

Empowering farmers through the affordable main rice field program to increase rice production by the agriculture office of Pesisir Selatan Regency in Nagari Koto Berapak, Bayang District

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ABSTRACT

This program was created to assist farmers with issues, such as high production costs and low harvest yields. However, reality in the field shows that the implementation of the SPM Program is still far from expectations, both in terms of achievements and the impact produced. The problems encountered by the researchers included farmers' low understanding of the SPM Program, lack of outreach, ongoing assistance, and training from the Agriculture Office and the local government. In addition, there is minimal community participation in the SPM Program, inadequate infrastructure for implementing the SPM Program, and a limited number of facilitators to carry out the program. This study used a qualitative design with descriptive statistics. This study focuses on the empowerment of farmers through the Sawah Pokok Murah program to increase rice production by the Agriculture Office of Pesisir Selatan Regency in Nagari Koto Berapak, as viewed from the implementation of the program and the influencing factors. Informants were selected using purposive sampling, which is an intentional selection based on considerations relevant to the research focus. The informants in this study included the Agriculture Office of Pesisir Selatan Regency, SPM Program Extension Cadres for Bayang District, Wali Nagari, Leader of the Farmer Group, SPM program mobilizer for Nagari Koto Berapak, and members of the community participating in the SPM Program who were also selected using purposive sampling. Data collection techniques included interviews, observations, and documentation. Data analysis was conducted using the Miles and Huberman model, which involves data collection, reduction, display, verification, and conclusion drawing. The research results show that the SPM Program in Nagari Koto Berapak has produced positive outcomes, including increased farmer capacity (Human Development), increased productivity through MTOT ($\approx 5 \rightarrow 12$ tons/ha) and cost efficiency (Business Development), as well as promoting environmentally friendly practices (Environmental Development). In addition, the program has successfully reactivated farmer groups (Institutional Development), although the level of independence still needs improvement. The main obstacles faced include limited managerial capacity and capital as well as less-than-optimal private sector partnerships. Some of these obstacles have been addressed with support from the Food Brigade, the World Bank/UBI, and commitments from the Agriculture Office.

Keywords: Farmer empowerment, Affordable Main Rice Fields, Rice production



1. INTRODUCTION

Empowerment is an important step in improving community welfare (Ningrum, 2021). This term has long been known, especially because of rising poverty in Indonesia, which affects people in both rural and urban areas. Many community empowerment programs have been created by the government and social organizations, but not all of them have been successful (Rabiah et al, 2022). The agricultural sector is important for national development, particularly in providing food and supporting the economy, especially in rural areas. Indonesia, as an agrarian country, has significant agricultural potential, including the Nagari Koto Berapak, Bayang Subdistrict, Pesisir Selatan Regency.

Nagari Koto Berapak is a result of the division of Bayang Subdistrict, Pesisir Selatan Regency, West Sumatra Province. Preliminary research in Nagari Koto Berapak showed that rice harvest productivity was low and did not align with available resource potential. This is because of a lack of modern agricultural technology, minimal training and technical support, and insufficient policies and infrastructure from the local government. Many farmers continue to rely on traditional practices that are less effective in addressing issues such as climate change, pest infestation, and soil degradation. Furthermore, the lack of capital and limited access to fertilizers and other agricultural resources exacerbate this problem. Consequently, farmers' earnings often remain stagnant, and little progress has been made in enhancing regional food security. This scenario highlights the necessity for systematic and sustainable government intervention through empowerment programs specifically designed to meet farmers' needs.

In response to the challenges of low agricultural productivity and other issues faced by farmers, the Agriculture Office of the Pesisir Selatan Regency enacted Decree No. 500.6.3/586/Dista/2024 concerning the Field School for no-tillage rice (TOT) Clean Air Indonesia (UBI). This initiative is designed to teach farmers not only the technique of planting without tillage but also to transform their mindset and practices towards more efficient, environmentally friendly, and sustainable land management. Sawah Pokok Murah (SPM) is a farming approach that integrates various agricultural practices, inspired by alternative and innovative agricultural concepts. The Dangau Inspirasi Foundation, operating under Indonesia's Ministry of Agriculture, launched this initiative to encourage the use of No-Tillage mulch (MTOT) farming technology. Unlike conventional practices that require significant soil tilling, MTOT involves covering the ground with organic substances, such as straw, grass, or other agricultural by-products. This approach aids in moisture retention, weed control, and natural improvement of soil structure (Sari, 2022). Furthermore, it contributes to environmental preservation and helps plants adapt to climate change, which affects planting schedules and crop productivity (Dangau Inspirasi, 2024).

