

## FACTOR AFFECTING ON SUCCESS AND FAILURE FOR ROUNDTABLE SUSTAINABLE PALM OIL (RSPO) IN THAILAND: CASE STUDY IN SURAT THANI AND KRABI PROVINCES

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**Abstract:** Although, Thailand promotes the Roundtable Sustainable Palm Oil (RSPO), it has yet to achieve its policy targets. This paper examines the perceptions of five stakeholder groups to identify the factor affecting success and failure in RSPO project in Thailand by using in-depth interview through semi-structure and focus group. These stakeholders were government agencies, palm oil mill, RSPO agencies in Thailand, academic, and oil palm grower. The finding Internal factors affecting the success in RSPO certification application for oil palm farmers include knowledge and ability of the president and the board of directors, farmers' cooperation and sharing management information, farmer's assistance appointment to help solving management problems, and group's benefits management. External factors are financial and technical support from oil palm mill, using mill territory as a group meeting point, and hiring a group administrator. Farmers earned 0.05 – 0.30 baht/kg difference from non-RSPO who is selling directly to crude palm oil mills. External factors influencing failure in RSPO certification application are 1) irresponsibility and indiscipline in farmers, 2) farmer's age and education, 3) budgets, 4) corruptions among group's board directors and 5) unskilled president and board of directors. Internal factors influencing failure are 1) government's policy is unclear about their supports for roundtable sustainable palm oil productions that lead to serious unsupported farmers and 2) the difference price is not high enough to encourage smallholder farmers to participate in RSPO.

**Keywords:** Success Factors; Failure Factors; Roundtable Sustainable Palm Oil; Thailand

### INTRODUCTION

The expansion of oil palm plantations has been increasing every year due to higher demand. It includes the usage of palm oil as a renewable energy that has caused many problems, especially in Indonesia and Malaysia, such as deforestation for oil palm plantation, environmental Impacts and Biodiversity (Chanthawong & Dhakal, 2016). This leads to oppositions to the use of palm oil and palm oil products in many countries, especially, Europe. The World Wildlife Fund (WWF) and stakeholder groups from the palm oil industry, such as palm oil growers, palm oil manufacturer, manufacturers of palm oil, consumers,

investors and social and environmental development organizations, launched the Roundtable on Sustainable Palm Oil (RSPO) project in 2002 to tackle the problems about the expansion of the oil palm plantation that affects society, the environment and biodiversity. The main objective is to support the sustainable production of palm oil in different countries and certified for sustainable palm oil production (CSPO) (RSPO, 2016b; Jaisamut et al., 2016) The world total certificated areas in 2015 were around 3.1 million Ha. It has production areas of 2.6 million Ha and had certified palm oil volumes of 11.63 million liters in 2015. The countries with the most

sustainable palm oil production standards are Malaysia, Indonesia, Papua New Guinea and Brazil, respectively (RSPO, 2015).

In Thailand, it had an area of 18,387.66 Ha (RSPO, 2016a) in 2015. There were 13,723.23 Ha of certified palm oil plantations in Surat Thani 3,209.07 Ha, Trang 1,269.03 Ha and 186.33 Ha in Nakhon Si Thammarat respectively. There were 13 certified groups with 1,165 farmers. Krabi Province and Surat Thani Province were the first and second largest oil palm growers in the country, with a total area of 311,963 Ha (46% of total planting area). In those province, there were 65 mills, largest numbers in Thailand, or 45% of the country's crude palm oil extraction plants (Office of Agricultural Economics, 2015). However, it was found that the expansion of sustainable palm oil production in Surat Thani and Krabi was not as successful. Although, the crude palm oil extraction plant attracted more farmers to participate in the project, the participating farmers sold more than non-participants 0.10-0.30 baht per kilogram. Currently, there have been 2.5% of the certified palm oil plantations in the country and about 5.5 percent of all palm oil plantations in Krabi and Surat Thani (Office of Agricultural Economics, 2015; RSPO, 2015). The main reason was that, firstly, farmers do not pay much attention to the project because there was no difference in income. Secondly, the problem of the management process of the oil palm plantation was the time for training and, lastly, the budgetary issue used to obtain certification for sustainable palm oil production (Kultong, Y, 2016). In addition, there was a problem about the public relations of the target group of crude palm oil extraction; for example, farmers living far from the factory could not sell their produce to the factory because of transportation costs (Nupeuang, S, 2016). These study specific aims are to (a) determine the internal and external factor affecting success in RSPO certification application for oil palm farmers and, (2) identify the internal and external failure factors that affecting in RSPO certification application for oil palm farmers.

