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Independent Smallholders Behaviour towards Complying with Malaysian Sustainable Palm Oil (MSPO) Certification

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Abstract

The mandatory implementation of Malaysian Sustainable Palm Oil (MSPO) requires the participation of all oil palm producers including the smallholders. The implementation of MSPO serves as one of the avenues to address the sustainability issues related to the development of the palm oil industry. The purpose of this study is to examine factors that influence the smallholders' behaviour in complying with the mandatory MSPO implementation. A questionnaire was employed to measure the smallholders' behaviours. The respondents were 404 oil palm independent smallholders in the state of Johor Darul Takzim. Correlation analysis was performed to test the relationship between variables. Using Theory of Planned Behaviour as the basic theory for the study, the findings revealed that attitude, subjective norms, perceived control behaviour and intention have a significant and positive relationship with MSPO compliance behaviour. Based on the study, there is a need to improve the smallholders' attitude and perceived behavioural control to sustain smallholders' behaviours to comply with the MSPO requirements.

Keywords: Smallholder, Behaviour, Attitude, Intention, MSPO.

Introduction

The oil palm industry has been one of the important economic pillars for the development of Malaysian economy. The palm oil industry generated total export revenue of RM18.52 billion in 2021 (MPOB, 2021). The development and expansion of the oil palm sector are not without its challenges. Issues related to environment including deforestation, sustainability production and climate change continues to be associated with the palm oil industry. In addition, the negative campaign by the Non-Governmental Organisation (NGO) influences the consumer perception on the image of oil palm. The establishment of the Roundtable on Sustainable Palm Oil (RSPO) in 2004 was a turning point for the palm oil industry in the fight against the negative allegations and a pledge of commitment toward sustainable palm oil production. The RSPO was founded with the objective of promoting the growth and usage of

sustainable palm oil products through credible international standards (RSPO, 2023). Sustainability certification scheme has been selected as one of the solutions to monitor and improve sustainable production among the country's oil palm growers and producers. The MSPO Certification Scheme is the national scheme in Malaysia for oil palm plantations, independent and organised smallholdings, and palm oil processing facilities to be certified against the requirements of the MSPO Standards (Kumaran, 2019). Europe continues to be a big market for certified palm oil and the demand from China and India is also growing (Vasu & Poo, 2022) The pledge by the European Union to phase out the use of palm oil in transport fuel by 2030 (Dusser, 2019) and the proposed EU deforestation-free products regulation (Vasu, 2022) would provide a serious threat to the palm oil exports.

Smallholders is an important producer in the integrated system of the palm oil supply chain in addressing issues of sustainability and improvement in productivity (Cahyadi et al., 2021). The low involvement of independent smallholders in sustainability certification has been hindered by issues of lack of fund, lack of management skills and record keeping, and knowledge (Brandi et al., 2015; Rietberg, 2016). In addition, smallholders' participation in sustainability certification requires their commitment and understanding the certification requirement. Smallholders' participation in implementing sustainability certification is important as the demand for sustainable palm oil continue to increase. The Malaysian government has provided financial incentives and training to create awareness and participation of the independent smallholders to participate in MSPO (Kannan et al., 2021) The implementation of MSPO was made mandatory in order to expediate the implementation and participation of the oil palm growers. However, this effort was not enough to push the independent smallholders to obtain the MSPO certification. In 2020, only 31.61% or about 311,739.51 hectares out of 986,331 hectares of the independent smallholders' plantation have obtained the MSPO certification (MPOCC, 2020). The objectives of the study

- a) To examine the factors that affect the smallholders behaviour in complying with the mandatory implementation of MSPO; and
- b) To assess the relationship between attitude, subjective norms and perceived behavioral control with smallholders' behaviour in complying with the mandatory implementation of MSPO.

