moving toward the formalization of trade through the development of ICQS facilities on the Malaysian side of Serikin. From a governance perspective, ICQS is expected to strengthen border security by reducing smuggling, theft, and illicit movements, aligning with regional efforts to formalize and regulate cross-border flows (World Bank, 2020). The proposed placement of the facility near Serikin market is also anticipated to enhance enforcement capacity, consistent with global trends favouring integrated and strategically located checkpoints (Nakayama, 2022). The interviewed police officer similarly noted that relocating ICQS closer to the market will improve surveillance and limit undocumented entry through unofficial routes.

In addition, from an agricultural governance view, the Department of Agriculture emphasized the ICQS's role in managing pesticide residues and controlling the import of planting materials, which are long-standing concerns in informal agricultural trade because the unregulated movement of agricultural goods can facilitate the spread of pests and diseases (Chalam et al., 2020). Therefore, this indicates the necessity to implement the inspection of the agricultural goods to ensure they are safe for cultivation and consumption. Consequently, the Sarawak government is looking forward to the establishment of Sarawak Quarantine and Inspection Services (SARQIS) as a unified biosecurity authority that will integrate the Department of Veterinary Services, Sarawak, the Department of Agriculture, Sarawak, and the Department of Marine

Fisheries, Sarawak. This consolidation is expected to strengthen plant, animal, and food-related disease control across the porous border posts, seaports, and airports (Jolene, 2023), in line with the “One Health” approach advocating integrated food safety, animal health, and plant protection governance (WHO, 2022). This approach enhances the assurance of food safety for imported goods from Kalimantan, thereby indirectly contributing to improved community health and the conservation of biodiversity.

4.4.2 Theme 2: Impacts on Informal Traders and Local Community

While stakeholders generally supported the proposed ICQS facility, participants also expressed concerns about its potential negative consequences, particularly for small-scale Indonesian traders and local community members who rely on informal trade.

Police and customs officers indicated that the formalization of trade through ICQS may disrupt the existing informal economy. For many years, Indonesian small-scale traders have relied on low-cost, informal trade routes to sustain their livelihoods. With the introduction of formal procedures such as permit applications, customs documentation, and regulatory inspections, many of these traders face barriers they are not financially or administratively prepared to overcome. This concern was echoed by several participants who feared that the establishment of ICQS in Serikin would impose stricter procedures compared to the current system:

The border on the Indonesian side is already prepared, but in Serikin not yet been developed. Once the border in Serikin is established, we will not be able to trade here. Right now, we still can because the development hasn't been completed. Even with a passport, we would not be allowed to trade because it required a trading license, which is only issued to locals. But for us Indonesian, the process is complicated, especially for small traders like us who can't afford it. Those with capital can manage easily; they can sort out their license without much trouble. But, for small traders like us, it's not that easy.

(Participant 2)

There are plans to build immigration and customs facilities (ICQS) here. Once they're built, it might become more difficult for us because bringing in goods will involve stricter procedures compared to now.

(Participant 7)

From the perspective of the police, this shift also might affect the local landowners in Serikin who generated stable rental income from these traders. This is also mentioned by the community leader, whereby the ICBT benefits the traders and landowners only:

In terms of income, it really only benefits the landowners. For someone like me who doesn't have a stall or land there, I gain nothing from it. From what I've observed, all the stalls inside there for the vegetables seem to belong to just one person. If I'm not mistaken, that landowner earns around RM20,000 per month.

(Community Leader)

Therefore, as ICQS implementation reduces trader participation, the landowners' income may decline as well. Indirectly, the supply of relatively low-cost vegetables from West Kalimantan will be reduced, which will affect consumers in Sarawak.

This is supported by the Customs officers, who further noted that the additional costs and complexity involved in transitioning to formal trade could influence the willingness of micro-traders from continuing their business activities in Serikin. They referenced a similar pattern in Tebedu, Sarawak, another border town that experienced a decline in trade activity after ICQS implementation. In addition, a police officer predicted that Serikin could face a comparable downturn like Tebedu, despite its current reputation as a vibrant market for Indonesian products.