This paper differs from past research in the following three ways. First, previous study focus on smallholder oil palm growers (Wangrakdiskul U. and Yodpigit N., 2012; 2013; Ruysschaert, D. and Salles, D. 2014). The second,

this work focus on internal and external factors affecting success and failure on RSPO project while the previous study focus on strength, weakness, opportunity and threat on RSPO project (Wangrakdiskul U. and Yodpigit N., 2012; 2013; Ruysschaert, D. and Salles, D. 2014). The third, they mostly focus on Chumporn province (Wangrakdiskul U. and Yodpigit N., 2012).

## **2. LITERATURE REVIEW**

Petprasert N. (1999) stated that 8 factors affecting the success and failure of the community business were as follows: 1) Financial and investment factors of the group: The investments need to be their own, no need to borrow, no interest payments for investments, so the chance of success is higher than relying on loans without their own funds. It indicates that the economy is not self-reliant. 2) marketing factors: Entrepreneurs need to understand supply and demand. In addition, they must know where to sell the products. The successful group will be the group with exact and sufficient customers. 3) Production factors: The questions are always what to produce and how to produce by analyzing through supply and demand in the market which is as important as market opportunities. The skills of the manufacturer can improve the quality event low budget and quality standards will make potential in markets competition. Lack of inputs is a barrier and a risk of failure as well as a lack of market opportunity. 4) Administration and management factors can be divided into 3 aspects: financial system, general work system and personnel system. In terms of financial system, it is the ability to raise capital and manage capital inflows. In general work system, community businesses operate in an informal manner. In personnel system, due to the community businesses often do not have employees or just 1-2 people (no wok lines). The success of human resource management depends on the motivation, the quality and the respect of the leaders. 5) Factor of community business leaders, who are founded by a group of people or people who are voted by the villagers, will be able to mobilize quickly and have a high chance of success. 6) Labor factor: most of the labor in the community is rather small and is mostly the family members. 7) Membership factor relies on occurrences and persistence and the growth of community businesses

through sharing, joint decision and cooperation by community members.8) Interaction with the outside: the business community needs to learn and define the right attitude toward external interaction.

Wangrakdiskul U. and Yodpijit N. (2012) studied the pros and cons of sustainable palm oil production from the perspective of farmers in Chumphon province. The results show that the advantages of sustainable palm oil production are, oil palm plantation increases, farmers improve their livelihoods, they improve their management practices and they can learn from other farming experiences. This leads to the farmers-network to help educate farmers together. The disadvantage is that some farmers are unable to learn new knowledge due to their age or education. Farmers do not have the funds to prepare for application of certification of sustainable palm oil production. Especially, they are lacking awareness of the impact of non-sustainable palm oil production.

T.O.R. Macdonald and J.S. Rowarth (2013) studied the factors that affected the success of a global international business, a case study of growing agribusiness Co-operatives in New Zealand. The results of the study revealed that the factors affecting the success of cooperative agricultural business were 6 factors including effective control, ability to access funds, strategies to create value added products, creating trust and relationships with customers, competitive advantage, and government impact and communication. The agricultural co-operatives in New Zealand has all the factors to enter the global market.