Literature Review

Malaysian Sustainable Palm Oil

The implementation of MSPO certification is to ensure oil palm plantations, independent and organised smallholders as well as processing facilities to adopt sustainable production. The mandatory implementation of MSPO from January 2020 is to ensure that the entire palm oil planted area and procession facilities are certified. In addition, it is also a strategic move to enhance competitiveness and strengthen the image of the palm oil industry. Sustainable certification requires the oil palm growers including smallholders dan palm oil manufacturers to adhere to the principles and criteria in the certification scheme. The number of principles and criteria for a certification scheme varies depending on the elements that form the basis of the certification. MSPO for independent palm oil smallholders has a total of 7 main principles and 33 indicators (Senawi et al., 2019). The certification process of MSPO requires auditing by third part independent Certification Bodies (Kumaran, 2019). The participant will be issued the MSPO certification after fulfilling the auditing requirement. The implementation of the MSPO is gazetted under the Malaysian Palm Oil Board Licensing Regulations. Any non-

compliance with this regulation will result in the smallholders being compounded and their activity licenses to be suspended, revoked, and not renewed.

Theory of Planned Behaviour

TPB was developed by Ajzen (1991) to predict and explain individual's intention to undertake a particular behaviour. According to TPB, individual behavioral intention and actual behavior influenced by three main factors which are attitude, subjective norms and perceived behavioural control.

Attitude

Attitude is one of the variables that affect the formation of an intention where the attitude will guide the individual to perform a certain behaviour and based on the belief or evaluation of whether the behaviour will bring positive or negative effects. Individuals are more likely to engage in behaviours that are perceived to have good outcomes for them, and less likely to engage in activities associated with negative outcomes. The Theory of Planned Behaviour assumes that individual attitudes are the main predictors of individual intentions to engage in behaviour (Ajzen, 1991; Fishbein, 2008). The smallholders' attitude towards MSPO would increase if they viewed the certification would bring a positive impact toward improving the fresh fruit bunches productivity and their livelihood. Likewise, if the smallholders who believe that there is no impact from participating in certification, the tendency to participate in the certification scheme is decreasing. Study has indicated that positive attitude has increase the smallholders' intention in engaging sustainability practices (Terano et al., 2015; Zeweld et al., 2017). In the same context, study by Cahyadi et al (2021) found that oil palm smallholders in Riau, Indonesia showed positive attitude towards sustainability and indicated their interested in taking steps to practice sustainability activities in their oil palm cultivation.

Subjective Norms

Subjective norms refer to perceived expectation from others that influence an individual to perform a particular behaviour (Ajzen, 1991). Reference individuals or important people who are often identified include spouses, family members, close friends and depending on the behavior being studied. Subjective norms consisting of normative belief that an important person will approve and support certain behaviour. Cahyadi et al (2021) found that the influence of extension officers on smallholders to practice sustainability activities was low because the smallholders involved in the study had never been involved in the development program from any party. However, respondents have a high desire to do what people around them such as other smallholders and oil palm plantation companies are doing if it is proven that sustainable practices increase their palm oil productivity. Several studies have found that subjective norms affect behavioral intention which lead to behaviour to adopt sustainability practises (Huat et al., 2017; Yutika et al., 2019).

Perceived Behavioural Control

Perception of Behavioral Control refers to the perceived ease or difficulty involved in performing a behavior (Ajzen, 1991). Behavior control perceptions are also considered to influence behavior directly and through behavioral intentions. In reality, the extent to which the behavior is performed depends on how easy or difficult the individual sees the behavior and this perception has an effect on the individual's intention to engage in the behavior. This refers to the amount of control that a person identifies he may have to participate in a

particular behavior (Ajzen, 1991). Knowledge in oil palm cultivation is important to implement good agricultural practices and increase oil palm productivity . The MSPO principle and criteria requires smallholders to follow good agricultural practices that cover various aspects of oil palm cultivation. Lack of skills and knowledge in good agricultural practices will affect oil palm productivity and engage in unsustainable practices. Studies have shown that perceived control behaviour have had a significant impact on smallholders' behaviour.

