



# Exploring Motivations, Benefits, and Challenges Adopting Inclusive Business Model: Insights from a Case Study of Palm Oil Industry in Johor

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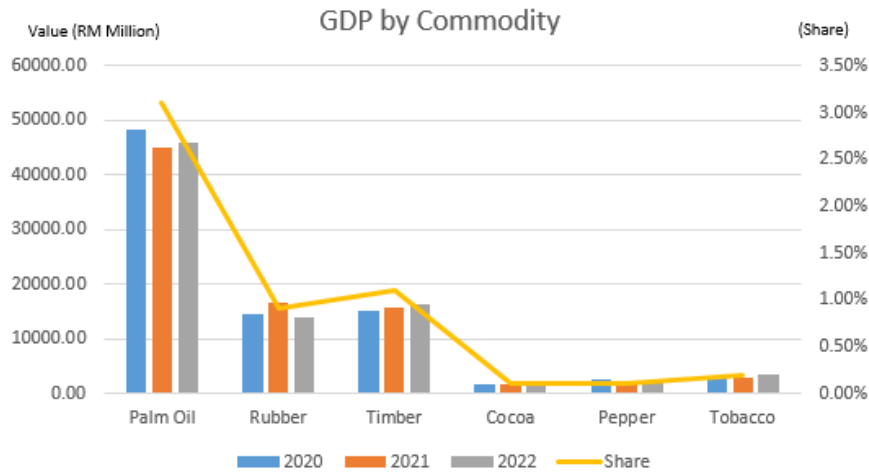
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**Abstract:** Palm oil is acknowledged as one of the commodities contributing to Malaysia's economic development, specifically as a strategy to eradicate poverty in rural areas. Despite the significant development of the industry, several issues, especially involving palm oil smallholders, require further development. Therefore, this study uses a qualitative research approach to explore adopting a multinational company's inclusive business model (IBM) as a strategy to enhance the industry and the well-being of society specifically palm oil smallholders in Johor. Based on secondary data and interviews, this study discovered that the company is motivated to adopt IBM in the project to ensure the sustainability of raw materials and as one of the company's corporate social responsibility (CSR) activities. The adoption of IBM will also benefit the company, the palm oil smallholders, and the palm oil industry, especially in Johor. Nevertheless, to ensure the sustainability of IBM, a few challenges need to be addressed particularly the complexity of the industry that involves many key players. In conclusion, IBM is able to create value for all stakeholders involve by integrating them in the whole value chain of palm oil industry.

**Keywords:** Inclusive Business Model (IBM), smallholders, oil palm management, sustainability

## 1. Introduction

Palm oil is one of the most resourceful crops, with a value chain that extends from upstream plantation operations to downstream industrial processing activities. In Malaysia, palm oil production contributes the highest share to the national commodity gross domestic product (GDP) compared to other commodities such as rubber, timber, cocoa, pepper, and tobacco, as presented in Figure 1 (MPIC, 2022).



**Fig. 1 - Gross Domestic Products (GDP) by commodity in Malaysia (MPIC, 2022)**

Malaysia is the world's second-largest palm oil producer, trailing only Indonesia, with 19.00 million metric tonnes in 2019, accounting for 26% of worldwide production (McCarthy, 2020). Malaysian palm oil contributed up to RM137.9 billion to Malaysia's commodity export rate in 2022, accounting for 66% of the overall commodity exports of RM207.3 billion (MPIC, 2023). Oil palm cultivation has also been a strategy of the Malaysian government to eradicate poverty through a scheme run by FELDA since independence, assisting a total of 112,635 settlers from its inception in 1956 until 1990 in changing the fate of their lives and the lives of their family members to a more prosperous quality of life (Mustapha, 1992; FELDA, 2023).

Due to the importance of the palm oil industry in various aspects (economic, social, and societal well-being), it has become the subject of interest for various organizations and individuals. For instance, research by Muhammad et al. (2017) and Ayompe, Schaafsma, and Egoh (2020) acknowledged that the palm oil industry has helped eradicate poverty, especially among the poor, through income generation and job creation. In fact, many business strategies have been adopted to ensure the sustainability of the commodity. One of these strategies is the adoption of IBM. This paper reports the findings from a study on the adoption of IBM by an international multinational company involving palm oil smallholders in Johor.

## 2. An Overview of Inclusive Business Model (IBM)

The social ecology constantly evolves and can only be understood through dynamic interactions. Structured and informal "scaffolding frameworks" that incorporate all levels of value chains guide and disseminate social innovation processes. According to Prahalad's theory on the commercial and developmental possibilities of "serving the poor," inclusive business models are often targeted by multinational corporations in bottom-of-the-pyramid (BoP) marketplaces in developing nations (Prahalad & Hammond, 2002; Prahalad, 2004; Yunus et al., 2014). IBM includes the underprivileged as clients or consumers at various points on the demand side and as employees, producers, and business owners on the supply side along the value chain. The underprivileged people are considered business stakeholders under this concept. It has evolved as a business strategy, blending business and philanthropy to alleviate human suffering (Likoko and Kini, 2017). This concept aims to provide long-term, decent-paying jobs for populations with limited or no labour mobility.