Wangrakdiskul U. and Yodpijit N. (2013) studied strengths and weaknesses of sustainable palm oil production in Thailand. The study indicated that the strengths of sustainable palm oil projects in Thailand includes, the palm oil factory has an agreement to buy fresh fruit from farmers to reduce the risk, palm oil extraction plant are accepted by consumers and sell better both domestic and international, farmers' incomes increases because of larger productivity, and crude palm oil extraction income rises. The weakness of sustainable palm oil production . The cost of certification by RSPO was expensive lead to difficult to get a profit from joining this program. The price of certified fresh fruit branch was fluctuation and don't guarantee in the future. For

farmers with area less than 50 Ha of oil palm plantation, it is difficult to success by economic of scale of farmers. Unapproved palm oil can be sold in some markets, such as China and India.

Ruyschaert, D. and Salles, D. (2014) studied the cause of the failure of the protection or preservation of the Orangutan habitat in Indonesia under the sustainable palm oil project. The results of the causes were as follows: 1) the compensation or incentive fee received from the crude palm oil mill is low and unacceptable compared to the cost of obtaining a sustainable palm oil certification. 2) Farmers use the regulatory gap to meet the requirements of sustainable palm oil standards, as well as the uncertainty in regulation of sustainable palm oil standards .For example, farmers used illegal chemicals for agriculture and illegal deforestation. 3) Postponing decisions on conflicting issues, especially for the conservation of biodiversity and greenhouse gas emissions because there is an argument that the sustainable palm oil project cannot reduce greenhouse gas emissions which is caused by the planting process, fertilizer care, the use of chemicals by oil palm farmers. 4) The lack of integration between sustainable palm oil standards and the legal and economic aspects of Indonesian politics. 5) Lack of external factors that effectively control the whole system which consists of 3 parts: database of individual farmers, consultation procedure and procedure for obtaining new sustainable palm oil certification for new farmers, and complaints procedure.

Wangrakdiskul U. and Yodpijit N. (2015) analyzed the trends of future sustainable Palm Oil in Thailand. Their sub-objective is to study the environmental impact of the development of farmers into sustainable palm oil production. The study indicated that environmental benefits from sustainable palm oil projects was to protect biodiversity, reduce deforestation by expanding oil palm plantings and reducing greenhouse gas emissions into the atmosphere. It is found that the development of farmers into sustainable palm oil standards of Thailand still face many problems, such as, most farmers are smallholder oil palm grower, resulting in shortages of funds for development, the low level of education has resulted in learning and development to reach the standard of sustainable palm oil production, and, especially,

farmers have a bad attitude towards sustainable palm oil projects.

Badrulet. Z. *et.al.*, (2017) studied the global oil palm production must adapt to conserve biodiversity and food security in tropical countries. The research found that oil palm farmers in Malaysia were divided into two groups; 1) Independent small-scale farmers mean ones who followed the prerequisites or government assistance and 2) Smallholder oil palm grower with a single crop who were managed by the government and must sell their produce to government-regulated plants. Smallholder oil palm growers were not able to obtain certification for sustainable palm oil production due to limited operating costs and Smallholder oil palm growers' knowledge. The oil palm plantation of both Smallholder oil palm growers in Malaysia lacked the understanding of biodiversity conservation and neglect its importance.

From the literature reviews found that the most of the previous research focuses on analyzing the strengths, weaknesses, opportunities and threat of roundtable sustainable palm oil production. The research focused on the factors that affect success and failure of the sustainable palm oil project is still limited and focuses in Indonesia. For Thailand, only few study focus on RSPO project and the main area is in Chumphon province. The previous study found that the factors that affect the success and failure of roundtable sustainable palm oil project are personal factors such as age, education level, investment and attitude. External factors include the lack of effective external agencies to control the smallholder oil palm grower to meet the standards of RSPO project. Their different perspectives on the RSPO project in terms of reducing greenhouse gas emissions, and conservation of biodiversity, as well as supporting factors, including unclear government policy on RSPO projects.

