



POIDSE PROCEEDING 2019

PALM OIL INDUSTRY DEVELOPMENT
FOR A SUSTAINABLE ECONOMY



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The Strategies towards MSPO Certification: Case of a Palm Oil Miller, East Malaysia

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Abstract

Malaysia Sustainable Palm Oil (MSPO) is a certification introduced by Malaysian government to sustain the quality of palm oil production in Malaysia and fulfil worldwide requirements. However, the palm oil mills are still facing struggles to obtain the certification since it is costing money and time to achieve all the criteria stated in the MSPO regulations. Nevertheless, some mills successfully obtain their certification. Among seven mills which we selected purposely, only one mill was successfully obtained MSPO certification. This paper will discuss the strategies and challenges faced by a particular mill throughout the process of certification. Data were collected by using qualitative method such as interview, observation and experts knowledge sharing. The particular mill has practiced each stated criteria in MSPO in terms of management commitment and responsibility; transparency and compliance to legal requirement; social responsibility, health, safety and employment condition; environment, natural resources, biodiversity and ecosystem services, and best practices. In addition, this mill supports the other mills and smallholders to obtain the MPSO for growing together motives. As a conclusion, MSPO certification is encouraging mills to practice positives practices towards achieving 3P (Planet, People, Profit) accordingly.

Keywords: MSPO certification, MSPO palm oil mill Qualitative

INTRODUCTION

MSPO standards were launched by Malaysian Palm Oil Certification Council (MPOCC) on 19th November 2013 [9]. They are MS 2530: 2013 Series that consists of part 1-4, which are MS 2530-1:2013 – Malaysian Sustainable Palm Oil (MSPO) Part 1: General Principle; MS2530-2: 2013 – Malaysian Sustainable Palm Oil (MSPO) Part 2: General Principle for independent smallholder; MS 2530-3: 2013 - Malaysian Sustainable Palm Oil (MSPO) Part 3: General Principle for oil palm plantations and organized smallholder and MS 2530-4: 2013 - Malaysian Sustainable Palm Oil (MSPO) Part 4: General Principles for palm oil mills. This paper mainly focuses on Part 4: General Principles for palm oil mills, which is mandatory for the mills in Malaysia to obtain the MSPO certification by the end of 2019 [9]. Part 4 consists of six principles, 26 criteria, and 87 indicators, which are important to Mill management to comply to obtain the certification in a short period of given duration. The figure 1 shows the timeline of the MSPO certification.



FIGURE 1: The timeline for MSPO Certification
Source: MPOCC official website

According to the statistics of MPOCC, there are 26 certified companies all over Malaysia. There are 70 certified mills, which have a capacity of 4,000 metric tons per hour. Almost every palm oil mills in peninsular, Sabah and Sarawak are facing challenges, directly and indirectly, to comply with the principles of MSPO. This study focuses on one of the respondent mill in Sabah, which has successfully obtained the MSPO [9].

LITERATURE REVIEW

MSPO (Part 4) for mills has six principles as stated below:

- i. Management commitment and responsibility
- ii. Transparency
- iii. Compliance to legal requirements
- iv. Social responsibility, health, safety and employment condition
- v. Environment, natural resources, biodiversity and ecosystem services
- vi. Best Practices

Each principle has few criteria and indicators. MSPO certification has become more vital to palm oil industry in Malaysia, which is balancing the benefits between stakeholders and environment. MSPO principle allows the management of mills to practice strictly the sustainable practices in their operation. However, the implementation of MSPO certification is very challenging to MPOCC to achieve it completely, due to barriers such as acceptance of MSPO certification by smallholders, mental burden and lack of knowledge, disposal of chemical and domestic wastes, and legality of the land [11].

According to Vijaya Subramaniam et al. (2008), Biological Oxygen Demand (BOD) should be 100ppm; however, states in West Malaysia have a low level of BOD, 20ppm [16]. A.C. Er et al. (2011), indicated in their study pertaining to the waste management in palm oil milling industry in Malaysia, Mills can achieve zero waste via the utilisation of the wastes such effluent, solid wastes and gaseous [1].

Based on N. Rahman et al. (2010), oil extraction rate (OER) is vital for performance measurement in the palm oil mills[12]. A study was conducted at four mills managed by different companies but the basic processes did not vary, only some differences in the strategies of the technologies and practices to achieve high OER. There is a study conducted by Nabila Farhana Jamaludin et al. (2017), which has developed a sustainability framework for palm oil mills. The research was mainly developed and applied in sustainability index (SI) of palm oil mill[10]. There are few SI used by researcher that are divided into environment, economy and social. As a result, all the parameters of SI are equally weighted. Table 1 shows the SI of palm oil mill.

TABLE 1: The Sustainable Index for Palm Oil Mill

Environment	Economy	Social
Water Consumption	Kernel Extraction Rate	Customer Satisfaction
Air Quality (Boiler)	Oil Extraction Rate	Occupational Injuries
Waste Water Quality after treatment	-	-

Source: Adopted & modified from [10]

However, the sustainability of palm oil industry is the most vital issue, which has been discussed and researched by researches all over the world. K.T. Tan et al. (2009) have conducted a study to address the issues towards sustainable development in palm oil industry. The research was conducted mainly to identify and clarify the poor perception of palm oil production and to propose some policies or strategies for sustainable production and development of the palm oil industry[7]. Based on that, there are chances for palm oil to become a top vegetable oil in market as a food and non-food production such as biodiesel.

There is another study on palm oil-based biofuels and sustainability in Southeast Asia, including Malaysia, Thailand and Indonesia. The main aim of that research is sustainable implication of palm oil biodiesel in Southeast Asia where the main and second producer of palm oil are located [5]. According to the authors, the main aim of the research is palm oil biodiesel environmental sustainability consideration such as capacity to reduce the carbon dioxide (CO₂) emission, its impact on environmental elements including forestry, soil and water quality, and biodiversity.

Based on R.P. Singh et al. (2010), conducted a study on palm oil mill waste which leads to sustainable waste management practices. There is a record, which stated that in the year 2005, around 423 palm oil mills had 89 million tonnes of fresh fruits (FFB) production capacity per year. This research is mainly to review about waste management practices such as palm oil mill effluent (POME), other wastes such as empty fruit bunches mesocarp fibre, seed shells and others. Palm oil wastes are mostly organic wastes and can be transformed into organic nutrients for plants[15].

An introduction of the MSPO certification among palm oil sector stakeholders, especially the smallholders and palm oil mills, is still facing challenges in implementing it. Lee Xin Ni et al. (2016) conducted a study to identify the factors influencing the implementation of MPSO among local smallholders [8]. A framework, which represents the factors that might influence the implementation of the MSPO, is shown in figure 2 below.

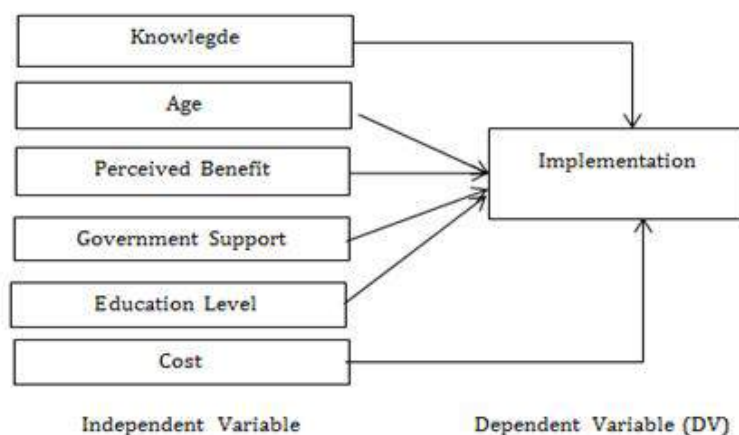


FIGURE 2: Framework of Factors Influencing Implementation of MSPO among local small holders.

Source: adopted and modified from [8]

METHODOLOGY

The purposive sampling technique was used to select respondent mills, which have either obtained MSPO certification or implementing strategies towards MSPO certification. The primary data of the study was collected via qualitative method such as interviews and discussion with experts in palm oil industry. Secondary data were collected via published articles, books and MPOCC websites. Collected interview data were then transcribed.

RESULTS AND DISCUSSION

Based on the interview with the mill manager, MSPO plays an important role in social, economic and environment. After MSPO certification, production level increases and the products were easy to sell. However, the company has to pay all the cost required to achieve the MSPO principles. The mill has practiced some strategies to obtain the certificates.

Firstly, the mill management has established a MSPO committee for coordination of internal functions, comprising officers from the social, biodiversity and environment, certification and legality departments. As a certified mill, the mill supports and assists other stakeholders especially the smallholders. Almost 600 smallholders were given assistance by this mill. Smallholders are invited to the meetings with Roundtable Sustainable Palm Oil or ISCC to ensure awareness and alertness with the latest requirements. The mill management pays an extra RM5 per ton and directly into their account to encourage them to adopt sustainable practices.

According to the mill manager, the mill always ensures the traceability (second principle of MSPO for mills) is practiced. The management of documents and files related with the ins and outs of the production and operation are kept in proper files for easy access whenever needed. Every important information and data are recorded and kept systematically. In addition, the record and files are maintained as a good practice, which should be practiced by every mill to enable easy access when whenever there is an audit.

However, the training related to MSPO is very important for the palm oil mills employees including management and operators to ensure safety. There are some safety practices in mills such as parking vehicles in a reverse manner while operating machines.

The welfare of the workers is a main priority of the management. Mill workers are allowed to involve or participate in any labour unions but it must be legal. The mill also provides jobs for woman, where 40 percent of mill workers are women.

The MSPO certification is also concerning social responsibility towards local community. Throughout East Malaysia, there are 18 estates and 9 mills. Each estate is provided with a school, day care, canteen and medical facilities to the workers and their family. Every single member of the mills is given protection by management. This mill also conducts corporate social responsibility (CSR) as a part of their societal contribution.

Figure 3 shows the ranking of MSPO principles given by the respondent mill for each principle. The ranking of six (6) indicates that it is given the most priority and one (1), the lowest.



FIGURE 3: The ranking importance of MSPO principles
Source: Developed based on interview with key informant

Management commitment and responsibility is ranked highest in the implementation of MSPO principles. First principle, which is concentrated more on the management level including internal auditing, management review, continual improvement in the established practices and action plans related to environment, and social concern. According to Emin Babakus et al. (2003), the influence of management commitment to service quality will ensure the employees commitment towards their company and job satisfaction.

Secondly, transparency of information and MSPO related files or documents, traceability of their actions and a transparent communication and consultation strategies, which should be practiced by the management. Roundtable Sustainable Palm Oil (RSPO) is focused on transparency by allowing the concerned parties with access to collected data, after critics surfaced regarding the improper assessment and audits in order to certify the palm oil plantation and production [2].

Compliance to legal requirement including regulatory requirement, land use right and customary land rights is ranked as the third highest priority. Palm oil industry has its own Malaysian laws regulating the land matter (National Land Code 1965; Land Acquisition Act 1960; Land Conservation Act 1960; and Sarawak Land Code, Chap 81, revised 1985), environmental matters, labour and employee matters, wildlife matters and pesticide uses (Palm Oil Information Online Service, 2018). Each mill and smallholder should follow and practice the sustainable regulations, which are stated in related matter to sustain the industry.

Social responsibility, health, safety and employment condition which consist of welfare of employees, social impact assessments (SIA), and commitment to contribute to local sustainable development is ranked as the fourth highest. According to the Free and Fair Labor in Palm Oil Production (2015), there are seven principles, which especially protect employee, family and community welfare as stated below:

- I. The International Labor Organization (ILO) Core Conventions are upheld.
- II. Ethical hiring and responsible employment are practiced.
- III. Reasonable production targets, working hours, and leave entitlements are established.
- IV. A living wage is paid.
- V. Worker health and safety, and the welfare of workers and their families are prioritized.
- VI. Access to remedy is guaranteed.
- VII. Commit to meaning due diligence, transparency, and disclosure of human rights policies, procedures, and data, with a focus on labour and employment

Furthermore, the fifth ranked principle is environment, natural resources, biodiversity, and ecosystem services. This principle consists of i) environmental management plan (EMP); ii) efficiency of energy use and renewable energy; iii) waste management and disposal; iv) reduction of pollution and emission including greenhouse gas and v) natural water resources. The palm oil mills should follow these principles and criteria to achieve sustainability certification due to evidence stated in IUCN Oil Palm Task Force (2018, that shows the development of oil palm at tropical forest destroys the diversity and neglects the native species of fauna [13].

Finally, the sixth ranked principle is best practices such as mill management, economic and financial viability plan, transparent and fair price dealing and contracts. This principle is related to the sustainable practices, which can lead to a sustainable management among the stakeholders of the palm oil industry where the contractors who deal with the company should understood and follow the MSPO regulations. In addition, the selling and buying price of the oil palm fruits must follow the rate fixed by MPOB. If the mills or smallholders do not follow the price rate, they could face a penalty (Key formant Miss Nor Alina Atika Useh (2018), MPOB officer, Sabah).

A certified mill always ensures the sustenance of the good practices by conducting internal audits regularly. In addition, frequent environment meetings, occupational safety and health meetings enable the mill to maintain the pollution level and workers safety and welfare. The mill also practices spot checks on site or site audit to make sure the mill operation is going smoothly and harmless. According to the respondent, the Department Of Occupational Safety and Health (DOSH), MPOB, Department of Environment (DOE) frequently visits the mill. In addition, the mill submits three-monthly environmental reports to Environment Protection Department (EPD), Sabah.

CONCLUSION

As a conclusion, this study was conducted to identify the strategies have been done by a particular mill to obtain its sustainability certification which is MSPO. In addition, that particular mill also have Roundtable Sustainable Palm Oil (RSPO) certification which consider as international sustainable certification and recommend the product of the mills are full filling the international market quality. However, the mill had some efforts to comply all the stated six (6) principles with the criteria and indicators which are mandatory to be achieved by the mill in order to obtain the MSPO certification even though that mill already own the RSPO certification.

The MSPO principles (i) management commitment and responsibility; (ii) transparency; (iii) compliance to legal requirement; (iv) social responsibility, health, safety and employment condition; (v) environment, natural resources, biodiversity and ecosystem services; and (vi) best practices. These six principles are equally very important to allow a mill to own the certification. The principle (i), (ii), and (iii) are focusing on the management, documentation and legal requirement while principle (iv) focusing on social responsibility and employee welfare and safety, principle (v) environmental preservation and principle (vi) is best practices such as financial plan, prices, contracts and etc.

The MSPO certification enhances the sustenance of the quality of the palm oil in the international market with more quality. Even though the process to acquire the certification consumes time and cost, the long-term impact on the economic, social and environment will be positive, either directly or indirectly for the all the stakeholder of the palm oil sectors such as government, community and industry.

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Environmental Sustainability: A Conceptual Framework for Research in the Palm Oil Sector

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Abstract

Environmental sustainability, with the emphasis on Environmental Performance Indicators (EPIs) is the overarching framework of this research programme. Discriminatory practices, emanating mainly from Western Environmental Non-governmental Organisations (ENGOS), have adversely impacted on the global trade of palm oil. The research foci in terms of players or actors are the oil palm cultivators and palm oil millers as they are the most vulnerable parties in terms of pollution and criticism.

The proposed research programme will commence with the quantification of EPIs for both the above sectors. The quantification of a set of comprehensive EPIs for each of the sectors is a pioneering undertaking. This will be followed by an evaluation of the extent of environmental sustainability for both the sectors via a series of spidergrams. The spidergrams, accompanied by complementary and supplementary primary data will help to ascertain the facilitators and hindrances towards the goal of environmental sustainability. The planned research will be carried out in a cluster of two collaborative and inter-related projects. Project 1 will focus on palm oil cultivators whereas Project 2 will emphasize on palm oil millers. Project 1 and 2 are inter-related in terms of the mutually-interdependent and reinforcing factors, especially for vertically-integrated operations. Moreover, these two sectors were selected as they are the most vulnerable in the entire oil palm and palm oil chain.

The research methodology initiates with the operationalization of appropriate EPIs for each of the sectors. Primary and secondary data will be gathered and analysed via a mixed-method approach. Quantitative data will be complemented and supplemented by qualitative data. The expected outcomes of this research programme would be contribution of new knowledge on environmental sustainability. The achievements and shortfalls will facilitate the formulation of environmental policy and management by MPOB and relevant government agencies, which will be in consonance with the requisite sectors. Other expected outcomes would be the development of human capital with research expertise on palm oil and also publications in high impact and SCOPUS indexed journals, which will have a positive impact on both the collaborative institutions, i.e. UKM and MPOB.

RESEARCH BACKGROUND

Environmental sustainability is an important aspect of a sustainable economy. Many discriminatory trade and non-trade policies against palm oil have been based on unproven grounds of environmental protection and conservation. Many researches on environmental sustainability for the oil palm and palm oil production chain focus mainly on technology. The main players in the oil palm and palm oil chain are oil palm cultivators, millers, crushers, refiners, specialty fats manufactures, oleochemical manufacturers and biodiesel producers. However, the assessment is usually based on a single or a few firms thus rendering the results to lack substantiality. In tandem, a dearth of literature also exists for the quantification of the extent of the attainment of environmental sustainability based on a broad set of EPIs. The nearest research in terms of quantification of environmental sustainability has been carried out by Er (2007) and Er et al. (2012) in relation to political modernization and market dynamics.

The research foci are to evaluate the environmental sustainability of the oil palm cultivators and palm oil millers as they are the most vulnerable parties in terms of pollution and criticisms by the Western Environmental Non-governmental Organisations (ENGOS). Currently, the oil palm cultivators are bearing the

brunt of criticism pertaining to the issues of deforestation, the planting of oil palms on peatlands and native or indigenous lands cum communities. However, most of the criticisms are not based on thorough scientific evidence. Thus, to comprehensively measure the environmental sustainability of both the oil palm cultivators and palm oil millers, a set of pertinent sectoral EPIs needs to be developed. This comprehensive set of EPIs will encompass land, air, water, noise, and environmental initiatives. These EPIs would provide substantiality in terms of measuring the extent of environmental sustainability and concurrently helps to fill the gap in literature by providing comprehensiveness. In addition, the extent of environmental sustainability amongst the various players within oil palm cultivation and palm oil milling will be compared and contrasted. For oil palm cultivation, the major players are Government-Linked Companies (GLCs), public-listed non-GLCs, non-public listed plantations, independent smallholders and smallholder schemes. On the other hand, for palm oil milling, the major players are GLCs, public-listed non-GLCs and independent millers. This will also take into consideration the existence or otherwise of interdependent and mutually-reinforcing characteristics of environmental sustainability, especially for vertically-integrated operations.

From an environmental policy and management perspective, the achievement or a lack thereof of environmental sustainability would be a cornerstone in guiding current and future actions. The proposed research programme will therefore undertake to quantify the appropriate EPIs for both oil palm cultivation and palm oil milling. This will help in determining the extent of environmental sustainability for both these sectors and their consequences on the environment. In addition, the successes reflect on the appropriate environmental policies and management and on the contrarian end, the shortcomings reflect on underperformance. Thus, this would guide the formulation of pertinent environmental policy and management for the present and future. .

DESCRIPTION OF THE PROGRAMME

The proposed research programme will be carried out as two major projects. The primary objectives of the proposed research programme are:

- (i) to quantify a set of EPIs appropriate for each of the sectors, namely oil palm cultivators and palm oil millers.
- (ii) to evaluate the extent of environmental sustainability attained by both.
- (iii) to ascertain the facilitators and hindrances in terms of the level of attainment for environmental sustainability for both.

A brief description of the two projects that make up this programme is provided below.

Project 1

The first project will undertake to quantify a set of appropriate EPIs for oil palm cultivators. This will be followed by an evaluation of the extent of environmental sustainability via the formulated EPIs. The results will be measured via a series of spidergrams. In tandem, an analysis of intra-sectoral variations will be conducted on the players, i.e. Government-Linked Companies (GLCs), public-listed non-GLCs, non-public listed plantations, independent smallholders and smallholder schemes. This is to ascertain the facilitators and hindrances of the level of attainment of environmental sustainability by the various types of players. Furthermore, it will also take into consideration the existence or otherwise of interdependent and mutually-reinforcing factors of environmental sustainability, especially for vertically-integrated operations. In totality this will expedite the formulation of pertinent environmental policy and management consistent with the requisite sector.

Project 2

The second project will commence with the quantification of a set of appropriate EPIs for palm oil millers. The developed EPIs will be used to evaluate the extent of environmental sustainability for the palm oil millers via a series of spidergrams. Concurrently, intra-sectoral variations will be analyzed for the various players, i.e. GLCs and public-listed non-GLCs and independent millers to determine the facilitators and hindrances in consonance with environmental sustainability achievements and shortfalls respectively. In addition, interdependent and mutually-reinforcing factors of environmental sustainability, especially for vertically-integrated operations, will be given due consideration. Thus, this will enable the formulation of pertinent environmental policy and management for the relevant sector.

An Overview of the Relationships between Component Projects

An overview of the project relationships is highlighted in Figure 1. Project 1 will focus on oil palm cultivators whereas Project 2 will cover palm oil millers as these two sectors are the most vulnerable to pollution and criticisms. Project 1 and 2 are inter-related in terms of the mutually-interdependent and reinforcing factors, especially for vertically-integrated operations. An example to highlight this is treated palm oil mill effluent (POME), within the limits of Environmental Quality Act (EQA), can be discharged into oil palm cultivated areas as fertilizers. However, this would be absent for independent millers. Thus, the formulation of environmental policy and management has to take into consideration the existence of mutually-interdependent and reinforcing characteristics of vertically-integrated operations or absence thereof. Therefore, the formulation of environmental policy and management will give due consideration to the peculiarities within each sector instead of an undifferentiated approach.

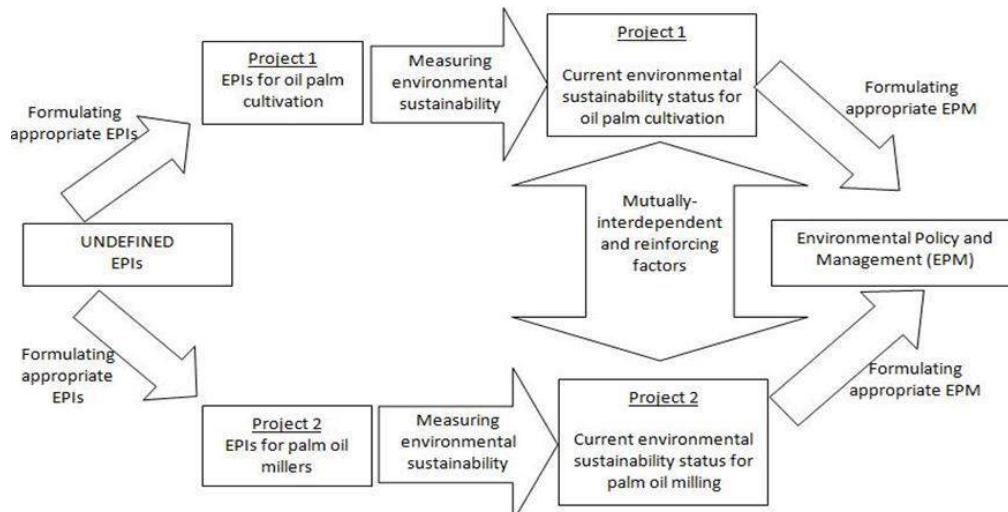


FIGURE 1

RESEARCH METHODOLOGY

EPIs covering land, air, water, noise and environmental initiatives like Good Manufacturing Practices, Good Agricultural Practices, ISO 9000, 14000 cum 18000 series, HACCP, RSPO and MSPO have to be operationalised for the purpose of quantification for each of these projects. This would provide substantiality in terms of measuring the extent of environmental sustainability and concurrently filling in the literature gap by providing EPI comprehensiveness for both these sectors.