In the Pesisir Selatan Regency, the Agriculture Office implemented the SPM program in Bayang District, particularly in Nagari Koto Berapak, Nagari Kapeh Panji Jaya Talaok, and Nagari Kapujan Koto Berapak. The program involved farmers attending field schools. However, despite outreach and facilities, many people in Nagari Koto Berapak have not yet properly implemented the SPM Program, even though there is an example from the Field School. This contrasts with Nagari Kapeh Panji Jaya Talaok, in which all farmers participated in the SPM Program. In Nagari Kapujan Koto Berapak, most people are corn farmers, so this does not align with the research objective, which focuses on increasing rice production.

According to Mardianto, Head of the Agriculture Office of Pesisir Selatan Regency, in an interview with TV Tani, Ministry of Agriculture of the Republic of Indonesia (October 31, 2024), and in an interview with TV Tani, Pesisir Selatan Regency has approximately 23,000 hectares of rice fields. Approximately 75% of this area is equipped with irrigation systems; however, approximately 35% of these systems do not function properly. A limited water supply is one of the main factors hindering rice productivity. However, these issues can be addressed effectively through the SPM Program. This program can significantly reduce rice farmers' production costs and increase water use efficiency by up to 65%, so that water needs are only about 20-35% compared to conventional rice fields. The SPM Program was first implemented in Pesisir Selatan in 2022, and has already shown positive results. In 2024, the local government established a demonstration plot covering 20 hectares in one sub-district, and the program has now expanded to all agricultural extension working areas (WKPP), which includes 15 Agricultural Extension Centers (BPP)

and almost 100 WKPP. Harvest results have shown an increase in average productivity, reaching 6.8–7.5 tons per hectare.

The SPM Program aims to comprehensively support farmers, focusing not only on agricultural techniques but also on enhancing their social, economic, and organizational skills (Paramata & Setiawan, 2024). By offering farmland at reasonable prices, the program allows small-scale farmers to continue their operations despite the challenges of land-use changes and increasing land costs. MTOT technical training is intended to boost farmers' expertise and abilities, emphasizing not only technology but also fostering a mindset open to innovation and modern farming practices. The involvement of agricultural extension agents is vital for the effectiveness of the program (Nadzirroh, 2020). Through educational and interactive methods, farmers can engage in discussions, ask questions, and directly address issues in the field. This guidance also acts as a link between local governments and farmer groups, facilitating communication of needs and challenges to ensure that agricultural policies are more accurately directed (Dangau Inspirasi, 2024).

This initiative not only targets boosting rice production, but also seeks to empower farmers by enhancing their resource management skills, broadening their access to knowledge and technology, and establishing a local agricultural framework that can withstand economic and environmental challenges. The success of the SPM program is expected to bolster local food security, lessen reliance on external food sources, and act as a replicable model for empowering farmers in other regions (Haryoko & Arwadi, 2020). Additionally, this achievement will significantly advance the goal of achieving food sovereignty both locally and nationally, positioning farmers as key players in sustainable and fair agricultural development, rather than mere subjects of policy.

Nevertheless, practical experience indicates that the SPM Program's execution falls short of expectations, both in terms of its accomplishments and the effects it generates. The researcher has identified several issues, including farmers' limited understanding of the SPM Program, insufficient outreach, and a lack of ongoing support and training from the local Department of Agriculture and the local government. Furthermore, there is a lack of community involvement in the SPM Program, inadequate infrastructure for its implementation, and a scarcity of facilitators to carry out the program effectively.

The purpose of this program is to support farmers facing challenges, such as high production expenses and low crop yields. Nevertheless, during the rollout, there were inconsistencies between the planned approach and its actual implementation. These challenges could stem from technical issues, human resource constraints, and farmer preparedness. This research is crucial to assess whether the program is being executed as planned, and to evaluate its effectiveness in aiding farmers and boosting rice production in Nagari Koto Berapak. The study not only looks at harvest outcomes but also considers whether the program can enhance farmers' skills, knowledge, and autonomy over time. Consequently, this research is titled “Empowering Farmers Through the Affordable Basic Rice Field Program to Increase Rice Production by the Department of Agriculture of Pesisir Selatan Regency in Nagari Koto Berapak, Bayang District.”

