UNIVERSITI PUTRA MALAYSIA

STUDY ON COMPETENCY OF ASSISTANT AGRICULTURE OFFICERS IN MUDA AGRICULTURE DEVELOPMENT AUTHORITY (MADA)

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REPORT'S DECLARATION FORM

This project paper entitled "Study on Competency of Assistant Agriculture Officers (AAOs) in Muda Agriculture Development Authority (MADA)". Prepared by Mohamad Syazwan Bin Mohammad Zakaria and submitted to the Faculty of Agriculture in partial fulfillment of the requirement of PRT4999 which is Final Year Project in purpose to achieve award of the degree of Bachelor of Agricultural Science is based on my own original works.

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ABSTRACT

Rice is one of the main cultivar and the most important staple food in Malaysia. In Malaysia our production per hectare is still low which is 3.5 ton per hectare. Malaysia rice yield is about 2.4 million ton per year and only fulfill 72% of self-sufficiency level. Therefore, government give more emphasize in increasing of the rice production trough. The Malaysia Plan which is National Key Economic. It shows that the government concern about the importance of agriculture sector to feed all the people in the country.

This study conducted to examine the competency of Muda Agricultural Development Authority (MADA) officers which is focus on Assistant Agriculture Officers (AAOs) as the respondents. MADA officer's competency level can be seen through the productivity of paddy yield of farmers in Muda area. The objectives of this study are to measure the competency level and its importance among MADA officers and its relationship with the respondent's demographic profile. There are seven (7) dimension of competency in extension activities which is planning, implementing, evaluating, communication, guiding, farm management and ICT aspect. All these type of competency will be compare with two demographic factors of respondents which is gender and years of working experience in MADA to find whether there is a significance difference between respondents demographic profile within the seven dimension of competency.

The questionnaires was designed and distributed to the 163 respondents. The respondents are selected from MADA agency officers which is Agriculture Assistant Officers (AAOs). The questionnaire important to collect the information about the respondents based on their demographic profile, experience, expertise, ability and their position in MADA agency. The data will be analyzed by using Statistical Package for Social Science (SPSS) version 21.0 software for the descriptive and ANOVA.

For descriptive analysis results of seven (7) dimension based on respondents competency and its importance shows the ranking ICT in extension activities (4.13) and (4.54) in the first and follows by communication (3.94) and (4.46). Guiding (3.74) and (4.36) is third and then implementing (3.74) and (4.35), planning (3.74) and (4.32) and evaluating (3.72) and (4.29). The last one is farm management in extension activities (3.53) and (4.28). For ANOVA analysis shows there are only planning and evaluating dimension of competency has a significance difference with gender of respondents while the rest is not significance. For years of working experience in MADA organization, the result indicates all of seven dimensions are not significance.

The conclusion of the study shows that, there is not significance difference between seven dimensions of competency with years of working experience in MADA, the training program of MADA organization still needed to maintain the high competency level among extension agents. The results only show the majority of the respondents but not to every

single of them. However, there are some extension agents has moderate and low level of competency whether their experience is high or less.

This study has some limitation such as cost and time to complete. Other limitations of study are the weakness of questionnaire and also the different in understanding of the question among respondents. The recommendation and suggestion for the future study, the researcher believe that some of aspects can be improve such as questionnaire design which is qualitative or quantitative. The respondent's age and years of working experience among them are too closed. The scope of the study can be wider and not only focus on paddy crop but also to other crops.

ABSTRAK

Padi adalah salah satu daripada tanaman utama atau tanaman makanan yang paling penting di Malaysia. Di Malaysia mempunyai pengeluaran padi sehektar masih rendah dimana hanya 3.5 tan sehektar. Hasil padi Malaysia setiap tahun juga masih rendah pada masa ini iaitu hanya mampu menampung 72% keperluan padi negara dengan 2.4 juta tan setahun. Kesedaran tentang kepentingan padi menyebabkan kerajaan memberi penekanan dalam meningkatkan pengeluaran padi. Oleh itu, setiap penggal Rancangan Malaysia mempunyai perancangan ekonomi utama negara yang memberi tumpuan kepada pembangunan sektor pertanian termasuk padi. Ia menunjukkan bahawa kerajaan mengambil berat mengenai kepentingan sektor pertanian yang dapat memberi sumber makanan kepada rakyat di negara ini.