Primary and secondary data will be gathered for this research programme. These two types of data are necessary as they complement and supplement each other.

Secondary data is collected from publications by the related Ministries, Departments, Government Agencies especially Malaysian Palm Oil Board (MPOB), Malaysian Palm Oil Promotion Council, Roundtable on Sustainable Palm Oil (RSPO), Malaysia Bourse environmental-related publications and mass media.

Primary data will be obtained from two main sources, i.e.

- (i) For Projects 1 and 2, the first source is key informants
 - a. For Project 1, the key informants are drawn from the GLCs, public-listed non-GLCs, non-public listed plantations, independent smallholders and smallholder schemes.
 - b. For Project 2, the key informants are drawn from the GLCs and public-listed non-GLCs and independent millers.

A key informant is identified as an expert who has many years of experience and is highly knowledgeable in either oil palm cultivation or palm oil milling. A direct face-to-face interview will be conducted with the key informants via a structured questionnaire with open-ended questions. The role of the open-ended questions is to elicit a broad and deep understanding, inclusive of the complexity and dynamics of the issues studied.

- (ii) The second source of primary data for Projects 1 and 2 will be obtained via a field survey with a structured questionnaire that contains a majority of close-ended questions and supplemented by open-ended questions where necessary. The number of cases that will be selected for this research is a minimum of 30 respondents each from the palm oil millers, independent smallholders and smallholder schemes. A minimum of 30 cases was used as it is a benchmark for statistical accuracy (Bailey 1978).

Area sampling will be applied for this research programme. This will help in facilitating the selection of respondents due to relatively closer geographical proximity. The selected areas are in Johore, Negeri Sembilan, Selangor, Pahang and Sabah.

The data collected for these two projects will be analysed based on a mixed-method approach, i.e. qualitative and quantitative methods. Data collected from the field survey via a minimum of 30 respondents each from the palm oil millers, independent smallholders and smallholder schemes will be quantitatively analysed via a series of spidergrams. The spidergrams will indicate the level of attainment of environmental sustainability based on a set of sectoral EPIs. In addition, the qualitative data obtained from key informants will be used in a complementary and supplementary nature to provide a deeper understanding of the quantified results obtained via the spidergrams.

RESEARCH STRENGTHS AND PROGRAMME TEAM TRACK RECORD

The proposed research programme will have members from 3 different institutions, namely Universiti Kebangsaan Malaysia (UKM), Malaysian Palm Oil Board (MPOB) and an international collaborator who also incidentally is the FIRST Chairholder of the MPOB-UKM Endowed Chair.

The programme and project members have been involved in numerous international and national research projects. Members of the component research projects come from a diverse multi-disciplinary background that comprise of researchers in the areas of environmental science, environmental policy and management, engineering, economics and management, community studies and medical anthropology. The majority of members have published extensively in local and international journals. The proposed research programme will utilize research infrastructures that are within UKM and MPOB.

EXPECTED FINDINGS

The expected outcomes from this research programme are as follow:

The findings from this research will indicate the extent the oil palm cultivators and palm oil millers have subscribed to environmental sustainability. Likewise, a comparison will also be made between the oil palm cultivators and palm oil millers to determine the advancement made in terms of environmental sustainability. The spidergrams would indicate the level of attainment and shortfall faced by both the oil palm cultivators and palm oil millers. In addition, it would also take into cognizance the existence, if any, of the interdependent and mutually reinforcing characteristic for both the oil palm cultivators and palm oil millers. Thus, the potential application is that corrective action programmes can be devised to overcome the shortfall. This would aid MPOB in formulating pertinent environmental policies and also facilitate industry players in enhancing environmental management. The findings will also help the relevant Ministries and government agencies in countering the negative perceptions of certain Western ENGOs whose angst is directed mainly at the oil palm cultivators and to a lesser extent, the palm oil millers. Thus, the findings will not only contribute to environmental enhancement but also economic and societal contributions as palm oil is a major sector in the Malaysia economy

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Job Satisfaction and Leadership Style of MPOB Staff

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Abstract

Leadership styles are seen to play a big role in the development and enhancement of MPOB Staff. Effective leadership styles often contribute to a high level of stability and vice versa. This paper examined the relationship between leadership style and job satisfaction of MPOB Staff. Research was conducted on MPOB Staff and found that there was no significant difference in job satisfaction between gender. The findings also showed that the democratic leadership style contributes to high job satisfaction while the autocratic and laissez faire leadership styles contribute to low job satisfaction. This paper discussed several interventions that can be undertaken to enhance the satisfaction of MPOB Staff 's work in efforts to develop and improve the professionalism of MPOB Staff.

Keywords: MPOB Staff, leadership styles, job satisfaction

INTRODUCTION

In the current trends and changes in the education process of the nation, the quality of sound and effective leadership is essential in ensuring the professionalism of educators. In ensuring the professionalism level of MPOB Staff need to be aware that the appropriate leadership style is needed in ensuring the smooth running of an organization. Organization MPOB Staff needs to realize that the challenges facing MPOB Staff organizations today and in the future are indeed huge in line with the progress and rapidity of the MPOB Staff process. Leadership is seen as a dynamic relationship between individuals with group members in the group and its surroundings. It is also a process where other individuals are influenced to achieve goals in certain situations. Leadership style varies according to the leadership's suitability. There are leaders who emphasize leadership style that is very focused on the task while there are leaders who are more concerned with human relationships. However, Khan (1993) finds that most leaders exhibit a leadership style that combines a leadership style that emphasizes the work and human relationships. He also explained that MPOB Staff who are willing to share their opinions, encourage the involvement of its members, encourage the freedom of work and give more opinion to a higher job satisfaction than those who are too rigid and in accordance with the rules. Many studies have distinguished between the autocratic, democratic and laissez-faire leadership styles. Khan (1983) defines autocratic leadership as a situation where leaders make all important decisions without referring to their subordinates. Democratic leaders are encouraging group or group discussions and making decisions. Owens (1970) has divided leadership styles into five namely autocratic, democratic, laissez-faire, bureaucratic and charismatic. He argues that leaders who carry out an extreme autocratic leadership style are the leaders in which all decisions and policies are performed by the administrator. Leaders who practice the laissez-faire leadership style encourage group discussions and decision-making. Most bureaucratic leaders combine all three leadership styles namely democratic, autocratic and laissez-faire. Jacobson, Logsdon and Wiegman (1973) have distinguished the democratic leadership style with autocratic leadership style and laissez-faire through 3 hypotheses that democratic leaders respect other individuals regardless of race or social status and emphasize the development of individual potential and focus on methods cooperate for public benefit (Zaizul Ab Rahman et al. , 2012, 2018; Mutsalim Khareng et al. 2016)

METHODOLOGY

The objective of this paper is to look at leadership style relationship with job satisfaction. In addition, the purpose of this paper is to see whether there is a difference between work satisfaction between the male cadet subject and the subject of the MPOB Staff. Research design in this study, researchers used survey method through questionnaire. The subjects were 30 MPOB Staff. In this study, the researcher uses information from a combination of Leadership Behavior Description Questionnaire and job satisfaction of MPOB Staff. In the determination of leadership styles either high or low, researchers use the range of 1.00 to 3.00 mins as low and the range of mins 3.01 to 5.00 as high. While in determining the level of job satisfaction it is divided into three parts in the mean range between 1.00 to 1.99 as dissatisfaction, the 2.00 to 2.99 range is moderately satisfied and the range between the 3.00 to 4.00 range is satisfied. The questionnaires were divided into three parts, one part consisted of a questionnaire related to the background of the respondents while the second part contained a questionnaire related to the leadership style of MPOB Staff. The third part is the questions related to the job satisfaction of MPOB Staff. Questionnaires on the background of the respondents consist of 7 items submitted, namely gender, age, marital status, approval status, cadet experience and long service in MPOB Staff as well as the post where the subject was assigned to the platoon during the defense field session. The second part contains 40 items designed to look and determine the leadership style of MPOB Staff in conducting their daily routine and determining leadership styles. There are three leadership styles being studied namely task-oriented style (autocratic style), leadership oriented judgment or human relation (democratic style) and Laissez-faire leadership style. The higher the score obtained the higher the leadership style gained. The third part contains 18 items of questions aimed at measuring the satisfaction of cadet work consisting of 8 positive items and 10 negative items. For negative items, scoring is changed. Each question item submitted using a likert scale consisting of 4 scales starting from the very agree (4), agreeing (3), disagree (2) and very disagreeing (1).

The job satisfaction index is calculated based on the score scores of all items. Scores 1 through 4 are given from very agree (4), agree (3), disagree (2) and strongly disagree (1). For a negative statement, scoring is changed where it is highly agreed with score (1), agree with score (2), disagree (3) and strongly disagree with score (4). Theoretical Framework Theoretical framework is modified from the Yukl model in Jaafar Sulaiman (1999) which demonstrates leadership style can influence the atmosphere or individual job satisfaction in the organization (Salina Nen elt. al. 2012; Nasir Omar elt. al. 2018; Rafiza Mohamad elt. al. 2017; J Wan Azreena elt. al. 2012).

DISCUSSION AND RESULTS

TABLE 1: Min Score Difference and Deviation of Job Satisfaction Standard
Between Male Subjects with Women.

Jantina	No	Min	Standard Deviation	t
Male	15	42.461	6.96	0.48
Female	15	53.31	6.14	

$p > 0.05$

The table above shows the mean female job satisfaction score min (min = 53.31, SP = 6.14) is higher than the mean male score (min = 52.46, SP = 6.96). However, the test value t (0.47, $K > 0.05$) showed that there was no significant difference between the male subject and the female subject in the sub-scale of job satisfaction. It can be concluded that gender does not influence the satisfaction of research subjects. However, the findings of this study are not in line with the study conducted by Xia Ma and MacMillan (1999) and Nawi in Suraineh (2001) which say women are more satisfied in their work than men. The findings of this study were consistent with the study conducted by Mohd Dahalan Abdul Malek and colleagues (1998) and Esah Sulaiman (1998).

TABLE 2: Pearson Correlation between Scale of Job Satisfaction Scale MPOB Staff
With the Leadership Style of MPOB Staff

Variable	Job Satisfaction (N=120)	
Autokratic Leadership Style	0.46	0.27*
Demokratic Leadership Style		
Laissez-faire Leadership Style	0.38	

*k < 0.05

Based on the results of the above study, work is only seen positively correlated with democratic leadership style (0.30 *, k < 0.05). The autocratic leadership style and Laissez-faire were not positively correlated with job satisfaction in which the value (r = 0.16, k > 0.05) followed by (r = 0.22, k > 0.05). These studies are consistent with the findings of Khan's study (1993) where MPOB Staff who practice democratic leadership patterns are more satisfied with their duties than the MPOB Staff who adopt an autocratic leadership style. This study is also in line with the study of Morse and Reimer (1956) which found that democrats had higher levels of job satisfaction although not necessarily effective. Scbuler (1976) found that participation had a significant impact on job satisfaction. This was agreed upon by Ralston (1986) which found that if a decision was made by one institution, the workers had a job satisfaction (Zaizul Ab Rahman et al. 2018). This is in line with the study of Morrissey (1988) which finds dependent or focused officials to be more satisfied with the achievement of their task objectives (Ahmad Sunawari Long et al. 2017; Jaffary Awang et al. 2016, 2017).

Based on the analysis of the job satisfaction, the subject satisfaction was high on job satisfaction with the overall score of 3.84. The findings are similar to the findings of Suraineh Suweh (2005) at MPOB Staf which shows the satisfaction of working MPOB Staf at moderate level. Similarly, Mohd Nor's study in Shahrul Arba'iah Othman (2007) finds that MPOB Staf has a high level of job satisfaction (Fauziah Ibrahim elt. al. 2017; Mohd Al Adib Samuri et al. 2012).

In order to enhance the professionalism of MPOB Staf, the leadership style of MPOB Staf should always be tailored to current needs and requirements. This is especially important in planning to see all aspects of the MPOB Staffs' weaknesses and strengths, especially the MPOB Staff to provide job satisfaction among MPOB Staff, SMEs and general. Leadership within the MPOB Staff organization, SMEs should also care about the improvement of service quality by promoting MPOB Staff to improve their level of professionalism. Incentives such as attending courses in service, pursuing higher education and providing opportunities to assume leadership positions within the organization of MPOB Staff, are more beneficial to all parties, especially to the individual and to the MPOB Staff itself.

CONCLUSION

In the country experiencing the rapid pace of education, leadership qualities need to be taken seriously. A strong leadership style and high job satisfaction are seen to play a big role in the development and enhancement of professionalism of MPOB Staff at local institutes. Effective leadership styles are often seen to contribute to high levels of job satisfaction and vice versa. In parallel, this paper has seen the relationship between leadership style and job satisfaction. Democratic leadership style was found to contribute to high job satisfaction. However, the moderate level of job satisfaction experienced by the subjects of the study requires good action by the relevant parties. The findings also show that democratic leadership style contributes to high job satisfaction. Several proposals and interventions have been proposed in the effort to develop and improve MPOB Staff professionalism in Malaysia Perspectives.

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Board of Director Characteristics and Cooperative Performance

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Abstract

Board of director characteristics are significant determinant to firm performance. While extant research has explored the effects of board of directors on firm performance, few studies have examined the factors on the cooperative performance. This study aims to investigate the relationship between board characteristics and cooperative financial and non-financial performance. The survey is conducted on the target respondents that consist of representative of the palm oil smallholders cooperatives board members inclusive of Chairman, Secretary, Treasurer and Managers. The relationship between board characteristic and performance are validated through the Partial Least Square (PLS) analysis. The findings indicate that organization structure represented by the establishment of specific bureaus and board members gender dominance has significant positive relationship with the financial and non-financial performance indicators. The study provides a foundation that explicates key factors that influence palm oil smallholders cooperatives' performance.

Keywords: Board of Director; Organization Structure; Cooperative; Palm Oil; Smallholder

INTRODUCTION

Effective cooperatives activities may lead towards development of resilient infrastructures, inclusive and sustainable industrialization, and fostering innovation at the national level. As far as agricultural sector is concerned, the role of cooperatives becomes crucial to the empowerment and promoting the socio-economic of local farmers. Torgerson, Reynolds & Gray (1997) and Ortmann & King (2007) reiterate that agricultural cooperation is an independent self-help business entity, which specifically designed to move the farmers' product to markets, to influence prices and other trade terms and to provide fair treatment and other benefits to the members. Thus, many previous studies found that cooperative movements have contributed to the socio-economic well-being of the target group and sectors (Ojiagu et al. 2015; Kumar and Gena 2015; Ortmann & King 2007 and Ahmad Bello 2005).

Board of Directors (BOD) represents the vital element of any corporate governance system including the cooperative context (Yasser et al. 2017; Othman et al. 2016; Jan & Sangmi 2016; Bezemer et al. 2014; Wan Fauziah 2013; Hairul Azlan 2012; Fauzi & Locke 2012; and John & Senbet 1998). It serves as the internal governance mechanism aimed to lessen agency problems arises from various conflicts of interest for instance between managers and equity holders; equity holders and creditors; and capital contributors and other stakeholders of the corporate entity (Fauzie & Locke 2012; John & Senbet, 1998; and De Andres et al. 2005). The directors are appointed by shareholders and the selected board of directors may appoint other directors with approval from the shareholders to be on board. The main responsibility of the board is to set the overall policy for the company and to monitor management actions on behalf of the shareholders. Moreover, board of directors

is considered as the drivers of holistic governance for every company. Within the context of cooperatives, board of directors has similar functions and responsibilities such as the corporate entities (Keeling 2005).

This study aims to investigate the relationship of board of directors characteristics and cooperative performance within the context of cooperatives in Malaysia. The originality of this study lies in its attempt of investigating the relationship between board characteristic and performance within the context of oil palm cooperatives which relatively neglected. Most of the studies on board characteristic and performance have been conducted mainly within corporate organization settings. Hence, the exploration of the relationship is limited and insufficient to explain performance behavior within a different context such as the cooperatives. Besides that, study that focuses on the performance of a specific sectors of agriculture cooperatives is relatively lacking because most cooperative performance studies have involved multi-sectors of cooperatives and merely financial performance indicators. Thus, a study on a specific context is considered necessary because each sector possesses unique problems and structures.

LITERATURE REVIEW

Both corporate and cooperative boards hold similar responsibilities of monitoring the performance of management, forming long term strategic plans, evaluating managerial actions/decisions and understand the financial and strategic action of the organization (Keeling 2005; and Othman et al. 2016). As such, we believed that cooperative board of director's characteristic will impose influence on the cooperative performance. This relates to the effective navigation of the entire cooperative towards attaining superior performance which referred as cooperative governance. A study by Keeling (2005) provides some understanding about the relationship between cooperative board characteristic and cooperative performance.

According to Wan Fauziah (2013), effective board is represented by four (4) characteristics. The 4 characteristics comprised of (1) accurate board membership; (2) the appropriate culture; (3) clear roles and responsibilities; and (4) accurate board structure. Among of the characteristics, the behavioral aspect of board membership and board culture found to be the most important components of an effective board (Wan Fauziah 2013). Board membership refers to the balance of directors' competencies and expertise; while board structure reflects the element of board composition and leadership structure. This study concern on 2 types of cooperative governance indicators, consist of (1) board membership (reflect board ability to perform effectively and efficiently based on directors qualification, experience background and diversity) and (2) board structure (reflect the organization of board in terms of size, a balance combination, specification of duties and control). This study concern on 3 types of cooperative governance indicators, consist of (1) **board membership** (reflect board ability to perform effectively and efficiently based on directors background); (2) **organization structure** (reflect the cooperative arrangement in terms of specialization and differentiation to dispose managerial actions); and (3) **board meeting frequencies**.

The independent variable consist of various indicators under board of directors characteristic variable namely (1) board membership diversity, (2) structure; and (3) meeting frequencies; while the dependent variable consist of performance measured by financial and non-financial indicators. The independent variable of board membership diversity is reflected through 2 indicators, (1) the dominance of certain gender in top three board member posts (chairman, secretary and treasurer); and (2) the element of diversity in terms of ethnic and gender among the members of the entire board of directors. Organization structure focused on the existence of specific arrangement /units to assist operationalization of board of director's responsibilities. Finally, board meeting frequencies reflect indicators related to the process of performing the governing activities by the board members.

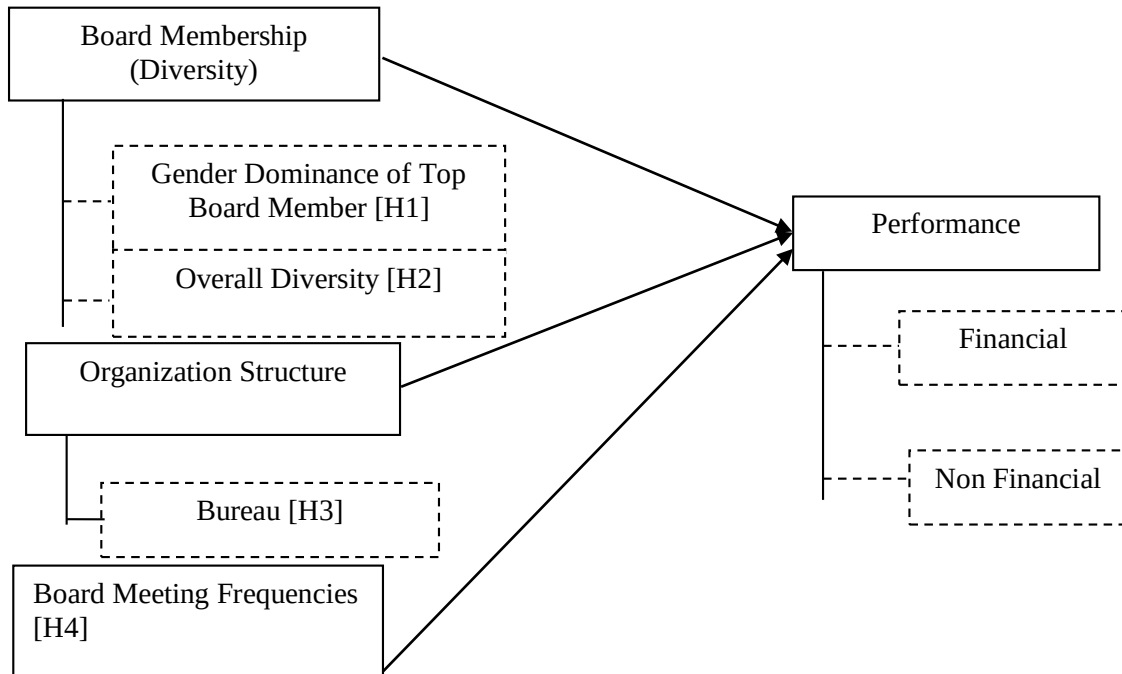


FIGURE 1: Research Framework

METHODOLOGY

The sample was drawn from the list of palm oil smallholders' cooperatives provided by the Suruhanjaya Koperasi Malaysia official database. The sampling frames consist of 234 cooperatives which met the scope of this study. The questionnaires are answered by the representative of board (consist of either Chairman, Secretary and Treasurer) or by in certain circumstances, by the manager. The respondents answer the questionnaires and submit it to the respective SKM Region Officer who later submit it to researchers. Finally, about 108 questionnaires (46 %) received from the respondents. However, 4 of the received questionnaires are identified as incomplete. Thus, a total of 104 (44%) of the questionnaires have been used for following analysis. Table 1 presents the demographics profiles of the valid respondents.

A questionnaire has been developed to measure the identified independent and dependent variables. The dependent variable of cooperative performance was measured by two dimensions consist of the financial and non-financial performance (sub section E1 and E2). All answers are in 6 point Likert scale.

As far as board characteristic is concerned, the dimension of board membership and organization structure are measured by input from the Demographic Section of Board Background and Cooperative Management. The nominal scale answer was recoded into numerical points according to a specific procedure. Thus, the following analysis on the board characteristics will be performed on the re-code value of the nominal indicators.

TABLE 1: Respondents Profiles

Respondents' Profiles: n=104	Frequencies	Percentage (%)
Parent Agency's:		
MPOB	17	16
FELDA	57	55
FELCRA	30	29

Number of managerial employees:		
1-5 persons	76	73
6-10 persons	7	7
11-15 persons	2	2
16-20 persons	-	-
21-25 persons	-	-
26-30 persons	1	1
No information	18	17

EMPIRICAL RESULTS

The analysis is divided into 2 sections comprised of the (1) descriptive analysis of board characteristics and (2) inferential analysis on the relationships determined in the hypotheses.

(1) Descriptive Analysis of Board Characteristics

Table 2 presents the descriptive profiles of the sampled board characteristics.

