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Roles and Contributions of Brokers (Middlemen) and Perceptions towards the Custom Farming System in the Muda Area, Malaysia

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Abstract: Custom farming, or the custom hiring system, has long been widely practiced in paddy farming in the Muda area of Malaysia. The objective of the system is to provide farmers with machinery such as harvesting equipment, tractors and lorries for convenience. Brokers, or middlemen, within the system act as intermediaries between the farmers and service providers, who are the owners of the machines, tractors and lorries. This study aims to examine the profile of these brokers, in terms of their years of experience as a broker, the size of land under their supervision, the agreement method between farmers and service providers and also broker contributions to farmers. The research is carried out in the context of paddy farming in the Muda area. The respondents consist of 35 brokers and 65 farmers, each of whom completed a questionnaire. The data is analyzed using SPSS. The results show that through contributions of brokers within this custom farming system, problems relating to the ownership of machinery, lack of time and energy and farmers' operating costs can be reduced. However, there are still weaknesses in this service system that needs to be improved.

Key words: Custom farming, custom hiring, broker, middlemen, paddy farming, Malaysia

INTRODUCTION

Muda area paddy farming in Malaysia: Agricultural land in Malaysia covers 5,400,000 ha in total, which equates to 16% of the country. A total of 640,000 ha of this is dedicated to rice cultivation. There are eight granary areas in Malaysia; namely Muda Agricultural Development Authority (MADA), Kemubu Agricultural Development Authority (KADA), Kerian-Sungai Manik Integrated Agriculture Development Area (IADA), Northwest Selangor IADA, Seberang Perak IADA, Seberang Perai IADA, North Terengganu Integrated Agriculture Development (KETARA) and Kemasin Semerak IADA. Granary areas refer to major irrigation schemes (areas greater than 4,000 ha) and are recognized by the government in the National Agricultural Policy (NAP) as the main paddy areas.

The creation of paddy farms within the Muda area contributes to the self-sufficiency of the nation, 40% of the nation's paddy farming takes place within the Muda area, though only a third of the area has tertiary development. Intensification of the tertiary system in the remaining area is set to increase production within the area, since agriculture has been subject to new mandates from the government to make it the third engine of growth for the nation's economy. Although Malaysia is outside of the sector of the world considered undernourished,

food is a basic necessity for human livelihood. Therefore, rice production in the Muda area will continue to play an important role in the nation's development.

Kedah and Perlis are two states that are involved in the Muda Irrigation Plan; they have respective areas of 105,851 ha (Kedah) and 20,304 ha (Perlis) and the entire area of both states is 126,155 ha. In addition, 80.66%, or 77,882 ha (out of a total of 96,558) of the cultivated area in the MADA region are located in the state of Kedah, while the remaining 18,676 ha, equivalent to 19.34%, are located in Perlis. Through the establishment of MADA, rice is successfully cultivated twice a year. The first season, or off-season, runs from March to August each year. The second season begins in September of each year and runs to February of the following year.

Farm mechanization and custom farming, or the custom hiring system:

This section outlines farm mechanization in paddy farming and the role of custom farming or custom hiring in providing machinery services to farmers. It will explain the important roles of farm mechanization in increasing the productivity of farmers and assisting them in their farm operations. At the same time, this section will also explain the definition of custom farming, including the service providers and middlemen, who are known as brokers in this system.

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According to Beaton *et al.* (2003), farm machinery is a vital part of most farming operations, in terms of both the physical work it performs in the production process and the enjoyment provided from its operation. For producers, landowners, or farm managers who do not have the capital, time or desire to perform machinery operations themselves, hiring custom operators to perform machinery operations is an alternative method of obtaining machinery services.

Sharma *et al.* (2004) stated that the use of mechanical power is becoming indispensable for making optimal use of resources and for in-time completion of various farm operations under intensive agriculture. Hence, mechanization has become a crucial input to further the development of agriculture. Mechanization saves time in completing different operations, which gives crops more time to mature; allows farmers to be more flexible in their farming operations and facilitates multi and relay cropping.

Rijk (2000) explained that agricultural mechanization embraces the use of tools, equipments and machines for agricultural land development, crop production, harvesting and preparation for storage and on-farm processing. It includes three main power sources: Human, animal and mechanical. The manufacture, distribution, repair, maintenance, management and utilization of agricultural tools, implements and machines is covered under this discipline with regard to how to supply mechanization inputs to farmers in an efficient and effective manner.