Kajian ini meliputi kaji selidik keupayaan pegawai Lembaga Kemajuan Pertanian Muda (MADA) yang memfokuskan kepada Penolong Pegawai Pertanian (AAO) sebagai responden kajian. Tahap keupayaan pegawai MADA dapat dilihat melalui produktiviti hasil padi daripada petani di kawasan Muda. Matlamatnya adalah untuk mengukur tahap kompetensi di kalangan pegawai-pegawai MADA dan hubungannya dengan profil demografi responden. Terdapat tujuh dimensi kompetensi dalam aktiviti pengembangan iaitu perancangan, pelaksanaan, pemantauan, komunikasi, bimbingan, pengurusan ladang dan aspek ICT. Kesemua jenis kompetensi akan dibandingkan dengan dua faktor demografi responden iaitu jantina dan pengalaman bekerja di agensi MADA. Tujuannya adalah untuk mencari sekiranya wujud perbezaan signifikan antara profil demografi responden dengan ketujuh-tujuh dimensi kompetensi.

Soalan kaji selidik dibentuk untuk diedarkan kepada 163 responden. Responden yang dipilih adalah daripada pegawai agensi MADA yang merupakan Penolong Pegawai Pertanian (AAO). Kajian soal selidik ini penting untuk mengumpul maklumat tentang responden berdasarkan profil demografik, pengalaman, kepakaran, kebolehan dan kedudukan mereka dalam agensi MADA. Data ini dianalisis dengan menggunakan Pakej Statistik untuk Sains Sosial (SPSS) bagi data deskriptif dan chi-square. Hasil yang diperolehi adalah tahap keupayaan di kalangan pegawai-pegawai agensi MADA adalah sederhana dan hubungan antara faktor-faktor sosio demografik iaitu jantina dan pengalaman bekerja bersama organisasi MADA terhadap tahap keupayaan adalah penting.

Berdasarkan keputusan analisis deskriptif, ketujuh-tujuh dimensi kompetensi dan kepentingannya menunjukkan bahawa kedudukan ICT dalam aktiviti pengembangan (4.13) dan (4.54) adalah yang pertama dan diikuti oleh komunikasi (3.94) dan (4.46). Faktor bimbingan (3.74) dan (4.36) adalah ketiga dan diikuti oleh pelaksanaan (3.74) dan (4.35), perancangan (3.74) dan (4.32) dan penilaian (3.72) dan (4.29). Yang terakhir sekali ialah kemahiran pengurusan ladang (3.53) dan (4.28). Bagi analisis ANOVA, ia menunjukkan bahawa hanya dimensi perancangan dan pemantauan dalam kompetensi sahaja yang ada perbezaan signifikan dengan jantina responden manakala dimensi-dimensi yang lain tidak signifikan. Bagi tempoh pengalaman bekerja di organisasi MADA, keputusan menunjukkan bahawa kesemua dimensi kompetensi adalah tidak signifikan.

Kesimpulan kajian ini menunjukkan bahawa walaupun tiada perbezaan signifikan di antara ketujuh-tujuh dimensi kompetensi dengan tempoh pengalaman bekerja di organisasi MADA, program latihan di organisasi MADA masih perlu dijalankan untuk mengekalkan tahap kompetensi yang tinggi dalam kalangan agen pengembangan. Keputusan tersebut

menggambarkan majoriti responden tetapi bukan untuk setiap seorang daripada mereka. Jadi, terdapat sebilangan agen pengembangan yang mempunyai tahap kompetensi yang rendah dan sederhana tidak kira pengalaman bekerja mereka tinggi atau rendah.

Terdapat beberapa batasan dalam kajian ini antaranya ialah kos dan masa untuk menyiapkan kajian ini. Faktor yang lain pula ialah kelemahan borang kaji selidik dan juga perbezaan kefahaman dalam soalan yang diajukan di antara responden. Cadangan yang diberikan untuk kajian pada masa akan datang ialah dengan memperbaiki borang kaji selidik dengan bertanyakan dari kedua-dua aspek kualitatif dan kuantitatif. Selain itu, umur responden dan tempoh bekerja mempunyai jarak yang terlalu rapat. Manakala skop kajian pula boleh diperluaskan lagi dan tidak hanya fokus kepada tanaman padi tetapi kepada tanaman lain juga.