TABLE 2: Board of Directors Characteristics

Respondents' Profiles: n=104	Frequencies	Percentage (%)
BOD Size:		
6-10 members	38	36
11-15 members	65	62
No information	1	2
BOD gender compositions:		
All Males	41	39
All Females	1	1
Males & Females	62	60
BOD ethnic compositions:		
All Bumiputras	96	92
All non-Bumiputra	1	1
Bumiputra & Non-Bumiputra	7	7
Background Profiles of Top 3 board members:		
Chairman:		
Gender:		
Males	101	97
Females	3	3
Age:		
< 30 years old	-	-
31-40 years old	1	1
41-50 years old	3	3
51-60 years old	23	22
61-70 years old	53	51
71-80 years old	19	18
>81 years old	-	-
No information	5	5
Education:		
SPM and below	78	74
Certificates	3	3
Diploma	4	4
Degree	8	8
Master	-	-
Phd	1	1
No information	10	10

Secretary:		
Gender:		
Males	89	86
Females	15	14
Age:		
< 30 years old	2	2
31-40 years old	6	6
41-50 years old	11	11
51-60 years old	28	27
61-70 years old	48	46
71-80 years old	7	7
>81 years old	1	1
No information	1	1
Education:		
SPM and below	84	81
Certificates	1	1
Diploma	7	7
Degree	4	4
Master	-	-
Phd	-	-
No information	8	8
Treasurer:		
Gender:		
Males	95	91
Females	9	9
Age:		
< 30 years old	-	-
31-40 years old	4	4
41-50 years old	7	7
51-60 years old	32	31
61-70 years old	51	49
71-80 years old	7	7
>81 years old	1	1
No information	2	2
Education:		
SPM and below	86	83
Certificates	2	2
Diploma	8	8
Degree	-	-
Master	-	-
Phd	-	-
No information	7	7
Specialization of Units/Committees:		
Yes	65	63
No	39	37
BOD Meeting Frequencies:		
1-4 times per year	36	35
5-10 times per year	57	55
>11 times per year	9	8
No information	2	2

Based on information in Table 2, about 62% of the sampled cooperatives board membership consist of 11 to 15 members. Besides that, the ethnic composition reflects the dominance Bumiputra (92%) board members. Sixty percent (60%) of the samples reflect gender diversity in their board membership. Nevertheless, about 39% of the board of directors comprised of merely male members. Besides that, the top three board members, namely the Chairman, Secretary and Treasurer, are dominated by elderly males aged 50 and above with basic education background.

In terms of board structuring, 63% stated that the cooperative has assigned the operationalization of tasks according to specific units or committees. The board members lead and monitor the implementation of specific task according to the unit/committees. Based on the practice of the cooperatives, the chairman, secretary and treasurer are usually assigned to head and monitor the important units. Most of the sampled board of directors (55%) have conducted an average of 5-10 times meeting per year to discuss matters related to the cooperatives. Meanwhile, 35% of the cooperatives board of directors meet less frequent a year, which is only 1- 4 times a year.

(2) Relationship between Board of Directors Characteristics and Performance

The explanation is made according to the sub-sections.

Model Development

The Cronbach Alpha (CA) test shows values ranged between 0.911 to 0.953 for the financial and non-financial measures. Thus, it shows the respective factor items correlate strongly to each other and reliable (Hair et al. 2011). Meanwhile, other variables related to the board of director characteristics are measured based on the information derived from the re-coding process of the nominal data as explained in the methodology. Based on Composite Reliability (CR) test indicates the relevant factors have shown consistent values with CA. Meanwhile the *Average Variance Extracted* (AVE) test reported values that ranged between 0.592 through 0.751. Table 3 shows CA, CR and AVE results for each factors. The results from Table 3 show that the loadings, composite reliability (CR) and average variance extracted (AVE) are higher than the recommended threshold. Therefore, the final models indicate a satisfactory and are consistent with the expectation, demonstrating a better fit to the data.

TABLE 3: Construct Reliability and Validity

Characteristics	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Financial Performance	0.953	0.960	0.751
Frequency of Meetings	1.000	1.000	1.000
Diversity of Board Membership	1.000	1.000	1.000
Domination of Top Management Gender	1.000	1.000	1.000
Non-Financial Performance	0.911	0.920	0.592
Board Structure	1.000	1.000	1.000

Table 4 shows that the measurement model is considered satisfactory due to the satisfactory reliability of the discriminant validity results

TABLE 4: Discriminant Validity

Characteristics	Financial Performance	Frequency of Meetings	Diversity of Board Membership	Top Board Member Gender	Non-Financial Performance	Organization structure
Financial Performance	0.867					
Frequency of Meetings	0.179	1.000				
Diversity of Board Membership	0.076	-0.068	1.000			
Top Board Member Gender	0.202	0.108	0.289	1.000		
Non-Financial Performance	0.711	0.066	0.048	0.112	0.770	
Organization structure	0.235	0.235	0.079	-0.003	0.307	1.000

After the results are confirmed to have achieved the recommended value, the further analysis was conducted. Table 5 presented the results of the analysis. The relationships depict in Table 5 comprise of the direct relationship. The coefficient of determination R^2 , path coefficient, and t-value of the hypothesized relationship were calculated to evaluate the significance of the relationship (see Table 5). The current study has accounted R^2 value = 0.072 for both cooperative financial performance and non-financial performance. In addition, the findings show existence of direct significant relationships between “Domination of Top Management Gender and Financial Performance” ($r= 0.187$; $t= 1.669$, $p= 0.096$, $p < 0.10$); and “Board Structure & Financial performance” ($r= 0.209$; $t= 2.193$, $p= 0.029$, $p < 0.05$). The results indicate that domination of top 3 management gender (in this context, was dominated by male members) and board structure impose positive relationship with cooperative financial performance. Besides that, organization structure also exerts significant positive relationship with non-financial performance ($r= 0.313$; $t= 2.885$, $p= 0.004$, $p < 0.05$). As a result, organization structure measured in terms of organization of specific bureaus, affect both financial and non-financial performance of the smallholders palm oil cooperatives in Malaysia significantly.

TABLE 5: Direct Relationship Results

Relationship	Coefficient	Standard Deviation	T Statistics	P Values	VIF
Relation between Frequency of Meetings → Financial Performance	0.110	0.111	0.991	0.322	1.090
Relation between Diversity of Board Membership → Financial Performance	0.013	0.099	0.129	0.897	1.117
Relation between Top Management Gender Dominance → Financial Performance	0.187	0.112	1.669	0.096	1.115
Relation between Organization Structure → Financial Performance	0.209	0.095	2.193	0.029	1.073
R Square	0.108				
R Square Adjusted	0.072				
Relation between Frequency of Meetings → Non-Financial Performance	-0.021	0.122	0.173	0.862	1.090
Relation between Diversity of Board Membership → Non-Financial Performance	-0.013	0.116	0.114	0.909	1.117
Relation between Domination of Top Management → Non-Financial Performance	0.120	0.117	1.025	0.306	1.115
Relation between Organization Structure → Non-Financial Performance	0.313	0.109	2.885	0.004	1.073
R Square	0.108				
R Square Adjusted	0.072				

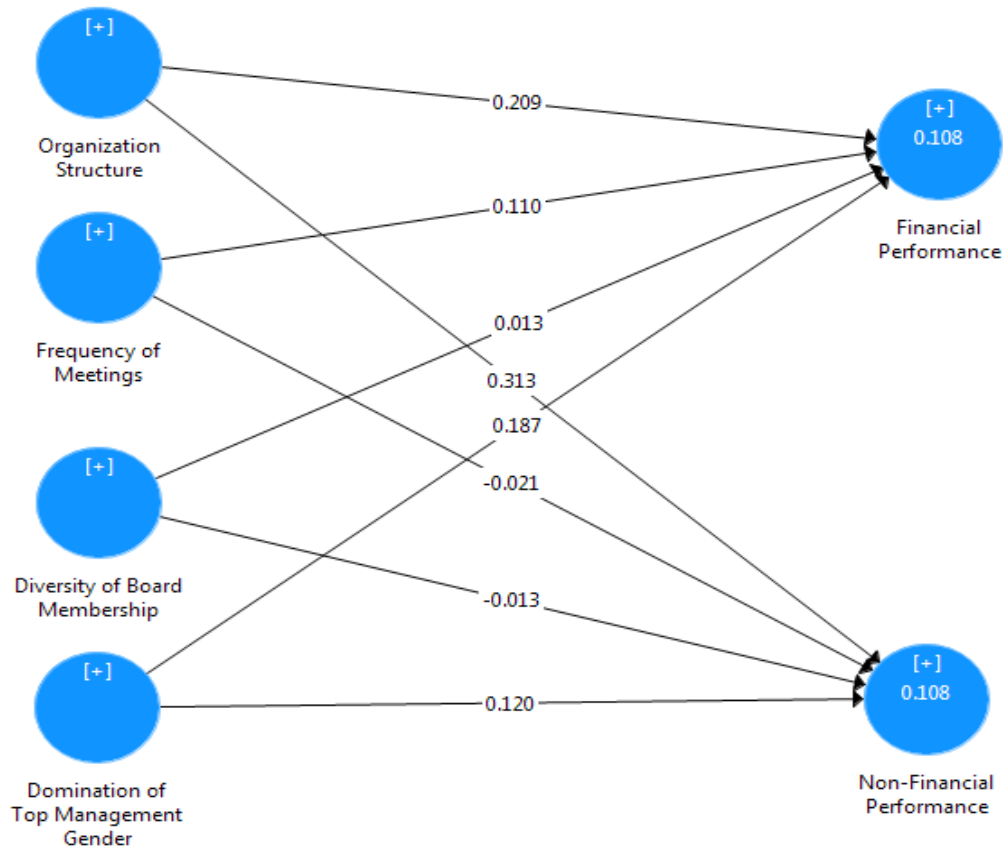


FIGURE 2: Model Development

In general, the analysis and the model proved reiterates that corporate governance exerts significant direct relationship with performance including the cooperative context. The evidence is parallel with previous studies which acknowledged the significant of corporate governance system even in the cooperative context (Yasser et al. 2017; Othman et al. 2016; Jan & Sangmi 2016; Bezemer et al. 2014; Wan Fauziah 2013; Hairul Azlan 2012; Fauzi & Locke 2012; and John & Senbet 1998). In this specific study, corporate governance concept has been presented through various aspects of BOD characteristics. As far as BOD is concerned, the body has vital role to navigate the entire cooperatives towards performance. Therefore, it is necessary for cooperatives' BOD to possess characteristics that closely associated with performing BODs. Based on our findings the significant BOD characteristics are top 3 BOD members gender dominance and organization structure.

The analysis indicate that organization structure has relationship with financial and non-financial performance. This relates to the discussion of organizational design under the issue of differentiation. Differentiation refers to process by which organizations allocates the people and resources to organizational tasks and establishes the task and authority relationships to enable the organization to achieve its goals (Jones, 2001). Most of the cooperatives (63%) have set up specialized a few units/committees to perform specific tasks under direct supervision of the assigned board members. The specialization of units allows board members to give focus on matters that falls under their specific responsibilities more efficiently and effectively. Besides that, the specialization of bureaus assists board members to perform task and to organize resources under their control towards achievement of the financial and non-financial goals. Another board of director's characteristics found to have significant relationship with financial performance is the top three board members gender dominance. As far as the sample is concerned, the Chairman, Secretary and Treasurer, are still dominated by elderly males.

CONCLUSION

The findings reiterate the major role play by cooperative board of directors to assure goal accomplishment through basic roles of strategic, service as well as controlling and monitoring functions. In order to perform the governing task effectively, the entire board of directors must be designed in such a way that will ensure its ability to function effectively. As far as the result is concerned, cooperative board of directors' characteristic that influenced performance are gender concentration among the high rank board members and the organization structure.

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Faktor Tarikan Pekebun Kecil Kelapa Sawit Ingin Terlibat dalam Perniagaan

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Abstrak

Sawit merupakan tanaman penting kepada penduduk luar bandar. Tanaman ini menyumbang dan membangunkan sosio-ekonomi secara langsung kepada pendapatan penduduk luar bandar. Namun, setiap tanaman tidak boleh lari daripada mengalami keadaan pasaran tidak menentu. Menurut Lembaga Minya Sawit Malaysia (MPOB) keadaan ini disebabkan oleh kenaikan kos pengeluaran dan eksport yang lemah selain dari mendapat saingan dari negara jiran, Indonesia. Oleh itu, aktiviti keusahawanan menjadi enjin utama dalam menjana pendapatan tambahan kepada pekebun kecil kelapa sawit. Namun, faktor yang mendorong mereka ingin terlibat dalam perniagaan haruslah dikaji. Berdasarkan pengkaji lepas (Chan & Quah 2012; Jasra et al. 2011) faktor tarikan dilihat pengaruh penting dalam menentukan penglibatan seseorang dalam perniagaan. Faktor tarikan ini terdiri daripada tiga (3) elemen utama iaitu latihan, kemudahan infrastruktur dan kewangan. Hasil kajian mendapati bahawa elemen latihan dan kemudahan infrastruktur mempengaruhi seseorang terlibat dalam perniagaan. Oleh itu, pihak berkepentingan haruslah menyediakan latihan dan kemudahan infrastruktur bagi menggalakkan lebih ramai penduduk luar bandar menjalankan aktiviti perniagaan. Penglibatan pekebun kecil kelapa sawit dalam perniagaan dapat mengurangkan penduduk luar bergantung kepada hasil sawit semata-mata.

Kata kunci: Pekebun Kecil, Faktor Tarikan, Latihan, Infrastruktur dan Kewangan

PENGENALAN

Aktiviti keusahawanan membantu membangunkan kesejahteraan sosial dan ekonomi negara. Kumpulan Usahawan telah banyak membantu masyarakat mengeluarkan pelbagai pilihan produk dan perkhidmatan di pasaran untuk dipilih oleh pengguna. Usahawan baru muncul secara mendadak dengan pelbagai produk baru dan peluang pekerjaan. Situasi ini mewujudkan persekitaran pasaran untuk industri kecil dan sederhana yang dinamik. Ekonomi Malaysia telah banyak berubah yang selama ini bergantung kepada sektor pertanian seperti getah dan bijih besi pada tahun 1960-an ke negara perindustrian (Unit Perancang Ekonomi 2013). Pelaksanaan DEB (1971-1990), Rancangan Malaysia Ketiga (1976-1980), Rancangan Malaysia Keempat (1981-1985) dan Rancangan Malaysia Kelima (1986-1990) memberikan peluang kepada usahawan kecil untuk berkembang, membangun dan menyumbang kepada negara ekonomi.

Penubuhan ini menyaksikan komitmen dan keprihatinan kerajaan dalam membantu usahawan dengan membelanjakan sejumlah besar peruntukan serta memberi sokongan perniagaan kepada usahawan Melayu (Yusoff & Zainol 2014). Walaubagaimanapun, krisis kewangan Asia yang melanda negara-negara Asia pada 1997-1998 membawa kepada kelembapan ekonomi global (Unit Perancang Ekonomi 2013). Krisis ini mengajar Malaysia bahawa kita tidak boleh hanya bergantung kepada pelaburan langsung asing untuk merangsang ekonomi (Aris 2007). Selepas krisis, usahawan di kalangan industri kecil dan sederhana telah dijadikan enjin utama dalam menjana pelaburan dalam negeri, merangsang pengembangan ekonomi dan meningkatkan pasaran pekerjaan untuk negara. Peranan perindustrian kecil dan sederhana (PKS) dalam pembangunan ekonomi Malaysia membantu negara meminimumkan senario yang lebih teruk akibat krisis kewangan, termasuk kadar pengangguran dan kemiskinan yang tinggi (Unit Perancang Ekonomi 2013).

Untuk menyatakan komitmen untuk menyokong usahawan kecil dan sederhana, kerajaan Malaysia telah

melaksanakan pelbagai insentif menerusi penubuhan beberapa polisi. Pada tahun 2004, Majlis Pembangunan PKS Kebangsaan (NSDC) ditubuhkan dengan matlamat untuk mempromosikan pembangunan PKS Malaysia melalui langkah-langkah yang diselaraskan dan komprehensif. Pada Jun 2008, sebuah agensi baru yang dinamakan SME Corporation Malaysia (SMECORP) ditubuhkan untuk melaksanakan peranan dalam merangka dasar dan menyelaraskan program untuk PKS. Pada tahun 2010, kerajaan memperkenalkan Pelan Induk PKS (2012-2020) sebagai pengiktirafan terhadap sumbangan PKS dalam mengubah ekonomi negara ke pencapaian yang lebih tinggi.

Laporan Tahunan SMECORP 2018 melaporkan bahawa PKS menyumbang 31.1% kepada KDNK negara dan juga mencatatkan pertumbuhan KDNK 7.2% pada tahun 2017 (2016: 5.2%) yang mengatasi pertumbuhan KDNK negara (5.9%). Dalam laporan rasmi lain, Jabatan Statistik Malaysia mendedahkan bahawa KDNK PKS menyumbang RM435.1 bilion pada 2017, menyumbang 66% daripada jumlah guna tenaga Malaysia dan 7.9% (RM12.3 bilion) daripada jumlah nilai eksport Malaysia. Memandangkan Pelan Induk PKS 2012-2020 yang bertujuan untuk 41% daripada KDNK, 62% daripada pekerjaan dan 25% daripada eksport pada tahun 2020, adalah penting bagi PKS untuk meningkatkan usaha untuk memperbaiki diri mereka untuk mencapainya. Sehingga kini, terdapat 920,624 PKS di Malaysia dijangka menyertai usaha ini.

Terdapat sebilangan besar pekebun kelapa sawit terlibat dengan aktiviti keusahawanan. Sebagai contoh, di dalam tanah rancangan Felda terdapat 23,335 peneroka terlibat dalam aktiviti perniagaan dan keusahawanan dalam pelbagai bidang seperti pembarangan, agrikultur, akuakultur, perkilangan, kraftangan dan pelbagai tanaman dan penternakan. Hasil jualan aktiviti keusahawanan peneroka kelapa sawit Felda mencecah sehingga RM1.930 billion dalam tahun 2016 (Laporan Kewangan Felda, 2017). Memandangkan sumbangan pekebun kelapa sawit kepada aktiviti keusahawanan dan ekonomi negara ini amatlah signifikan maka tumpuan kajian harus diberikan kepada kelompok ini. Ini dapat menampung ruang-ruang kajian dalam bidang keusahawanan yang selama ini difokuskan kepada usahawan-usahawan bandar sahaja. Objektif kajian ini adalah untuk melihat apakah faktor tarikan yang boleh mengerakan usahawan kecil dalam kalangan penereko untuk berkecimpungan dalam bidang perniagaan. Terdapat tiga faktor utama yang dikaji iaitu latihan, kemudahan infrastruktur dan faktor kewangan. Faktor ini dikatakan faktor yang paling signifikan ke atas motivasi perniagaan kecil seperti mana yang didapati oleh kajian-kajian lepas (Corso et al., 2003; Chan and Quah, 2012 dan Walker dan Brown, 2004). Kajian menggunakan kaedah tinjauan menggunakan soal-selidik dan ianya dijalankan ke atas empat lokasi utama pekebun kecil yang dikenali sebagai lokasi yang mempunyai ramai usahawan. Seperti mana dapatan kajian-kajian lepas kesemua faktor yang dinyatakan mempunyai hubungan yang signifikan dengan penglibatan mereka dalam perniagaan. Body of the text should be in 11pt Times New Roman, single space and justified. The heading of each section should be printed in capital letters, 12pt, left justified, bold, Times New Roman. This section should provide background of the study and highlighted research motivation and objectives.

KAJIAN LEPAS

Motivasi merupakan faktor penting sebelum memulakan sesuatu perkara. Begitu juga motivasi individu yang ingin terlibat dalam perniagaan. Terdapat banyak teori yang memberi penekanan kepada motivasi individu terlibat dalam perniagaan. Namun, kajian khusus kepada motivasi faktor tarikan iaitu bentuk sokongan atau faktor persekitaran luar (Chan & Quah 2012) kurang diberi perhatian. Sokongan luar terdiri daripada tiga (3) elemen utama iaitu latihan, kemudahan infrastruktur dan kewangan. Menurut Jasra et al. (2011) menyatakan bahawa sokongan kerajaan seperti khidmat nasihat, bantuan kemahiran dan bantuan kewangan adalah penting dalam memulakan perniagaan. Ia disokong oleh Chan & Quah (2012) yang menyatakan bahawa faktor tarikan memainkan peranan penting dalam mempengaruhi tingkah laku individu sebelum memulakan perniagaan.

Elemen latihan memainkan peranan penting sebelum memulakan perniagaan. Menurut Pihie dan Elias (2004) individu perlu mengikuti latihan keusahawanan untuk mengemas kini ilmu pengetahuan dalam menjalankan perniagaan khususnya kepada komuniti luar bandar. Individu yang bergantung kepada pengalaman semata-mata tetapi tidak mempunyai latihan menyebabkan tidak proaktif dalam membuat penyelesaian (Ab Rahman et al 2011). Latihan juga membantu penyediaan perancangan perniagaan (Watson et al. 1998). Malah, latihan dapat membantu perniagaan kecil meningkatkan prestasi mereka (Watson et al. 1998). Maka, peniaga perlu mengetahui kaedah pemasaran, pengurusan kewangan dan pengurusan perniagaan supaya dapat mengekalkan kelangsungan dan pertumbuhan perniagaan (Corso, et. al, 2003). Timmons (1985) menyatakan bahawa asas

pendidikan keusahawanan adalah kemahiran teknikal dan kewangan. Manakala Kent (1990) menyarankan aspek pengurusan dan pemasaran adalah penting untuk keterlibatan dalam perniagaan. Pihie dan Elias (2004) pula menyatakan bahawa latihan berkaitan pemasaran sebagai kemahiran yang paling penting. Oleh demikian, latihan yang bersesuaian dan relevan akan meletakkan peniaga dalam keadaan yang lebih cekap untuk menguruskan perniagaan (Fuller 1994).

Hipotesis I: Terdapat hubungan langsung antara latihan dan penglibatan dalam perniagaan

Manakala keperluan fizikal merupakan salah satu keperluan bagi peniaga. Sumber fizikal yang sesuai menentukan kelangsungan perniagaan. Sumber ini melibatkan kemudahan infrastruktur seperti tapak jualan, mesin, Air, elektrik dan internet merupakan faktor penting sebelum memulakan perniagaan (Jutla et. al, 2002). Manakala menurut Chan dan Quah (2012) menyatakan bahawa faktor permulaan didorong kesediaan sumber (tanah, bangunan dan lokasi strategik). Penyediaan kemudahan infrastruktur dapat mempertingkatkan kualiti perniagaan. Disamping itu, infrastruktur juga mempengaruhi sosioekonomi sesebuah kawasan untuk menjalankan perniagaan (Ab Rahman et al 2011). Kekurangan kemudahan infrastruktur melemahkan aktiviti perniagaan (Dangayach & Deshmukh 2001).

Hipotesis II: Terdapat hubungan langsung antara kemudahan infrastruktur dan penglibatan dalam perniagaan

Disamping itu, sumber kewangan merupakan unsur yang paling penting dalam memulakan perniagaan bagi pembiayaan atau modal penubuhan perniagaan. Seawal penubuhan perniagaan memerlukan sumber kewangan sebagai modal permulaan (Indarti & Langenberg 2004). Sumber kewangan bukan sahaja daripada simpanan peribadi dan pinjaman, malah bantuan kerajaan juga merupakan elemen penting kepada perniagaan berbentuk mikro (Kolawole & Torimiro 2005). Menurut Walker dan Brown (2004) menyatakan bahawa individu terlibat dalam perniagaan disebabkan oleh kemudahan mendapat pinjaman kewangan. bank merupakan satu keperluan kepada peniaga untuk memulakan perniagaan dan menyediakan kewangan kerana ia menyediakan perkhidmatan yang memudahkan urusan kewangan (Beach dan O'Driscoll 2003). Walau bagaimanapun, menurut Ahmad et al (2015) menyatakan bahawa jenis perniagaan Industri Kecil dan Sederhana (IKS) tidak memerlukan pinjaman dan bantuan kewangan kerana ia melibatkan kos yang rendah. Oleh itu, dapat disimpulkan bahawa keperluan sumber kewangan bergantung kepada jenis perniagaan yang diceburi.

Hipotesis III: Terdapat hubungan langsung antara kewangan dan penglibatan dalam perniagaan Please, leave two blank lines between successive sections as here.