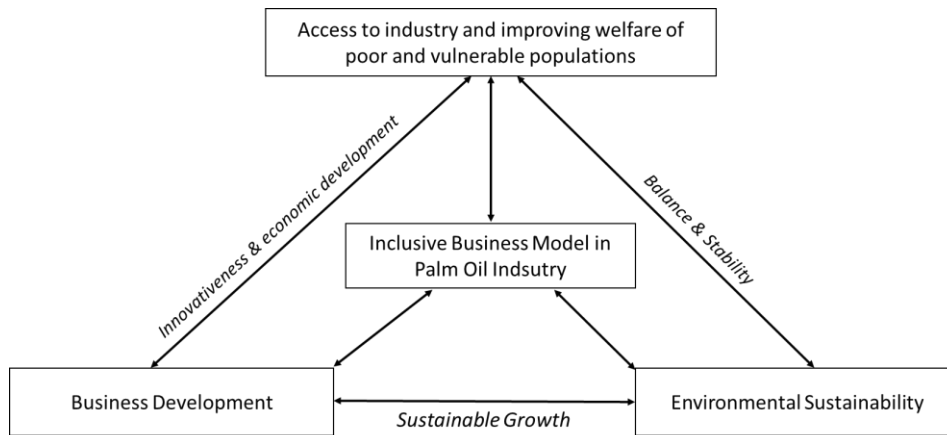
The concept of "inclusive business" emphasizes the fundamental idea that businesses can and should engage in social innovation efforts. This concept aims to connect impoverished individuals and communities with opportunities that promote social and economic progress by addressing growth and inequalities and treating all stakeholders in the organization's value chains as equals (George et al., 2012). This model also incorporates ethical policies and mechanisms, such as advocating for improved labour conditions and corporate social responsibility (CSR) beyond business practices (Kaminski et al., 2020). Specifically, IBM includes underprivileged people on the demand side as clients and customers and on the supply side as employees, producers, and business owners at various stages of the company's value chain, bridging the gap between businesses and individuals with low incomes for mutual benefit (UNDP, 2008).

From investors' perspectives, IBM represents sustainable investment opportunities that combine impact and financial returns. The features of the inclusive business model clearly define how it aligns with the Sustainable Development Goals 2030 (SDG 2030) and ESG-centered pillars, making it a valuable criterion for evaluating investments (Health, 2023). The inclusive business model provides a viable solution for delivering development outcomes by fostering sustainable business models and serves as a key for companies to contribute to more equitable societies.

Thus, in this paper, the inclusive business model is the companies effort to create value for the communities by integrating them into their value chain by encouraging close engagement between company and community, making sense of belonging, improving business experience and enhancing skills and abilities.

### 2.1 Elements and Challenges of IBM

The inclusive business model is a popularly conceptualized sustainable business model emphasizing social and environmental value creation. According to Ohrinmenko and Bovsh (2020), the inclusive business model in the palm oil industry consists of three fundamental components: accessibility to the industry and improving the welfare of the poor and vulnerable population, business development, and environmental sustainability, as presented in Figure 2.



**Fig. 2 - Key foundations of inclusive business models in the palm oil industry (Adopted from Ohrinmenko & Bovsh, 2020)**

These key principles impact one another and are interdependent. For example, providing wide access for the poor and vulnerable populations to employment and social support will lead to improved welfare and business development. These economic systems will experience growth, enhance their ability to withstand social pressures, and disproportionately positively impact vulnerable groups. The stability of such communities, where access to benefits is equitable, will support the development of a stronger economic foundation, expanding services and infrastructure, and necessitating a more environmentally friendly support system, including essentials like water and electricity. In order to preserve the environment, decisions must take into account the long-term costs and benefits. Additionally, the challenges associated with inclusivity will drive innovation, particularly in the business model. All of these processes, starting from a single community and extending to the entire universe, can ensure the construction of sustainable growth.

Businesses play various roles in promoting IBM, highlighting its strengths. This study used elements of IBM described by Rosler et al. (2013) and FAO (2015) as presented in Table 1. Generally, the elements focus on the roles of company of corporate sectors as actors and community that will benefits the IBM as the receiver.

**Table 1 - Elements of Inclusive Business Model**

Authors (Year)	Elements
Rosler et al. (2013)	<ul style="list-style-type: none"> <li>• Create opportunities for creativity, research capacity, and availability.</li> <li>• Increase locals involvement.</li> <li>• Create awareness among clients and other stakeholders.</li> <li>• Build capacities like providing training to suppliers and organizing end-to-end solutions.</li> <li>• Improve own management abilities (as a small-medium enterprise).</li> <li>• Commit funds, efforts, and patience to see the inclusive business model through to profitability.</li> </ul>
FAO (2015)	<ul style="list-style-type: none"> <li>• Providing a liveable income for the neediest.</li> <li>• Uses a flexible trading agreement.</li> <li>• Scalable in the medium term.</li> <li>• Support agriculture and small business to establish a stronger negotiation position.</li> <li>• Builds on current industry leader’s skills and experiences.</li> <li>• Allow for diversified income status.</li> </ul>

Despite the importance of IBM to economic and social development, Lashtiew, Bals, and Van Tulder (2018) highlighted four challenges of adopting inclusive business models that can limit the ability of commercial businesses to integrate sustainability into their core business models. The summary of the challenges are presented in Table 2. It is clear that the success of IBM requires a combination of efforts from all stakeholders, especially the company.