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CHAPTER 1

INTRODUCTION

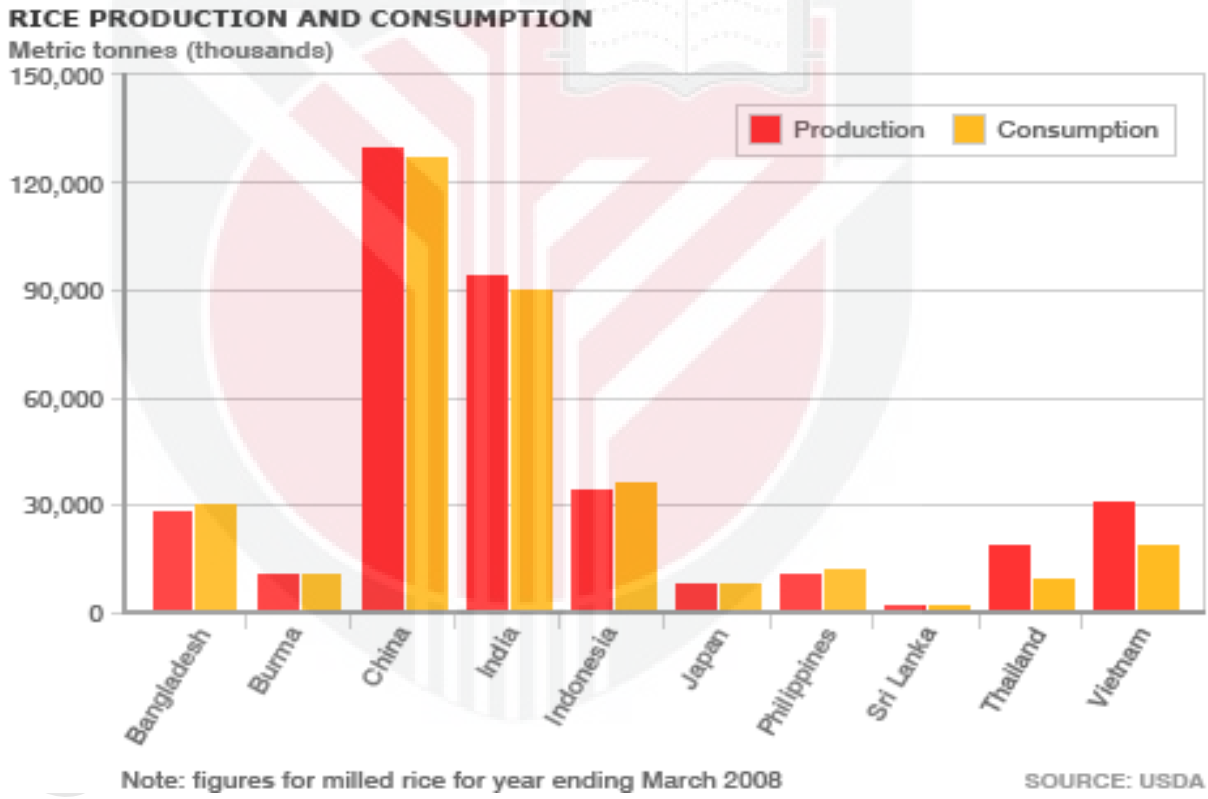
1.0 Introduction

The discussion in this chapter covers introduction on paddy farming sector in Malaysia, Muda paddy farming area, MADA history and background, agriculture officer in MADA, definition of competency, problem statement, objective of study, significant of study and thesis organization. The problem occurs among agriculture officer is explained in the problem statement. The research questions become guideline for developing the objectives of this study. The significance of the study is discussed to express the impact of the study to all respective parties.

1.1 Paddy Farming Sector in Malaysia

Rice is one of the main cultivar or the most important staple food in Malaysia. Studies show there are 0.3 million paddy farmers in Malaysia. Only 40% of them are full time farmers and the rest is for site income or rent it to another farmers. In Malaysia our production per hectare is still low which only 3.5 ton per hectare. If we compare to another country, Australia is the most efficient rice producer in the world with 8.7 ton of rice per hectare. Following by Japan 6.4 ton and China 6.3 ton.

Malaysia rice yield per years also still low with currently only 72% self-sufficiency with 2.4 million ton per years. Our production is still low compared to another Southeast Asia country for example Indonesia 60.3 million ton, Vietnam 38.7 million ton, Myanmar 30.5 million ton, Thailand 30.5 million ton and Philippines 16.8 million ton. Malaysia currently in 25th place total rice production in the world. However, limited planting area is the main factor that Malaysia rice production per year still low. Due to this situation, high yield rice is needed to fulfill the rice needed and decrease dependence to imported rice.