Most of the Indonesian agro-traders expressed their hopes for the future of the Serikin market, emphasizing their desire to continue participating in cross-border trade even after the border is fully formalized. Their reflections provide valuable insights into how they perceive the future of Serikin:

I hope there will always be opportunities for us to sell here. If the border becomes fully developed, we might no longer be able to trade here. I really

hope that even after the development is completed, we can continue selling here. Life is hard in Indonesia.

(Participant 2)

Hopefully, I can keep trading here and continue to grow. This opportunity has supported us for many years, and as we grow older and can no longer do heavy work, this is what we rely on. I truly hope we will be allowed to trade here for the long-term.

(Participant 4)

I hope that even after the customs and immigration facilities are fully operational, we will still be allowed to trade here in the future. We do not know what will happen once everything is official.

(Participant 8)

At the moment, it is easier for us to trade here. We hope the Malaysian government will continue to make things easier for cross-border traders like us. We just want to be allowed to sell without too many restrictions.

(Participant 10)

Hopefully, cooperation between our countries continues. Even if everything becomes official or formalized, I hope we will still be allowed to trade here. That is the most important thing for us. Despite whatever requirements are needed, such as passports, permits, and license we will follow them. We just want to be allowed to keep trading here for the long term.

(Participant 12)

Indonesian agro-traders are concerned about their future in the Serikin market, although they recognise the need for formalisation, they hope to remain included without facing excessive costs or restrictions. Their views emphasise the need to protect community livelihoods during the market's transformation.

For the discussion, formalization is necessary for effective strategic border management; however, the socio-economic implications of formalizing the Serikin border remain a key concern that warrants careful consideration in balancing regulatory objectives with the livelihoods of local communities. Stakeholders expressed concern

that stricter regulations could displace small-scale traders who rely on informal systems for their livelihoods. Previous studies consistently show that ICBT plays a critical role in sustaining rural households, particularly where formal employment opportunities are limited (Abayisenga, 2024; Chadambuka, 2021; Mupedziswa, 2024). In Serikin, many Indonesian traders operate with limited capital and administrative capacity, making compliance with licensing and inspection requirements difficult without targeted support.

Evidence from other borders in Sarawak reinforces these concerns. For instance, at the Tebedu (Sarawak) -Entikong (West Kalimantan) border, policy changes shifted trading activities further inland, requiring Sarawakian buyers to pass through ICQS and use passports (Sulehan et al., 2013). The resulting increase in travel costs reduced buyer participation, contributed to declining trade, and redirected traders toward Serikin. This reflects Bäckman Kartal (2021) who argue that poorly designed formalization can marginalize vulnerable groups by imposing barriers to participation. Without inclusive measures such as simplified procedures, subsidized permit fees, or training, micro-traders may be pushed out, with negative spillover effects on landowners and service providers who depend on the informal trade ecosystem.

In responses, some stakeholders proposed alternative policy pathways, including formally recognizing Serikin as a cross-border trade hub supported by an efficient PLB system rather than relying solely on ICQS enforcement. This perspective also complements Malaysia-Indonesia cooperation under SOSEK MALINDO, which encourages policies that ease mobility for border communities while keeping basic control in place (Raharjo & Idris, 2025). Similarly, Suratman et al. (2020) suggest that Serikin's long-standing role in informal trade could serve as a legal and administrative model for Malaysia-Indonesia cooperation, potentially through the establishment of a Border Agreement Area (BAA) that recognizes Serikin as a functional servitude zone.

Balancing regulations with livelihood protection is therefore critical. As Appiah et al. (2025) observed, informal trade persists primarily as a survival strategy where formal avenues are inaccessible. In Serikin, the market's vibrancy is largely shaped by its informal character. A rigid transition to formal systems risks eroding the very economic activity that ICQS seeks to regulate, while also reducing access to affordable vegetables, lowering rental income for landowners, and weakening Serikin's reputation as a tourism-trade hub. Most of the traders expressed their willingness to comply with formal requirements such as passports and permits; they emphasized the need for

flexibility to ensure continued participation. This aligns with findings that border communities often lack policies that offer basic support, including funding, easier permits, and shared governance (Nkonde & Utete, 2024; Prado, 2022).