2. METHOD

This study employed a qualitative design using a descriptive method. This research focuses on the empowerment of farmers through the Sawah Pokok Murah program to increase rice production by the Agriculture Department of Pesisir Selatan Regency in Nagari Koto Berapak, as viewed from the implementation of the program and the factors that influence it. The informants were selected using purposive sampling, which was deliberately based on considerations relevant to the focus of the research. The informants in this study included the Agriculture Department of Pesisir Selatan Regency, SPM Program Extension Cadre of Bayang Subdistrict, the Head of Nagari, the Head of the Farmers' Group, the head of the SPM program driver in Nagari Koto Berapak, and community members who implemented the SPM Program, all chosen using purposive sampling techniques. The sources of data for this research are primary data obtained through interviews with informants, while secondary data include

regulations related to the SPM Program Movement, previous research reports, media news, and other official documents related to Empowerment and Family Welfare in the field of clothing. Data collection techniques were conducted through interviews, observations, and documentation studies. Meanwhile, data analysis techniques use the Miles and Huberman model, namely, data collection, data reduction, data presentation, verification, and conclusion drawing.

3. RESULT AND DISCUSSION

The Affordable Core Rice Field Program (SPM) represents a novel approach in agriculture designed as an alternative to traditional farming methods that frequently depend on synthetic chemical inputs. This initiative strategically combines various sustainable farming techniques with a focus on cost-effectiveness, environmental sustainability, and ease of use. The SPM framework prioritizes effective rice field management without the need for costly external resources, aiming to preserve the productivity and sustainability of rice field agroecosystems (Nurdin & Yoserizal, 2020). The Field School Program and farmer support through the Affordable Core Program (SPM) are tangible government efforts to improve farmers' skills and knowledge in Nagari Koto Berapak. This initiative encompasses both theoretical and practical fieldwork using demonstration plots. By implementing MTOT, utilizing straw as mulch, and innovating organic fertilizer production, farmers can enhance the efficiency, productivity, and sustainability of their agricultural practices. The SPM program not only transforms land cultivation and management but also fosters environmental awareness and economic self-reliance among farmers in Nagari Koto Berapak. Through the MTOT system, the program aims to minimize harmful farming practices such as straw burning and excessive plowing, which can reduce soil fertility. Based on the research findings, this section addresses two issues related to research problem formulation, as follows:

3.1 The implementation of farmer empowerment through the affordable rice field program to increase rice production by the Department of Agriculture of Pesisir Selatan Regency in Nagari Koto Berapak, Bayang District

After conducting the research, it can be stated that the implementation of farmer empowerment through the affordable rice field program in Nagari Koto Nerapak has been going quite well and is in line with the main goal of the program, which is to enhance farmers' ability to manage rice farming and encourage continuous production increases. According to Mardikanto and Sapriyadi & Nurhapsa (2023), community empowerment refers to a series of activities that strengthen and optimize the empowerment (in terms of capacity and competitive advantage) of vulnerable groups in society, including individuals experiencing poverty. In this study, the researcher used the measurement of community empowerment as proposed by Mardikanto & Soebianto (2012) through four indicators, as follows:

3.1.1 Human Development

According to Mardikanto & Soebianto (2012), human development is a primary aspect that must be considered in the empowerment process because the main goal of development is to improve the quality and welfare of the community through community empowerment, where the community serves as a human resource that must be empowered. Indicators of Human Development activities include capacity building, institutional capacity development, and system (network) capacity development. In implementing the empowerment of farmers through the Affordable Rice Fields Program (Sawah Pokok Murah) in Nagari Koto Berapak, the Agriculture Office of Pesisir Selatan Regency has issued a Decree regarding Field Schools and has allocated funds for the implementation of these Field Schools.

The research results indicate that the implementation of field schools and the accompaniment of farmers by agricultural extension workers have had a significant impact on improving the capacities of farmers in Nagari Koto Berapak. The SPM program emphasizes not only theory, but also direct field practice through demonstration-plot activities. Interviews with extension staff and leaders of the extension division revealed that field school sessions were held 12 times per cycle, encompassing every

phase of agriculture, including preparing the land and cultivating the soil for planting, managing pests, and handling both harvest and post-harvest activities. Additionally, discussions with the community indicated an enhancement in technical abilities and newfound awareness of farm management practices, such as using straw, implementing non-chemical pest control, and fostering collaboration among farmers through regular meetings. This transformation in farmers' behavior from being somewhat individualistic to embracing cooperative learning exemplifies the process of human empowerment.