(Source USDA 2008)

Figures 1.1: World Rice Production and Consumption

Figures 1.1 shows the world production and consumption of rice within the larger producer countries in Asia. China is the largest producer in the world, followed by India, Indonesia, Vietnam, Bangladesh and Thailand. Only China, India, Thailand and Vietnam produce more than their consumed. The rest have to struggle and need to import the rice from other countries. In Malaysia, our production still low and need to import in from China, Thailand and Vietnam.

In Peninsular Malaysia, paddy are cultivate mostly in north area such as Kedah and Perlis under Muda Agricultural Development Area (MADA) and Perak under Integrated Agricultural Development Area (IADA) Seberang Perak. In Kelantan, farmers depend on Kemubu Agricultural Development Authority (KADA), likewise IADA KETARA in Terengganu. In Selangor area is monitored by IADA Barat Laut Selangor. If we compared all of them, MADA had produced the most rice production while IADA Barat Laut Selangor is the most efficient rice production area in Malaysia.

Malaysia annual yield per years can be concluded as critical nowadays. The effect is government need to import the rice from the large production of rice such as Thailand and China. There are many factors that causes of this issues. Salam (2010) found that off-farm activities by the farmers can lead to the negative effect to the paddy yield. Many farmers do another activities or work that can give them site income and to increase their income. Many number of family and high cost of living force them to work hard. Norsida (2009) state that paddy farmers involved in off-farm activities depend on their socio-economic factor such as gender, age and number in household. As a result, their attention to the

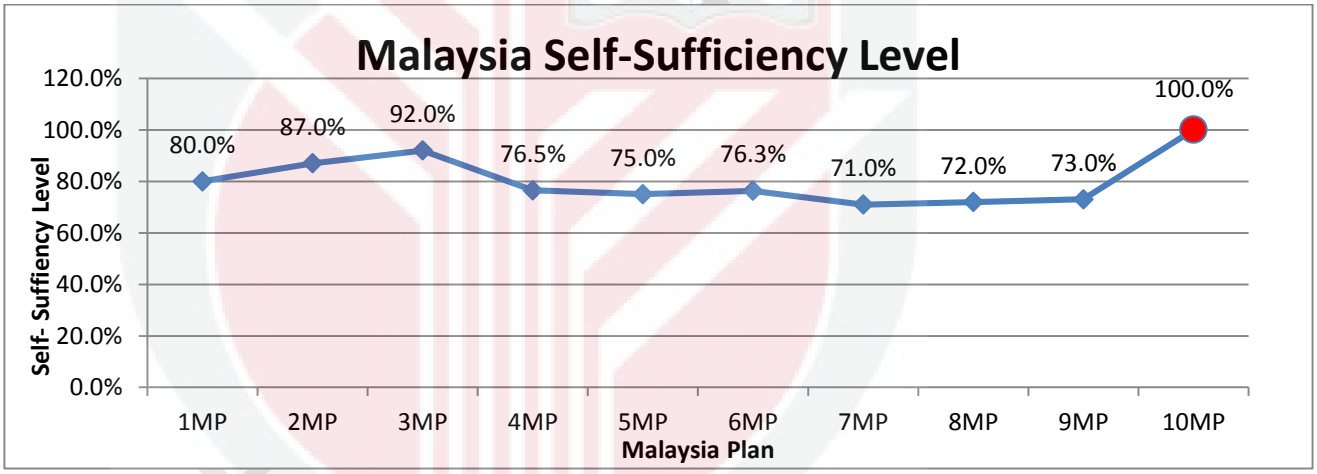
paddy field will decline. Norsida and Sadia (2009) add that majority of paddy farmers involved in economic activities to support their livelihood.

Malaysia self-sufficiency level of rice is still remaining insufficient about 28%. The Government taking decision to import rice from outside country which are Thailand, Vietnam and China to fulfill the consumption. Asia is one of the areas that people consumed rice as a staple food. However, only 7 percent of total rice is internationally traded in 2010 (FAO 2011). Calpe (2005) also reported that rice trade is thin, distorted, segmented and volatile market.

Malaysia is one of the paddy producers. However, our production cost is high. According to Ahmad (1998) our labor costs and agricultural inputs are higher than other countries. Therefore the owners of paddy field convert their land to industrial use rather than agricultural sector but the conservation of land still under Federal Government's jurisdiction (personal communication 2011).

Malaysia Plan is one of the government effort toward agriculture sector including paddy industry which is renew the target in every 5 years. The latest one is Tenth Malaysia Plan project started in 2010till 2015. There are many mission of government in this project within 5 years. However, focus and related to this study is only National Key Economic Area (NKEA). In every Malaysia Plan there is 12 NKEA. NKEA 11 is for agriculture sector which is focus on Food security for availability, accessibility and affordability of food. The government also target to maintain rice stockpile at 292,000 metric tons.