Hypothesis

There are four hypotheses for this study as follows:

- H1: There is a positive relationship between attitude and MSPO Compliance.
- H2: There is a positive relationship between subjective norms and MSPO Compliance.
- H3: There is a positive relationship between perceived control behaviour and MSPO Compliance.
- H4: There is a positive relationship between intention and MSPO Compliance.

Methodology

This respondents of this study were independent oil palm smallholders in the state of Johor which has the largest independent smallholders in Malaysia. The data was collected in February to April 2022 with the assistance of TUNAS officers from the Malaysian Palm Oil Board (MPOB). Primary data were obtained using questionnaires with 404 respondents. The analysis for this study involved descriptive and inferential statistics utilising the Statistical Package for Social Sciences (SPSS) software.

Result and Discussion

Demographic Analysis

Table 1 above shows the profile of the independent smallholders participating in this study. The respondents consist of 74.5% male respondents and 25.5% female respondents. Majority of the respondents were in the age group of 61 years and above, followed by 24.8% of respondents aged between 51 to 60 years old. 76 respondents or 18.8% are between 41 to 50 years old and 11.9% of respondents were between 31 to 40 years old. The remaining 4% of respondent aged between 20 to 30 years old. This shows that majority of the independent of smallholders are aging and this posed a challenge for the independent smallholders to implement and sustain the implementation of MSPO in the long run. Education level for most of the independent smallholders were at secondary school level at 56.7% followed by diploma level at 12.6%. and primary school at 11.9%. The remaining 7.6% of respondents have an undergraduate degree, while 3.7% respondents have obtained skill certification. 23 respondents or 5.7% respondents have received no formal education.

Table 1

Background profile of respondent

	Frequency	Percentage
Gender		
Male	301	74.5
Female	103	25.5
Age		
20 to 30 years	16	4.0
31 to 40 years	48	11.9
41 to 50 years	76	18.8
51 to 60 years	100	24.8
61 and above	164	40.6
Education Level		
No formal education	23	5.7
Primary School	48	11.9
Secondary School	229	56.7
Skills Certification	15	3.7
Diploma	51	12.6
Undergraduate Degree	31	7.6
Others	7	1.8
Experience in oil palm planting		
Less than 3 years	31	7.7
3 to 5 years	44	10.9
6 to 10 years	76	18.8
11 to 15 years	72	17.8
More than 15 years	181	44.8
Palm oil hectarage		
Less than 2 hectare	173	42.8
2 to 5 hectares	176	43.6
More than 5 hectares	55	13.6

Majority of the independent smallholders in the study or 44.8% have been involved in oil palm cultivation for more than 15 years. 18.8% of the respondents indicated that they have 6 to 10 years' experience while 17.8% between 11 to 15 years. 75 respondents (18.6%) have experience less than 5 years in oil palm planting. 176 respondents (43.6%) owned oil palm farm between 2 to 5 hectares followed by 42.8% owned less than 2 hectares of farm and the remaining 13.6% have farm more than 5 hectares.

Descriptive Analysis of Variables

Based on Table 2, all items recorded a mean value greater than 3.5 with the overall mean at 4.2237. This can be concluded that the independent smallholders agreed with the implementation of MSPO. Attitude recorded the highest mean at 4.4757 which shows that the independent smallholders are positive and receptive with the government policy. Meanwhile, perceived behavioral control mean is the lowest at 3.9525 which indicates that although smallholders are believed that they are able to implement the requirement of MSPO, challenges such as availability of funds and cost of certification may become an obstacle for fulfilling the requirement of MSPO. The high mean of 4.3148 for intention shows

that the independent smallholders do intend to commit with the implementation of MSPO. The guidance of the TUNAS officers in assisting the independent smallholders in preparing for MSPO has all contribute to the high mean for subjective norms which shows the importance of those people around the smallholders to support the implementation of MSPO. This result showed that importance roles played by the people surrounding the independent smallholders influencing them to implement MSPO. In this case the role of TUNAS officers of MPOB played a significant role in providing training and technical assistance for the smallholders in preparing them in implementing sustainable certification.