**Table 2 - Challenges of Inclusive Business Model**

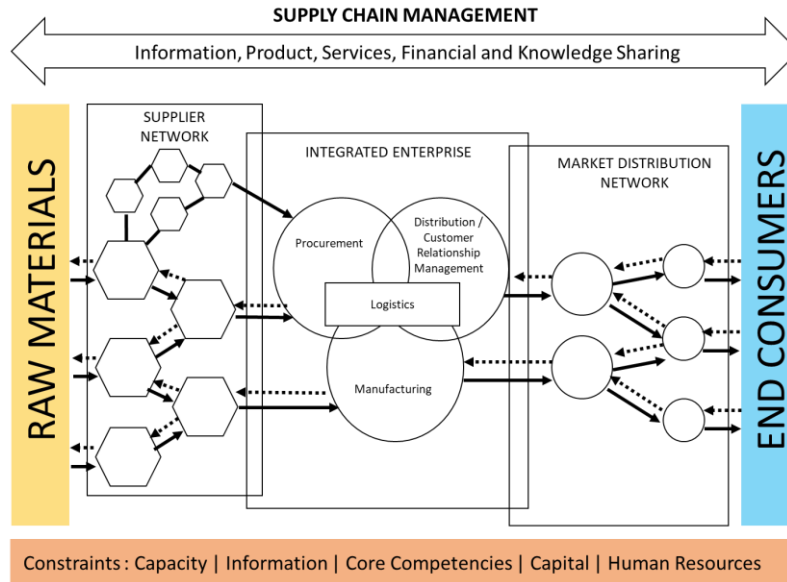
<b>Authors (Year)</b>	<b>Challenges</b>	<b>Descriptions</b>
Prahalad et al (2004)	Lack of motivation for change	An innovative business strategy that balances social good with commercial profit is required to capitalize on considerable market potential.
Seelos and Mair (2011); Porter and Kramer (2011)	The need for new capabilities	The complexity of goals in value creation for a broader set of stakeholders requires greater organizational flexibility internally and strong relationships with external actors to coordinate actions and achieve relevant capabilities. These capabilities include the organizational ability to engage with multiple parties, partnership and co-creation, and the capacity to create from diverse resources
Besharov and Smith (2014)	Goal hybridity and identity conflict	Goal integration is especially challenging when multiple goals are considered important to the organization but are perceived as incompatible.
Pache and Santos (2013)	Legitimacy and governance challenges	The unique inclusive business model may face difficulties in gaining regulatory legitimacy, as it often requires organizations to conform to institutionalized expectations.

## 2.2 Supply Chain in IBM

A supply chain is a network of firms engaged in various processes and activities that create value by delivering products and services to end consumers through upstream and downstream linkages (Christopher, 1992; La Londe and Masters, 1994). A supply chain consists of two or more legally separate organizations connected by flows of materials, information, products, services, finances, and knowledge, as depicted in Figure 3 (Bowesox et al., 2013; Stadler and Kilger, 2005).

Under the lens of the inter-organizational relationship approach, scholars have discovered that strategic intra-firm and inter-firm collaboration along the supply chain can create value for the company and customers (Cao and Lumineau, 2015). This perspective represents a shift in the supply chain from solely focusing on intra-organizational coordination to fostering collaboration with other organizations. It emphasizes the flow of products, information, and finances from raw materials to the end consumer with an external focus. A supply chain built on strong relationships is more likely to be effective, efficient, and relevant (Bowesox et al., 1999).

However, Legner and Wende (2007) highlighted seven challenges of inter-organizational business process design, including the unknowns of the business process due to interdependencies; shared responsibilities within the process; the encapsulation of business logic and organizational knowledge within the business process; time-consuming and difficulties in aligning individual business life cycles, as actors are essentially autonomous and have the freedom to design and modify business processes; the need to hide internal details in the business process; legal boundaries between organizations and the need to reconcile processes with a limited number of partners.



**Fig. 3 - Supply chain framework (Bowersox, Closs, Cooper & Bowersox, 2013)**

In applying the supply chain framework, IBM promote the integration of smallholders into markets, with the underlying principle that there are mutual benefits for smallholders and the business community. The goal of supply chain integration is to foster strategic collaboration, information sharing, and the organization of operational procedures within the supply chain, thus recognizing inter-organizational relationships as key activities in the supply chain (Liu et al., 2016; Zhou et al., 2011). This relationship-based approach is crucial for the coordinating mechanism of the supply chain. Informal networks, inter-organizational groups, coordinators, units, non-administered programs, lead organizations, and single organizations can all be utilized to coordinate among partners (Alexander, 1993).

### 3. Methodology

This study employed a qualitative method using a case study approach focused on the palm oil Smallholders' Program implemented by one international company in Johor, Malaysia. The case study framework was based on the IBM elements established by Rosler et al. (2013) and FAO (2015). The study focused on Johor, as this state has the highest number of palm oil smallholders in Peninsular Malaysia. The samples were mainly selected through purposive sampling, considering the context-specific nature of the study (Chetty et al., 2014), and aimed to combine practical insights with current theoretical knowledge by utilizing primary and secondary data sources (Eisenhardt and Graebner, 2007; Javalgi et al., 2012). This approach allowed for a better understanding of the value chain inclusion concept. The case study method was chosen due to its suitability for conducting research in emerging markets where the sample size may be too small for statistical generalizations” (Javalgi et al., 2012).