An inclusive policy mix is therefore essential. A hybrid model retaining a streamlined PLB system for low-value, high-frequency trade, combined with targeted subsidies for permit fees, can reduce exclusion while achieving regulatory objectives. Otherwise, Serikin risks replicating the decline observed at Tebedu, undermining regional development and food security objectives. Conversely, sustaining the vitality of the Serikin market would support the growth of the tourism sector, which in turn could boost the local economy. In a nutshell, the ICQS facility at Serikin market offers substantial potential benefits in terms of border security, food safety, and regional integration. However, its long-term sustainability depends on effectively balancing regulatory objectives with the livelihoods of small-scale traders and the local community. Inclusive governance frameworks could transform Serikin into a model for equitable cross-border trade, particularly Indonesian's planned capital relocation to Kalimantan increases the strategic importance of Sarawak's border towns. Border modernization must therefore be embedded within broader strategies of inclusive regional development and Malaysia-Indonesia cooperation.

4.6 Summary of Overall Key Findings

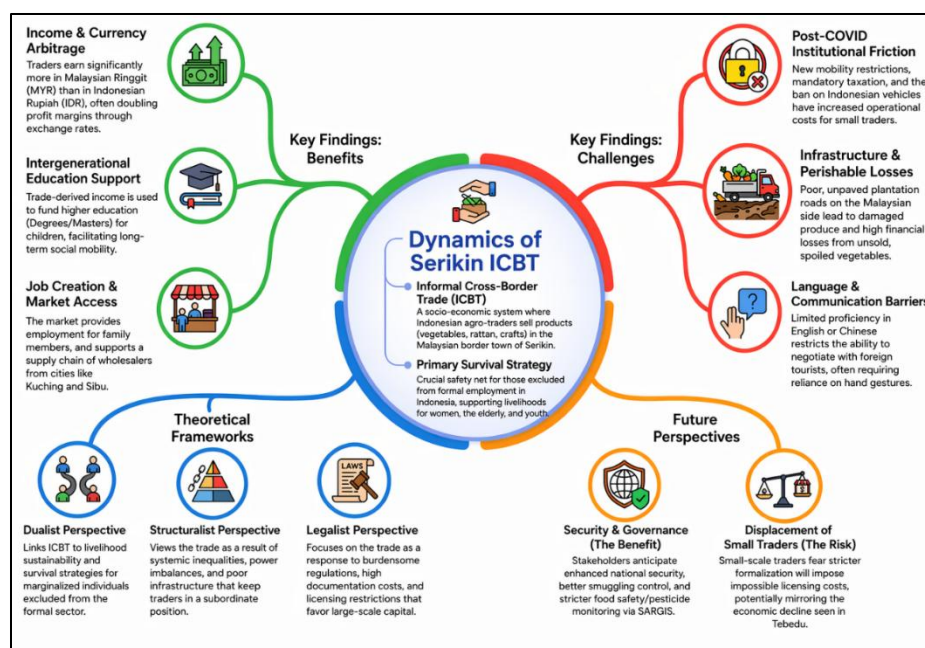


Figure 4.3. A Visual Synthesis of the Findings on the Dynamics of Informal Cross-Border Trade (ICBT) In Serikin.

The findings addressing Research Objectives 1 (RO1) demonstrate that ICBT functions as a critical livelihood mechanism, particularly through income arbitrage, employment generation, and intergenerational educational support. These themes collectively show how traders utilise cross-border opportunities to sustain household income and improve long-term socio-economic mobility. However, rather than reflecting purely entrepreneurial activity, these findings indicate that participation in ICBT is largely necessity-driven, reinforcing its role as a survival strategy consistent with the dualist perspective.

In relation to Research Objectives 2 (RO2), the study identifies key structural and institutional challenges, including post-COVID regulatory constraints, inadequate infrastructure, and language barriers. These factors directly affect traders' operational efficiency and profitability, demonstrating how external conditions shape the limitations of informal trade. The persistence of these constraints highlights the embedded nature of informality within broader systems of inequality, thereby supporting structuralist interpretations that emphasise power imbalances and uneven development.