Therefore, when evaluated using human development indicators, it can be inferred that the SPM Program has effectively improved farmers' skills, knowledge, and attitudes, leading to a more efficient, adaptable, and sustainable agricultural system. Farmers have gained greater confidence and autonomy in making decisions about their farming operations.^a

3.1.2 Business Development

According to [Mardikanto \(2015\)](#), business development plays a crucial role in community empowerment, necessitating active involvement and support from all stakeholders. This concept involves enhancing the economic wellbeing of communities. Key indicators of business development include growth in both quantity and quality of agricultural yields, advancements in farming facilities and infrastructure, and improved access to market information and financial resources.

Research findings indicate that the implementation of the SPM Program through the MTOT system has significantly boosted land productivity and farmers' crop yields. As conveyed by the Head of the Agricultural Extension Division at the Pesisir Selatan District Agriculture Office, rice production has risen from less than 5 tons per hectare to as much as 12 tons per hectare after farmers participated in training and applying SPM cultivation techniques. Farming efficiency has also improved, in addition to yield increases. Farmers no longer need to perform repeated plowing and can save on land cultivation costs. The implementation of the MTOT method also allows earlier planting and lower production costs. Interviews with farmers indicated that they are now able to independently continue SPM practices, even without government budget support, since they have experienced economic benefits and increased yields.

Nevertheless, challenges remain in the form of changing the habits of conventional farmers, limitations in capital, and ongoing policy support from the local government. However, the improvement of farmers' economic capability through production efficiency and independence in managing their farms demonstrates that business development indicators in empowerment theory have been achieved. Therefore, the SPM Program can be considered successful in terms of business development, as it has been able to increase productivity, reduce production costs, and foster entrepreneurial spirit and economic independence among farmers.

3.1.3 Environmental Development

Environmental development, in the context of community empowerment, as described by [Mardikanto \(2015\)](#), is also an important aspect that must be considered in the empowerment process. Empowerment activities must always consider environmental sustainability, since the environment, as the source of raw materials, is a crucial factor in ensuring the continuity of activities carried out. Indicators of environmental development include fostering community awareness and reducing the environmental impacts of agriculture.

Based on the research results within the context of the SPM Program, it is shown that the MTOT system has driven significant changes in the management patterns of agricultural environments. Previously, farmers burned rice straw after harvest, causing air pollution and reducing soil fertility. Through SPM training, farmers are taught to utilize rice straw as a mulch that covers the soil surface. The straw then decomposes into natural organic fertilizer, which improves the soil structure and maintains land moisture. According to interviews with agricultural extension workers and the community, SPM has also reduced the use of chemical fertilizers, improved soil structure from previously hard to more crumbly, and increased the population of soil organisms, such as earthworms, as indicators of natural

fertility. These activities have made the agricultural system of Nagari Koto Berapak more sustainable and environmentally friendly.

Thus, the implementation of SPM has met environmental development indicators, as it has succeeded in changing farmers' behaviors toward more ecological practices, reducing pollution, and improving the carrying capacity of the agricultural environment. This program not only increases crop yields but also maintains the balance of the agricultural ecosystem over the long term.

3.1.4 Institutional Development

Institutional development, as a measure of community empowerment, according to [Mardikanto & Soebianto \(2012\)](#), is an important factor that plays a role in providing guidance related to empowerment. The relationships between institutions must be considered for the smooth running of the empowerment process. The indicator of institutional development is the activity of the institutions in the agricultural sector. Based on the research findings, farmer groups in Nagari Koto Berapak served as the main actors in the implementation of the SPM Program. Through these farmer groups, structured training activities, discussions, and regular meetings were conducted. Farmer groups also function as a medium for delivering information and innovations from the Agriculture Office to farmers.

However, even though farmer groups have functioned as implementing institutions, there are still challenges such as farmers' dependence on government assistance and low awareness among some members about the importance of program sustainability. As stated by the agricultural extension agent, some farmers still believe that government programs operate only when accompanied by material aid. Nevertheless, in general, the presence of farmer groups has successfully provided a forum for farmers to discuss and share experiences and build social solidarity. Farmer groups have also become institutions capable of transferring knowledge from extension agents to farmers, and vice versa, as well as serving as the driving force behind the implementation and sustainability of SPM in the field.