The data were obtained from both primary and secondary sources, ensuring data triangulation, and enhancing the validity of the findings. Primary data was collected through semi-structured interviews involving representatives from the company, researchers, and smallholders. The interview questions were developed based on a literature review, covering various aspects such as the business case and level of commitment, factors in adopting IBM, issues and challenges, benefits and impacts, and expectations of IBM. Field visits were conducted from December 2021 to March 2022, and during these visits, informal discussions were held with other smallholders and field officers, with the insights recorded as field notes.

Secondary data were gathered from the company's websites, annual reports, and magazine articles documenting the company's activities. Combining primary and secondary data sources provided a comprehensive and robust foundation for the study.

All data were analysed using thematic analysis (Braun and Clarke, 2006). This analysis required the interview recordings transcription and followed coding stages. Initially, the authors read and re-read transcripts in order to identify potential themes, which they then forwarded to the lead author. The second level of analysis involved authors reviewing these codes and considered particularly how to retain the diversity of the initial codes while producing overarching elements, higher sub-themes. The research question, the company's adoption of inclusive business model, informed this process. In the third stage, the analysis identified quotes congruent with the overarching themes. Next, the authors reviewed themes prior to defining and naming them. Finally, once themes were finalised, the write-up of the report began.

#### 4. Background of IBM Adoption by the Company

The Smallholder Program is an IBM initiative implemented by an international multinational company in Malaysia to support communities and promote the adoption of sustainable farming among palm oil smallholders. The program was launched in 2018, with the company committing to supporting communities and driving the adoption of sustainable farming and IBM practices. The program's objective is to enhance the livelihoods of over 8000 smallholders in Johor by sharing the best sustainable agricultural practices, helping them maximize their crop yield, improve their livelihoods, and become better stewards of their lands for the benefit of the communities and future generations. This project involves stakeholders, including local higher learning institutions (HLIs), agriculture-based companies, non-governmental organizations, and local palm oil companies in Johor.

Throughout this program, the company brought together a team of experts in agronomy, responsible farming, and supply chain management to guide smallholders on sustainable palm oil management practices. Based on the interviews conducted, the company identified three main objectives of IBM adoption, which are as follows:

- 1) Equip palm oil smallholders with skills to help them achieve harvesting optimization, nutrient planning, and financial and environmental sustainability management.
- 2) Empower smallholders and small company owners, such as palm oil collection centres and other palm oil-related service companies involved in the supply chain, by promoting sustainable and responsible palm farming practices at the smallholder level. This includes increasing production through improved sustainable agricultural practices and ultimately enhancing agricultural livelihoods and the well-being of families and communities.
- 3) Increase the number of smallholders producing certified fresh fruit bunches in accordance with the RSPO Independent Smallholder Standard (RISS)

#### 5. Results, Findings and Discussions

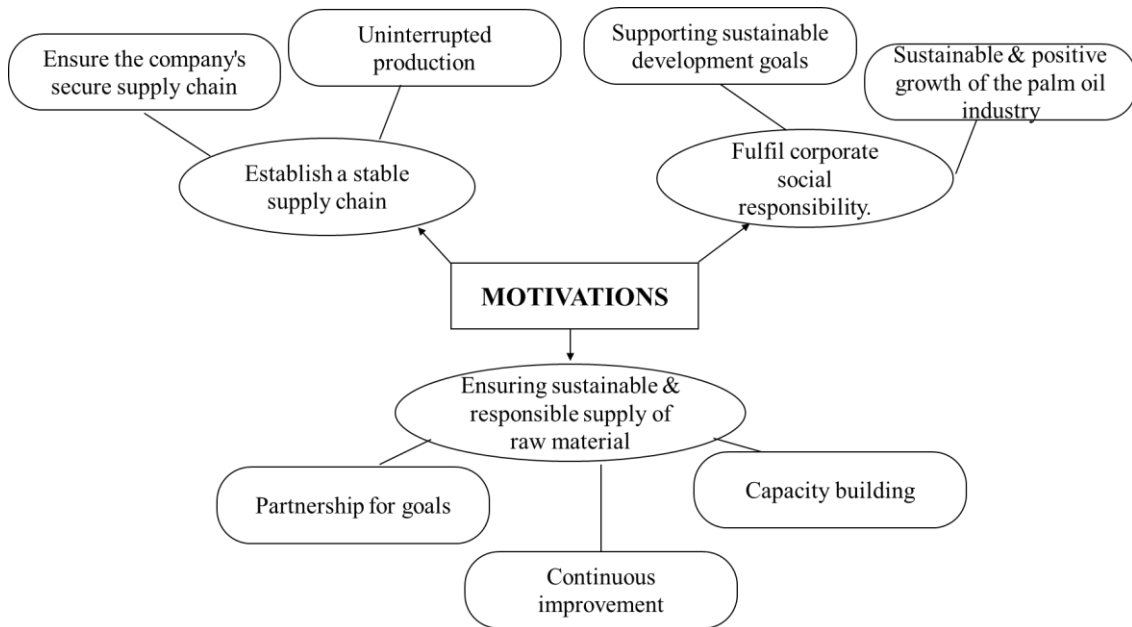
Four hundred thirty-four initial codes were extracted by analyzing the participants' rich and deep opinions. After being reviewed several times, the codes were summarized and categorized according to their similarities. Their internal meanings were identified in the form of three main themes, which were named based on attributed "Motivation", "Benefits" and "Challenge" in adopting the Inclusive Business Model (IBM), as presented in Table 3.