KAEDAH METODLOGI

Lokasi Kajian

Kajian ini menggunakan soal selidik sebagai instrument kajian. Soal selidik ini diedarkan kepada 303 orang pekebun kecil kelapa sawit di empat (4) lokasi terpilih iaitu di daerah Batu Pahat Johor dan Miri Sarawak, Sepang Selangor dan Tanjung Malim Perak. Kawasan ini telah dikenal pasti sebagai kawasan yang mempunyai ramai pekebun kecil kelapa sawit yang pernah dan sedang mendapat bimbingan daripada Lembaga Minyak Sawit Malaysia (MPOB). Pemilihan sampel dilakukan secara persampelan rawak berstrata. Jumlah ini ditetapkan berdasarkan justifikasi bahawa jumlah tersebut dirasakan memadai untuk mewakili populasi pekebun kecil kelapa sawit di setiap daerah.

Instrumen Kajian

Borang soal selidik yang mempunyai tiga (3) bahagian utama iaitu demografi, alasan ingin terlibat dalam perniagaan dan faktor talikan yang menyebabkan ingin terlibat dalam perniagaan. Bahagian demografi merangkumi aspek berkenaan jantina, bangsa, status perkahwinan, bilangan anak, pekerjaan tetap, latar belakang pendidikan, dan pendapatan kasar bulanan.

Bahagian kedua berkenaan soalan-soalan adalah berkaitan alasan ingin terlibat dalam perniagaan. Manakala, bahagian ketiga berkenaan faktor tarikan pendorong dipecahkan kepada tiga (3) faktor utama latihan, infrastruktur dan kewangan. Semua faktor tersebut diambil kira berdasarkan hujah dalam kajian lepas dan diubah

suai agar bersesuaian dengan lokasi dan objektif kajian. Kesemua soalan pada bahagian dua (2) menggunakan skala likert lima (5) mata meliputi mata 1 untuk “sangat tidak setuju” hingga mata 5 untuk “sangat setuju”. skala likert lima (5) bagi bahagian tiga (3) adalah 1 untuk “sangat tidak penting” hingga mata 5 untuk “sangat penting”.

PENEMUAN DAN PERBINCANGAN

Kajian ini menggunakan kaedah Permodelan Persamaan Berstruktur (Structural Equation Model-SEM) dengan mengguna perisian SmartPLS untuk menganalisis data mentah. SEM bertujuan menganalisis hubungan antara pembolehubah dengan persamaan linear mewakili hubungan sebab dan akibat antara pembolehubah. Manakala penggunaan Smartpls kerana ia dapat menganggarkan output dengan jumlah data yang kecil (Henseler, Ringle & Sinkovics 2009).

SEM merangkumi empat analisis utama iaitu statistik deskriptif (min), Exploratory Item Factor, penilaian pengukuran model dan ujian Path Coefficient. Ujian statistik deskriptif min dan sisihan piawai. Ujian EFA menilai item loading untuk mengukur kekuatan item. Manakala penilaian pengukuran model menggunakan ujaun Cronbach Alpha (CA), Composite Reliability (CR), The Average Variance Extracted (AVE) dan Discriminant Validity digunakan untuk menilai kesahan data. Ujian Path Coefficient pula untuk menguji status hubungan dan kepentingan antara pemboleh ubah.

Demografi Responden

Berdasarkan Jadual 1, kajian ini melibatkan 303 orang orang pekebun kecil kelapa sawit. Namun seramai 152 orang pekebun kecil kelapa sawit yang ingin terlibat dalam perniagaan kecil. Responden lelaki adalah 84.9 % dan responden perempuan adalah 15.1%. Daripada aspek bangsa, didapati sebanyak 63.8% terdiri daripada bangsa Melayu dan 21.1% adalah berbangsa Iban. Responden berbangsa Cina dan Bugis masing-masing adalah 12.5% dan 2.6%. Seramai 117 orang responden sudah berkahwin dan manakala 16 orang adalah bujang.

Daripada segi bilangan anak, secara keseluruhan semua responden mempunyai bilangan anak antara 4-6 orang iaitu 49.3 peratus. Dalam aspek pendidikan para responden yang mempunyai taraf pendidikan sekolah menengah merupakan peratusan yang paling tinggi iaitu 71.1 peratus.

Jadual 1: Demografi Pekebun Kecil Kelapa Sawit

Maklumat	Jumlah	Peratus (%)
Jantina:		
Lelaki	129	84.9
Perempuan	23	15.1
Bangsa:		
Melayu	97	63.8
Cina	19	12.5
Iban	32	21.1
Bugis	4	2.6
Status perkahwinan:		
Belum Berkahwin	35	23.0
Berkahwin	117	77.0
Bilangan anak:		
Tiada	14	9.2
1-3 orang	59	38.8
4-6 orang	75	49.3
7-9 orang	4	2.6
Tahap pendidikan		
Tiada pendidikan formal	4	2.6
Sekolah rendah	31	20.4
Sekolah menengah	108	71.1
Diploma	4	2.6
Ijazah	5	3.3

Alasan Ingin Terlibat Dalam Perniagaan

Jadual 2 menunjukkan item penyebab responden ingin terlibat dalam perniagaan. Alasan tersebut terdiri daripada lima (5) item yang mana item “menambah pendapatan keluarga” menunjukkan nilai min yang paling tinggi iaitu 4.828. Ini bermaksud alasan utama mereka ingin terlibat dalam perniagaan disebabkan oleh meningkatkan ekonomi keluarga. Ia mungkin disebabkan oleh harga pasaran sawit dipasaran tidak menentu. Oleh itu, mereka perlu mencari alternatif untuk menambah pendapatan mereka dengan cara terlibat dalam perniagaan. Keadaan juga didorong oleh sifat dalam individu itu sendiri iaitu suka berniaga (4.453). Item ini menunjukkan bahawa responden mempunyai sifat semula jadi sebagai usahawan.

Seterusnya, responden menyatakan bahawa item “mempunyai keyakinan diri” untuk terlibat dalam perniagaan. Item ini berada pada tahap ketiga iaitu dengan nilai min 4.178. Keyakinan diri ini mungkin disebabkan oleh responden merasakan perniagaan tidak terikat dengan mana-mana pihak sekiranya ia berniaga secara sendiri. Malah, individu yang terlibat dalam perniagaan secara sendiri bebas membuat keputusan. Responden melihat risiko sebagai peluang perniagaan (4.078). Ini mungkin kerana mereka melihat keadaan harga pasaran sawit tidak menentu. Maka mereka perlu berpandangan jauh dalam mengenal pasti cara untuk meningkatkan pendapatan bagi menampung perbelanjaan harian. Terakhir adalah item “Sanggup mengambil cabaran dalam perniagaan”.

Hasil Exploratory Item Factor menunjukkan bahawa semua outer loading berada pada tahap diterima iaitu 0.40 keatas (Hair et al. 1998; Hulland 1999). Ia menunjukkan bahawa semua item berada pada kolerasi yang kuat.

Jadual 2: Alasan ingin Terlibat Dalam Perniagaan

ALASAN	MIN	SISIHAN PIAWAI	OUTER LOADING
Suka/minat berniaga	4.453	0.828	0.553
Menambah pendapatan keluarga	4.828	0.377	0.589
Sanggup mengambil cabaran dalam perniagaan	4.072	0.846	0.635
Mempunyai keyakinan diri	4.157	0.772	0.494
Melihat risiko sebagai peluang perniagaan	4.078	1.107	0.839

Analisis Faktor Tarikan

Berdasarkan Jadual 3 menunjukkan analisis min dan outer loading bagi faktor tarikan dalam perniagaan. faktor kepada perniagaan terdiri daripada tiga (3) elemen utama iaitu latihan, kemudahan infrastruktur dan kewangan. Elemen latihan terdiri daripada tiga (3) item iaitu pemasaran, kewangan dan pengurusan. responden menyatakan bahawa latihan pemasaran merupakan min yang paling tinggi iaitu 4.052. Ini menunjukkan bahawa responden memerlukan latihan dalam bentuk pemasaran supaya perkhidmatan yang ditawarkan kepada pelanggan memenuhi keperluan dan kepuasan pelanggan. Kedua, responden menyatakan latihan kewangan dengan nilai min 4.039. Ini kerana, latihan pengurusan kewangan dapat merancang kewangan dan pengurusan kewangan dengan tepat. Pengurusan adalah item ketiga terpenting sebelum memulakan perniagaan dengan nilai min 3.697.

Elemen kemudahan infrastruktur terdiri daripada tiga (3) item iaitu tapak jualan, saluran air dan elektrik. Kemudahan elektrik merupakan keperluan bagi responden utama dengan nilai min 3.960. Ini kerana, responden yang tinggal di kawasan pedalaman seperti Sarawak memerlukan elektrik menjalankan aktiviti perniagaan seperti pemprosesan dan penyimpanan. Tapak jualan merupakan keperluan kedua dalam elemen kemudahan infrastruktur dengan nilai min 3.776. ketiga adalah kemudahan infrastruktur air menjadikan keperluan kepada responden.

Elemen kewangan juga terdiri daripada tiga (3) item iaitu pinjaman kewangan, bantuan kewangan dan pengkongsian keuntungan. Bantuan kewangan merupakan min yang paling tinggi yang dinyatakan oleh responden. Ini kerana, bantuan kewangan tidak memerlukan komitmen bayaran secara bulanan. Alternatif kedua untuk modal permulaan perniagaan adalah dengan meminjam wang dari agensi kewangan. Ketiga adalah pengkongsian keuntungan. Item merupakan item yang paling rendah nilai min berbanding item lain. Ini

mungkin disebabkan oleh responden hanya ingin menjalankan secara kecil-kecilan yang mana tidak memerlukan berkongsi daripada orang lain.

Jadual 3: Faktor Tarikan

FAKTOR/ITEM	MIN	SISIHAN PIAWAI	OUTER LOADING
Latihan:			
Pemasaran	4.052	1.001	0.919
kewangan	4.039	1.121	0.943
Pengurusan	3.697	1.201	0.905
Kemudahan Infrastruktur:			
Tapak jualan	3.776	1.146	0.662
Saluran Air	3.763	1.014	0.930
Elektrik	3.960	1.041	0.923
Kewangan:			
Pinjaman kewangan	4.059	1.105	0.850
Bantuan kewangan	4.098	0.897	0.960
Pengkongsian keuntungan	3.894	0.970	0.896

Penilaian Pengukuran Model

Berdasarkan Jadual 4 dan Jadual 5, analisis penilaian pengukuran model bertujuan untuk menguji kesahan model yang dibangunkan. Pengukuran model mestilah memenuhi kriteria ujian Cronbach's Alpha (CA), Composite Reliability (CR), Average Variance Extracted (AVE) dan Discriminant Validity Analyses. Nilai CA mesti antara 0.60 hingga 0.95. Nilai CA yang dianggap cemerlang adalah melebihi 0.9, nilai dianggap sangat baik adalah antara 0.8 hingga 0.90, dianggap baik adalah antara 0.7 hingga 0.8, dan nilai boleh diterima adalah antara 0.6 hingga 0.7 (Fornell & Lacher 1981, Bagozzi & Yi 1988, Hair et al. 2012). Ujian CR pula digunakan bagi memastikan kebolehpercayaan dalaman secara konsisten dengan CA. Manakala ujian AVE adalah menerangkan variasi item kepada faktor. Nilai AVE mestilah 0.50 atau 50% keatas (Chin 1998). Discriminant Validity iasanya diperiksa dengan membandingkan punca kuasa dua AVE dengan korelasi antara faktor tumpuan dan semua faktor lain. Faktor tumpuan perlu nilai lebih tinggi daripada faktor lain. (Chin, 1998).

Hasil ujian mendapat bahawa nilai CA antara 0.729 hingga 0.913. Nilai ini menunjukkan bahawa semua item faktor memunyai kolerasi yang sangat kuat (Hair, J et al. (2007). Hasil ujian CR mendapati bahawa semua faktor menunjukkan nilai yang konsisten. antara 0.763 hingga 0.945. Ini menunjukkan bahawa nilai CR konsisten dengan CA. Nilai AVE antara 0.501 hingga 0.815. Oleh itu, analisis kebolehpercayaan dan pengesanan yang digunakan dalam kajian ini menunjukkan kesahihan yang konvergen dan diskriminasi.

Jadual 4: Keputusan Cronbach's Alpha, Composite Reliability dan Average Variance Extracted

ITEM	CRONBACH'S ALPHA	COMPOSITE RELIABILITY	AVERAGE VARIANCE EXTRACTED (AVE)
Kewangan	0.888	0.930	0.815
Kemudahan Infrastruktur	0.888	0.925	0.759
Latihan	0.913	0.945	0.851
Penglibatan dalam Perniagaan	0.729	0.763	0.501

Jadual 5: Keputusan Discriminant Validity

ITEM	Kewangan	Kemudahan Infrastruktur	Latihan	Penglibatan dalam Perniagaan
Kewangan	0.903			
Kemudahan Infrastruktur	0.781	0.871		
Latihan	0.828	0.835	0.923	
Penglibatan dalam Perniagaan	0.640	0.702	0.711	0.733

Pengukuran Model Struktur

Analisa stuktur model adalah bertujuan untuk melihat hubungan antara pemboleh ubah bersandar dan pemboleh ubah bebas. Berdasarkan Jadual 5 menunjukkan bahawa semua faktor tidak mempunyai collinearity diantara pemboleh ubah bebas. Ini dibuktikan dengan ujian Variance Inflation Factor (VIF) yang menunjukkan bahawa nilai VIF kurang daripada 10 (Hair et al., 2012) yang bermaksud tidak berlaku pertindihan (redundant) data secara berlebihan. Manakala nilai R² menunjukkan 0.546 yang bermaksud terdapat 54.6 peratus pemboleh ubah bebas dapat menerangkan pemboleh ubah bersandar. Nilai ini merupakan data berada dalam keadaan sangat baik (excellent) (Henseler et al., 2009).

Rajah 1 dan Jadual 5 menunjukkan Path Coefficient antara faktor tarikan (latihan, kemudahan infrastruktur dan kewangan) dan ingin terlibat dalam perniagaan. Nilai koefisien menunjukkan kekuatan hubungan antara pemboleh ubah bebas dan pemboleh ubah bersandar. Nilai ini hendaklah sekurang-kurangnya 0.20 dan idealnya melebihi 0.30 untuk dianggap bermakna. Hasil ujian path analysis terhadap hipotesis menunjukkan ketiga-tiga elemen faktor tarikan mempunyai hubungan yang positif terhadap keinginan terlibat dalam perniagaan. Hipotesis I menunjukkan bahawa hubungan keperluan latihan dan penglibatan dalam perniagaan adalah positif dengan nilai $\beta = 0.375$ dan hubungan tersebut adalah significant pada aras keertian 0.05 daripada ujian t-test = 2.015. Ini menunjukkan bahawa seseorang yang ingin terlibat dalam perniagaan perlu mempunyai latihan dan kemahiran dalam pemasaran, kewangan dan pengurusan.

Hipotesis II pula menunjukkan hubungan positif antara kemudahan infrastruktur dan penglibatan dalam perniagaan. Hubungan ini juga menunjukkan penglibatan seseorang dalam perniagaan mementingkan kepada kemudahan infrastruktur. Ini dibuktikan dengan nilai koefisien $\beta = 0.337$, t-test = 2.330 dan signifikan pada aras keertian 0.050. Kemudahan infrastuktur ini penting kerana majoriti responden bercadang menjalankan perniagaan berasaskan makanan.

Seterusnya, Hipotesis III menunjukkan hubungan antara kewangan dan penglibatan dalam perniagaan. Hasil ujian mendapati bahawa hubungan tersebut adalah positif, namun tidak penting dalam memulakan perniagaan. Ini dibuktikan dengan nilai koefisien $\beta = 0.066$, t-test = 0.466. Ini kerana, responden bercadang memulakan perniagaan secara mikro. Mereka memerlukan modal yang kecil dengan menggunakan wang simpanan.

Jadual 5: Keputusan Hubungan antara Faktor Tarikan dan Alasan Terlibat dalam Perniagaan

HUBUNGAN	KOEFISIEN (B)	SISIHAN PIAWAI	T STATISTIK	VIF
Hubungan antara latihan dan penglibatan dalam perniagaan	0.375	0.186	2.015**	4.469
Hubungan antara kemudahan infrastruktur dan penglibatan dalam perniagaan	0.337	0.145	2.330**	3.603
Hubungan antara kewangan dan penglibatan dalam perniagaan	0.066	0.142	0.464	3.479
R Square	0.546			
R Square Adjusted	0.536			

Signifikan pada aras keertian ***0.01, **0.05 dan *0.1

KESIMPULAN

Perniagaan merupakan salah satu cara untuk menambah pendapatan. Namun, tidak semua individu mempunyai kemahiran menjalankan aktiviti perniagaan. Malah, kemudahan infrastruktur juga memainkan peranan penting dalam menentukan penglibatan seseorang dalam perniagaan. Elemen tersebut dilihat dari sudut faktor tarikan yang mana menjadi teras utama dalam kajian ini.

Kajian ini bertujuan untuk mengenal pasti alasan mereka ingin terlibat dalam perniagaan dan mengenal pasti elemen faktor tarikan yang akan mendorong mereka terlibat dalam perniagaan. Kajian ini melibatkan 152 orang pekebun kelapa sawit di empat (4) lokasi terpilih iaitu di daerah Batu Pahat Johor dan Miri Sarawak, Sepang Selangor dan Tanjung Malim Perak. Kajian menggunakan soal selidik sebagai instrume kajian yang mengadungi faktor tarikan terdiri daripada tiga (3) elemen utama iaitu latihan, kemudahan infrastruktur dan kewangan. Hasil kajian mendapati bahawa elemen latihan dan kemudahan infrastruktur mempengaruhi seseorang terlibat dalam perniagaan.

Oleh itu, pihak berkepentingan haruslah menyediakan latihan supaya mereka dapat memperlengkapkan diri dengan ilmu pengetahuan, kemahiran dan ciri-ciri keusahawanan untuk menjadi usahawan yang berdaya maju dan berdaya saing. Selain itu, latihan juga dapat memberikan pengetahuan pengurusan supaya perniagaan mencapai matlamat. Ia juga menjadikan seseorang lebih berstrategi dalam menjalankan perniagaan. Seterusnya, kemudahan infrastuktur yang baik dapat menggalakkan seseorang menjalankan aktiviti ekonomi. Sekiranya, pembangunan infrastruktur untuk rakyat tidak disediakan, ekonomi sesuatu kawasan tidak berkembang. Kemudahan infrastruktur juga meningkatkan kualiti dalam menjalankan perniagaan. Manakala, dalam kajian kewangan tidak menarik minat pekebun kecil terlibat dalam perniagaan. Namun, ia akan menjadi faktor penting kepada pekebun kecil kelapa sawit sekiranya mereka ingin mengembangkan perniagaan.

Dengan adanya latihan dan kemudahan infrastuktur ia dapat menggalakkan lebih ramai penduduk luar bandar menjalankan aktiviti perniagaan. Ia secara tidak langsung dapat mengurangkan kebergantung mereka kepada hasil sawit semata-mata.

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Sustainable Farming of Indigenous Oil Palm Smallholders in Peninsular Malaysia

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Abstract

The popularity of palm oil production is amazing. Around 10 percent of the world's permanent cropland has been used for global oil palm planting area. Among them, 85% of palm oil is produced in Malaysia and Indonesia. Palm oil has increased the income of populations of the two countries, especially farmers. But there is at cost – the environment is devastating, and labour rights and human rights are repeatedly violated. This study was carried out in one of the indigenous villages located in the east coast of Peninsular Malaysia – Kampung Sungai Mai, Jerantut, Pahang. Employing qualitative method, eight indigenous farmers were interviewed. The study results show that the orang Asli farmers are working towards land ownership as prerequisite of MSPO. Family farming as next step to sustainable farming and deforestation is curbed by oil palm cultivation.

Keywords: Orang Asli, Peninsular Malaysia, oil palm, smallholder, sustainability

INTRODUCTION

The popularity of palm oil production is amazing. Around 10 percent of the world's permanent cropland has been used for global oil palm planting area. Currently, 3 billion people in 150 countries use palm oil-containing products. Globally, each individual consumes 8 kg of palm oil per year (FAO, 2016).

Among them, 85% of palm oil is produced in Malaysia and Indonesia. Palm oil has increased the income of populations of the two countries, especially farmers. But there is at cost – the environment is devastating, and labour rights and human rights are repeatedly violated. In Indonesia, in order to expand the area of plantations, the forests that trees have been slashed and have been burnt down, making it the number one contributor to domestic greenhouse gas emissions. On the one hand, palm oil has brought economic benefits. On the other hand, it has destroyed the only habitats of Sumatran tigers, Sumatran rhinoceros and orangutans and thus endangered the endemic animals that share the same rainforest habitat (Ian Johnston, 2017).

As the palm oil industry expands, environmentalists and other environmental agencies are beginning to raise public awareness of the environmental impact of the palm oil industry and its carbon emissions. Due to this, both palm oil producing countries, Malaysia and Indonesia, are working towards sustainability of palm oil industry through Malaysian Sustainable Palm Oil (MSPO) and Indonesia Sustainable Palm Oil (ISPO).

As such, this paper aims to highlight the sustainability practices of oil palm cultivation by the indigenous smallholders in the Peninsular Malaysia.

LITERATURE REVIEW

The concept of sustainability includes three perspectives of social inclusiveness, environmental protection and economic growth, not in isolation but as a single integrated approach. Thus, for the development of sustainable development in Malaysia palm oil industry, according to Yew et al. (2016), in order to achieve a holistic approach of sustainable development, the industry aims to do “more and better with less” by reducing the use of resources, cutting down on deforestation and eliminate pollution throughout its entire life-cycle starting from the growers to the final retailers, thereby enhancing the quality of life and wellbeing of the people involved. From the researchers’ perspective, the oil palm cultivation by the Orang Asli in Peninsular Malaysia is viewed favourably by being environmental friendly and social inclusive. Achieving economic growth too by raising the Orang Asli household income level.

Nevertheless, in the indigenous farming, land ownership always proved to be the most contentious issue. The Aboriginal Peoples Act 1954, the main legislation dealing with the Orang Asli set during the emergency period being paternalistic and restrictive is no longer compatible to the new era. The Orang Asli are at the mercy of State government since land is the state matters and Orang Asli could not have security, certainty of occupation and ownership of land (Hooker, 1970).

In the Aboriginal Peoples Act 1954, aboriginal area or aboriginal reserve simply implied the place inhabited by the Orang Asli without alienation and registration of land which reign supreme in the Torren system and without recognition of customary land. Due to this, the land tenure arrangements in the indigenous settlements vary from practices by individual state government. The state government will acquire land by eminent domain, usually with a negotiated compensation whenever needs arise.

On 27 May 2019 (Bernama Online), the Malaysian Ministry of Primary Industries have urged Chief Ministers of all states to facilitate the ownerships of land under oil palm cultivation by the Orang Asli as the ownership of land was the main prerequisite in the Malaysian Sustainable Palm Oil (MSPO) certification by the end of the year, by the smallholders, inclusive of oil palm cultivated by the Orang Asli.

Developed countries regards Malaysia palm oil plantations as a major contributor towards deforestation and biodiversity loss in the tropical regions, however in studies conducted in Malaysia (Institute Darul Ridzuan, 2014; Junaidi and Yew, 2018), it is shown that sustainable indigenous oil palm cultivation improved the livelihood of Orang Asli and at the same time assists in the preservation of the rainforests.