Thus, the institutional development indicators in Mardikanto's theory were implemented quite well in Nagari Koto Berapak. The presence of farmer groups plays an important role in strengthening the social and organizational capacity of farmers, although increased assistance and guidance are needed to make these groups more independent and innovative.

3.2 Factors influencing the implementation of farmer empowerment through the "Sawah Pokok Murah" program in increasing rice production by the Department of Agriculture of Pesisir Selatan Regency in Nagari Koto Berapak, Bayang District.

The Sawah Pokok Murah (SPM) program is an initiative by the Pesisir Selatan Regency Government aimed at enhancing the autonomy and well-being of farmers by promoting agricultural practices that are efficient, sustainable, and environmentally conscious. This program seeks to transform farmers' perspectives and practices from traditional methods to modern technology-driven agriculture that emphasizes resource efficiency.

Through SPM, the government endeavors to offer extensive support, including providing production facilities, enhancing human resource capabilities through training and counseling, and strengthening farmer group institutions. Consequently, the program's implementation is intended not only to boost rice production, but also to empower farming communities economically, encourage the emergence of young farmers, and establish robust and competitive regional food security. As noted by Arsiyah in Haqqie (2016), various factors affect community empowerment, with certain challenges in its execution, specifically, internal and external obstacles.

3.2.1 Internal Factors

In executing the Cheap Primary Rice Field Program (SPM) aimed at empowering farmers, several challenges impact the program's effectiveness and success. These challenges arise from internal factors related to farmers' own conditions and their work environment. As noted by Arsiyah in [Haqqie \(2016\)](#),

internal challenges encompass several critical aspects that can impede the community empowerment process, such as limited human resources, lack of raw materials, insufficient managerial skills, inability to capitalize on market opportunities, and restricted business capital.

The most significant internal factor affecting the SPM Program's implementation is the quality of farmers' human resources. Interviews with various informants revealed that many farmers struggle to adopt modern agricultural technologies like the MTOT system. This challenge corresponds with the first indicator in Arsiyah's theory, which is limited human resources.

According to Mrs. Erna Yenti, the SPM Program Extension Cadre, most farmers over the age of 50 find it difficult to adapt to new technology. This was further supported by Mr. Lazuardi, the Head of Koto Berapak Village, who mentioned that the extended planting and harvesting periods deter some farmers from consistently using the MTOT system. This situation suggests that habitual factors and age are the primary internal challenges in the program's implementation.

Additionally, interviews with program implementers, such as Mrs. Jerima and Mr. Andra, revealed that limited labor and entrenched habits also affect the SPM's effectiveness. While some farmers have managed to adapt and are beginning to see improved results, there are still groups resistant to change due to limited adaptability and managerial skills. In the context of Arsiyah's theory, this relates to limited managerial capabilities and a minimal ability to manage existing market opportunities. Older farmers often struggle with efficiently managing labor and planting schedules, whereas younger farmers, despite their enthusiasm, still need more intensive guidance to handle production and marketing. Limited business capital is another significant internal factor. Some farmers continue to depend on government assistance for production inputs like fertilizers and seeds, preventing full business independence.

Thus, based on Arsiyah's theory in [Haqqie and Natasya \(2016\)](#), it can be concluded that the implementation of the SPM Program in Nagari Koto Berapak still faces several internal obstacles in the form of: (1) Limited quality of human resources, with most farmers being elderly; (2) Limited managerial skills and adaptability to technology; (3) Limited business capital and adequate labor; and (4) Farmers' ability to take advantage of agricultural market opportunities is not yet optimal.

Nevertheless, the revitalization efforts for young farmers through the Food Brigade program indicate a positive step by the government to strengthen the capacity of agricultural human resources in the future.