**Table 3 - Extraction of the main themes using thematic analysis**

	Themes	Sub-Themes	Codes
Inclusive Business Model Adoption	Motivation	Establish a stable supply chain	Ensure the company's secure supply chain, uninterrupted production
		Fulfil corporate social responsibility	Supporting sustainable development goals 2030; Sustainable & positive growth of the palm oil industry.
		Ensuring sustainable & responsible supply of raw material	Partnership for goals; capacity building; continuous improvement
	Benefit	Explore the value chain of the palm oil industry in Malaysia	Understand & learn the palm oil supply chain, roles of each party
		Knowledge-sharing program	Support partners by capacity building program
		Recognition from industry players	Positive impacts on the communities; assists industrial partners towards more sustainable & positive growth
	Challenge	The complexity of the palm oil value chain	Decision power to buy smallholder fresh fruit bunch (FFB)
		Information sharing	Obtaining data from relevant agencies/parties
		Smallholder background	Ages of the smallholders, land grant title and also the cost of management; awareness of the importance of going for sustainable practices

##### 5.1 Motivation in Adopting IBM

The participants considered motivation the most fundamental factor for a company to adopting an inclusive business model. The sub-theme includes “establish a stable supply chain”, fulfil corporate social responsibility” and “ensuring the sustainable and responsible supply of raw materials”, as presented in Figure 4.



**Fig. 4 - Thematic network: Motivations in adopting IBM**

The first sub-theme, “Established a stable supply chain” refers to the concept of company efforts to secure the supply chain, to avoid interrupted production to ensure a continuous and secure source of product supply.

As a producer of fast-moving consumer goods (FMCG), including household goods like toiletries, cosmetics, over-the-counter drugs, dry goods, and other consumable products, the company heavily relies on the palm oil supply. Therefore, the company must establish a stable supply source to ensure uninterrupted product production for the existing market. As part of this initiative, supporting these small farmers is one of the company's efforts to secure the supply of essential product resources and facilitate the daily production processes of their products worldwide. The senior manager described the primary motivation of the company as follows:

*“For the company, supply security is paramount. It is crucial for us to have a reliable and consistent supply. In the consumer goods industry, where our products are purchased or used by approximately 5 million people daily, it is imperative that we maintain uninterrupted production across our global manufacturing plants. Thus, ensuring supply security is of utmost importance. To achieve this, we must ensure that our suppliers can consistently fulfil their roles. This entails their ability to sustain production and supply the required quantity, quality, and timely delivery”. (Interview, Senior Manager).*

The participant also highlighted the company's commitment to fulfil corporate social responsibility by adopting IBM to fulfil its corporate social responsibility towards the communities that provide raw materials to the company. As a global company, the company is committed to supporting the United Nations' Sustainable Development Goals 2030, which call for business entities to be more responsive and responsible to communities. This includes ensuring the welfare and well-being of society. In the palm oil industry, it is crucial to ensure that the agricultural practices of smallholders, who are also suppliers of palm oil to the company, are carried out sustainably and do not negatively impact the environment and the community.

*“It is the responsibility of the company to know where we source our materials from. This is because our customers, especially those from developed nations, will inquire about the same. They will ask whether the company obtains materials from responsible sources. On one hand, it is all about meeting the demand and fulfilling customer requests. On the other hand, from our perspective, we want to ensure that we are doing the right thing”. (Interview, Senior Manager).*

The next sub-theme is to ensure a sustainable and responsible supply of raw materials. This encourages substantial effort to sustain the palm oil supply chain for the company and assist stakeholders in ensuring a sustainable and responsible supply. In order to achieve this vision, the company has partnered with local educational institutions to initiate

efforts and ensure the success of this inclusive business model in Johor. This step is crucial due to the complexity and challenges associated with the external palm oil supply.

The company chose to collaborate with and guide smallholders because this group is not affiliated with any organization and often receives less attention from relevant agencies in the industry. Intervention from academic institutions is crucial to address local issues adequately and ensure that all project findings are effectively communicated through the appropriate channels.