The rice stockpile is very important is there any emergency cases occur such as flood, war, fire, drought and many others. In make sure our imported rice in every years from others countries, our government enter long-term contract of imported rice matching with export of palm oil or oil. Our country is one of the larger palm oil producer that make us advantage in trade the rice commodity. As our government concern on national rice production, they keep upgrade infrastructures and facilities to increase in production of existing granary and non-granary areas. The mission is to increase the production of agriculture sector including rice.

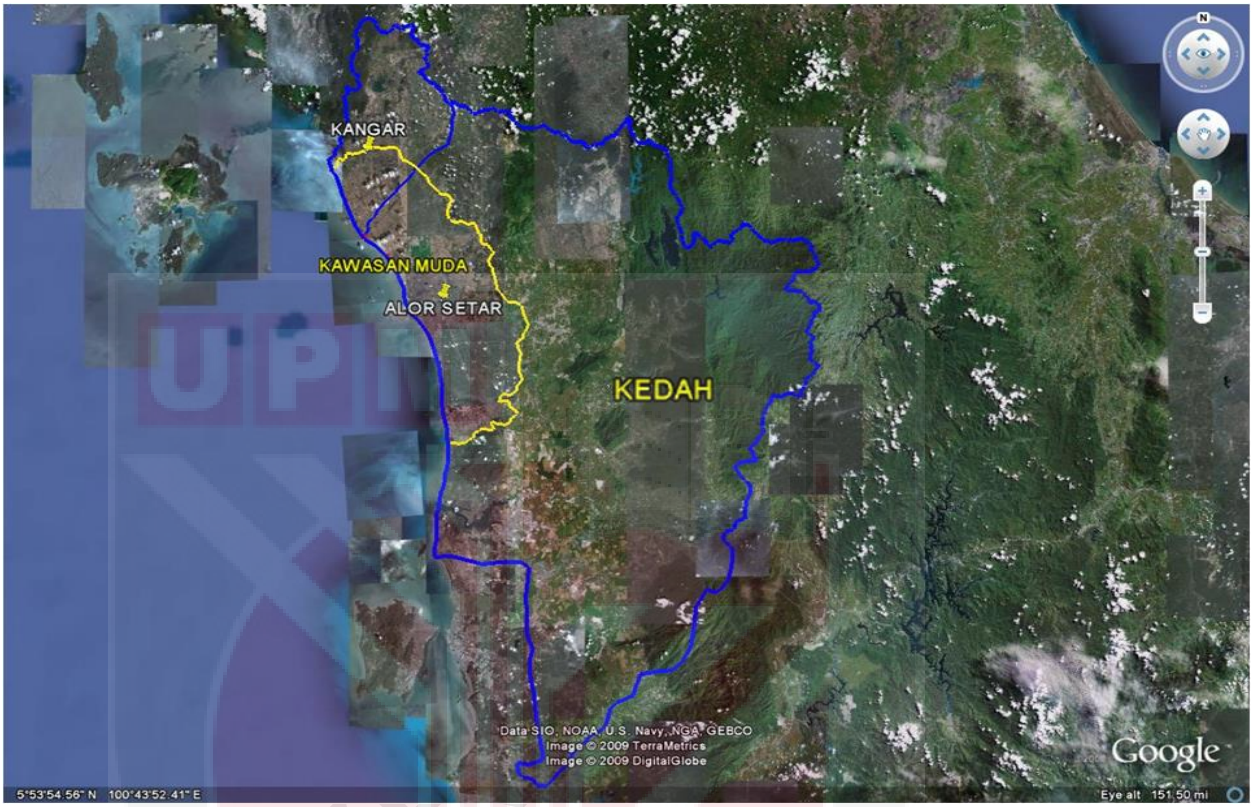


(Source: Adapted from Department of Statistic 2011)

Figures 1.2: Malaysia's Self-sufficiency Level in Rice

Figures 1.2 shows the Malaysia self-sufficiency level. The graph is higher during second Malaysia Plan but fall after that. The current self-sufficiency level is 73% and the government target to achieve 100% self-sufficiency level during Tenth Malaysia Plan which is in 2010 until 2015 but the target is failed because the country did not reach 100% yet right now.