The findings also address Research Objectives 3 (RO3) by revealing a critical tension between regulatory enforcement and livelihood sustainability. While enhanced governance is perceived as beneficial for improving security and compliance, it simultaneously introduces risks of exclusion for small-scale traders through increased formalisation pressures. This dual effect illustrates the complexity of policy interventions, aligning with the legalist perspective that views informality as a rational response to burdensome regulatory environments.

Collectively, these findings suggest that the sustainability of ICBT depends on a more balanced and adaptive policy approach. Regulatory strategies must align with the lived realities of traders, particularly in managing compliance costs and mobility constraints, to avoid unintended marginalisation. Without such alignment, formalisation efforts may undermine the socio-economic functions that ICBT provides.

CHAPTER 5

CONCLUSION

5.1 Introduction

This study examined the informal agribusiness activities at the Serikin, Malaysia – Kalimantan, Indonesia border, with particular attention to their benefits, challenges, and prospects. Grounded in informal economy theory, the study adopted qualitative methods to capture the lived experiences of Indonesian agro-traders and the perspectives of Malaysian stakeholders. This chapter presents the overall conclusion of the study on informal agribusiness activities at Serikin, Malaysia – Kalimantan, Indonesia border. It summarizes the key findings derived from the research objectives, which focus on the benefits, challenges, and future perspective of informal cross-border agribusiness. By integrating the empirical insights from Indonesian agro-traders and Malaysian stakeholders, this chapter highlights the broader significance of informal trade within regional economic and food systems. In addition, it also presents policy and future research recommendation to enhance understanding the development and sustainable the agribusiness trade in Serikin.

5.1.1 Benefits of Agribusiness Activities Gained by Indonesian Agro-traders in ICBT

In relation to the first objective, this study found that informal agribusiness activities at Serikin remain economically significant despite their marginalised status within formal policy frameworks. The market functions as a critical livelihood platform for Indonesian agro-traders by providing access to better infrastructure, a wider consumer base, and relatively stable income opportunities compared to domestic markets in Kalimantan. Beyond individual livelihoods, informal trade contributes to local food availability, market vibrancy, and cross-border economic interdependence. These findings challenge policy narratives that frame informal trade solely as a regulatory problem, instead demonstrating its structural role in sustaining regional food systems and local economies.

5.1.2 Challenges Faced by Indonesian Agro-traders in ICBT

While the benefits are evident, the sustainability of informal agribusiness is increasingly constrained by structural challenges, as addressed in the second research objective. The findings reveal that Indonesian agro-traders face persistent and escalating difficulties, including restrictive border procedures, documentation and taxation requirements, post-COVID-19 enforcement intensification, and limited capacity to manage perishable goods. These constraints disproportionately affect small-scale agro-traders, limiting their ability to comply with formal regulations and increasing economic insecurity. Interpreted through a structuralist perspective, these challenges reflect governance priorities that emphasise control and standardisation, often at the expense of informal actors' livelihoods.

5.1.3 Future of Serikin Market From the Malaysian's Stakeholder Prespective

Addressing the third research objective, the ICQs implementation as a dual-edged sword. While it promises enhanced security, improved food safety oversight, and tourism potential, it also poses risks to the informal economy that sustains Indonesian small-scale traders and contributes significantly to Serikin's local economy. This highlights the need for a strategic cross-border trade management approach that balances formal regulation with socio-economic realities.. Without adaptive and inclusive policy mechanisms, Serikin may replicate the decline observed in Tebedu, Sarawak, undermining regional development, food security, and tourism growth. This tension highlights the disconnect between policy intent and on-the-ground economic realities.

5.2.4 Policy Recommendations

This study suggest the shifting from strict enforcement to inclusive and adaptive approaches by simplifying procedures, reducing compliance costs, and providing trader-friendly facilities. ICQs implementation must reflect traders' realities, with gradual integration into biosecurity frameworks, supported by strong Malaysia–Indonesia coordination to ensure balanced and sustainable border governance.