*“The company approached us regarding the capacity of sustainability requirements and commitment to responsible sourcing, aiming to identify all suppliers within their supply chain. They engaged with their partners, consisting of two suppliers: internal sources (estate and scheme smallholders) and external sources (independent smallholders)”.* (Interview, Field Officer)

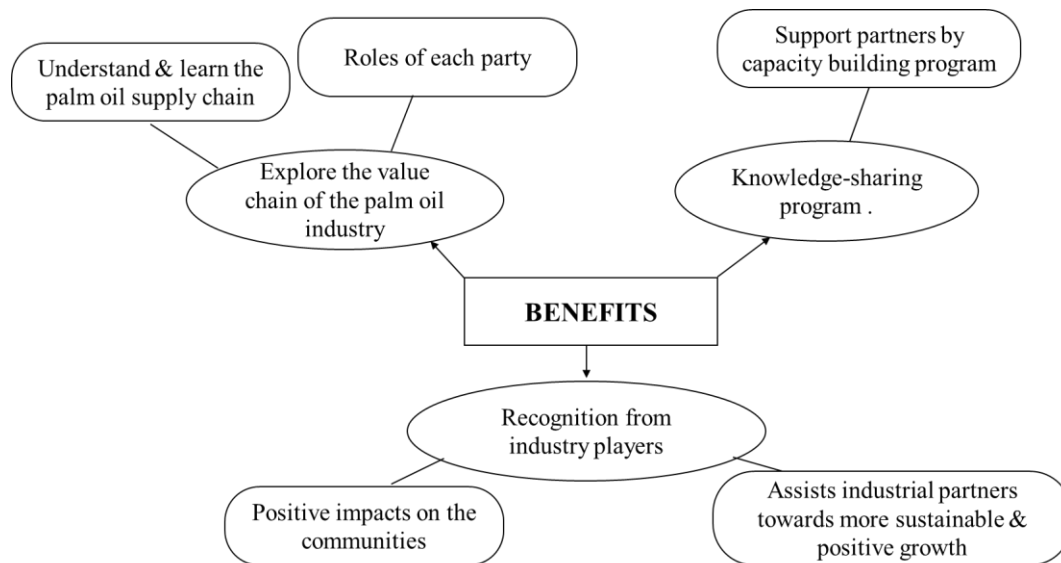
*“Independent smallholders are the parties that rarely receive attention from any organization in the palm oil value chain. Although there are government agencies overseeing the palm oil supply chain, independent smallholders still struggle to manage their plantations”.* (Interview, Senior Researcher)

The company is motivated to create an inclusive business model in its supply chain. The company can ensure supply chain security through IBM's approach, where the suppliers can provide raw materials according to the required quality and quantity. This finding is consistent with the research results of previous scholars such as Zhu and Sun (2020) and Ciubotaru (2022). The company strives to secure the supply of the main material, oil palm, by establishing closer relationships with smallholders and material suppliers.

Furthermore, similar to the findings of Ciubotaru (2022), the company considers various stakeholders as part of the supply chain model, especially smallholders, collection centres, and independent farm owners, as sources of product materials. This aligns with the elements of IBM highlighted by Ohrinmenko & Bovsh (2020). The company achieves this by providing certified resources that comply with high farm management standards, ensuring full traceability of products and high-quality raw materials, to build trust among stakeholders at the local and global levels. For instance, smallholder certification in the palm oil sector is a new development, and there is a lack of studies focusing on smallholder inclusion and the potential prospects and challenges it entails (Brandi et al., 2013; Tambi et al., 2021). Therefore, leveraging its capacity for responsible supply sustainability, the company decided to work with smallholders and help ensure the best agricultural practices.

## 5.2 Benefits in Adopting IBM

This theme includes three sub-themes: “Explore the value chain of the palm oil industry in Malaysia”, “Knowledge-sharing program, and “Recognition from industry players”, as presented in Figure 5.



**Fig. 5 - Thematic network: Benefits in adopting IBM**

Participants emphasized the main benefits of doing this business model are understanding and learning the complexity of the Malaysian Palm Oil supply chain and the roles played by each party in the value chain.



The adopting company is able to delve deeper into the complex value chain of palm oil and gain a practical understanding of the role and contribution of each supply chain. Adopting an inclusive business model allows the company to learn and understand the palm oil supply chain better through collaboration and capacity sharing. This benefit, as highlighted by the senior manager of the company, is as follows:

*“The company has gained significant knowledge, particularly regarding the complexity of the palm oil supply chain. While many people acknowledge its complexity, we have firsthand knowledge of its intricacies. We understand how the supply chain operates, including the behaviors of farmers, dealers, and mills. Each party has different key performance indicators (KPIs). Farmers aim for maximum fruit yield and immediate cash payment, while dealers strive to minimize costs and maximize profits by quickly delivering the fruits to the mills. On the other hand, the mills prioritize the highest quality of fruits. The primary benefit we have acquired is a deep understanding of this ecosystem. We now appreciate the intricate nature of the palm oil supply chain and how it functions”.* (Interview, Senior Manager).

The next sub-theme, “Knowledge-sharing program” refers to the support played by the company to support their partners through capacity-building initiatives. The company implements a knowledge-sharing program focusing on best practices for palm oil management, targeting smallholders. Through this program, the company works with smallholders as partners in the palm oil business. The collaboration has given the company a deeper understanding of smallholder palm oil practices. The data gathered from this collaboration is utilized for continuous improvement initiatives, including providing technical support to help smallholders obtain RSPO certification. Both the manager and field officers of the program have described this aspect as follows:

*“We are humbled and honoured to be able to support our smallholder suppliers. We have been purchasing from them for many years without truly knowing them. Having established a partnership and understanding their practices, we can grow together.”* (Interview, Manager)

*“One of the benefits that smallholders receive from participating in this initiative is training in Good Agriculture Practices. Adopting best practices in palm oil cultivation allows them to earn premiums through RSPO Credits. When they receive these premiums from RSPO, they are eager to share the benefits of the program”* (Interview, Field Officer).