### **3. METHODOLOGY**

This study adopted a case study approach. The selected sampling, oil palm grower which is certificated of Roundtable Sustainable Palm Oil (RSPO) in Thailand in 2017 with total certificated area around 18,387.66 Ha (RSPO, 2016a). Currently, 13 smallholder groups certificated from RSPO namely; United Palm Oil Industry Public Company Limited (UPOIC), Univanich Palm Oil

Public Company Limited, UPOIC Nuakhleng-Khaopanom, The Sustainable Oil Palm Smallholders Production (Univanich-Plaipraya) Community Enterprise Group, Sustainable Krabi Oil-Palm farmers Cooperative Federation, Community Enterprise Group – Suratthani, Lumnam Kadae Pattana Oil Palm Community Enterprise Group, Saikueng Bansawan Community Enterprise, Srijaroen Sustainable Oil Palm Production Community Enterprise Group, Tapi-Ipun Sustainable Oil Palm community Enterprise Group, Community enterprise growers palm oil and palm oil sustainability Sikao-Wangwiset, Trang Sustainable palm oil grower community enterprise network and Sichon palm yagyuen community enterprise group (RSPO, 2016a). The total oil palm grower in Thailand approximately 1,165 as follow; 336 palm oil grower in Krabi Province, 540 palm oil grower in Surat Thani Province, 236 palm oil grower in Trang Province and 53 palm oil grower in Nakhonsri Thammarat Province, respectively (RSPO, 2016a).

#### **3.1. Research case**

This study selected Surat Thani and Krabi Provinces as the case in Thailand. In 2017, Surat Thani and Krabi Provinces with certificated area around 16,932.3 Ha (around 92% of total certificated area in Thailand) with 10 smallholder oil palm grower groups as follow; United Palm Oil Industry Public Company Limited (UPOIC), Univanich Palm Oil Public Company Limited, UPOIC Nuakhleng-Khaopanom, The Sustainable Oil Palm Smallholders Production (Univanich-Plaipraya) Community Enterprise Group, Sustainable Krabi Oil-Palm farmers Cooperative Federation, Community Enterprise Group – Suratthani, Lumnam Kadae Pattana Oil Palm Community Enterprise Group, Saikueng Bansawan Community Enterprise, Srijaroen Sustainable Oil Palm Production Community Enterprise Group, and Tapi-Ipun Sustainable Oil Palm community Enterprise Group. The total oil palm growers were 876 (approximately 75.2% of total oil palm grower in Thailand).

#### **3.2. Data collection**

This study has adopted a triangulation approach to obtain quality of the present qualitative research (Yin, 2013).

Subsequently, various methods (files and records, documents, direct participation experiences, a semi-structural investigation, interviews, and a site observation) were applied to validate of the research data. Furthermore, multisource data were collected (from government agencies who are expert in RSPO, RSPO oil palm growers who are the executive in the small holder groups, Palm oil mill representatives who are supported RSPO in Thailand, RSPO agencies in Thailand, and academic who are expert in RSPO) to enhance data reliance. Data collection was conducted in four stages from multiple data sources. In the first stage, case-related secondary data were collected, including official RSPO criteria, RSPO documents, printed and media data. The second stage involved conducting in-depth interviews and participant observations by 9 experts (4 sessions for a total of 18 hours) namely; 4 government agencies who are expert in RSPO, 3 palm oil mill representatives who

are supported RSPO in Thailand, 1 RSPO agencies in Thailand, and 1 academic who are expert in RSPO and 122 oil palm grower who are certified by RSPO (4 sessions for a total of 244 hours) divided into 3 groups as follow; 105 oil palm grower supported by oil palm mill, 15 co-operative oil palm growers, and 2 big plantation oil palm growers (Table 1). To select survey participants, the palm oil growers and expert representatives were required to meet following conditions (a) expertise in RSPO development for 3–5 years (b) in decision-making positions, and (c) availability to participate in all stages of interviews and questionnaire for entire RSPO project. For selecting academic, the stakeholder representatives were required to meet more following conditions (a) publications related to Thailand RSPO, (b) research in RSPO, and (c) available to answer question. The interview questions were listed in Table 2. To avoid missing key information, the researcher further participated in ten