5.2.5 Future Research Recommendations

Future research should address the structural and policy gaps identified in this study through more targeted approaches. Comparative studies across Malaysia–Indonesia border markets such as Serikin and Tebedu are needed to examine how different ICQs implementation models influence the sustainability of informal agribusiness. In addition, quantitative or mixed-method research is recommended to assess the economic contribution of informal agro-traders in terms of income stability, food supply chains, and trade volume. Future studies should also include Indonesian policymakers and border authorities to capture bilateral governance perspectives, particularly in light of Indonesia’s capital relocation to Kalimantan, which may reshape cross-border trade patterns and opportunities for formal and informal integration.

In conclusion, this study demonstrates that informal agribusiness activities at the Serikin, Malaysia – Kalimantan, Indonesia border play a crucial role in sustaining livelihoods, food supply, and cross-border economic interaction. However, these benefits are increasingly threatened by structural and institutional constraints embedded in border governance. A balanced, inclusive policy approach that recognises the realities of informal trade is essential to ensure the long-term sustainability of Serikin as a vibrant trading and tourism hub. By bridging informal economy theory with empirical evidence, this study contributes to a deeper understanding of informal cross-border agribusiness in Southeast Asia.

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APPENDICES

APPENDIX A

Ethical Approval

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Reference : UiTM.800-1/1/9
Our reference : REC/07/2025 (PG/MR/398)
Date : 1446H محرم 26
22 July 2025

Pejabat
Timbalan Naib Canselor
(Penyelidikan dan Inovasi)

Ms. Mashitah Mahirah binti Merali – 2024471356
(Supervisor: Assoc. Prof. Dr. Abdul Rahman bin Saili)
Faculty of Plantation and Agrotechnology
Universiti Teknologi MARA
UiTM Sarawak Branch
Jalan Meranek, Kota Samarahan
94300, Campus Samarahan
SARAWAK

السلام عليكم ورحمة الله وبركاته and Greetings

Ms

APPROVAL LETTER - UiTM RESEARCH ETHICS COMMITTEE

Thank you for submitting your research proposal to the Research Ethics Committee (REC). After considering your application, the Committee approved your proposal titled "Exploring Agribusiness Activities: A Case Study of Informal Cross Border Trade Between Serikin (Malaysia) - Kalimantan (Indonesia)" in Serikin, Sarawak, Malaysia. Details of the approval are as follows:

Ref. number:	REC/07/2025 (PG/MR/398)
Approval Period:	22 July 2025 until 7 October 2026
Authorised personnel:	1. Mashitah Mahirah binti Merali 2. Assoc. Prof. Dr. Abdul Rahman bin Saili

The UiTM Research Ethics Committee operates in accordance with ICH Good Clinical Practice Guidelines, Malaysian Good Clinical Practice Guidelines and the Declaration of Helsinki. The approval of this project is conditional upon your continuing compliance with these guidelines and declarations.

We draw to your attention the requirement that a report on this research be submitted every 12 months from the date of approval or on the completion of the project, whichever occurs first. Failure to submit reports will result in withdrawal of consent for the project to proceed. Amendments, if any, to the study documents are to be submitted to the REC for approval.

If you require further information, please contact the REC Secretariat at 03-55442846/03-55442737 or email at recsecretariat@uitm.edu.my.

اوسها، تقوى، موليا

"MALAYSIA MADANI"
"BERKHIDMAT UNTUK NEGARA"

Yours sincerely,

(EMERITUS PROFESSOR/DATO' DR RAYMOND AZMAN ALI)
Chairman
UiTM Research Ethics Committee

c.c.: Deputy Rector (PJIM&A), UiTM Sarawak

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APPENDIX B

INTERVIEW PROTOCOL FOR AGRO-TRADERS

Assalamualaikum/Good morning. **(self-introduction)**. Today I would like to conduct an interview on **agribusiness activities in informal cross-border trade in Serikin** and hopefully you can help us providing required information which will be vital for this research purposes.