Another important sub-theme is recognition from industry players. The other industrial players also recognize the company's efforts through this initiative, which positively impacts the community, particularly involving smallholders. The supply chain of the palm oil industry, specifically in Batu Pahat and Pontian, has also experienced benefits from implementing an inclusive business model in this region. The company assists in improving the management of collection centers and shares best practices with them, contributing to their overall development.

*“Our company is also recognized by our peers, industries, and customers for taking the lead and going the extra mile to work within our supply chain using this business model. Although we have not yet received the return on this investment, which requires time, our presence positively impacts the community, particularly smallholder farmers, through the transfer of knowledge between the company and them”* (Interview, Senior Manager).

*“There hasn't been a program before that reached smallholder farmers. This program has opened our eyes to the importance of responsible sourcing and the need to support the supply chain from the grassroots level to the next level”* (Interview, Field Officer).

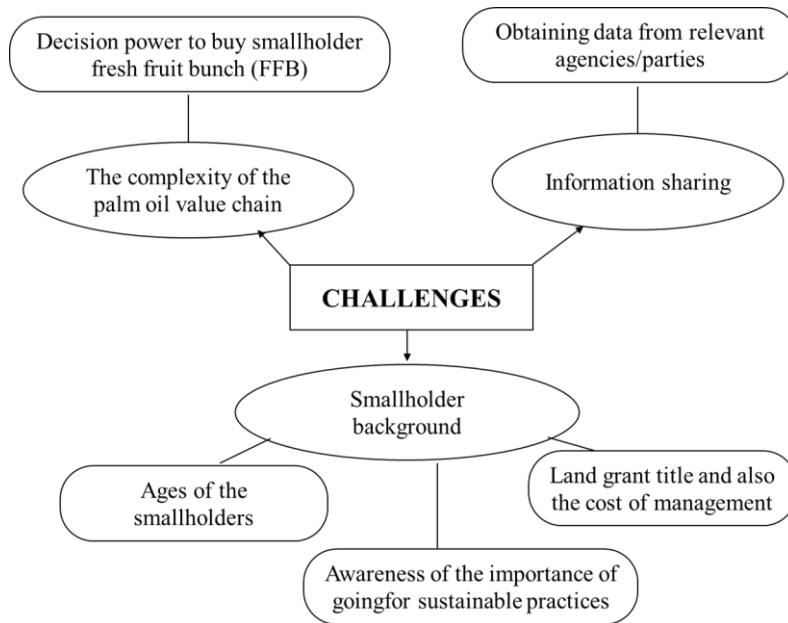
The company directly explores the complexity of the palm oil supply chain through field involvement. This experience allows the company to interact with various palm oil supply chain stakeholders. The company adopts an inter-organizational approach to collaborate with industry stakeholders, which aligns with the findings of Bowesox et al. (1999), emphasizing the need for organizations to engage with external parties to secure their supply chain and ensure ethical practices in material sourcing. The company also acknowledges a better understanding of the roles played by each party in the palm oil supply chain.

Furthermore, the company takes pride in supporting smallholders to enhance their skills and income through the RSPO smallholder certification initiative. The company provides training and assistance to facilitate smallholders in obtaining certification and adopting best practices in palm oil cultivation within their plantations. This approach fosters mutual benefits and acknowledges inter-organizational relationships, as emphasized by Liu et al. (2016) and Zhou et al. (2011), enabling information sharing, knowledge exchange, and financial support.

The efforts of the company to assist smallholders have indirectly gained recognition from other industry players. This success enhances the company's positive image and credibility, contributing to good governance practices and the sustainability of the environment and local communities. This recognition aligns with the principles of Environment, Social, and Governance (ESG), which urged companies to implement profitable business models while prioritizing environmental conservation and community well-being (Health, 2023).

### 5.3 Challenges in Adopting IBM

From the participant's views, the business ecosystem in the palm oil industry, access to information, and the target audience's background are the main challenges in adopting an inclusive business model. This theme includes three sub-themes: "The complexity of the palm oil value chain", "Information sharing" and "Smallholder background", as presented in Figure 6.



**Fig. 6- Thematic Network: Benefits in Adopting IBM**

According to the participants, the major challenge to adopting an inclusive business model is dealing with the complexity of the palm oil supply chain and having no control over external mills and refineries. The palm oil material supply chain consists of various parties, from palm oil plantations to palm oil processing plants owned by different organizations. Therefore, controlling the supply chain is difficult as it is interconnected in the palm oil industry ecosystem.

For instance, one of the issues faced by the company is gaining confidence from the smallholders. Although the program will be able to help them get a competitive price if they sell at certified palm oil mills, the decision to buy palm oil from the smallholders depends on the palm oil mill's manager. There is no contract between the palm oil smallholders and the mills. Hence, it is hard for the company to fully adopt IBM, especially on the issue of the supply chain model.