In explaining the role of farm mechanization, Singh (2000) concluded that farm mechanization has been helpful in bringing about significant improvements in agricultural productivity. Thus, there is a strong need for the mechanization of agricultural operations. This is justified by numerous factors. For example, in recent years the timeliness of operations has assumed greater significance in obtaining optimal yields from different crops and this has been possible by way of mechanization.

The principal role of custom farming and hiring is explained and discussed in order to provide a better understanding of it. Custom hiring can be beneficial to some farm operations as it reduces machinery needs and also frees up time for other farming activities. Dollar Farm (2005) stated that custom farming allows landowners to continue managing their farms without having to invest in major equipment, or spend additional time and financial resources. This alternative allows landowners to retain close control of their farming business, make all of the farming decisions and retain all income from sales without having to perform day-to-day activities or provide/invest in equipment and labor.

Payne (2008), in discussing agreements in custom farming, explained that, traditionally, a custom farming agreement involves the landowner making a fixed cash payment to the custom operator in return for conducting various field operations. This is either contracted individually for each field operation, or in total for all growing and harvesting operations.

In conclusion, the custom farming system practiced in Malaysian paddy farming may differ from that of other countries but still maintains the central principle of farmers being provided a service by a provider.

Custom farming in Malaysia and the role of brokers:

Farming in the Muda area paddy context includes processes such as: (1) Land preparation, (2) Seed planting (3) Fertilizing (4) Pest and disease control (5) Irrigation and drainage (6) Harvesting and (7) Transporting to the rice miller. Here, custom farming plays a key role. Farmers usually need to use machines, particularly in land preparation, harvesting and transporting.

In custom farming, farmers will contract out farm activities that use large-scale, expensive machinery to service providers, who are owners of farm machinery. Service providers can be categorized as shown in Table 1.

One of the main groups in custom farming is brokers, who are situated between farmers and service providers. Brokers' responsibilities mainly revolve around booking services, creating a land preparation and harvesting schedule, paying service owners or collecting fees from farmers, delivering services, controlling, monitoring and reporting on services, taking care of machinery-operators' welfare, providing credit or loans, provide farm inputs and so on.

Brokers are villagers that live in the same area as the farmers and handle jobs in their immediate or nearest area. One broker will work under one or two service providers, depending on the service offered. The broker's role in this system includes acting as coordinator, communicator, manager, supervisor and so on to the farming community. The types of broker can be categorized as shown in Table 2.

Table 1: Categorization of service providers in custom farming

Category
Provide only tractor service
Provide tractor and lorry service
Provide tractor, lorry and combine harvester service
Provide tractor and combine harvester service
Provide only combine harvester service
Provide only lorry service
Provide services and work as broker

Table 2: Categorization of brokers in custom farming

Category
Work only as a broker
Work as broker and farmer
Work as broker, farmer and owner of combine harvester/tractor/lorry
Work as broker and owner of combine harvester/tractor/lorry

Half of the farmers' cost of production is used to pay for services fulfilled by the providers. The brokers receive a commission from the providers for their coordination of services and effort towards fulfilling contracts and maintaining the service coverage area.

Problem statement and objective of study: The paddy farming system has changed in an agricultural sense from single cropping to double cropping. Manual transplanting has also been converted into direct seeding systems. Operating systems that use energy from animals changed following farm mechanization. Direct seeding and farm machinery has been able to drastically reduce the labor force.

The average land holding of the Muda area's farmers is less than two hectares and the yield is four to five tones per hectare. For economic reasons, farmers can rarely afford to buy their own machinery. Although there are farmers that own machines, many prefer to contract out their main farm activities to service providers. This means that half of their production cost is allocated to service providers, including brokers.

The custom farming system has been practiced for many years but the status of this system in terms of the total number of active brokers, coverage areas, agreement methods, scheduling and commission received and so on is still unclear. No baseline studies have been conducted on the role of brokers and their impact on the socioeconomic activity of Muda's farmers and there is a need to understand whether farmers have a negative or positive perception of brokers.

The existence of service-provider systems underpins the agricultural development of the Muda area. The absence of service providers and brokers would cause problems for everyone, especially farmers; thus, their role and contribution in the paddy-farming value chain cannot be denied.

The purpose of this study is to identify the general system of custom farming in the paddy farming context in the Muda area of Malaysia, focusing on the role and contribution of brokers. Specifically, the objectives are: (1) To identify the profile of the respondents in terms of brokers vs. farmers (2) To examine the operation or practices of the custom farming system and (3) To determine the current status and role of brokers in paddy farming management.