Institut Darul Ridzuan (IDR, 2014) conducted a study in 2014 in Mukim Ulu Kinta, Ipoh, Perak and the study focused on socio-economic and environment aspects of the Ulu Kinta Catchment Area with a population of approximately 1500 people. According to the study, the Temiars in this area still gather non-timber products from the forest such as rattan, bamboo, herbs, petai, durian and fish from the Upper Kinta River. However, their main source of income is no longer from gathering these forest products but from working in oil palm smallholdings that they own. Sixty percent of the Temiar people in this area rely on agricultural activities, mostly palm oil to support their family and from the oil palm smallholdings, each family can easily make between RM400-RM700 per month. Similarly, Junaidi and Yew in their study on Jah Het tribe in an Orang Asli village in Kampung Sungai Mai, Jerantut, Pahang found that those villagers working on oil palm farming were satisfied with their status of monthly household income. Though the researchers encountered low interest of indigenous youth in the farming jobs, the family farming spirit showed good criterion of inclusiveness in sustainable farming.

LOCATION OF STUDY

This study was carried out in one of the indigenous villages located in the east coast of Peninsular Malaysia – Kampung Sungai Mai, Jerantut, Pahang. The Jah Het tribe residing in part of the forest fringe of this village since 1972 and the village was later surrounded by oil palm plantations developed by Austral Enterprise, Golden Hope Plantation from 1980 to 1982. Later in 1982 till todate, the oil palm plantations have been further developed by Sime Darby Plantation. According to the Head of the Sungai Mai Orang Asli Village, Mat and his Village Development Officer, Raman, there are 392 villagers staying in the village – babies, children, youth,

middle age and old age women and men. Ninety percent of the population in the village practices their traditional religion – animism, while 10 percent (about 3 families) are Muslims (fieldwork, 2018).

The cultivation of oil palm in this village is under the care of Malaysian Palm Oil Board (MPOB). In 2011, a total of 20 families have participated in the first phase of MPOB initiative in providing knowledge and planting skills of oil palms. Eighteen families were allocated 6 acres per household and the other two families with 12 acres each. Each acre has about 60 oil palm trees. The average monthly income earned from the harvest of oil palm ranges from RM500 to RM1500.

SAMPLING AND METHODOLOGY

Sampling

Originally, this study was carried out from early March 2018 till July 2019, with the main objective of the study to explore and develop indigenous youth's interest in oil palm farming. Part of the study focuses on 20 Orang Asli smallholder farmers in the Village of Sungai Mai, which are supported by Malaysian Palm Oil Board (MPOB) on making available funds and other support for oil palm cultivation.

Through simple random sampling (Flick, 1998) coupled with snowball technique (Berg, 2001), eight (8) indigenous oil palm farmers were being interviewed face-to-face throughout the duration of June 2018 till June 2019. All participants' names mentioned in the manuscript are pseudonyms so as to protect the participants' confidentiality.

In-depth Interviews and Data Analysis

Supposedly, this study aims to interview all the 20 (in actual study, only interviewed 8 farmers) Orang Asli oil palm farmers. However, there were several problems encountered as and when the research team entered the village. The problems are as follows:

1. Two oil palm farms were found unattended and the farmers in-charged could not be contacted.
2. Most oil palm farmers did not adhere to meeting despite scheduled appointment. In Orang Asli's will, meeting is by chance instead of by appointment.
3. Some oil palm farms are taken over by the children due to the passing of original farmers.

The original 20 oil palm farmers, under the MPOB initiative scheme in assisting indigenous smallholders in oil palm planting; were selected because they were given full training about oil palm cultivation which has included farm management for sustainable palm oil, environmental management, new planting and replanting, common pests and diseases as well as best management practices during harvesting. The targeted farmers were heads of households, having dependent children, grandchildren, and old parents living at home who they support. Age distribution of the indigenous oil palm farmers ranged from 50 to 65 years old.

In most interviews, the main author who is also the principal researcher conducted face-to-face interview with the interviewees. But, in three interviews there were farmer's adult children joined in the interview process (e.g. normally adult daughters would sit nearby and smiled as their father explained about the jobs carried out at the farm by his adult children).

The interviews lasted between 45 and 60 minutes, were audio recorded and later transcribed word-by-word. The interview data were then analysed using qualitative content analysis (Flick, 1998). The data transcribed were first classified by specific main categories, then classified and analysed further to specific subcategories, and presented as subthemes and main themes (Kvale, 1996). The language of the interviews was Malay language as this is the language used commonly by Orang Asli in creating social relationship with people in the mainstream communities.

RESULTS AND DISCUSSIONS

Findings of the study indicate the following sub-themes of study based on the culture of cultivation amongst the Orang Asli smallholding farmers and their children who are working together in the farm.

Working towards Land Ownership as prerequisite for MSPO

As the farmers have worked on the land for more than 10 years, the federal government is requesting the state government to grant land ownership to the Orang Asli oil palm farmers.

Family farming as prerequisite for MSPO

Family members prefer to work together in the farm instead of working individually in an organization outside and away from their village. In this manner, oil palm cultivation by different generations becomes sustainable.

Deforestation is curbed by oil palm cultivation

It is found that indigenous families that are involved in oil palm cultivation will not be involved in deforestation through “slash and burn” practice. This is because the families’ livelihood has been secured through the income generated from oil palm cultivation.

CONCLUSION

By cultivating oil palm, the industry helps to increase the income level of Orang Asli families and provides employment opportunities to the entire family. As the Orang Asli families are trained by the MPOB to practice sustainable cultivation of oil palm, the indigenous families involved in oil palm cultivation would no longer be involved in deforestation through “slash and burn”. In conclusion, the Orang Asli oil palm smallholders with continued guidance, training and support, they would work towards fulfilling the principles of MSPO.

ACKNOWLEDGEMENT

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Adsorption of Chromium Hexavalent on Palm Oil Fuel Ash Waste

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Abstract

This study investigated the removal of hexavalent chromium Cr (VI) from aqueous solution by adsorption using palm oil fuel ash (POFA), an agricultural waste from the palm oil industry. Batch adsorption study revealed that the optimum conditions for the removal were as follows; pH 2, adsorbent dosage 80 g/L and contact time of 6 min, which resulted in 92% removal. These findings suggested that the utilization of POFA as a low-cost adsorbent to remove Cr (VI) from wastewater is not only effective, but concurrently will help to reduce wastes from the palm oil industry.

Keywords: POFA, hexavalent chromium

INTRODUCTION

According to the Environmental Quality (Scheduled Waste) Regulations 2005, chromium is a Group 1 scheduled waste of metals and metal-based wastes. Scheduled waste is any hazardous waste that has the potential to negatively impact the public and the environment (Department of Environment 2005). Chromium (Cr) is a heavy metal that can be toxic at high concentrations. The heavy metal of chromium if released into the environment without treatment can cause environmental pollution and harm to human health.

There are various methods that have been developed to treat industrial waste water with heavy metal content. Among the methods used are ion exchange methods, adsorption methods, chemical precipitation methods, membrane filtration method and coagulation-flocculation method. Each method has its own advantages and limitations. The adsorption method was chosen as the primary alternative in treating wastewater contaminated with chromium heavy metals as it is more effective in removing organic pollutants, colors and odors from wastewater to produce clean water. Adsorbent materials are the preferred alternative because they are low cost, more effective and readily available such as ash from industrial operations and agricultural waste. The adsorbent used in this study was palm oil ash (POFA). This palm oil consists of oil palm residues including stems and vines that are burned at 800 - 1000 ° C. The purpose of this study was to determine the effectiveness of POFA as a low-cost adsorbent for Cr (VI) removal from aqueous solution. Effects of pH, adsorbent dosage and contact time to the adsorption performance were also studied through batch adsorption experiments.

LITERATURE REVIEW

Chromium is one of the heavy metals present in wastewater and is present in two stable oxidizing conditions such as Cr (III) and Cr (VI). Chromium is widely used in industries such as plating, magnetic tape, pigments for paints, cement, paper and rubber and is used as a metal alloy such as stainless steel (Martin & Griswold 2009). Chromium (III) is an essential nutrient needed by humans while chromium (VI) has toxic and carcinogenic effects on human health. Chromium (VI) is more carcinogenic which is 500 times more toxic than compared to chromium (III) (Chrysochoou et al. 2009). Among the effects of chromium on human health are nose ulcers, runny nose and respiratory problems such as asthma, cough and shortness of breath. Exposure to chromium over the long term can cause damage to the liver, blood circulation, nerves and skin irritation.

The adsorption process is an effective and economical method for sewage treatment. The removal of toxic

substances in these wastewaters using conventional methods will generate a large amount of toxic and non-economic chemical sludge in terms of operation and capital cost (Sharma et al. 2015). The use of adsorbent in this adsorption method has been widely used in industrial activities to treat industrial wastewater. This method is used because of its high adsorption capability, is easy to operate, can use a variety of adsorption materials and requires lower cost compared to other methods (Han et al. 2011).

In the adsorption process, many adsorbents are studied to remove heavy metals. Among the studies that have been carried out, the ingredient used is unused tea (Nasuha et al. 2010), palm oil residue (Aoh et al. 2012), corn (Rocha et al. 2015) and sand (Bakar et al. 2016). These adsorbent materials are used to find alternatives to reduce costs in wastewater treatment. Agricultural waste is a waste that is disposed of after it is processed. Agricultural waste is environmentally friendly and more economical as it is reusable and can be obtained at a lower cost and is more effective at removing heavy metals (Sud et al. 2008). Previous studies have shown that agricultural waste such as rice husk, wheat, coconut oil and soybeans can be used to remove pollutants such as heavy metals from aqueous solutions (Hashem et al. 2007).

Studies on the use of POFA in wastewater treatment have not been carried out. There have been studies using POFA as a raw material to produce adsorbent composites to treat domestic wastewater (Mohan et al. 2019). POFA-based composite materials have also been produced as media in constructed wetland to treat wastewater from aquaculture activities (Farah Diyana et al. 2019).

METHODOLOGY

Preparation of adsorbent materials

The palm oil fuel ash waste (POFA) used throughout this experiment is in the form of powder. The POFA was sifted using a sieve to obtain the average powder size of less than 250 μm .

Preparation synthetic wastewater

A total of 0.28 g of potassium dehydrated powder ($\text{K}_2\text{Cr}_2\text{O}_7$) was used for the preparation of synthetic wastewater with a concentration of 100 ppm. The dehydrated potassium powder ($\text{K}_2\text{Cr}_2\text{O}_7$) was weighed using a weighing device and then placed into a 1000 mL volumetric flask. The distilled water is then filled and shaken slowly until well combined.

Determination of Cr(VI)

The chromium content in the sample was tested using a DR 2700 spectrophotometer using the 1,5-Diphenylcarbohydrazide method (APHA 2004). The method is implemented according to the manual use of the DR 2700 spectrophotometer. The first step is 10 mL of sample filled into the sample cell. Then, the ChromaVer 3 Chromium Reagent Powder Pillow was inserted into the sample cell containing the sample. The samples were stirred so the solution was mixed and left for five minutes. The sample will turn purple if the sample contains chromium. Blank preparation was performed by inserting 10 mL of sample into a different sample cell. All sample cells containing the sample and blank were wiped with cleaning tissue to remove impurities and fingerprints around the tube which could interfere with the readings. After five minutes, a blank solution is introduced and the Zero button is pressed. Subsequent samples were included to determine the concentration of chromium heavy metals. Chromium concentration readings will be taken three times to obtain average readings and reading values are expressed in units of mg / L.

Batch adsorption experiment

The group adsorption experiments are divided into three parts, namely the optimum parameters, adsorption isotherm studies and adsorption kinetics. Among the optimal parameters determined in this study are optimum pH, optimum contact time and optimal absorption dose. The optimal parameters of the group adsorption experiments were determined by incorporating an adsorbed media of palm fly ash into a series of 250 mL conical flasks filled with 100 mL of chromium synthetic residual water. All cone flaps were closed using paraffin during the experiments to prevent evaporation from the solution and to prevent the sample from spilling. The cone flaps that had been closed using the film were mounted on an orbital shaker and shaken at 200 rpm. This orbital shaker is used to ensure that the sample under study undergoes adsorption evenly. After shaking, the samples

were manually filtered using 0.45 μm syringe filter paper. The derivatives were analyzed using the Spectrophotometer tool to obtain the final concentration of chromium after the adsorption process.

EMPIRICAL RESULTS

pH optimization

Optimum pH studies were conducted to see the removal rates of chromium heavy metals from synthetic wastewater. The pH parameters have been adjusted between pH 2 to pH 5. Figure 4.1 shows the effect of pH on the ability to remove chromium heavy metals using palm oil fly ash absorption media. Based on the analysis obtained from Figure 4.1, the removal rate of chromium decreases as the synthetic wastewater pH increases. Removal of chromium from synthetic wastewater using batch adsorption method was found to be most effective at pH 2 at 46%. While pH 3 removal of chromium showed the lowest removal rate of 0.3%.

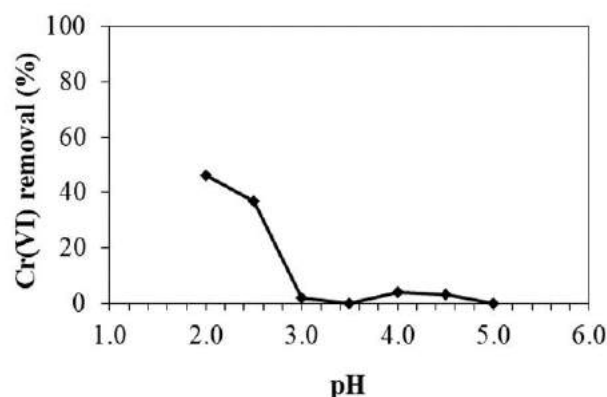


FIGURE 1: Effect of pH to Cr(VI) removal by adsorption on POFA.

pH plays an important role in adsorption especially in the adsorption capacity of the adsorbent (Isa et al. 2007). To ensure maximum removal of heavy metals, information on optimum pH is important (Kent et al. 1995). The optimum pH achieved in this study is at pH 2. This indicates that the adsorption of heavy metals of chromium is effective under acidic conditions. Hexavalent chromium, Cr (VI) exists in several stable forms such as $\text{Cr}_2\text{O}_4^{2-}$, HCrO_4^- and $\text{Cr}_2\text{O}_7^{2-}$ (Alpha-Sika et al. 2010). At the maximum adsorption pH in this study at pH 2, the dominant species was reported as HCrO_4^- (Cimino et al. 2000). This leads to significant electrostatic attraction between the positively charged activated carbon surface and the chromate anion. In acidic conditions, the dominant charge on the surface of the adsorption material is positive. The removal mechanism of Cr (VI) by the oil palm fly ash absorber is a process of electrostatic attraction between Cr (VI) present in anions such as HCrO_4^- and $\text{Cr}_2\text{O}_7^{2-}$ and the surface of the adsorbent has a positive charge. This indicates that the adsorption capacity of the adsorbent is obviously pH dependent.

Contact time

Based on the study done, the contact time is set from 0.5 minutes to 15 minutes. Figure 4.2 shows the percentage of chromium hexavalent removal increasing as the adsorption time increases to the equilibrium. The removal rate of chromium for optimum contact time was 85% at 10 minutes. After the 10th minute, the removal percentage has reached the equilibrium level with the removal of chromium decreasing. The lowest percentage of chromium removal was at 0.5 minutes, which was only 77% removal.

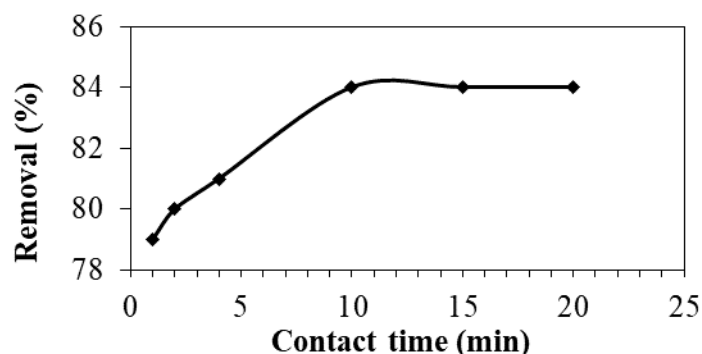


FIGURE 2: Effect of contact time to Cr(VI) removal by adsorption on POFA.

During the 10th minute shake is an optimum contact time with the highest removal of chromium heavy metals at 85%. After 10 minutes to 20 minutes, the percentage removal of the chromium heavy metal is in equilibrium. This is due to the ability of oil palm fly ash absorbers to get rid of the heavy metal of chromium. The surface of the adsorbent is a limiting factor in that it cannot bind the heavy metals of chromium present in the solution.

Dose of POFA adsorbent

The absorbent doses used in this study were 0.5 g, 1.0 g, 2.0 g, 4.0 g, 6.0 g, 8.0 g, 10.0 g and 15.0 g. Figure 4.3 shows the effect of increasing the dosage of the adsorbent on the adsorption capacity of palm fly ash in the removal of chromium from synthetic waste water. Based on Figure 3, the percentage of chromium removal increased with increasing dosage of the adsorbent material until it reached equilibrium. The results showed that the highest percentage of chromium removal was at a dose of 40 g / L of absorbent material with 92% removal rate. While the lowest percentage of chromium removal was 60% at 5 g / L absorption dose.

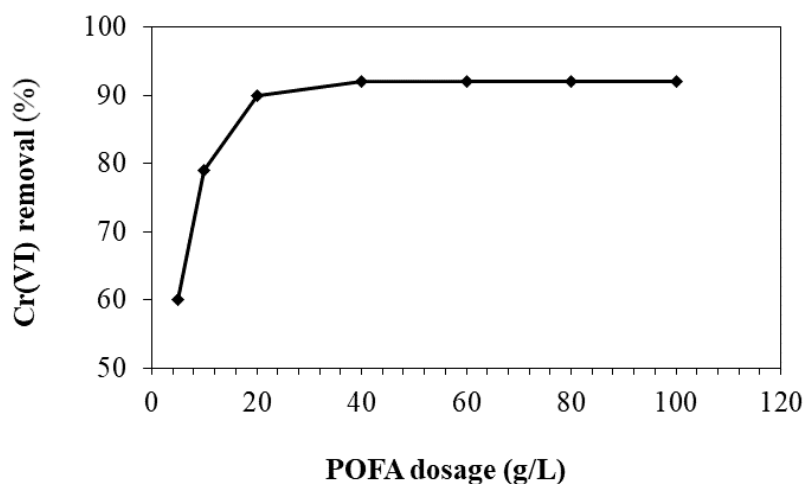


FIGURE 3: Effect of adsorbent dosage to Cr(VI) removal by adsorption on POFA.

The removal of chromium hexavalent increases as the dose of the adsorbent increases due to the high number of binding sites at high doses of the adsorbent (Choudhary & Paul 2018). The higher the adsorption dose, the greater the amount of adsorption surface area and adsorption site availability (Umoren et al. 2013). This can be explained by the increase in the number of binding sites available from the start up until the optimal absorbent dose is reached. After reaching the equilibrium level, any increase in the adsorption dose of the adsorbent will not affect the removal of the chromium.

CONCLUSION

The optimum conditions for chromium heavy metal removal were at pH 2, 10 min contact time and 40.0 g of absorbent material which was 92% chromium heavy metal removal from synthetic wastewater. The removal of heavy metals of chromium shows an increasing percentage with increasing contact time and dose of absorbent material. Studies have also concluded that the adsorption of hexavalent chromium depends on the pH where the removal efficiency of the absorbent material increases with decreasing pH.

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Isu dan Masalah Pekebun Kecil Persendirian (PKP) Dalam Industri Kelapa Sawit di Sarawak

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Abstrak

PKP antara penyumbang kedua terbesar dalam industri kelapa sawit di negara ini. Walaubagaimanapun, akses pasaran mereka tidak terjamin dan PKP kurang produktif. Objektif utama kajian ini ialah untuk membincangkan masalah-masalah yang dihadapi oleh PKP di negeri Sarawak (Rajah 1) serta peranan Kementerian Industri Utama (KIU) dalam membantu PKP di negeri tersebut. Kajian ini menggunakan data sekunder iaitu daripada laporan daripada agensi kerajaan seperti MPOB. Data yang terkumpul dianalisis menggunakan kaedah analisis kandungan melalui proses interpretasi teks. Dapatan kajian mengenai ketidakcekapan PKP termasuk mengekalkan penanaman pokok kelapa sawit lebih daripada tempoh yang sepatutnya, menggunakan benih sendiri yang tidak berkualiti, baja tidak mencukupi, penuaian buah-buahan tandan segar (BTS) yang belum masak dan tidak mempunyai sistem pengurusan data yang baik. Di samping itu, kewujudan beberapa isu yang dilihat sebagai didalangi oleh pihak tertentu dalam isu berkaitan tanah dan hak PKP di Sarawak memerlukan kesungguhan politik kerajaan, amnya kerajaan negeri untuk mengatasi masalah ini agar PKP mendapat hak dan pembelaan yang sewajarnya. Usaha berterusan untuk membantu PKP di luar bandar perlu diteruskan dengan memperkenalkan pelbagai program dan bentuk bantuan bagi meningkatkan kualiti dan produktiviti hasil kelapa sawit PKP supaya kumpulan ini dapat bersaing dengan pengeluar lain yang mempunyai modal yang besar serta mampu menghasilkan keluaran yang tinggi dan berkualiti.

Katakunci: Industri kelapa sawit, pekebun kecil, pertanian, Sarawak

PENGENALAN

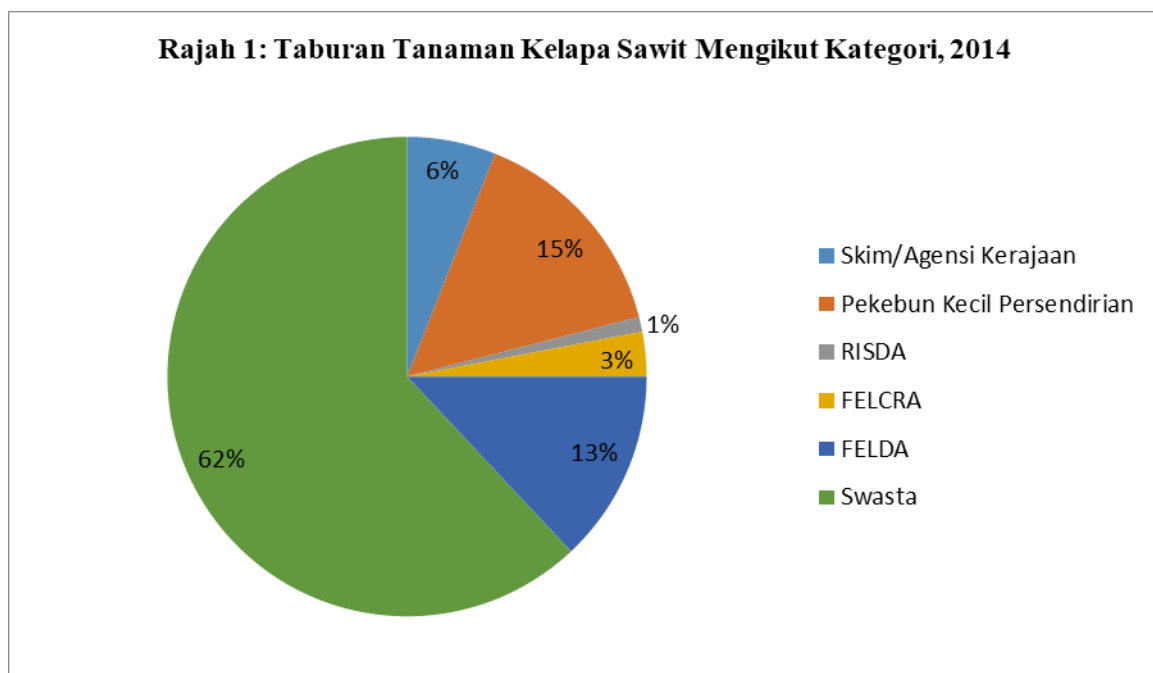
Sektor pertanian merupakan sektor yang penting dalam pembangunan ekonomi di Malaysia kerana sektor tersebut merupakan sektor ketiga terpenting yang menyumbang kepada pendapatan negara. Sejak tahun 1960-an, sektor pertanian memainkan peranan yang sangat penting dalam menyediakan bekalan makanan untuk menampung bilangan penduduk yang semakin bertambah, mengurangkan kadar pengangguran, sebagai sumber pendapatan eksport, menyediakan bahan mentah untuk pertumbuhan industri asas tani dan sebagainya (Fatimah Arshad, 2008).