**Table 1**  
**Interviewees and their backgrounds**

<i>No</i>	<i>Type</i>	<i>Position</i>	<i>Frequency</i>	<i>Hour</i>
G1	Government agencies	promoting and development products	4	8
R1	RSPO agencies	Manager	1	2
A1	Academic	Lecturer	1	2
PM1	Palm oil Mill	RSPO project co-coordinator	3	6
OM1	Big plantation oil palm grower	Manager or project-coordinator	2	4
OM2	Oil palm grower supported by palm oil mill	President or vice president	7	14
OM3	Co-operative palm oil grower	President	1	2
OG1	Oil palm grower supported by palm oil mill	Committee Member	98	196
OG2	Co-operative palm oil grower	Committee Member	14	28

**Table 2**  
**Interview questions**

<i>Question</i>	<i>Purpose</i>	<i>Interviewee</i>
Oil palm grower General information	Gather data regarding RSPO experiences	President, vice president, Manager, project- coordinator and committee member, government agencies
RSPO Production process	Gather data regarding RSPO criteria	President, vice president, Manager, project- coordinator and committee member, government agencies
Factor affecting success for RSPO	Gather data regarding key success factor to get certificated by RSPO	President, vice president, Manager, project- coordinator and committee member, government agencies
Factor affecting failure for RSPO	Gather data regarding key failure factor which are not ratify by RSPO	President, vice president, Manager, project- coordinator and committee member, government agencies

actual experiences. In the third stage, recorded interviews were worded to improve the data quality. After completion of the transcripts, the researcher were asked to reconfirm the authenticity of the interview content by selected 40 representative of expert and palm oil growers by using focus group . Therefore, the revents studied in the present case study were mutually verifiable with facts (Yin, 2013).

#### **4. ESTIMATION, RESULTS AND COMPARISONS**

##### **4.1. Factors affecting the success of the RSPO application for palm oil growers.**

According to the results, all factors affecting the success rate of the RSPO application for palm oil farmers includes the knowledge of the president and the board of directors, farmers' co-operation and sharing management information, farmer's assistance appointment to help solving management problems, and group's benefits management including the management of the interests of the concrete and can feed themselves. External factors affecting the success rate of the RSPO application are financial and technical support from oil palm mill, using mill territory as a group meeting point, and hiring a group administrator. Farmers receive the income difference between selling the product directly to the factory and selling to the non-participating 0.05-0.30 baht per kilogram (Table 3). This study also sorted into 3 groups. In big plantation group (palm oil mill), internal factors that affect the success includes: It has large oil palm plantations and participation in drafting benchmarks for sustainable palm oil production. External factors include trading defense measure with an emphasis on environmental protection. Regarding smallholder oil palm grower grouped in the form of cooperatives, internal factors that affect the success includes the strength of the group members, knowledge of group leaders and board directors, and group management in sharing benefits. External factors include both domestic and international sponsorship; assistance from the Palm Oil factories to uses their territories as the group meeting location, and to receive the difference from the sales. For smallholder farmers supported by the palm oil mill, the internal factors that contributed to the success factors

are strong-relationship among group members which is an instrumental in providing information on planting management, as well as the appointment of a mentor to assist farmers who face problems managing the oil palm plantations, the practical management of the interests of and self-reliant, and knowledge of the president and the board of directors. External factors affecting the success of the RSPO application for palm oil farmers includes financial and technical support from palm oil mill including use the factory area for the group's meeting point, hiring a staff to help coordinate and assist members in the group. Farmers receive the income difference between selling the product directly to the factory and selling to the non-participating 0.05-0.30 baht per kilogram.

According to a researches from Petprasert (1999) which studied about success factors for community business, and a research from T.O.R. Macdonald and J.S.Rowarth (2013) which studied about success factors for Cooperative Agricultural Business in New Zealand, there are 5 similar factors including 1) Financial and investment factors; 2) Marketing factors that focus on value added; 3) Management factors; 4) Interaction with external, building trust and relationships with customers; and 5) Production factors that focus on creating competitiveness. These align with the interview result of Ahmad D. (2017) on "Investment factors and providing production knowledge" as shown in the table 4.