METHODOLOGY

A total of 100 paddy farmers and brokers from the Muda area were selected as the respondents for this

study. The data was collected using questionnaires designed for the purpose of the study and distributed to the respondents. The data was analyzed according to demographic and frequency analyses in order to identify the characteristics of the respondents. The SPSS software was used to analyze the collected data. All of the accumulated information from the respondents was coded accordingly for data storage and analysis. Two analysis techniques were used in the study: Descriptive analysis and correlation analysis (Pearson correlation).

RESULTS AND DISCUSSION

Socio-demographic profiles: The respondents consist of 35 brokers and 65 farmers. Table 3 presents the frequency and percentage values for different facets of the respondents' background. The majority of the broker respondents are about 51-60 years old (17 respondents, 48.6%) this is followed by respondents aged 61 years or above (about 4 respondents, 11.4%). The majority of the farmer respondents are 61 years old or above (20 respondents, 30.8%), followed by 41-50 years old (about 16 respondents, 24.6%). The smallest group of respondents is aged 20 and under (1 respondent, 1.5%).

Table 3: Demographic profile of respondents

Category	Brokers		Farmers	
	Frequency (n = 35)	Percentage	Frequency (n = 65)	Percentage
Age (years)				
20 year and under	0	0.0	1	1.5
21-30	0	0.0	4	6.2
31-40	5	14.3	9	13.8
41-50	9	25.7	16	24.6
51-60	17	48.6	15	23.1
61 and above	4	11.4	20	30.8
Gender				
Male	35	100.0	65	100.0
Female	0	0.0	0	0.0
Education level				
No schooling	1	2.9	1	1.5
Religious school/ Adult classes	0	0.0	4	6.2
Classes				
Standard 6	9	25.7	8	12.3
SRP/PMR	10	28.6	16	24.6
SPM	10	28.6	22	33.8
Certificate/Diploma	1	2.9	7	10.8
Bachelor	1	2.9	0	0
Other	3	8.6	7	10.8
Main job				
Paddy farming only	35	100.0	55	84.6
Other than paddy farming	0	0.0	4	6.2
Government/Private worker	0	0.0	6	9.2
Self-employed	0	0.0	0	0.0
Current Part-time job				
Paddy farming	0	0.0	0	0.0
Other than paddy farming	0	0.0	3	4.6
Government/Private sector	0	0.0	1	1.5
Self-employed	35	100.0	15	21.5
None	0	0.0	47	72.3

All of the brokers and farmers in the study are male, that is, 35 (100%) of brokers and 65 (100%) of farmers. This shows that paddy-farming activities involve only males.

Table 3 shows the background of the respondents' education level. The highest education level for brokers is passed the secondary school certificate (SRP/PMR) and SPM (high school certificate) (20 respondents, 57.2%). The second highest is who passed the Standard 6 (9 respondents, 25.7%). The highest education level for farmers is SPM level (22 respondents, 33.8%); the second highest is SRP/PMR level (about 16 respondents, 24.6%); and the lowest education level for farmers is no schooling (about 1 respondent, 1.5%). This shows that both the broker and farmer respondents have a good educational level above secondary school level.

The main job of the broker respondents relates to paddy farming only (100%), while this is true for about 55 (84.6%) of the farmers. The second-largest group for the farmers is government/private sector work (about 6, 9.2%). In addition, about 35 (100%) of the brokers stated that they are part-time self-employed, while 4.6% of the farmers have a part-time job other than paddy farming. For the farmers, the second-largest group is self-employed (about 14 respondents, 21.5%) and the lowest is government/private workers (about 1 respondent, 1.5%).

Brokers' perceptions towards their Job : Normally, the job of the broker is subject to generational succession, meaning that it passes from father to son. However, there are cases in which the brokers start the business on their own and thus are the first generation. Brokers receive commission from the providers relating to the total area of service coverage, or how many tones of rice are sent to the rice miller. There are one or two brokers in each village, or several villages may have one broker. One broker will cooperate with one or two service providers depending on the type of machinery needed. Agreements between farmers and service providers will be arranged by brokers mostly in verbal form and the fee rate is well understood by both parties before the agreement is made.