Walaupun negara berhasrat untuk menjadi sebuah negara perindustrian menjelang tahun 2020, namun usaha-usaha untuk membangunkan sektor pertanian tetap diteruskan kerana beberapa faktor. Pertama, sektor pertanian merupakan sektor yang kurang menerima kesan akibat daripada kegawatan ekonomi dan terus menyumbang kepada Keluaran Dalam Negara Kasar (KDNK) dan guna tenaga negara (Fatimah Hassan dan Nurwati Badarulzaman, 2008). Kedua, pembangunan pertanian yang berterusan boleh mengurangkan kebergantungan negara terhadap import makanan dari luar negara dan sekaligus mengurangkan pengaliran keluar mata wang negara melalui aktiviti import. Ketiga, menyediakan bekalan makanan untuk menampung bilangan penduduk, mengurangkan pengangguran, sebagai bahan mentah industri dan sumber pendapatan negara (Fatimah Arshad, 2008). Sumbangan tersebut menunjukkan pertumbuhan sektor pertanian penting sebagai syarat asas sebagai perantara dalam pembangunan dan pertumbuhan ekonomi bagi manfaat semua sektor dalam sesebuah negara. Di samping itu, sektor pertanian juga memberikan kesan besar terhadap kewujudan lebihan makanan dan mengurangkan masalah kemiskinan (Basri Abdul Talib, 2009). Antara contoh tanaman yang mendapat permintaan tinggi sejak sekitar tahun 1970 sehingga ke hari ini ialah kelapa sawit. Peningkatan penanam kelapa sawit berlaku kerana wujudnya permintaan tinggi akibat daripada kadar pertumbuhan penduduk yang tinggi di negara Asia Timur dan Asia Selatan seperti di China dan India telah meningkatkan permintaan terhadap

pengeluaran produk primer di Asia Tenggara terutamanya daripada tanaman industri seperti kelapa sawit dan getah (Manivong dan Cramb, 2008; Shi, 2008).

Pada masa yang sama, minyak sawit juga merupakan minyak yang kedua paling banyak boleh dimakan di seluruh dunia dan tanaman minyak sayuran yang menghasilkan minyak tertinggi untuk setiap unit keluasan tanaman (Donald 2004). Begitu juga dengan permintaan terhadap bekalan tenaga bersih dari kawasan rantau Utara dan Selatan turut mempengaruhi permintaan terhadap keluaran kelapa sawit di rantau ini (Borras et al, 2010; Cooke et al, 2011). Fasa pengembangan industri kelapa sawit ini bermula selepas kejatuhan harga getah asli negara dan pada masa yang sama, pada tahun 1995, Bank Dunia juga menyarankan supaya kerajaan menggalakkan rakyat menanam kelapa sawit (Cheng Hai, 2002). Abad ke-21 turut menyaksikan kebanyakan negeri di Malaysia telah melakukan percubaan untuk menanam kelapa sawit dan mula menanam secara komersial sekitar tahun 1917 (Thoburn, 1984). Penduduk di luar bandar di Sarawak turut mengambil peluang untuk terlibat sebagai penyumbang kepada industri ini. Jika di awal tahun 1970, kelapa sawit dimonopoli oleh syarikat swasta dan pekebun kecil berkelompok (PKB) yang dibantu oleh agensi kerajaan, namun hari ini telah menyaksikan sektor ini turut melibatkan penglibatan PKP termasuk di Sarawak. Menurut Ismail, Simeh dan Noor (2003), PKP merupakan petani yang menanam kelapa sawit tanpa mendapat bantuan terus daripada kerajaan atau syarikat-syarikat swasta dan menjual tanaman mereka kepada kilang-kilang tempatan sama ada secara langsung atau melalui orang tengah. Di Malaysia, PKP juga dikenali sebagai “kilang bebas” oleh Fairhurst dan R. Hartder (2003) serta pengeluar hasil kelapa sawit yang kecil dan seringkali dilihat sebagai sektor yang kurang efisien dan kurang produktif berbanding dengan ladang-ladang berskala besar milik swasta (Ayat et al., 2008). PKP juga merupakan perusahaan persendirian, diuruskan sendiri oleh pekebun dan menggunakan modal sendiri serta mempunyai lebih banyak autonomi untuk menguruskan tanah mereka, kaedah menanam dan cara-cara untuk menguruskan ladang.

Jika dibandingkan dengan PKB, PKP juga tidak terikat dengan mana-mana kilang atau mana-mana persatuan walaupun mereka boleh menerima sokongan atau perkhidmatan lanjutan daripada agensi kerajaan (RSPO, 2009). Dari segi jualan pula, PKP boleh menjual hasil mereka secara terus kepada peniaga atau kilang tempatan di samping bebas berbincang untuk mendapatkan harga yang lebih baik untuk hasil mereka. Oleh itu, mereka berpeluang mempunyai peluang kuasa tawar-menawar, terutamanya di mana mereka membentuk kumpulan persatuan yang kuat, walaupun dalam realiti kadang-kadang terdapat potensi pembeli untuk tanaman mereka adalah terhad (FSG, 2010).



RAJAH 1: Peratusan kawasan tanaman kelapa sawit oleh PKP di seluruh negara sehingga tahun 2014.

Sumber: MPOB, 2015.

Rajah 1 jelas menunjukkan bahawa PKP antara penyumbang kedua terbesar dalam industri kelapa sawit di negara ini. Walaubagaimanapun, akses pasaran mereka tidak terjamin dan PKP kurang produktif. Dapatan kajian mengenai ketidakcekapan PKP termasuk mengekalkan penanaman pokok kelapa sawit lebih daripada tempoh yang sepatutnya, menggunakan benih sendiri yang tidak berkualiti, baja tidak mencukupi, penuaian buah-buahan tandan segar (BTS) yang belum masak dan tidak mempunyai sistem pengurusan data yang baik (Ayat Rahman et al. 2008). Oleh itu, fokus bab ini adalah untuk membincangkan masalah-masalah yang dihadapi oleh PKP di negeri Sarawak (Rajah 1) serta peranan Kementerian Industri Utama (KIU) dalam membantu PKP di negeri tersebut. Kajian ini penting untuk pembuat dasar dan aktor-aktor penting dalam industri ini terutamanya Lembaga Kemajuan Minyak Sawit Malaysia (MPOB), Jabatan Pertanian Sarawak, Lembaga Pertubuhan Peladang dan agensi-agensi yang berkaitan kerana kajian lepas menunjukkan PKP berdepan dengan beberapa masalah seperti isu tanah, pengetahuan mengenai pengurusan tanah, tanaman, urusan jual beli dan pelbagai masalah lain terutamanya di Sarawak (Rajah 2). Kajian ini menggunakan data sekunder seperti hasil kajian lepas dan laporan daripada agensi kerajaan seperti MPOB. Data yang terkumpul dianalisis menggunakan kaedah analisis kandungan melalui proses interpretasi teks.

Penglibatan PKP Dalam Industri Kelapa Sawit di Sarawak

Menurut MPOB dan beberapa kajian lepas, penglibatan PKP dalam sektor ini kebanyakannya bermula di kawasan Niah yang terletak dalam pentadbiran Bahagian Miri dalam negeri Sarawak. Minat menanam komoditi ini akhirnya berlaku dalam kalangan penduduk di bahagian lain di Sarawak terutamanya di luar bandar. Antara kaum yang aktif sebagai PKP dalam industri ini adalah Iban, Bidayuh, Kayan dan Penan. Tanpa pelbagai bantuan khidmat dan nasihat daripada agensi kerajaan, bagaimanakah kumpulan ini dapat meningkatkan produktiviti dan kualiti keluaran kelapa sawit? Justeru, kerajaan telah mempertanggungjawabkan MPOB untuk mengagihkan bantuan yang diberikan ini agar dapat meningkatkan taraf hidup PKP luar bandar khususnya dalam kalangan Bumiputra (Lembaga Minyak Kelapa Sawit Malaysia, 2015).

Selain itu, agensi-agensi lain pada peringkat negeri seperti Jabatan Pertanian Sarawak dan Pertubuhan Peladang turut membantu PKP. Bilangan PKP dan saiz keluasan tanaman mereka sangat besar dan ini secara tidak langsung mempengaruhi rantai pengeluaran kelapa sawit negara ini. Jadi, adalah bukan satu perkara yang menghairankan apabila penglibatan PKP semakin meningkat dan nilai pengeluaran PKP telah berkembang daripada sembilan peratus daripada jumlah kawasan pengeluaran pada tahun 1980 kepada 14 peratus pada tahun 2011 bagi keluasan tanaman kira-kira 700,000 hektar. Data pada tahun 2014 menunjukkan keluasan tanaman kelapa sawit PKP di Sarawak iaitu kira-kira 20, 172 hektar atau 13.2 peratus daripada keseluruhan bilangan PKP di seluruh negara (MPOB, 2014). Kajian Wild Asia (2013) mendapati kelapa sawit merupakan tanaman yang lebih menguntungkan PKP jika dibandingkan dengan tanaman tradisional seperti getah dan lada.

Peranan KPPK

KPPK dan MPOB sangat penting untuk memastikan PKP dapat menghasilkan kelapa sawit yang berkualiti dan dalam skala yang banyak. Dalam konteks ini, KPPK merupakan badan utama yang menentukan dasar-dasar yang berkaitan dengan komoditi, perladangan dan sebarang perusahaan di negara ini. Sementara MPOB pula berperanan sebagai agensi khas yang bertujuan menyelaras program pembangunan dan penyelidikan dalam industri kelapa sawit negara. Di Sarawak, agensi ini turut bekerjasama dengan Kementerian Pemodenan Pertanian Sarawak (KPPS) dan Kementerian Kemajuan Tanah Sarawak (KKTS). Kedua-dua kementerian ini bekerjasama dengan MPOB untuk menyelaras program berkaitan industri kelapa sawit khususnya PKP di Sarawak. Dalam usaha meringankan beban dan meningkatkan kualiti dan kuantiti pengeluaran kelapa sawit oleh PKP, MPOB telah memperkenalkan beberapa bantuan dan insentif kepada pekebun kecil kelapa sawit (Jadual 1).

JADUAL 1: Jenis Bantuan Yang Disediakan Oleh MPOB untuk Membantu PKP

Bantuan/Insentif	Deskripsi Bantuan
Skim Diskaun CANTAS (SKIDIC)	Diskaun bernilai RM1,000 bagi setiap unit CANTAS. Cantas adalah merupakan sabit khas yang dicipta bagi memudahkan proses penuaian buah sawit. Harga asal cantas ialah RM2,500 seunit.

Program Tanam Semula Kelapa Sawit Pekebun Kecil (TSSPK)	Bantuan adalah sebanyak RM7,500 (Semenanjung) dan RM9,500 sehektar (Sabah dan Sarawak) meliputi kos penyediaan tapak seperti menebang dan meracik pokok tua, membaris, membina teres, menanam anak benih, membeli anak benih, baja dan racun rumpai pada tahun pertama
Bantuan Penyelenggaraan Kebun (BPK)	BPK sebanyak RM500 sebulan akan diberi selama dua tahun kepada pemohon yang memenuhi syarat TSSPK
Skim Tanam Baru Sawit Pekebun Kecil (TBSPK) Tahun 2012	Nilai bantuan adalah tidak melebihi RM7,500 sehektar dalam bentuk:- - Anak benih sawit dibekalkan dari tapak semaian sawit yang mempunyai Sijil OPNCC/CoPN telah memenuhi spesifikasi yang ditetapkan. - Baja tahun pertama dan kedua yang ditentukan mengikut jenis tanah. - Racun perosak/kimia boleh dipertimbangkan pada tahun pertama jika berlaku serangan serangga yang serius.

Sumber : Kementerian Perlindungan dan Komoditi, (2014).

Bantuan-bantuan dan insentif yang diperkenalkan sangat penting untuk memastikan PKP mampu bertahan dalam industri ini lebih-lebih lagi semasa peringkat proses penanaman semula kelapa sawit dilakukan. Pada peringkat ini, PKP mengalami kekurangan punca pendapatan sementara menunggu kelapa sawit yang baru ditanam mengeluarkan hasil. Oleh itu, bantuan sebanyak RM500 sebulan sangat penting untuk menyara kehidupan PKP pada peringkat tersebut. Begitu juga, skim tanaman semula yang dikenali sebagai TBSPK juga dapat meringankan bebanan PKP untuk membeli benih baru dan sebarang input yang diperlukan. Tanpa ada bantuan-bantuan ini, bagaimanakah PKP mampu bertahan?

Sedangkan modal dan input-input yang digunakan adalah berasaskan modal persendirian sepenuhnya. Pada tahun 2014, sebanyak RM294 juta telah diperuntukkan kepada pekebun kecil di Sabah dan Sarawak untuk penanaman semula dan penanaman baru yang melibatkan keluasan sebesar 35,000 hektar tanah dibawah program National Key Economic Area (NKEA) di mana sejumlah 30,000 hektar tersebut adalah di Sarawak. Dengan adanya bantuan baja, sekurang-kurangnya bebanan yang ditanggung oleh PKP untuk membeli baja dapat dikurangkan dan PKP dapat menikmati pulangan yang lebih tinggi apabila ladang mereka telah mengeluarkan hasil. MPOB turut menyediakan bantuan mesin penuai buah sawit bermotor (CANTAS) yang berupaya meningkatkan kecekapan penuaian buah tandan segar hampir dua kali ganda. Kerajaan telah menyediakan Skim Diskaun Cantas TM (SKIDIC) iaitu diskaun bernilai RM 1,000 bagi setiap unit mesin yang dibeli. Pekebun kecil, kontraktor atau individu yang mengambil upah menuai di ladang pekebun kecil sawit dan syarikat perladangan atau estet digalakkan dan diberi keutamaan untuk memohon mendapatkan bantuan di bawah skim ini (MPOB, 2014). Pengenalan mesin tersebut bertujuan mengurangkan penggunaan tenaga manusia dan mempercepatkan pengeluaran kelapa sawit semasa proses penuaian dilakukan. Pada tahun 2009, KIU turut melancarkan Sustainable Palm Oil Cluster (SPOC) iaitu satu program yang dibangunkan oleh MPOB khusus untuk PKP dengan matlamat supaya PKP mengeluarkan hasil sawit secara mampan dan pada masa yang sama dapat memenuhi keperluan pengguna masa kini dan masa depan.

Terdapat dua komponen utama program SPOC ialah melaksanakan Pensijilan Kebun Pekebun Kecil (PKPK) dan menubuhkan Koperasi Penanam Sawit Mampan (KPSM). Kerajaan juga telah meluluskan Skim Pensijilan Minyak Sawit Malaysia pada awal 2014 yang bertujuan untuk meningkatkan imej industri minyak sawit Malaysia daripada sudut kemapanan pengeluaran pasaran utama. Bagi memastikan pensijilan mapan iaitu daripada PKP berdaftar dengan kerajaan, secara menyeluruh meliputi sektor PKP, kerajaan turut menyediakan peruntukan berjumlah RM53 juta bagi membantu PKP mendapat pensijilan mapan. Dalam pada itu, purata saiz plot tanah milik PKP yang kecil (3.9 hektar setiap keluarga) dan kekurangan pendedahan kepada amalan pertanian baik merupakan faktor utama yang memberi kesan kepada tahap produktiviti mereka yang rendah. Oleh yang demikian, di bawah program SPOC, PKP akan dikelompokkan mengikut kawasan, menjadi satu

kumpulan yang di ketuai sendiri oleh PKP dan dibantu secara terus oleh Pegawai Tunjuk Ajar dan Nasihat Sawit (TUNAS) MPOB.

SPOC pula akan memudahkan MPOB menjalankan aktiviti pengembangan, menyampaikan bantuan dan menerapkan teknologi-teknologi terkini kepada PKP. Hakikatnya, terdapat beberapa jenis pensijilan yang dijalankan ke atas kebun pekebun kecil di Malaysia. Ini termasuk Pensijilan PKPK ialah Pensijilan Amalan Pertanian Baik (GAP), Code of Practice (CoP), Meja Bulat Minyak Sawit Mampan (RSPO) dan juga yang baru dikuatkuasakan iaitu Standard Minyak Sawit Mampan Malaysia (MSPO) atau MS 2530:2013. Semua pensijilan ini dilaksanakan secara sukarela dan bertujuan menjamin minyak sawit dihasilkan secara mapan, selamat digunakan, memberi keuntungan kepada mereka yang terlibat, mesra alam dan memenuhi kehendak pengguna.

Pada masa yang sama, KIU turut menyediakan peruntukkan khas kepada MPOB untuk membiayai pembangunan projek-projek penyelidikan yang telah diluluskan di bawah program Penumpuan Penyelidikan Dalam Bidang Keutamaan (IRPA). Meskipun begitu, sehingga ke hari ini, peranan MPOB dalam memperkasakan penduduk di luar bandar khususnya di Sarawak masih lagi dipertikaikan kejayaannya sama ada dalam kalangan sarjana, pemimpin politik, pemimpin masyarakat tempatan, orang ramai dan juga dalam kalangan penerima skim bantuan MPOB itu sendiri (Minos, 2000; Ngidang, 1994). Perkara ini dikaitkan dengan masalah kemiskinan yang masih wujud di kawasan luar bandar terutamanya dalam kalangan PKP. Namun begitu, tindakan mengaitkan masalah kemiskinan dengan MPOB adalah tidak munasabah kerana kemiskinan di Sarawak turut dikaitkan dengan faktor lain seperti tanah yang kurang subur (Jackson, 1968; Hatch, 1979), sistem pemilikan tanah Sistem pemilikan tanah (King, 1992; Jayum, 1992; Madeline, 2002; Minos, 2000), budaya (Madeline, 2002), keadaan topografi dan sebagainya.

ISU DAN MASALAH PKP

Dualisme dalam pertanian di Sarawak amnya di luar bandar bermula sejak tahun 1981 apabila kerajaan negeri memperkenalkan transformasi pertanian dan usaha ini disokong melalui kaedah pertanian berskala besar, berinsentifkan modal serta pengenalan kaedah teknologi pertanian moden (Cramb, 2007). Pembaharuan melalui sokongan-sokongan tersebut dilakukan untuk mengatasi kelemahan dalam pertanian tradisional berskala kecil yang dianggap terkebelakang dan kekurangan modal. Oleh itu, tidak hairanlah kita apabila melihat estet-estet besar semakin banyak berbanding dengan bilangan pekebun kecil yang jauh ketinggalan terutamanya PKP (Cramb, 2007). Kewujudan estet-estet besar sering menimbulkan masalah berkaitan dengan tanah dalam kalangan PKP. Kajian lepas melihat isu ini berpunca daripada kerajaan sendiri kerana tindakan seperti penggabian dan pelanggaran undang-undang sering dilakukan oleh kerajaan negeri sehinggakan kebanyakan tanah adat telah dijadikan tanah ladang dan juga aktiviti pembalakan secara besar-besaran (BRIMAS, 1999).

Apabila pertikaian berlaku, konflik yang berlarutan antara PKP, kerajaan negeri dan syarikat besar menyebabkan PKP merasakan usaha mereka mempertahankan tanah adalah sia-sia. Masalah kehilangan tanah ini turut mendatangkan masalah lain kepada PKP dan penduduk kampung di mana penerokaan saiz tanah untuk pembukaan ladang kelapa sawit yang sering meningkat telah menyebabkan sumber-sumber hutan dan tanah untuk bercucuk tanam tanaman kontan dan padi semakin berkurangan (Marcus, 2008). Walaupun matlamat pembangunan komoditi ini membawa manfaat kepada pasaran tempatan dan antarabangsa serta ekonomi yang semakin beralih kepada bukan pertanian, namun penduduk di luar bandar negeri Sarawak masih memerlukan tanah sebagai asas ekonomi dan sosiobudaya kehidupan mereka (Cramb 2007; 2012). Dalam isu ini, Cramb (2013) tidak menafikan bahawa keinginan kerajaan untuk memaksimumkan pengeluaran kelapa sawit melalui penyerahan sejumlah tanah yang lebih besar kepada syarikat-syarikat besar di Sarawak sehingga pekebun kecil semakin terhimpit. Keadaan ini menyebabkan berlakunya satu sistem dualisme dan sistem pertanian bermodal tinggi di negeri Sarawak khususnya dalam sektor kelapa sawit. Cramb (2013) dalam kajian beliau bertajuk “Ekonomi Politik Dalam Pembangunan Ladang Kelapa Sawit Berskala Besar di Sarawak” melihat aspek dasar dan peranan pemerintah dalam pembangunan komoditi ini didorong oleh naungan kuasa politik dan bukan dikawal oleh faktor teknikal dan pasaran semata-mata sehinggakan berlakunya tindakan pengambilan tanah pada kadar yang luar biasa. Ini kerana, kuasa tangan sebilangan kecil pelakon korporat negeri yang disokong oleh pelindung mereka dalam kalangan birokrat dan ahli politik (Cramb, 2013). Cramb dan Ngidang menjelaskan bahawa kerakusan mencapai matlamat ekonomi dalam sektor ini menyebabkan sistem ekonomi

dualisme turut berlaku di mana suntikan modal dan teknologi baru dibawa masuk untuk meningkatkan pengeluaran kelapa sawit untuk syarikat-syarikat besar di luar bandar negeri Sarawak dan hasrat kerajaan negeri ini telah menjadi kenyataan empiris (Cramb dan Patrick S, 2012).

Keadaan ini sekaligus menyebabkan PKP semakin terhimpit terutamanya dari segi saiz tanah kerana tanah asal telah dibangunkan untuk syarikat-syarikat besar (Martin, 2008). Ini kerana kuasa pertanian yang dahulunya di tangan pekebun kecil kini telah diambil oleh kuasa politik undang-undang yang menyebabkan sektor ini dikuasai oleh sektor swasta (Cramb dan Patrick S, 2012). Oleh itu, tidak menghairankan apabila ramai penduduk luar bandar Sarawak sentiasa meragui projek-projek pembangunan yang dilaksanakan oleh kerajaan negeri. Malek dan Barlow (1988) juga mendapati PKP di negara ini berdepan dengan masalah kos pengeluaran yang tinggi, kekurangan ruang tanah dan tenaga buruh, masalah kemiskinan berpanjangan dan masalah kewangan untuk penanaman. Selain itu, taburan PKP di Sarawak yang berselerak menyukarkan agensi-agensi kerajaan untuk menghubungi dan menghulurkan bantuan kepada PKP. Saiz keluasan tanaman yang agak kecil dan sekadar untuk meluaskan masa lapang menyebabkan segelintir PKP tidak layak menerima bantuan daripada agensi kerajaan seperti MPOB. Bagi menangani beberapa isu dan masalah dalam sektor ini, kesemua PKP di seluruh negara dikehendaki mempunyai lesen berdaftar yang dikeluarkan oleh MPOB. Matlamat mewajibkan PKP berlesen ini adalah untuk memudahkan proses pengagihan bantuan dan mengenalpasti taburan PKP di seluruh negara terutamanya di kawasan yang sukar diakses seperti di pedalaman Sabah dan Sarawak. Pada masa yang sama, rekod keluasan tanaman kelapa sawit setiap PKP juga membolehkan pihak MPOB mengenalpasti keluaran maksimum yang mampu dikeluarkan oleh setiap PKP. Data ini penting untuk mengangani kes kecurian kelapa sawit yang berlaku di Sarawak sekitar tahun 2014 (Jadual 2) kerana dengan adanya data keluasan tanaman, kadar pengeluaran kelapa sawit oleh setiap kebun PKP dapat dikenalpasti.