Table 2

Descriptive Analysis

	N	Mean	Std. Deviation
Attitude	404	4.4757	0.49924
Subjective Norms	404	4.2559	0.48249
Perceived Behavioural Control	404	3.9525	0.54397
Intention	404	4.3148	0.48424
Behaviour	404	4.1195	0.49687

Table 3 summarizes the correlation testing for the study. The result indicated that there is a correlation between all the variables and a change in one variable will have a positive affect in another variable. The study shows positive and strong correlation between all the variables and compliance behaviour with intention (0.749), subjective norms (0.607), perceived control behaviour (0.569) and attitude (0.548). From the study, it is evident that each of the independent variables has a definite relationship in predicting the behaviour of the independent smallholders' in complying with the MSPO implementation. This finding also supported all the hypothesis suggested.

Table 3
Correlation Analysis

		A	SN	PBC	I	B
Attitude	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	404				
Subjective Norms	Pearson Correlation	.645**	1			
	Sig. (2-tailed)	.000				
	N	404	404			
Perceived Control Behaviour	Pearson Correlation	.507**	.631**	1		
	Sig. (2-tailed)	.000	.000			
	N	404	404	404		
Intention	Pearson Correlation	.636**	.573**	.539**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	404	404	404	404	
Behaviour	Pearson Correlation	.548**	.607**	.569**	.749**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	404	404	404	404	404

** . Correlation is significant at the 0.01 level (2-tailed).

A=Attitude, SN= Subjective Norms, PBC= Perceived Control Behaviour, I= Intention, B=Behaviour

Discussion and Conclusion

The implementation of MSPO would provide an avenue for the smallholders to improve their agricultural practices through adoption of sustainable practices. The independent smallholders are aware and willing to comply with the implementation of MSPO. However, improving the smallholders attitude and perceived control behaviour would be one of the critical steps that need to be taken into consideration for them to be more willing to implement and participate in MSPO. Taken into account that majority of the smallholders in this study age above 61 years, adapting to changes in sustainable agricultural practices may poses a challenge to them. Thus it is important for the government to play an important role in encouraging and ensuring training for a more effective implementation. Although the smallholders have the experience and skills to fulfill the principal and criteria of MSPO, this would requires additional cost, time and knowledge. With the current technical and financial support by the government, the smallholders may not feel the burden. However, in the long for MSPO to be sustained, this need to be address to ensure that ability of smallholder to maintain the certification can be sustain in the long run. The finding shows the significant role of subjective norms particularly people surrounding the smallholders in influencing them to comply with MSPO. In this aspect, the role undertaken by MPOB and TUNAS officers is very significant in ensuring the smallholders compliance with the implementation of MSPO. The findings also highlighted in importance of intention in influencing the smallholders behaviours. Therefore, when the independent smallholders intentions to participate in MSPO are enhanced, they would more likely to comply with MSPO requirement.

In conclusion, the study suggested that behavioral factors are significant in influencing the smallholders behaviours to comply with the government implementation of MSPO. In order to sustain the certification scheme in the long run, there is a need to improve the

smallholders' attitude and perceived behavioural control. Both of these are personal factors and through education and training could assist in improving the smallholders skills and capability in complying with MSPO. This study only provide an insight of the variable that predict the independent smallholders compliance behaviour in Johor and future studies could be extended for samples from other states in Malaysia. In addition, similar study can be undertaken with the organised oil palm smallholders. This would give a more comprehensive outlook on the both independent and organised smallholders behaviour in implementing MSPO certification.

From the theoretical perspectives, this study contribute to the body of knowledge by applying the TPB framework in understanding smallholders' behaviour in relation to sustainability production complying with the implementation of MSPO. The result of the study can be used by policymakers to address issues on smallholders participation in MSPO. For example, MPOB can improve its training programmes that would engage the smallholders understanding on MSPO and hence improve their attitude in fulfilling with the MSPO requirements.

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