1.2 MADA Farming Area



(Source: Adapted from MADA website 2015)

Figures 1.3: Map of MADA Areas

From the figures 1.3 above, the blue line shows the states of Kedah and Perlis. The yellow line is the Muda farming area in both of the states. Muda farming area for cultivating rice are 77.882 hectares (80.66%) in Kedah and 18.676 hectares (19.34%) in Perlis. The total paddy farming area in both states covers in MADA organization are 96.558 hectares. The total irrigation planning of Muda area is 126.155 hectares and 105.851 hectares is in Kedah and 20.304 hectares in Perlis.

Muda farming area was divided into a four regional department for easier and improve the management system. The four regional established which are Region 1 in Kangar, Perlis, Region 2 Jitra, Kedah, Region 3 in Pendang, Kedah and Region 4 in Kota Sarang Semut, Kedah. There also 27 Farmers Association Area (FAO) under every regional department which is 5 FAO in region 1, 9 FAO in region 2, 6 FAO in region 3 and 7 FAO in region 4. Muda farming area covers around 48,500 farmers due studies conducted by MADA.

Areas	**Regional 1**	**Regional II**	**Regional III**	**Regional IV**
A	Arau	Kodiang	Hutan Kampong	Batas Paip
B	Kayang	Sanglang	Alor Senibong	Pengkalan Kundur
C	Kangar	Kerpan	Tajar	Kangkong
D	Tambun Tulang	Tunjang	Titi Hj Idris	Permatang Buluh
E	Simpang Empat	Kubang Sepat	Kobah	Bukit Besar
F		Jerlun	Pendang	Sungai Limau Dalam
G		Jitra		Guar Cempedak
F		Kepala Batas		
G		Kuala Sungai		

(Source: Adapted from survey 2015)

Figures 1.4: FAO Regional and Division in MADA Areas

From Figures 1.4 shows the Mada's regional in Kedah and Perlis. Regional 1 which is Perlis consists of FAO Arau, Kayang, Kangar, Tambun Tulang and Simpang Empat. Regional II which is located in Jitra consists of FAO Kodiang, Sanglang, Kerpan, Tunjang, Kubang Sepat, Jerlun, Jitra, Kepala Batas and Kuala Sungai. Regional III which is located in Pendang consists of FAO Hutan Kampung, Alor Senibong, Tajar, Titi Hj. Idris, Kobah and Pendang. Regional IV which is located in Kota Sarang Semut consists of FAO Batas Paip, Pengkalan Kundur, Kangkong, Permatang Buluh, Bukit Besar, Sungai Limau Dalam and Guar Cempedak.

1.3 Muda Agriculture Development Authority (MADA)

1.3.1 History and background of MADA

Paddy has been cultivated in Kedah and Perlis area. However, government give more emphasized on paddy production in 1955. Therefore government take an action by launched of First Malaysia Plan projects in 1965-1970. One of the biggest project is the Muda Irrigation Scheme.

In 1960, Sir William Halcrow and Partners consulting firm from United Kingdom has been given a task or project of Muda irrigation system. After that, in 1965 government has applied a loan from World Bank for a cost of Muda projects around US$ 45 million. In 1966 construction work began and the irrigation system in the first stage. The water resources are from natural running water, pond and damn.

The second stage of MADA construction began in 1967 to complete the first stage construction work. Therefore, office of the Project has been established under Ministry of Agriculture in 1967. However, some problems occur in management system because of development planning and executive power is limited due to different authority among several region and federal department. So, in 30 Jun 1970, the government decided to establish Muda Agricultural Development to recover management problem and to be more efficient for development of paddy industry. The opening was done by the late Tun Hj. Abdul Razak Hussein as Prime Minister and the Director of Operations in a Ceremony at the Great Hall Building, Alor Star.

1.3.2 Main Goal, Motto, Vision and Mission

Main Goal

MADA organization has own main goal. The first one is advancing wellness living of large number of villagers. Their concern about the villagers is to increase live style level of them. The second one is increasing the yield for country needs. Increasing country population every years increase the demand of rice. Therefore, MADA consent to provide adequate rice to feed Malaysian people. The number one target is to achieve 100 percent self-sufficient for rice.

Motto

The organization moto is “MADA Developing Together With Farmers” that shows their organization will rising together with the farmers in improve nation paddy industry.

Vision

Malaysia have a lot of agencies that have responsibility in improve paddy industry which are Jabatan Pertanian, KADA, KETARA, IADA etc. However, MADA had their own vision which is to be a leader of domestic paddy industry and socio-economic development of MADA farmers. MADA agency target to be a leader in paddy industry but this target only will achieve with farmers cooperation.