JADUAL 2: Data Kes-Kes Berkaitan Kecurian Kelapa Sawit di Sarawak, 2014.

Kategori	Bilangan Kompaun Dikeluarkan	Bilangan Surat Tunjuk Sebab Dikeluarkan	Batal
Kilang	54	6	0
Peniaga buah	223	32	3
Tapak semaian	0	2	0
Pekebun kecil	1	1	0
Jumlah	278	41	3

(Sumber : MPOB, 2014)

Kes kecurian yang melibatkan kawasan seluas 18,839 hektar dan 309 laporan polis ini telah mendatangkan kerugian kepada pelbagai pihak dalam industri ini dengan anggaran kerugian sebanyak RM 100 juta. Oleh itu, MPOB telah melancarkan Ops Sawit Kenyalang pada 1 Julai 2014 dalam usaha membanteras kecurian buah sawit di Sarawak dan membasmi kegiatan tidak sihat dalam industri sawit. Tindakan undang-undang telah dikenakan ke atas peniaga dan pengilang buah kelapa sawit yang membeli daripada pembekal yang terlibat dengan kes kecurian. Sehingga bulan Disember 2014, MPOB telah mengeluarkan 278 kompaun dan 41 surat tunjuk sebab untuk tujuan pengantungan lesen. Daripada jumlah ini, MPOB telah membatalkan 3 lesen peniaga, menggantung 24 lesen, mengenakan 8 kompaun dan mengeluarkan 6 amaran bertulis (KPKK, 2014). Pada masa yang sama, isu pengiktirafan terhadap tanah hak adat Bumiputera (NCR) dan politik pembangunan yang dirasakan tidak menyebelahi segelintir kumpulan PKP ini sering menghangatkan lagi industri ini. Perkara yang pasti dalam industri ini adalah usaha golongan pemodal daripada luar yang cuba meraih keuntungan berlipat ganda dalam industri ini. Kebanyakan konflik antara pemaju ladang dan masyarakat berlaku kerana kekurangan pengiktirafan hak terhadap tanah adat, masalah perjanjian dan tidak menghormati alam sekitar (Colchester et al., 2006; Sawit Watch, 2006). Menurut Colchester (2010) pada tahun 2010, tidak kurang daripada 630 kes yang melibatkan pertikaian tanah di antara syarikat-syarikat minyak sawit dan masyarakat tempatan telah berlaku di Indonesia.

Perkara ini sekali lagi jelas menunjukkan isu tanah ini telah menular dalam industri ini tetapi ia seolah-olah tidak diketahui oleh pihak yang bertanggungjawab. Permintaan yang semakin tinggi terhadap biofuel juga meningkatkan persaingan untuk tanah, mengancam pengeluaran makanan dan memburukkan lagi jurang pendapatan antara golongan kaya dan miskin (Astyk 2006). Isu berkaitan tanah dan hal-hal yang berbangkit

selama ini akhir nya semakin memuncak pada tahun 2014 di mana beberapa kumpulan PKP di bahagian Miri dan Serian bertindak mengadakan perhimpunan aman di pejabat cawangan MPOB ekoran tindakan agensi tersebut mengarahkan agar tujuh pusat penjualan (ram) kelapa sawit di Tinjar dan Bakong ditutup (Borneo Post, 2014). Tindakan ini dilakukan kerana ia didakwa menjual hasil buah sawit yang masih dalam isu pertikaian tanah, terutama membabitkan PKP dengan syarikat perladangan. Tindakan MPOB itu telah menjejaskan lebih 1000 PKP dari kawasan berkenaan. Ekoran itu, seramai 100 PKP dari Long Tuyut dan Loagan Bunut di Tinjar dan Bakong yang terletak di bahagian Miri yang mengadakan protes aman telah melonggokkan buah kelapa sawit di pejabat MPOB cawangan Miri pada bulan Ogos 2014.

IMPLIKASI DASAR DAN RUMUSAN

Kerajaan negeri seharusnya bersikap telus, adil dan jujur dalam menangani isu tanah tanpa menyebelahi mana-mana pihak yang berkaitan dengan kelapa sawit. Tindakan ini penting supaya PKP sentiasa yakin dengan segala program pembangunan yang diperkenalkan oleh kerajaan atau pihak swasta serta tidak tertekan dengan masalah isu tanah yang berlarutan sejak sekian lama. PKP dan syarikat-syarikat berkaitan dengan kelapa sawit seperti kilang yang membeli buah kelapa sawit juga perlu bekerjasama dengan kerajaan dalam usaha memudahkan pengurusan dalam industri tersebut seperti usaha mewajibkan PKP memohon lesen, sijil kelapa sawit mapan, meningkatkan produktiviti, kualiti pengeluaran serta program-program yang berkaitan. Tanpa adanya kerjasama seumpama ini, usaha-usaha kerajaan untuk mengatasi segala masalah yang dihadapi oleh aktor-aktor yang terlibat dalam industri ini tidak dapat dilakukan.

Misalnya tindakan segelintir kilang membeli kelapa sawit yang masih membeli kelapa sawit daripada pengeluar yang tidak berlesen serta tidak berdaftar akan menyukarkan kerajaan untuk menyelesaikan masalah kecurian buah kelapa sawit di Sarawak. Selain itu, PKP juga perlu mengubah sikap terlalu bergantung kepada bantuan kerajaan serta perlu peka dengan perkembangan terkini mengenai kelapa sawit seperti harga semasa agar mereka tidak ditipu oleh segelintir pembeli yang tidak bertanggungjawab terutamanya PKP yang tidak berpendidikan. Dari satu sudut, isu rampasan tanah yang dihadapi oleh penduduk luar bandar khususnya PKP memerlukan kerajaan untuk melakukan pengezonan tanah untuk aktiviti pertanian lain terutamanya untuk tanaman makanan sebagai usaha untuk menjamin keterjaminan makanan pada masa akan datang. Oleh itu, persatuan berkaitan PKP di Sarawak perlu bekerjasama dengan Persatuan Kebangsaan Pekebun-Pekebun Kecil Malaysia (NASH) mencari penyelesaian kepada isu yang dihadapi pekebun kecil sawit. Usaha-usaha yang dilakukan oleh kerajaan menunjukkan bahawa kerajaan sangat komited untuk membantu PKP dalam sektor kelapa sawit. Kewujudan beberapa isu yang dilihat sebagai didalangi oleh pihak tertentu dalam isu berkaitan tanah dan hak PKP di Sarawak memerlukan kesungguhan politik kerajaan, amnya kerajaan negeri untuk mengatasi masalah ini agar PKP mendapat hak dan pembelaan yang sewajarnya. Usaha berterusan untuk membantu PKP di luar bandar perlu diteruskan dengan memperkenalkan pelbagai program dan bentuk bantuan bagi meningkatkan kualiti dan produktiviti hasil kelapa sawit PKP supaya kumpulan ini dapat bersaing dengan pengeluar lain yang mempunyai modal yang besar serta mampu menghasilkan keluaran yang tinggi dan berkualiti.

Apabila kualiti dan produktiviti keluaran hasil kelapa sawit PKP dapat ditingkatkan, maka pendapatan penduduk di luar bandar seperti PKP dapat ditingkatkan dan sekurang-kurangnya sektor ini dapat mengurangkan penghijrahan penduduk dari luar bandar ke bandar. Akhir sekali, kerajaan juga perlu peka dengan isu-isu global yang boleh mengancam masa depan industri sepertimana yang berlaku pada tahun 2011 apabila kerajaan Australia tidak menyokong usul rang undang-undang melabelkan secara mandatori produk makanan yang mengandungi minyak sawit yang dibentangkan di Parlimen negara pada tahun yang sama kerana industri ini dianggap penyumbang kemusnahan hutan dan pencemaran alam sekitar di rantau ini.

PENGHARGAAN

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Keperkasaan Pekebun Kecil Kelapa Sawit Bidayuh Luar Bandar Melalui Skim Bantuan Tanam Semula Sawit

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Abstrak

Pemeriksaan wujud dan diserapkan dalam diri manusia sebagai dorongan untuk memperbaiki diri mereka melalui potensi, pertumbuhan kekuasaan dan autoriti yang dimiliki. Kejayaan pemeriksaan akan meningkatkan daya saing dan mengurangkan tahap kebergantungan komuniti dan individu terhadap kerajaan dan Negara. Justeru itu, objektif utama kajian ini ialah untuk meneliti peranan MPOB (Malaysia Palm Oil Board) sebagai agensi pembangunan yang bertanggungjawab memperkasakan komuniti Bidayuh luar bandar dan jenis-jenis keperkasaan yang telah terhasil dalam komuniti Bidayuh luar bandar. Kajian ini menggunakan paradigma penyelidikan fenomenologi yang memfokuskan kepada pemahaman dan penceritaan pekebun kecil komuniti Bidayuh luar bandar di Daerah Serian, Sarawak tentang bagaimana keperkasaan mereka terhasil. Sampel kajian ini dipilih menggunakan pensampelan bukan kebarangkalian iaitu pensampelan bertujuan dan pensampelan bola salji. Sejumlah 16 orang informan dalam kajian ini telah dipilih untuk ditemubual secara mendalam. Hasil kajian mendapati peranan MPOB terdiri daripada perkongsian maklumat berkenaan tanaman kelapa sawit, bantuan teknikal, khidmat nasihat dan kepakaran, menyediakan bantuan biji benih, baja dan racun serta aspek pemasaran. Manakala, jenis-jenis keperkasaan yang telah terbina terdiri daripada keperkasaan individu, teknikal, komunikasi dan pemasaran hasil kelapa sawit. Kesimpulannya, pihak MPOB hanya berperanan sebagai agen dalam memperkasakan komuniti Bidayuh dalam satu struktur dan struktur ini dikawal oleh agensi melalui pendekatan atas ke bawah.

Kata Kunci: Keperkasaan, pembangunan komuniti, etnik Bidayuh, pekebun kecil

PENGENALAN

Kajian-kajian lepas jelas menunjukkan bahawa keperkasaan komuniti dalam program pembangunan komuniti amat penting dalam usaha meningkatkan stratifikasi sosial dan sebagai landasan untuk komuniti lokal bermobiliti dari satu strata ke satu strata yang lebih tinggi (Hoque & Itohara, 2009; Touwen, 1996; Chegini, 2010). Kajian di Indonesia dan Thailand misalannya menunjukkan bahawa peranan agensi pembangunan sama ada melalui agensi kerajaan, pertubuhan bukan kerajaan dan syarikat swasta menggariskan penyertaan dan keperkasaan komuniti lokal sebagai agenda utama dalam program pembangunan mereka (Lely, 2013; Kelly & Vlaenderen, 1995).

Justeru itu, isu utama yang hendak diberi tumpuan dalam bab ini ialah tentang peranan yang dimainkan oleh Lembaga Minyak Sawit Malaysia (MPOB) sebagai salah satu daripada agensi kerajaan persekutuan dalam memperkasakan komuniti Bidayuh sebagai pekebun kecil dalam aktiviti penanaman pokok kelapa sawit. Hal ini kerana persoalan utama yang seringkali timbul dalam membicarakan aspek keperkasaan komuniti ialah adakah keperkasaan ini dibentuk oleh agensi dalam struktur atau adakah keperkasaan ini wujud secara semulajadi dalam diri masyarakat tersebut tanpa bantuan daripada agensi. Persoalan ini selari dengan komen Giddens (1991) yang menyatakan bahawa hubungan antara agensi dan struktur adalah bergantung kepada matlamat dan kepentingan kedua-dua belah pihak kerana agensi dan struktur mempunyai pengetahuan, keperluan, kemahuan dan matlamat yang berbeza.

Seterusnya, peranan pihak MPOB yang ingin diketengahkan dalam bab ini merangkumi pelbagai aspek antaranya dalam bentuk bantuan kewangan, bimbingan, nasihat, suntikan ilmu pengetahuan dan perkongsian

maklumat yang menjadi isu utama dalam kalangan komuniti Bidayuh Bahagian Serian yang baru mula menjinakkan diri dalam aktiviti penanaman tanaman kelapa sawit. Isu pemerksaan yang cuba dilihat dalam bab ini ialah sejauhmanakah program dan bantuan yang diberikan oleh pihak MPOB melalui Skim Bantuan Tanam Baharu dan Skim Bantuan Tanam Semula Sawit telah memperkasakan pekebun kecil komuniti Bidayuh luar bandar dari segi sikap, pergaulan, pengetahuan, kemahiran berkomunikasi, kepimpinan, pengurusan, pemasaran, teknikal dan pemikiran. Di samping itu, sekiranya komuniti Bidayuh luar bandar in telah berjaya diperkasakan oleh MPOB, apakah jenis-jenis pemerksaan yang telah dihasilkan. Seterusnya, adakah jenis-jenis pemerksaan yang dihasilkan ini selari dengan jenis-jenis keperksaan yang dinyatakan oleh kajian lepas sebelum ini. Hal ini kerana rata-rata kajian lepas menyatakan bahawa jenis-jenis keperksaan individu luar bandar boleh dibahagikan kepada empat jenis utama iaitu keperksaan luaran termasuk penampilan diri, keperksaan dalaman yang melibatkan kekuatan rohani, keperksaan untuk meningkatkan pembangunan kapasiti individu dan yang terakhir ialah keperksaan kolektif di mana individu mempunyai kuasa untuk menentukan hala tuju diri mereka dalam mencapai matlamat yang telah ditetapkan berdasarkan keperluan dan kemahuan mereka (Hoque & Itohara, 2009; Rahman & Naoroze, 2007; Chegini, 2010).

Konsep keperksaan dalam program pembangunan komuniti

Konsep keperksaan berasal daripada perkataan kuasa, autonomi dan kebebasan (Burns, 2004; Friedmann, 1992; Touwen, 1996; Chegini, 2010). Pemerksaan dilihat sebagai pertumbuhan kekuasaan dan autoriti untuk tindakan yang lebih baik kepada golongan yang lemah atau miskin (Asnarulkhadi dan Fariborz, 2010; Lyndon et al. 2011). Konsep pemerksaan menumpukan kepada potensi yang dimiliki oleh setiap individu yang mana mempunyai daya untuk membaiki diri ke arah yang lebih baik (Chegini, 2010; Asnarulkhadi & Fariborz, 2009). Pemerksaan wujud dalam diri manusia sebagai pendorong secara luaran yang mana bertujuan untuk membaiki diri melalui potensi yang dimiliki (Hoque & Itohara, 2009; Rahim & Asnarulhadi, 2012). Pemerksaan masyarakat dilihat sebagai satu cara untuk menaikkan martabat lapisan masyarakat atau menyusun struktur sosial masyarakat, yang mana, sebelum ini berada dalam keadaan lemah atau tidak mampu, kepada satu tahap yang lebih baik untuk melepaskan diri daripada kancan kemiskinan dan kemunduran (Lely, 2013). Dalam masa yang sama, ia juga bertujuan untuk menjadikan masyarakat lebih berdikari (Lely, 2013; Kelly & Vlaenderen, 1995). Berdasarkan kajian yang dijalankan oleh Kalsom & Nor Ashikin (2005) menyatakan keperksaan membawa maksud pengembangan kapasiti atau upaya yang dilihat sebagai memainkan dua peranan iaitu sebagai pendorong untuk penduduk melibatkan diri dan juga sebagai hasil penyertaan mereka. Aspek keperksaan akan menjadi berkesan setelah wujudnya penyertaan dalam kalangan komuniti sasaran dalam program yang dianjurkan oleh pihak pentadbir, yang mana, penyertaan yang berkesan hanya boleh berlaku setelah penduduk diperkasakan melalui latihan, perkongsian maklumat dan perbincangan (Burns, 2004; Lavers, 2008; Craig & Mayo, 1995). Keperksaan dikategorikan kepada empat jenis keperksaan ekonomi, keperksaan sosial, keperksaan politik dan keperksaan psikologi (Rahman & Naoroze, 2007; Lavers, 2008; Burns, 2004).

Terdapat juga sarjana sosiologi yang menyatakan bahawa keperksaan merujuk kepada kuasa autonomi dan kebebasan individu dalam membuat keputusan, tidak bersifat autarki dan pembelajaran berasaskan pengalaman sosial (Friedmann, 1992; Touwen, 1996). Dalam masa yang sama, Touwen (1996) juga menyatakan bahawa wujud perbezaan antara keperksaan individu dan komuniti kerana komuniti dan individu mempunyai kemahuan dan keperluan yang berbeza. Hal ini kerana individu memberi fokus kepada aspek sosio-ekonomi dalam keluarga dan komuniti pula lebih menekankan aspek kolektif dari segi autonomi yang melibatkan aspek politik dan budaya yang akhirnya akan membentuk pertubuhan-pertubuhan dan pakatan sosial (Touwen, 1996; Scottish. 2009). Berdasarkan pendapat-pendapat ini, jelas menunjukkan bahawa keperksaan adalah merupakan satu proses perubahan struktur sosial yang memberi tumpuan kepada memperluaskan rangkaian pilihan individu atau komuniti dalam membuat keputusan yang akhirnya memberi manfaat kepada diri mereka sendiri. Oleh itu, keperksaan tidak boleh difahami sebagai satu dimensi tunggal dalam melihat perubahan sama ada sebagai satu proses atau hasil daripada proses tersebut. Ia sebaliknya mesti difahami dalam konteks tertentu dengan mengambil kira keperluan khusus individu yang hendak diperkasakan dan seterusnya sejauhmanakah individu tersebut mempunyai autonomi atau kebebasan dalam membuat keputusan (Scottish, 2009; Kasmel & Anderson, 2011; Lyndon et al. 2012).

METODOLOGI KAJIAN

Kajian ini menggunakan strategi penyelidikan abduktif berasaskan ontologi idealis dan epistemologi konstruksionis. Di bawah strategi penyelidikan abduktif, ahli-ahli sosiologi perlu menggunakan kemahiran yang sama seperti aktor sosial gunakan untuk memahami realiti isu yang hendak dikaji. Hal ini bertepatan dengan komen yang diberikan oleh Blaikie (2000) yang menyatakan bahawa penyelidikan tentang pemahaman atau pandangan haruslah bermula dengan menerangkan aktiviti-aktiviti pelaku dan makna sosial, dan kemudian terbit dari mereka kategori dan konsep yang boleh dijadikan sebagai asas pemahaman atau penjelasan tentang isu utama yang hendak difahami. Dalam hal ini, pendekatan kualitatif telah digunakan sebagai kaedah pengumpulan data yang utama. Sebanyak 20 orang pekebun kecil komuniti Bidayuh dari Kampung Mujat, Kampung Mongkos dan Kampung Mentu Pondok daripada kawasan Kedup di Bahagian Serian (sila lihat peta 1) kemudiannya telah dipilih untuk ditemubual secara mendalam dan juga secara perbincangan kumpulan terfokus. Ketiga-tiga kampung ini dipilih disebabkan kampung ini mempunyai jumlah pekebun kecil sepenuh masa yang paling ramai berbanding dengan kampung yang lain.



RAJAH 1: Peta menunjukkan kedudukan lokasi kajian

Kesemua informan merupakan penerima program bantuan Skim Bantuan Tanam Baharu dan Skim Bantuan Tanam Semula Sawit bagi tahun 2013 daripada MPOB dan mengusahakan kebun kelapa sawit secara sepenuh masa. Panduan soalan seterusnya dibina dalam membantu perjalanan temubual agar tidak lari dalam mencapai objektif kajian. Teknik persampelan bukan kebarangkalian yang terdiri daripada persampelan bertujuan dan bola salji telah dipilih. Saiz tentang sampel kajian ini dicapai melalui sokongan yang berterusan terhadap ukuran atau kriteria tentang ketepatan data, iaitu merujuk kepada data yang diperolehi adalah berulang-ulang dan sama. Data dikutip melalui temubual mendalam dan perbincangan kumpulan terfokus dengan informan selama tempoh enam bulan dengan memberi fokus terhadap bentuk bantuan yang diberi atau disalurkan oleh pihak MPOB dan jenis keperkasaan yang terhasil apabila mereka bertindak sebagai peserta dalam program anjuran MPOB, sama ada, dalam bentuk material atau bukan material. Kesemua transkrip ini diterjemahkan daripada Bahasa Bidayuh kepada Bahasa Melayu. Setiap transkrip kemudiannya disemak berulang kali bagi mengekalkan keaslian data dan dianalisa secara verbatim di mana satu jadual matriks dihasilkan bagi memudahkan proses tersebut. Kesemua data yang telah disusun kemudiannya dianalisa menggunakan perisian Nvivo bagi menghasilkan tema kajian.

HASIL KAJIAN

Terdapat dua perkara utama yang dibincangkan dalam bahagian ini. Perkara yang pertama ialah peranan MPOB dalam memperkasakan pekebun kecil kelapa sawit luar bandar. Seterusnya, perbincangan diikuti tentang dua jenis pemerkasaan yang dialami oleh komuniti Bidayuh yang terlibat sebagai pekebun kecil kelapa sawit. Pemerkasaan yang pertama ialah pemerkasaan dalaman yang terdiri daripada emosi, fizikal dan intelektual.

Manakala, pemeraksanaan luaran terdiri daripada teknikal, komunikasi dan pemasaran.

Peranan MPOB dalam memperkasakan pekebun kecil kelapa sawit luar bandar

Data menunjukkan sejumlah 12,019 pekebun kecil di Sarawak telah menerima bantuan Skim Bantuan Tanam Baharu dan Skim Bantuan Tanam Semula Sawit yang merangkumi benih, kos pembukaan tanah, racun serangga serta peralatan pertanian (MPOB, 2013). MPOB juga memainkan peranan penting dalam membangunkan industri sawit di Sarawak dengan memberi khidmat nasihat kepada pekebun kecil melalui 10 Pejabat TUNAS MPOB dan salah satunya terletak di Bahagian Serian (MPOB, 2013). MPOB merupakan sebuah agensi utama kerajaan yang dipertanggungjawabkan dalam memberi perkhidmatan dalam industri kelapa sawit negara. Peranan utama yang dimainkan oleh pihak MPOB ialah menggalakkan dan membangunkan objektif negara, dasar dan keutamaan untuk kesejahteraan industri kelapa sawit Malaysia. MPOB telah diperbadankan dibawah Akta Parlimen (Akta 582) dan ditubuhkan pada 1 Mei 2000, mengambil alih melalui penggabungan Institut Penyelidikan Minyak Sawit Malaysia (PORIM) dengan Lembaga Pendaftaran dan Perlesenan Minyak Sawit (PORLA) yang mana pada mulanya, PORIM telah diwujudkan pada tahun 1979 di bawah Kementerian Perusahaan Utama Malaysia untuk merancang dan melaksanakan penyelidikan berkaitan dengan minyak sawit. PORLA pula terlibat dalam usaha pemasaran dan pengawalan minyak sawit. Kedua-dua organisasi ini telah terlibat dalam industri kelapa sawit selama 20 tahun lebih dan telah memberi perkhidmatan yang efektif serta tumpuan yang lebih luas kepada industri sama ada pada peringkat negara atau antarabangsa yang menyebabkan MPOB telah mula ditubuhkan. MPOB mendapatkan dana utama daripada hasil bayaran proses yang dikenakan ke atas industri untuk setiap tan minyak sawit dan minyak isirong sawit yang dihasilkan. Tambahan, pihak MPOB turut menerima peruntukan belanjawan daripada pihak kerajaan untuk membiayai pembangunan projek dan penyelidikan yang telah diluluskan di bawah program Penumpuan Penyelidikan Dalam Bidang Keutamaan (IRPA).