To facilitate my note-taking, I would like to audio tape our conversations. For your information, only researchers on the project will be privy to the tapes which will be destroyed after they are transcribed. In addition, you must sign an informed consent form to meet our human subject requirements. Essentially, this document states that:

- a. All your information will be held confidential,
- b. Your participation is based on voluntary basis. You may withdraw at any time if you feel uncomfortable without any consequences,
- c. I do not intend to inflict any harm. Thank you for participating. I have planned this interview to last no longer than an hour. During this time, I have several questions that I would like to cover. If time begins to run short, it may necessary to interrupt you in order to push ahead and complete this line of questioning.

Research questions:

1. Interviewee background / demographics
 - Can you tell me a bit about yourself? (name, age, educational background, race)
 - How long have you been involved in informal agribusiness in Serikin?
2. Agribusiness activities background
 - Can you describe your involvement in agribusiness activities?
 - What types of agricultural products do you trade?
 - How did you start your agribusiness / trade journey?
 - What motivates you to engage in this trade?

3. Cross-border trade dynamics
 - How frequently do you engage in cross-border trade at Serikin?
 - What are the main markets you trade with across border?
 - How do you transport your goods across the border?
 - Are there any specific regulations or customs procedures you need to follow?
4. Benefits of informal agribusiness activities
 - What types of agricultural products do you trade?
 - What benefits do you derive from engaging in these activities?
5. Challenges faced in informal agribusiness activities
 - What are the main problems/challenges traders face in informal agribusiness activities
 - How do these challenges impact your business operations?
 - What strategies do you use to overcome these challenges?
6. Economic and social impact
 - How does your involvement in agribusiness activities affect your household income and livelihood?
 - What impact does cross-border trade have on your community and social networks?
 - How do you see the role of informal agribusiness in the broader economic landscape of the region?
7. Closing
 - To round up the interview, is there anything else you would like to share/add about your experience in the Serikin market?
 - Do you have any additional suggestions for improving agribusiness and cross-border trade in Serikin?
 - Thank the participant for their time and insights

APPENDIX C

INTERVIEW PROTOCOL FOR MALAYSIAN STAKEHOLDER

Assalamualaikum/Good morning. **(self-introduction)**. Today I would like to conduct an interview on **agribusiness activities in informal cross-border trade in Serikin** and hopefully you can help us providing required information which will be vital for this research purposes.

To facilitate my note-taking, I would like to audio tape our conversations. For your information, only researchers on the project will be privy to the tapes which will be destroyed after they are transcribed. In addition, you must sign an informed consent form to meet our human subject requirements. Essentially, this document states that:

- a. All your information will be held confidential,
- b. Your participation is based on voluntary basis. You may withdraw at any time if you feel uncomfortable without any consequences,
- c. I do not intend to inflict any harm. Thank you for participating. I have planned this interview to last no longer than an hour. During this time, I have several questions that I would like to cover. If time begins to run short, it may necessary to interrupt you in order to push ahead and complete this line of questioning.

Research questions:

1. Interviewee background / demographics
 - Can you tell me a bit about yourself? (name, age, educational background, race)
 - How long have you been involved in informal agribusiness in Serikin?
2. Future of informal agribusiness activities in Serikin from the perspective of Malaysian stakeholder
 - From your opinion, how did you see the future of agribusiness activities in Serikin?
 - What opportunities do you see for growth and development?

- How did the government agencies or other authorities can support the future of informal agribusiness activities in Serikin?

3. Economic and social impact

- From your perspective, if Serikin is well-develop in future, how did it impact the economic growth of both nations?
- From your point of view, how does the future of Serikin impact the social networks and local communities?

4. Closing

- To round up the interview, is there anything else you would like to share/add about your opinion of Serikin market?
- Do you have any additional suggestions for improving agribusiness activities and cross-border trade in Serikin?
- Thank the participant for their time and insights.