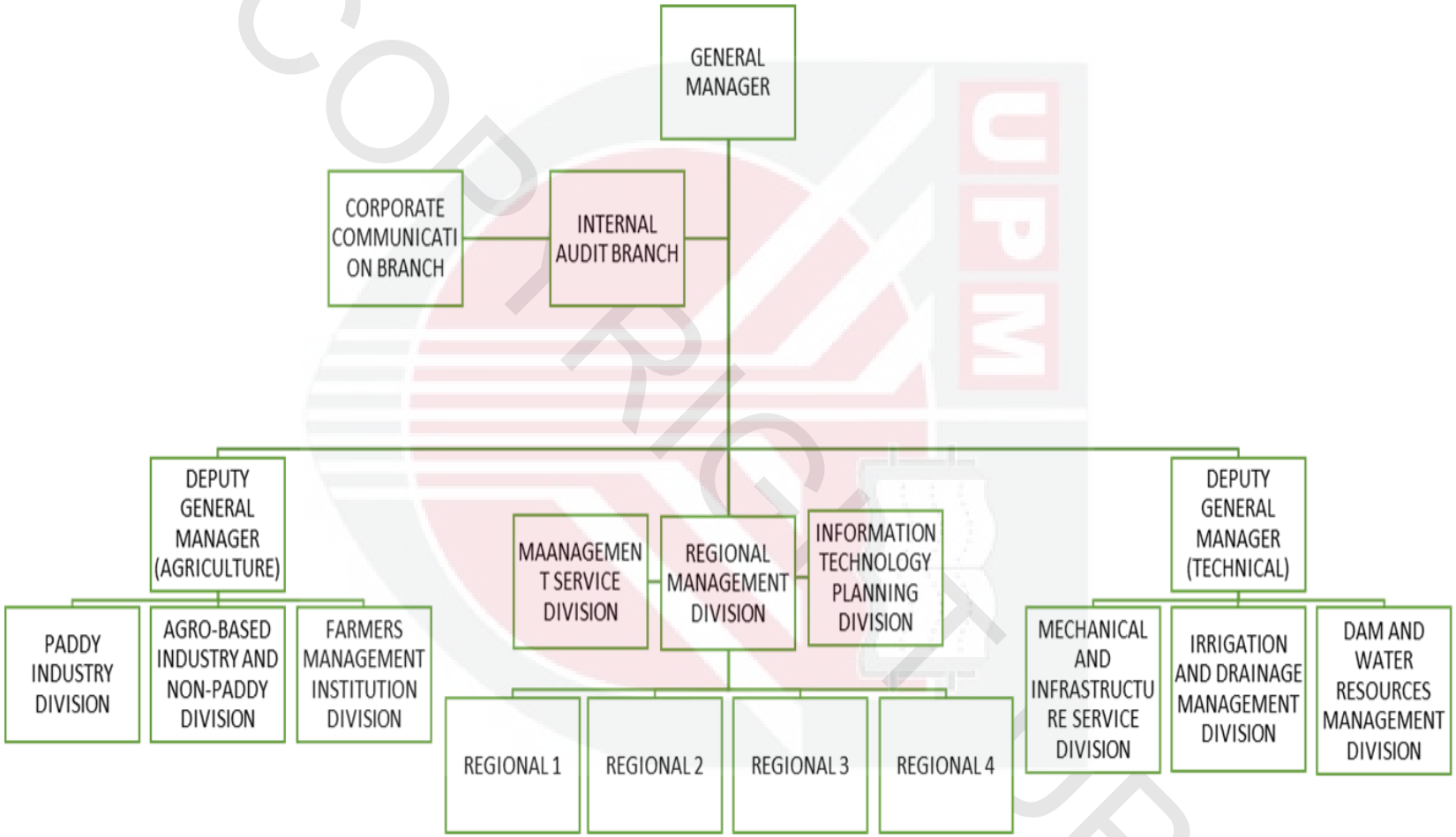
Mission

MADA had own mission which is transformation of paddy industry to become modern, efficient, sustainable and competitive. The second mission is intensifying the involvement of farmers in the entire value chain of paddy and rice industry. The third mission is maximize the income of farmers through diversification of sources. Last but not least, forth mission is advancing farmer's institution as an entity of competitive economy.

1.3.3 Function of MADA

There are several function of MADA agency. The first function of MADA is providing agricultural services and irrigation infrastructure to meet the needs of country rice. Second is managing water resources efficiently and effectively. Third is increase farmers income through non-paddy activities. Besides, MADA also promote agro-based industries and creating the commercial-class entrepreneurs. The fifth is design and develop the farmer's institution. The last but not least is undertake the economic and social life of the farmers.