##### **4.2. Factors affecting the failure of the RSPO application for palm oil growers.**

From the interview and focus group with representatives from 10 groups of farmers and RSPO project's stakeholders, reasons that caused the palm oil farmers to failed in getting a RSPO standard are as followed: 1) no responsibility and poor discipline of farmers such as no recording of income and outcome statements, no attending of training courses and no following advices from a lecturer, 2) education level and age of farmers: To apply for RSPO, it requires to submit many documents there are many details to record. Besides, the farmers must attend training in many relevant topics such as palm oil plantation management, fertilizer

Table 3  
Factors affecting the success rate of the RSPO application for palm oil growers

Groups/Factors	Internal										External				
	Integration of membership	Knowledge of the group's leader	Education level	Management process in terms of benefit	Participation Management	Specialist External Advisor	Planting process Experience from big planting	Membership Selected process	Number of planting area	Participation in POC criteria	Sponsorship by Internal and External country	Sponsorship by palm oil mill	Sponsorship by government	Price incentive	Protection environmental problem
Big Plantation															
United Palm Oil Industry Public Company Limited (UPOIC)															
Univanich Palm Oil Public Company Limited															
Co-operative															
Sustainable Krabi Oil-Palm farmers Cooperative Federation															
Supported by palm oil mill															
Tapi-Ipun Sustainable Oil Palm community Enterprise Group															
Srijaroen Sustainable Oil Palm Production Community Enterprise Group															
UPOIC Nuakhlong-Khaopanom															
Lumnam Kadae Pattana Oil Palm Community Enterprise Group															
The Sustainable Oil Palm Smallholders Production (Univanich-Plaipraya) Community Enterprise Group															
Saikueng Bansawan Community Enterprise															
Community Enterprise Group – Suratthani															

Table 4  
Comparison of key success factor of this research with previous researches.

Researcher's name	Country	Financial and investment factor	Marketing factor	Production factor	Management factor (financial system, working system and personnel system)	Leader factor	Labor factor	Member participation factor (new enter, maintain, grow)	Interaction with external
Narong Petprasert (1999)	Thailand								
T.O.R. Macdonald and J.S.Rowarth (2013)	New Zealand	Ability to reach budget resources	Values added strategy	Competitive/ advantage	Effective control			1) Building internal and external trust, and relationships with customers 2) Government impact and communication	
Ahmad D. (2017) (interview)	Indonesia	Providing knowledge in finance.		Providing knowledge in production				1) Government policy 2) Support from external	
Anuman Chanthawong (2560)	Thailand	1) Funding support for certification process from domestic and oversea 2) Funding support for certification process from raw palm oil extraction plant, also the support of area used in operation	Getting a price premium from the sale of product to extraction plant	Owning of many large palm oil gardens	1) Education level of famers (personnel system) 2) Group benefit sharing management (Monetary system) 3) Management of participation from group members (working system)	Knowledge and ability of group's president and group's committee	Member experiences in taking care of palm oil garden of palm oil extraction plants	1) The strength of group members 2) Screening member to join the group 3) Trade protection measure through environment protection	1) Invitation experts from external to be a consultant. 2) Having participation in drafting RSPO criteria 3) Trade protection measure through environment protection



utilization, harvesting productions, occupational health and environmental management, 3) high cost of application process. The cost to apply RSPO standard is about 150,000-200,000 baht per group, which is very high. As such, it is very difficult to join a sustainable palm oil plantation project if there is no financial support from third party, 4) unclear management by a committee can cause the failure. This is because group of farmer can sell the certificate. Thus, group committee should do income and outcome statement recording, and 5) knowledge and capability of group president and committees can affect the acquisition of the standard. This is because RSPO has many requirements. The plantation management project can fail to meet a standard requirement if the committees are not experts in this field. External factors that can cause failure in applying RSPO standard of the farmers include the followings; 1) government policy as it is still unclear to support a sustainable palm oil planting project. Thus, farmers have not been fully supported. Although there is emphasis on development of large agricultural area but it does not focus on the use of a provision of sustainable palm oil planting to measure the success of the project, 2) the determination of pricing from a palm oil extraction plant for RSOP certified palm oil seed will encourage farmers to apply for RSPO standard. If price is not attractive enough, the farmers will not be interested in joining the sustainable palm oil planting project.