3.2.2 Eternal Factors

In addition to internal obstacles stemming from the condition of human resources and the limited capabilities of farmers, the implementation of empowerment through the Affordable Main Rice Field Program (SPM) is also influenced by external factors coming from outside the farmer community group. These external factors include government policy support, the role of partner institutions, as well as the involvement of the private sector in supporting the sustainability of the program. According to Arsiyah in [Haqqie and Natasya \(2016\)](#), the external obstacles in community empowerment implementation include: (1) the access of joint business groups (KUB) as government partners, which function as a bridge between the government and entrepreneurs, remains suboptimal, and (2) there are no private parties yet providing capital assistance as a form of support for the economic empowerment of the community. These two challenges suggest that the effectiveness of empowerment initiatives relies not only on the community's preparedness but also on the degree to which external support can bolster the program's execution on the ground. According to the research findings, local government backing through the Food Brigade Program has significantly enhanced farmers' capabilities, particularly in rejuvenating the agricultural workforce.

This initiative establishes dedicated divisions to manage the production and marketing of crops, ensuring that the price of unhusked rice remains stable and preventing substantial losses for farmers during peak harvest times. This demonstrates the government's proactive role in addressing external challenges by providing institutional frameworks that support farmers within the agricultural value chain. In addition, support from international institutions such as the World Bank and Udara Bersih Indonesia (UBI) is also an important external factor. These institutions provide assistance in the form of field school

implementation and incentive funds for farmers participating in the program. This support has proven to increase farmers' motivation to implement environmentally friendly agriculture systems and reduce dependence on chemical fertilizers.

However, according to Arsiyah's theory, there are still external obstacles that need attention, namely the suboptimal role of local partners such as farmer groups or nagari economic institutions in bridging cooperation with the private sector. Although support from international institutions has helped, the involvement of local private parties in providing business capital and marketing of agricultural products is still limited.

Interviews with program participants, as conveyed by Mr. Andra, show that the existence of the Food Brigade has encouraged the involvement of younger generations in agricultural activities, but most marketing activities are still dependent on the local government and have not become fully independent. Thus, based on Arsiyah's theory, the external obstacles in the implementation of the SPM Program in Nagari Koto Berapak can be seen from: (1) The suboptimal cooperation between farmer groups and local private parties; (2) The still limited capital support from the private sector to strengthen farmer empowerment; and (3) The farmers' dependence on government assistance in terms of marketing and capital.

Nevertheless, the various supports from the government and international institutions have helped to reduce most of these external obstacles and have created positive synergy in efforts to achieve sustainable agriculture.

4. CONCLUSION

Empowerment of Farmers through the Cheap Core Rice Field Program (SPM) by the Department of Agriculture of Pesisir Selatan Regency in Nagari Koto Berapak, Bayang Subdistrict, can be concluded to have been implemented quite well. Referring to the four empowerment indicators namely Human Development, Business Development, Environmental Development, and Institutional Development, it can be said that the SPM Program has produced fairly significant results. In terms of Human Development, activities such as field schools and assistance from agricultural extension agents have proven to improve farmers' skills, knowledge, and awareness in managing their farming businesses. Regarding Business Development, the implementation of the MTOT system has succeeded in increasing yields from an average of 5 tons to 12 tons per hectare and has reduced production costs through efficient land cultivation. This indicates an enhancement in the welfare and economic autonomy of farmers. Additionally, regarding the Environmental Development indicator, the SPM program has effectively encouraged farmers to embrace more eco-friendly farming methods, such as using straw as organic fertilizer and minimizing chemical usage. Concerning Institutional Development, farmer groups have served as platforms for communication, education, and program execution, though there is still a need to increase members' awareness about sustaining activities without depending on government support.

Regarding factors affecting program implementation, both internal and external challenges were identified. Internal challenges include the limited quality of human resources, low managerial skills, inadequate business capital, and farmers' subpar ability to leverage market opportunities. External obstacles include the less-than-optimal cooperation between farmer groups and the private sector, limited capital support from the private sector, and dependence on government assistance for capital and marketing. Nevertheless, the existence of the Food Brigade Program, the support of international institutions such as the World Bank and Clean Air Indonesia (UBI), as well as the commitment of the Department of Agriculture, have helped to alleviate most of these obstacles.

Ethical Approval

Not Applicable

Informed Consent Statement

Not Applicable

Authors' Contributions

EL contributed to the conceptualization, legal framework analysis, and supervision of this study. He also served as corresponding. MFA contributed to empirical data collection through interviews, literature reviews, and the preparation of the manuscript draft.

Disclosure Statement

The Authors declare that they have no conflict of interest

Data Availability Statement

The data presented in this study are available upon request from the corresponding author for privacy.

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