1.4 Agriculture Officers in MADA



(Source: Adapted from MADA website 2015)

Figure 1.5: MADA Organization Chart

The leader of MADA organization is Tn. Hj. Md. Zuki bin Ismail who is General Manager. MADA have two Deputy General Manager who are En. Fouzi bin Ali (agriculture) and Ir. Hor Tek Lip (technical). Below both of them, department are divided into 11 department which is Corporate Communication, Internal Audit, paddy industry, Agricultural Industry (non-paddy), Farmers institution management, Planning and ICT, Service management, District Management, Mechanical and Infrastructure Service, Service and Irrigation and Management and water Resources. All department have their own importance to improve the MADA organization system and cooperate with the local farmers to get their main goal.

1.5 Competency

Competency basically is the skills, knowledge, abilities and any behaviors and also included attitudes that reflect to the performance of workers. Competency is one of the important things that will give a successful in management of any company. High level of competency will produce a good leadership which is very important to manage agency. Competency make the workers utilizes appropriate method for interacting effectively, efficiently, and professionally at the workplace. In the agricultural agency organization, understanding the nature and the relationship between elements is very important. Understanding about their profession and the skills needed to make them better during do a job is also important things to be consider. Expertise in their job department is one of advantage and can lead to a good profile of employees. Competency models is needed as references to measures the level of success in competency levels.

1.6 Problem Statement

Competency is the important elements to make the extension agent especially MADA officers in perform well. Lack of confident is one of the problem may occurred. Some of the officers feel that they are not good enough in the workplace. Feeling there is many other staff is better make their confident level dropped.

Lack of knowledge is the other reason in low competency among MADA officers. They only depend on the information that they got during previous study. They did not have self-awareness to improve their knowledge through internet, magazine, newspaper or other media. This problems will lead them to have no advance or new information based on their profession.

Low in communication skills also make them afraid to give a talk in front of people. MADA officers needs better communication skills because some of them are extension agents and need to give advice or delivered the information to the farmers. Some of the method is through the program or event that invited all the farmers and need extension agents to give a talk. Without better communication skills the farmers cannot understand very well about the content of talk. Therefore, the new information are failed to be delivered to the farmers.

Lack of training program also can make the competency level low. Training program is important to help the officers in planning their method to deliver the information and to make them understand well what their functions in the agency organization. Attending of

training program will make them better in their skills and their critical thinking in all situation of problem facing.

Other problem is lack of officer discipline such as absence without permission, coming late, work without quality, missing during work time etc. All of these will lead to the negative effect and bad perceptive to the agency by all stakeholders especially farmers.

1.7 Study Objective

1.7.1 General Objective

To examine the competency of Agriculture Assistant Officers in agriculture sector to see the impact and overcome the problem that the officers face to reach the target and main goal of Muda Agricultural Development Area (MADA).

1.7.2 Specific Objectives

1) To identify the respondent's demographic profile
2) To identify the competency level and their importance level among Muda Agricultural Development Area (MADA) officers
3) To examine the relationship between demographic factor with competency level

1.8 Significant of Study

This study conducted to give a benefit to the all MADA stakeholders which are farmers, MADA, ministry and also consumer. To see the competency level is the main objective

to improve the weakness of the MADA officer and indirectly help the farmers to increase their production level and income. Without this study we cannot know the problem they face on the job with the farmers. The result of this study will help MADA to improve their officer's knowledge and skills based on their performance. In addition, this study also will help other researchers to gain new knowledge about competency. At the conclusion of this study we can see the competency level among MADA officer and see what problem they face on as agricultural agency agents.

1.9 Thesis Organization

In this section will show summary of the thesis or the studies organized. In this thesis, there are five chapters that indicate different part of the studies. Chapter 1 is the introduction which covers the knowledge and information about the basic agriculture in Malaysia especially in paddy. There also information about extension agent and MADA organization. Besides that, problem statement, objective of the study and significant of the study also include in this chapter. In chapter 2, the literature review which the previous related studies will be quote and added to give batter information about this study. Chapter 3 will provide the method of the studies. In this chapter, location of the study, respondent selection, source of the information, questionnaire design, and the analysis technique are discuss. Chapter 4 is one of the important that shows the results of the analyzed data and the explanation. The last is chapter 5 that will conclude, summarized the findings, suggestion and recommendation and also the limitation of the study.

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