The research studies 4 factors including the followings. First, high cost to evaluate RSPO standard which may not be worthy to invest. Besides, price premium that certified farmers get from a palm oil extraction plant is not attractive. It failed to motivate the farmers to apply for RSPO. Second, there is no responsibility and undisciplined from farmers. The farmers do not follow rules and suggestions from lecturer. Third, government policy is still unclear for long run support on a sustainable palm oil planting project. Farmers are therefore not fully supported. Fourth, lack of good managements of a group of farmers. This includes benefit management, farmer database management. These results also align with the research of Azhar B. *et. al.* (2017), which studied about

factors that affect failure to get a certificate for Biodiversity Conservation and Sustainable Management in Malaysia. This research showed that there was a lack of budget for palm oil management. Farmers also lack of management knowledge. These are shown in table 5 as followed.

#### **4. CONCLUSION**

Although Thailand is one of big palm oil plantation in the world because of highly domestic consumption such as food industry and energy sector but increasing RSPO certification in Thailand not achieved the target. In the current study, we analyze stakeholders' perceptions and provide ideas for factors affecting the success and failure in RSPO project in Thailand. The findings from in-depth interview by using semi-structure and focus group in this study show that internal factors affecting the success in RSPO certification application for oil palm farmers include knowledge and ability of the president and the board of directors, farmers' co-operation and sharing management information, farmer's assistance appointment to help solving management problems, and group's benefits management. External factors are financial and technical support from oil palm mill, using mill territory as a group meeting point, and hiring a group administrator. Farmers earned 0.05 – 0.30 baht/kg difference from non-RSPO who is selling directly to crude palm oil mills. External factors influencing failure in RSPO certification application are 1) irresponsibility and indiscipline in farmers, 2) farmer's age and education, 3) budget for RSPO certification, 4) corruptions among group's board directors and 5) unskilled president and board of directors. Internal factors influencing failure are 1) government's policy is unclear about their supports for roundtable sustainable palm oil productions that lead to serious unsupported farmers and 2) the difference price is not high enough to encourage smallholder farmers to participate in RSPO.

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**Table 5**  
**Comparison of key failure factor of this research with previous research.**

Researcher's name	Country	Failure factor
Ruysscaert, D. and Salles, D. (2014)	Indonesia	<p>There is postponing decision on conflicting issues especially for the conservation of biodiversity and releasing of greenhouse gas. Namely, it is conflict that a sustainable palm oil planting project cannot reduce greenhouse gas emissions because it generate gas from plantation process, fertilizer applications and chemicals used by farmers</p> <p>Farmers try to use a gap available in the requirements. The requirement is also unclear. For example, there is a use of chemicals in process without reporting, there is forest destruction.</p>
Azhar B. et.al.(2017)	Malaysia	<p>There is a lack of integration between sustainable palm oil production standards and the law that relates to Economics, Social and Politics of Indonesia.</p>
Ahmad D. (2017) (Interview)	Indonesia	<p>There is a lack of external factor that is effective for an overall control system. The system is composed of 3 main parts including the following: (i) database of individual farmer, (ii) consultant procedure and procedure to apply for sustainable palm oil standard certification for a new farmer and (iii) Complaints procedure.</p>
Anuman chanthawong (2560)	Thai	<p>Government policy as it is still unclear to support a sustainable palm oil planting project. Thus, farmers have not been fully supported.</p> <p>1. Unclear management by a committee can cause the failure. 2. Education level and age of farmers: To apply for RSPO, it requires to submit many documents there are many details to record. 3. Knowledge and capability of group president and committees can affect the acquisition of the standard.</p>

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