APPENDIX D

PARTICIPATION INFORMATION SHEET

Research Title

Exploring Agribusiness Activities: A Case Study in Informal Cross-Border Trade
Serikin, Malaysia – Kalimantan, Indonesia

Introduction of Research

This study focuses on informal cross-border trade (ICBT) between Serikin, Malaysia, and Kalimantan, Indonesia, with an emphasis on agribusiness activities. ICBT entails goods and services that bypass regulatory frameworks, avoiding taxes and remaining unrecorded in official statistics. Serikin Market has become a key hub for such trade due to the proximity, cultural similarities, and economic opportunities shared by both regions. The reopening of Serikin's border in 2022 has revived trade and tourism, while the relocation of Indonesia's capital to Kalimantan is expected to further influence cross-border commerce. Although ICBT supports local livelihoods, it also poses challenges, such as tax revenue losses and regulatory gaps. Existing studies on the region have not addressed agribusiness activities in depth. This research aims to explore the benefits and challenges of agribusiness in ICBT and provide insights to policymakers and stakeholders for improving trade management and fostering regional economic growth.

Purpose of Research

1. To explore benefits of agribusiness activities in informal cross border trade.
2. To examine the challenges faced by agro traders in informal cross border.
3. To explore the future of Serikin Market from the Malaysian stakeholder's perspective.

Research Procedure

If you agree to be in this study, you will be asked to:

1. Interviewed by researchers about your experiences, views, and sales products.
2. The interview will take approximately 90 minutes.
3. Interviews will be recorded for research purposes

Confidentially

Your information will be kept confidential by the researchers and will not be made public unless disclosure is required by law. Your name will not be disclosed in any research reports. The data collected is only used for this research purpose only. By signing this consent form, you will authorize the review of records, analysis, and use of the data arising from this research.

Benefits of Research

Your contribution can help in improving the management of cross-border trade with better policies for both countries, and provide ideas to local authorities, and to deal with all cross-border trade issues in an effective way while maximizing positive impacts on national development and industry growth.

Risk of Research

There are no anticipated risks from your participation in this study. However, you can stop your participation at any time without any implications.

Participants in Research

Your participation in this research is entirely voluntary. You may refuse to take part in the study, or you may withdraw yourself from participation in the research at any time without penalty. You may not answer any questions you are not comfortable with.

Consent Form

By signing this form, you confirm that:

1. I understand the nature and scope of the research being undertaken.
2. I have read and understood all the terms and conditions of my participation in the research.
3. All my questions relating to this research and my participation therein have been answered to my satisfaction.
4. I voluntarily agree to take part in this research, to follow the study procedures and to provide all necessary information to the investigators as requested.
5. I may at any time choose to withdraw from this research without giving any reason.
6. I have received a copy of the Participant Information Sheet and Consent Form.
7. Except for damages resulting from negligent or malicious conduct of the researcher(s), I hereby release and discharge UiTM and all participating researchers from all liability associated with, arising out of, or related to my participation. I agree to hold them harmless from any harm or loss that may be incurred by me due to my participation in the research.

Name of Participant:

Signature of Participant:

Date:

Name of Researcher:

Signature of Researcher:

Date:

If you have any questions about this research, please contact Ms. Mashitah Mahirah at [019-9230323/Mashitahmhrh16@gmail.com]. Thank you for your willingness to participate in this research.

AUTHOR'S PROFILE



Mashitah Mahirah Binti Merali obtained a Diploma in Plantation Industry Management in 2022 from Universiti Teknologi MARA (UiTM), Mukah, Sarawak, and a Bachelor of Science in Plantation Technology and Management in 2024 from Universiti Teknologi MARA (UiTM), Kota Samarahan, Sarawak. She is currently pursuing a Master of Science at Universiti Teknologi MARA (UiTM), Kota Samarahan, Sarawak.

LIST OF PUBLICATION:

Merali, M. M., Saili, A. R., Yusop, Z., Ekawati, Wan Yusuf, S. M., Abd Aziz, A. S., Abdul Fatah, F., Rizieq, R., Youlla, D., Masulili, A., & Octaviani, D. (2027). Exploring the benefits of agribusiness cross-border trade for Indonesian agrotraders: A case study of Serikin (Malaysia)–Kalimantan (Indonesia) border. *Bulgarian Journal of Agricultural Science*, Issue(3) – (Waiting for publication in issue 3/2027)