*“The biggest problem is the supply chain. This is the nature of the palm oil industry. When you have collection centers or FFB dealers, they buy the fruits from smallholder farmers and then they will go and sell the fruits to the highest bidders. The problem is to keep the supply chain intact for our company (value chain). That is the critical part”. (Interview, Senior Researcher).*

*“The problem we face is that we are investing money to improve the yield and productivity of smallholder farmers, but we don't see a return on our investment because the volume of palm oil goes to other buyers. This is our biggest challenge. Ideally, our company would prefer if 100% of the palm oil volume we produce goes back to our company mills, and from there to the refinery and back to our company. However, the decision on the sources of palm oil lies with the mill managers, and we have no control over them. We also lack any legal relationship or partnership with the mills. In the palm oil industry, we cannot directly purchase from smallholder farmers because the fruit*

*must be processed and extracted to obtain the oil. Whether we like it or not, it must go through the mills and refineries". (Interview, Senior Manager).*

Other participants highlighted another sub-theme: "information sharing" through adopting the business model. Obtaining information from relevant agencies is challenging due to the data policy in place. As a result, the company had to start adopting this model from scratch by conducting various fieldwork activities to gather data and then align it with the limited data available from third parties. One of the field officers explained this challenge as follows:

*"Information transparency was a major challenge during the initial stages of program implementation. We faced difficulties in tracing smallholders due to insufficient data, which required us to start the program from scratch. It would be beneficial if some agencies or authorities could share relevant data, as it would accelerate the progress of program implementation", (Interview, Field Officer).*

The next sub-theme is "Smallholder background". Participants refer to the human aspect of the program, such as smallholders. Most of the smallholders participating in the program are of advanced age, mostly in their mid-50s and older, which has led to a slowdown in the program. Obtaining RSPO certification poses its own challenges, as it involves navigating through stringent procedures and incurring costs. Additionally, some smallholders do not fully comprehend the importance of achieving sustainability in palm oil production, leading to a few opting out of the program. A senior researcher in the team provided insights during an informal interview, stating the following:

*"The age of the farmers poses another challenge. While training and assisting them to the best of our abilities is important, we also need to consider the future. What happens when the older generation passes away? Who will continue to participate in these initiatives? It's similar to estate management. In fact, we have experienced the passing of three of our certified farmers. This is the reality of life, and the question arises: Will their children take over the farm management?" (Interview, Program Manager)*

*"The certification process for smallholders, such as obtaining RSPO certification, is complicated. Some farmers express their desire to pursue certification, but they face obstacles such as the status of their land grant not yet being changed. Changing the status may incur fines, which some farmers are unable to afford". (Interview, Field Officer).*

*"Most of the smallholders still do not fully comprehend the importance of transitioning towards sustainable practices in oil palm cultivation. They question the necessity of moving in that direction and may not see the value in embracing sustainability". (Interview, Senior Researcher)*

From the supply chain's perspective, the palm oil supply chain is complex. It involves various parties, as highlighted by Legner and Wende (2007), who emphasized that the supply chain actors have autonomy and the freedom to establish their business processes within their organizational boundaries. However, this autonomy challenges the business model, which requires an inter-organizational approach. The company acknowledged that they had to start from scratch to adopt this model, as no basic information was provided by any party, including relevant government agencies. In Malaysia, government agencies tend to restrict information sharing within the palm oil industry, considering it a protected commodity, despite the global trend towards supply source transparency and partnerships. Lastiew, Bals, and Van Tulder (2018) also highlighted similar issues in their research, where companies adopting novel IBM approaches face difficulties in obtaining government support, leading to market and resource access problems.

Despite the growing interest in sustainable and inclusive business models, the process for smallholders to obtain international certification in palm oil production is complex and expensive. They need to change the status of their cultivated land and may face fines for non-compliance. These procedures involve costs such as penalty charges that burden smallholders and hinder their efforts to obtain international certifications like RSPO certification. Furthermore, some smallholders do not understand the importance of transitioning towards sustainable palm oil production as practised globally. As discussed by Lashtiew, Bals, and Van Tulder (2018), the lack of awareness of the sustainability agenda among smallholders can lead to low motivation in supporting the positive agendas of IBM adopted by the company.

## **6. Conclusion**

The result of this paper is based on the experience of the company's higher management and its affiliates adopt a Smallholder Program based on the inclusive business model in Batu Pahat and Pontian, Johor. The company's efforts to innovate through an inclusive business model have positively impacted the community and provided a clear direction for environmental protection in alignment with widely adopted ESG principles in the industry.

Both companies and smallholders benefit from the adoption of this inclusive business model. However, there are certain challenges that the company faces in adopting this model, necessitating strategic government interventions to facilitate its adoption within the target community.

Applying the findings of this study paves the way for strengthening the adoption of an inclusive business model based on the motives to adopt this model, benefits, and challenges that will be faced to carry this model so that the organization can strengthen their plan to carry out this kind of business model.

The government, particularly relevant agencies, should actively support the company's commendable efforts by formulating clear policies and offering incentives to encourage the adoption of this business model and attract other companies to follow suit. Future studies are recommended to explore further the integration of the inclusive business model innovation process into the company's business model and to assess the impacts of this model's adoption.

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