Visi MPOB adalah untuk menjadi institusi penyelidikan dan penyelidikan yang terulung bertaraf Nobel Laureate serta menyediakan kepimpinan dan dorongan bagi perkembangan industri minyak sawit yang merangkumi pelbagai produk, nilai tambah yang tinggi, berdaya saing global dan mampan. Sementara itu, misi pihak MPOB dalam industri kelapa sawit ialah untuk memacu kemakmuran industri minyak sawit Malaysia melalui penyelidikan, pembangunan dan perkhidmatan yang cemerlang. Dalam memastikan industri kelapa sawit di negara ini terus maju dan mengalami penambahbaikan yang lebih baik, pihak MPOB mempunyai beberapa strategi, yang mana, antaranya, ialah memperluaskan dan meningkatkan penggunaan produk kelapa sawit, mencari kegunaan baru untuk produk kelapa sawit, meningkatkan kecekapan pengeluaran dan kualiti produk, mengoptimumkan penggunaan tanah di kawasan ladang kelapa sawit dan menggalakkan penggunaan, kegunaan dan keboleh pasaran produk kelapa sawit. Pihak MPOB mempunyai tanggungjawab atau fungsi yang telah dipertanggungjawabkan oleh pihak kerajaan dengan harapan bantuan yang diberikan ini dapat meningkatkan taraf hidup pekebun kecil luar bandar khususnya dalam kalangan Bumiputra melalui penyertaan dan keperkasaan yang optimum (MPOB, 2015). Antara sumbangan dan peranan pihak MPOB dalam industri kelapa sawit di Malaysia adalah melaksanakan polisi dan program pembangunan yang berdaya saing dalam usaha memastikan daya maju industri kelapa sawit di Malaysia terus meningkat; merancang dan melaksanakan program-program latihan dan pembangunan sumber manusia selaras dengan keperluan industri kelapa sawit di Malaysia; serta memperkasakan komuniti luar bandar bukan sahaja daripada aspek material tetapi juga melibatkan aspek bukan material.

Peranan MPOB dalam memperkasakan pekebun kecil komuniti Bidayuh luar bandar - Keperkasaan dalaman Individu

Penyertaan komuniti Bidayuh dari Bahagian Serian dalam aktiviti penanaman tanaman sawit telah mewujudkan keperkasaan terhadap komuniti. Penyertaan para informan dalam aktiviti penanaman tanaman kelapa sawit telah menyebabkan wujudnya keperkasaan dalaman individu dari segi emosi, intelektual dan jasmani (sila lihat jadual 1). Keperkasaan emosi merujuk kepada keperkasaan dari segi keyakinan diri, etika dan tabah dalam menghadapi harga kelapa sawit yang tidak menentu dalam pasaran dan bayaran daripada kilang yang tidak mengikut jadual sebagaimana yang diinginkan. Manakala keperkasaan intelektual pula adalah melibatkan kemahiran berfikir, kemahiran mengira, membaca dan menulis, khususnya, dalam aspek yang bersifat teknikal serta kemahiran dalam menyelesaikan masalah apabila berhadapan masalah pengangkutan dan ketidaktentuan harga di pasaran serta dalam menghadapi karenah orang tengah yang seringkali mengambil untung dengan membeli tanpa mengira kualiti atau gred buah. Seterusnya, keperkasaan jasmani merujuk kepada penjagaan badan, kebersihan,

keselamatan dan pemantapan tahap fizikal bermula daripada membuat keputusan untuk terlibat sebagai penerima bantuan, pembersihan dan penyediaan tapak, proses menanam, penjagaan kawasan kebun, penuaian hasil dan penjualan.

JADUAL 1: Jenis-jenis keperkasaan pekebun kecil komuniti Bidayuh luar bandar

Keperkasaan Dalaman	Keperkasaan Luaran
Emosi	Teknikal
Fizikal	Komunikasi
Intelektual	Pemasaran

Secara umumnya, para informan yang menjalankan penanaman tanaman kelapa sawit telah mengalami perubahan dalam tiga aspek iaitu fizikal, emosi dan intelektual yang semakin meningkat. Hal ini berikutan mereka terpaksa berurusan dengan pihak MPOB untuk mendapatkan bantuan serta maklumat yang bertujuan untuk meningkatkan pengetahuan mereka dalam soal penjagaan, kualiti buah, harga buah mengikut pasaran serta kaedah penanaman tanaman sawit yang betul. Ketiga-tiga aspek keperkasaan dalaman ini muncul berikutan wujudnya kuasa untuk menuntut hak yang sepatutnya menjadi milik mereka. Ini termasuklah hak dalam mendapatkan harga yang setimpal, hak dalam mencari pembeli dan hak dalam mendapatkan bantuan daripada MPOB berdasarkan prestasi yang disumbangkan oleh mereka. Hal ini selari dengan pendapat yang dikeluarkan oleh Eyben et al. (2008) yang menyatakan bahawa pekebun kecil harus mempunyai kuasa dalam menentukan hak mereka dan bukannya berdasarkan kepada kemahuan dan keperluan pihak pemodal. Kuasa ini seterusnya memberi kebebasan kepada komuniti untuk memilih dan bertindak berpandukan keinginan untuk mencapai perubahan (Eyben et al., 2008).

Majoriti informan menyatakan sebelum mereka menjalankan penanaman tanaman sawit, mereka tidak pernah berurusan dengan pihak pentadbir malahan sebelum ini mereka tidak mempunyai sebarang maklumat berkenaan MPOB serta peranannya. Terdapat informan yang dipertanggungjawabkan oleh rakan-rakan yang lain untuk menjadi wakil untuk berurusan dengan pihak MPOB seperti melibatkan urusan surat menyurat rasmi, mendapatkan borang permohonan untuk membuat lesen, skim bantuan serta untuk menyertai kursus yang dianjurkan oleh pihak MPOB. Hal ini diperakui oleh para informan antaranya R2, R7, R8, R9 dan R10 yang sebelum ini tidak pernah terlibat sebarang urusan dengan pihak MPOB namun setelah menjalankan penanaman tanaman sawit, mereka banyak berurusan dengan pihak MPOB antaranya permohonan untuk mendapatkan lesen, menyertai kursus yang dianjurkan oleh pihak MPOB di dewan masyarakat Serian serta memohon skim bantuan anak pokok sawit, subsidi baja serta dana untuk membuat jalan ke kebun sawit yang mana urusan ini dilakukan sendiri oleh informan R10 dari Kampung Mentu Pondok. Penanam tanaman sawit perlu berurusan dengan pihak MPOB berikutan mereka perlu membuat lesen untuk membolehkan mereka menjual hasil tanaman yang diperolehi ke kilang yang berdaftar. Selain itu, terdapat juga urusan yang melibatkan komuniti Bidayuh dengan pihak MPOB apabila mereka ingin mendapatkan maklumat berkenaan kaedah penjagaan serta menanam tanaman sawit serta mendapatkan skim bantuan baja dan racun. Hal ini secara langsung telah meningkatkan keyakinan diri dan mengakis rasa malu dalam kalangan komuniti Bidayuh untuk berurusan dengan pihak pentadbir.

Untuk mengusahakan tanaman sawit, para informan atau komuniti Bidayuh memerlukan keyakinan diri yang tinggi. Hal ini berikutan mereka perlu berhadapan atau berurusan dengan pihak pegawai MPOB dalam mendapatkan khidmat nasihat serta bantuan kewangan. Selain itu, mereka turut memerlukan keyakinan diri yang tinggi dalam soal mengubah corak pertanian yang sebelum ini melibatkan tanaman tradisional iaitu padi dan lada hitam. Hal ini kerana sistem pengurusan tanaman tradisional dengan tanaman komoditi sangat jauh berbeza, di mana, penanaman tanaman kelapa sawit memerlukan ilmu dalam soal tanaman, kaedah penanaman, cara menguruskan tanaman serta ilmu pengurusan kewangan sama ada soal kitaran modal, gaji para pekerja, alatan, pengangkutan dan sebagainya. Tanaman kelapa sawit bukan sahaja meningkatkan pendapatan para informan serta komuniti Bidayuh daerah Serian yang menanam tanaman ini malahan penanaman tanaman kelapa sawit turut mengubah sistem pengurusan tanaman tradisional yang diwarisi secara tradisi kepada bentuk pengurusan yang lebih sistematik dengan menghasilkan mobiliti sosial atau perubahan sosial dalam kalangan komuniti Bidayuh.

Peranan MPOB dalam memperkasakan pekebun kecil komuniti Bidayuh luar bandar - Keperkasaaan luaran melalui kemahiran dan nilai tambah dalam aspek teknikal

Selain keperkasaaan dalaman yang melibatkan keperkasaaan individu, keperkasaaan luaran dari aspek teknikal atau melibatkan kemahiran memahami bahasa teknikal turut mengubah kualiti hidup komuniti Bidayuh Serian yang menjalankan penanaman tanaman kelapa sawit. Melalui kursus serta perjumpaan yang diadakan oleh pihak MPOB dalam memperkenalkan serta memberi maklumat berkenaan tanaman kelapa sawit telah menambah maklumat serta meningkatkan kemahiran mereka. Kemahiran teknikal yang dimiliki oleh para informan hasil perkongsian maklumat sama ada daripada pihak MPOB atau rakan-rakan telah membantu memperkasakan para informan. Maklumat yang diperoleh digunakan dalam penanaman tanaman sawit serta menguruskan kebun sawit dengan penuh yakin yang mana secara langsung memberi kesan kepada peningkatan taraf hidup, meningkatkan keyakinan diri mereka dalam membuat keputusan serta mengubah corak pemikiran para petani yang menjalankan penanaman sawit iaitu lebih bersifat komersil dan lebih terbuka dalam menerima perubahan untuk kesejahteraan hidup mereka.

Keperkasaaan teknikal dialami oleh informan melalui perkongsian maklumat daripada pihak MPOB serta rakan-rakan secara langsung telah meningkatkan ilmu pengetahuan para informan berkenaan tanaman sawit yang dimanfaatkan untuk mengubah taraf hidup mereka. Penyertaan yang berkesan boleh berlaku setelah penduduk diperkasakan melalui latihan, perkongsian maklumat dan perbincangan (Scottish, 2009; Kasmel dan Anderson, 2011) yang mana perkongsian maklumat yang diberikan oleh pihak MPOB melalui ceramah dan kursus yang diadakan merupakan keperkasaaan teknikal yang diberikan. Majoriti informan mendapat maklumat asas berkenaan tanaman sawit, kaedah menjalankan penanaman sawit serta menguruskan kebun dengan baik diperoleh daripada pihak MPOB, namun terdapat juga para informan yang mendapat maklumat hasil pengalaman bekerja dengan pihak Lembaga Pemulihan dan Penyatuan Tanah Sarawak (SALCRA) serta perkongsian maklumat daripada rakan-rakan yang pernah bekerja dengan pihak SALCRA. Hal ini dinyatakan oleh 7 informan.

Daripada tujuh orang informan yang menyentuh soal keperkasaaan teknikal yang dialami, hanya dua orang informan sahaja yang menyatakan mereka mendapat maklumat berkenaan kaedah penanaman tanaman sawit serta cara menguruskan kebun sawit hasil perkongsian maklumat daripada rakan-rakan yang menjalankan penanaman tanaman sawit terlebih dahulu sebaliknya selebihnya menyatakan mereka mendapat maklumat hasil perkongsian maklumat daripada pihak MPOB melalui ceramah serta kursus yang dianjurkan. Maklumat asas serta teknikal berkenaan tanaman sawit dan kaedah penanaman yang diterima oleh para informan bukan sahaja diaplikasikan untuk meningkatkan taraf ekonomi keluarga namun turut dijadikan sebagai alat untuk meningkatkan keupayaan untuk pembangunan sendiri atau keyakinan diri para petani. Menurut 4 informan, mereka mendapat maklumat asas berkenaan tanaman sawit ini melalui ceramah atau perjumpaan yang dianjurkan oleh pihak MPOB yang diadakan di dewan masyarakat kampung masing-masing. Dalam ceramah atau perjumpaan yang diadakan, pegawai MPOB memberi maklumat berkenaan jenis tanah yang sesuai untuk menjalankan penanaman komoditi ini, hasil yang dikeluarkan, jenis benih, kaedah penggunaan racun dan baja serta anak syarikat yang disyorkan untuk mendapatkan biji benih dan keperluan asas pertanian.

Peranan MPOB dalam memperkasakan pekebun kecil komuniti Bidayuh luar bandar - Keperkasaaan luaran iaitu aspek kemahiran berkomunikasi

Selain mengalami keperkasaaan teknikal yang telah meningkatkan pengetahuan serta keyakinan diri para komuniti Bidayuh, keperkasaaan luaran dari segi peningkatan dalam kemahiran berkomunikasi turut dialami oleh para informan dalam kajian ini. Berdasarkan kajian lepas, aspek keperkasaaan sosial mempunyai persamaan dengan hasil dapatan yang diperoleh oleh penyelidik namun keperkasaaan sosial yang dinyatakan dalam kajian lepas terlalu umum. Hal ini berikutan dalam kajian lepas, keperkasaaan sosial menunjukkan keperkasaaan yang melibatkan perpaduan dan hubungan dalam komuniti yang lebih erat berikutan kerjasama penduduk setempat dalam memastikan kejayaan pembangunan yang dijalankan serta sebahagian pulangan yang diperolehi digunakan untuk pembangunan komuniti bersama (Haslina & Regina, 2009, Lely, 2013). Melalui hasil kajian ini, keperkasaaan komunikasi wujud dalam kalangan para informan yang menjalankan aktiviti penanaman tanaman sawit berikutan mereka perlu berhubung dengan pihak luar atau pihak pentadbir untuk mendapatkan maklumat berkenaan tanaman ini atau berkenaan dengan bantuan yang diberikan oleh pihak MPOB. Selain itu, mereka juga boleh berhubung dengan individu yang telah menjalankan aktiviti penanaman sawit untuk mendapatkan nasihat serta saranan berkenaan dengan bekalan yang boleh diperoleh untuk mendapatkan baja,

racun, alatan serta biji benih sawit yang bagus. Hubungan melalui komunikasi yang wujud antara para petani sawit dengan pihak pentadbir, pihak pembekal atau komuniti setempat secara langsung dilihat meningkatkan keberkesanan para petani untuk terus kekal menjalankan penanaman sawit walaupun perlu berhadapan dengan pelbagai masalah.

Melalui perhubungan para pekebun kecil kelapa sawit dengan pihak MPOB, mereka mendapat maklumat, khidmat nasihat serta bantuan dengan mudah, dan hal ini amat diperlukan oleh para petani komuniti Bidayuh yang masih baru dalam aktiviti ini serta memerlukan modal permulaan yang agak besar. Hal ini secara langsung membantu komuniti Bidayuh dengan lebih mudah dalam meningkatkan keyakinan diri, ilmu pengetahuan serta taraf ekonomi yang memberi impak kepada peningkatan kualiti hidup mereka. Keberkesanan komunikasi berlaku setelah para informan atau petani sawit berusaha mendapatkan bantuan dan maklumat daripada pihak MPOB atau individu yang telah menjalankan penanaman sawit. Hal ini memudahkan mereka dalam menjalankan aktiviti penanaman sawit serta menguruskan kebun dan kewangan.

Dalam masa yang sama, hal ini turut membantu para petani dalam mewujudkan jaringan sosial yang baik yang mana secara langsung membantu para petani sawit untuk memasarkan hasil sawit yang diperoleh dengan lebih mudah. Hal ini dialami sendiri oleh beberapa orang informan yang mempunyai hubungan yang baik dengan pihak pentadbir serta jaringan sosial yang baik dengan pelbagai pihak dan individu dan menjadi batu loncatan kepada mereka dalam mendapatkan bekalan, maklumat, serta memasarkan hasil dengan mudah. Empat informan mengalami keberkesanan komunikasi melalui hubungan yang wujud sama ada dengan pihak MPOB, individu lain yang telah menjalankan penanaman sawit serta syarikat yang membekalkan barangan keperluan untuk tanaman sawit serta alatan.

Informan R2:

".....maklumat berkenaan kaedah penanaman saya terima hasil bekerja dengan pihak SALCRA serta tunjuk ajar daripada suami. Suami saya memperoleh maklumat berkenaan kaedah penanaman sawit kerana pernah menyertai seminar serta kursus yang dianjurkan oleh pihak MPOB dalam memberi maklumat berkenaan tanaman sawit, kaedah penjagaan dan sebagainya. Suami juga turut menyertai mesyuarat yang dianjurkan setelah selesai kursus yang disertai. Mempunyai pengalaman dengan pihak MPOB menyebabkan suami saya dipertanggungjawabkan oleh beberapa orang rakannya untuk menjadi ketua dalam menguruskan permohonan bantuan secara berkelompok yang diberikan oleh pihak MPOB. Dalam pada masa yang sama, suami turut mendapatkan maklumat tambahan berkenaan tanaman sawit daripada rakan beliau yang bekerja di Jabatan Pertanian berkenaan jenis baja, racun serta kaedah penanaman secara lebih terperinci."

Hal yang sama turut dialami oleh informan R6 dari Kampung Muja yang mana mendapat maklumat dan kemahiran berkenaan kaedah menanam biji benih sawit, jarak antara setiap anak pokok, kaedah menguruskan kebun sawit, meracun rumput dan menebas merupakan maklumat yang diperoleh melalui ceramah yang dijalankan oleh pihak MPOB. Dalam pada masa yang sama, komunikasi atau perhubungan turut wujud antara informan dengan pihak MPOB apabila informan membuat permohonan untuk mendapatkan bantuan biji benih sawit. Informan dan suami turut memohon untuk mendapatkan bantuan Skim Tanaman Baru daripada pihak MPOB sebelum memulakan aktiviti penanaman sawit namun masih belum mendapat sebarang maklum balas. Namun begitu, keberkesanan komunikasi berlaku setelah informan dan suami mula berminat melakukan penanaman tanaman sawit dengan menyertai ceramah yang dianjurkan serta permohonan bantuan.

Peranan MPOB dalam memperkasakan pekebun kecil komuniti Bidayuh luar bandar - Keberkesanan dalam kemahiran pemasaran

Para informan turut mengalami keberkesanan dalam aspek pemasaran. Hal ini berikutan kerana bagi informan yang telah memperoleh hasil tanaman sawit, pastinya mereka perlu memilih syarikat atau kilang yang menawarkan harga yang memuaskan. Hal ini mempengaruhi jumlah pendapatan yang bakal diperoleh oleh informan. Sebelum membolehkan para informan memasarkan hasil buah sawit mereka, informan terlebih dahulu perlu memiliki lesen yang dikeluarkan dan diluluskan oleh pihak MPOB. Terdapat beberapa orang informan yang memilih memasarkan hasil tanaman sawit mereka kepada syarikat persendirian namun terdapat juga yang menjual hasil buah sawit kepada kilang. Tiga informan mengalami keberkesanan pemasaran, yang mana mereka telah menjalankan aktiviti penanaman tanaman sawit melebihi empat tahun, tanaman sawit yang

ditanam telah mengeluarkan hasil dan mereka telah menjualkan hasil tanaman mereka kepada agensi atau kilang yang dipercayai.

Informan R8: *“Hasil yang diperoleh hanya satu bulan sekali. Menanam pokok sawit lebih mudah jika dibandingkan dengan menanam lada kerana lebih mudah mengumpul hasil walaupun buah sawit telah jatuh ke tanah. Hasil buah sawit saya jual kepada pihak SALCRA. Pada awalnya, saya hanya mendapat hasil sebanyak 500 kg namun sekarang jumlah semakin meningkat kepada 2 tan lebih terutama pada musim buah lebat namun jika bukan musim buah, hanya mendapat 800 kg hingga 1 tan.”*

Para informan bukan sahaja memerlukan maklumat teknikal dalam menanam dan mengurus tanaman serta hubungan komunikasi yang baik antara petani sawit dengan agensi kerajaan untuk mendapatkan nasihat serta bantuan namun mereka juga perlu membuat perancangan yang rapi dalam soal menguruskan hasil sawit dan aspek pemasaran hasil tanaman ini. Bagi informan R8, beliau hanya memperoleh hasil sebulan sekali dan hasil buah sawit yang diperoleh dijual kepada pihak SALCRA dengan membawa buah sawit ke kilang SALCRA dengan menyewa lori daripada kenalan yang rapat. Informan memilih menjual hasil sawit kepada pihak SALCRA ekoran menerima banyak informasi berkenaan kaedah penjagaan serta penanaman sawit hasil pengalaman pasangan serta rakan-rakan yang pernah bekerja dengan pihak SALCRA. Selain itu, harga pasaran sawit yang ditawarkan oleh pihak SALCRA lebih tetap jika dibandingkan dengan syarikat persendirian yang lebih memikirkan soal keuntungan. Hal yang sama turut dilakukan oleh informan R9 dan R10 yang berasal dari Kampung Mujat dan Kampung Mentu Pondok yang turut memilih untuk menjual hasil tanaman sawit kepada pihak SALCRA. Menurut informan R9, beliau telah mula menanam tanaman sawit selama tiga tahun enam bulan serta telah mendapat hasil buah sawit sebanyak lima kali dan kesemua hasil yang diperoleh dijual kepada pihak SALCRA.

KESIMPULAN

Terdapat dua kesimpulan yang boleh dibuat berdasarkan dapatan kajian ini. Kesimpulan yang pertama ialah jenis keperkasaan yang dikonstruksi oleh komuniti Bidayuh luar bandar yang terlibat sebagai peserta dalam program MPOB boleh dibahagikan kepada dua jenis yang utama iaitu keperkasaan dalaman dan keperkasaan luaran. Kedua-dua jenis keperkasaan ini dilihat sebagai keperkasaan yang sudah sedia ada atau keperkasaan semula jadi yang dimiliki oleh komuniti Bidayuh itu sendiri dan keperkasaan yang dicipta dan diserapkan secara bersama antara struktur dan agen. Hal ini selari dengan komen yang dikemukakan oleh Touwen (1996) dan Lavers (2008) yang menyatakan bahawa keperkasaan individu bukanlah keperkasaan mutlak kerana ia terbina hasil daripada gabungan ideal konstruksi antara agensi dan komuniti. Konstruksi komuniti lokal dan konstruksi saintifik agensi haruslah digabungkan bagi menghasilkan konstruksi yang mewakili kedua-dua belah pihak ini. Peranan agensi dan organisasi hanyalah sebagai fasilitator dalam struktur iaitu membantu memberi input, ruang, mencipta keadaan, menghapuskan halangan dan menggalakkan usaha memperkasakan individu secara dalaman melalui proses penyertaan bersama antara struktur dan agensi. Seterusnya, kesimpulan yang kedua ialah MPOB hanya berperanan sebagai agen dalam memperkasakan komuniti Bidayuh luar bandar dalam satu struktur dan struktur ini dikawal oleh agensi melalui pendekatan Atas ke Bawah. Strategi ini bukanlah merupakan perkara yang baru, memandangkan dalam strategi pembangunan luar bandar, agensi pembangunan dan organisasi lazimnya cuba untuk memperkasakan individu tanpa mengetahui apakah bentuk keperkasaan yang sudah sedia ada dalam individu tersebut dan adakah input yang disalurkan itu selari dengan keperluan individu tersebut. Walaupun begitu, perkara asas yang perlu diselesaikan antara agensi dan struktur ialah individu atau komuniti tidak boleh diperkasakan dari luar. Individu dan komuniti hanya boleh diperkasakan oleh diri mereka sendiri dan juga gabungan antara agensi dan struktur.

PENGHARGAAN

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