Years of experience and net income of brokers: Table 4 shows the broker respondents' years of experience as brokers. The majority have about 5-10 years (about 12 respondents, 34.4%), followed by 16-20 years (about 7, 20.0%), the smallest group for experience as a broker is more than 30 years (about 2 respondents, 5.8%). The net income per season as a broker is about RM 2001-RM 4000; this is earned by the majority (13 respondents, 37.1%). The smallest net income group was about RM

Table 4: Years of experience and net income per season as a broker

Parameters	Frequency (n = 35)	Percentage
Experience (Years)		
<5	5	14.3
5-10	12	34.4
11-15	3	8.7
16-20	7	20.0
21-25	3	8.7
25-30	3	8.6
>30	2	5.8
Total	35	100.0
Net income per season (RM)		
<2000	9	25.7
2001-4000	13	37.1
4001-6000	7	20.0
6001-8000	3	8.6
8001-10000	2	5.7
10001-12000	0	0.0
>12000	1	2.9
Total	35	100.0

Table 5: No. of villages under supervision

No. of villages	Frequency (n = 35)	Percentage
None	5	14.3
1	15	42.9
2	4	11.4
3	7	20.0
4	0	0.0
5	3	8.6
6	1	2.9
Total	35	100.0

Table 6: Types of agreement with machine owners and farmers

Type	Machine owners		Farmers	
	Frequency (n = 35)	Percentage	Frequency (n = 35)	Percentage
Written	2	5.7	1	2.9
Verbal	33	94.3	34	97.1
None	0	0.0	0	0.0

8001-RM 10,000 (2 respondents, 5.7%). The remainder earns RM 2000 (9 respondents, 25.7%).

Size of land coverage and number of villages under supervision: As shown in Fig. 1, the majority of brokers supervise land of about 101 relung (one relung = 0.289 ha) to 300 relung, at about 14 respondents (40.0%). The second-largest portions of the respondents oversee between 301 relung to 500 relung (about 9 respondents, 25.7%) and the minority supervises more than 700 relung (about 2 respondents, 5.7%). As can be seen in Table 5, the number of villages supervised is 1 (about 15 respondents, 42.9%), followed by 3 (about 7 respondents, 20.0%) and 6 (about 1 respondent, 2.9%).

Types of agreement with machine owners and farmers: Table 6 shows the two types of agreement usually made between farmers and machine owners. The majority use verbal agreements (about 33 respondents, 94.3%), followed by written agreements (about 2 respondents, 5.7%). For agreements between brokers and farmers, the

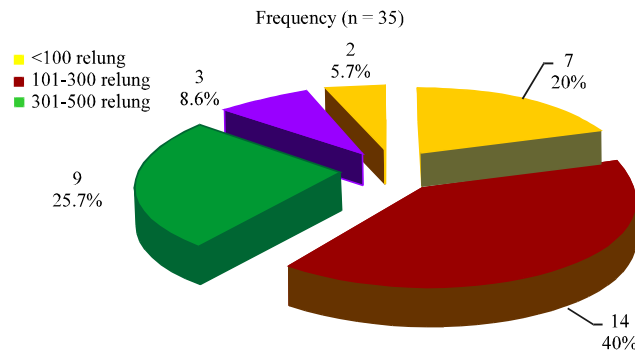


Fig. 1: Size of land under supervision (Relung)

Table 7: Types of broker

Type	Frequency (n = 35)	Percentage
Broker only	1	2.9
Broker and farmer	19	54.3
Broker, farmer and machine owner	7	20.0
Broker and lorry owner	1	2.9
Broker and machine owner	1	2.9
Broker, farmer, machine owner and lorry owner	6	17.1

majority are verbal (about 34 respondents, 97.1%), followed by written (about 1, 2.9%).

Types of broker: As shown in Table 7, there are many types of broker. The majority are both brokers and farmers (about 19 respondents, 54.3%), followed by brokers, farmers and machine owners (about 7 respondents, 20.0%). The remainder are brokers, farmers, machine owners and lorry owners (about 6 respondents, 17.1%) and either brokers only, brokers and lorry owners or brokers and machine owners (about 3 respondents, 8.7%).

Problems and risks as a broker: There are many problems and risks associated with being a broker. As can be seen from Table 8, the highest risk cited is payment default by farmers (19 respondents, 54.3%), followed by competition with other brokers (about 14 respondents, 40.0%) and dishonesty of farmers (about 14 respondents, 40.0%). The other problems and risks include difficulties in getting new areas (about 13 respondents, 37.1%), followed by too-few operators and dishonesty of machine owners (about 2 respondents, 5.8%).

Method of payment receive: From Fig. 2, it can be seen that there are several methods by which brokers are paid, including commission, salary and others. The majority of brokers receive commission (about 33 respondents, 94.3%), followed by salary and others (about 2 respondents total, 5.8%).

Brokers' perceptions of the custom farming system: As shown in Table 9, majority of the respondents agree or

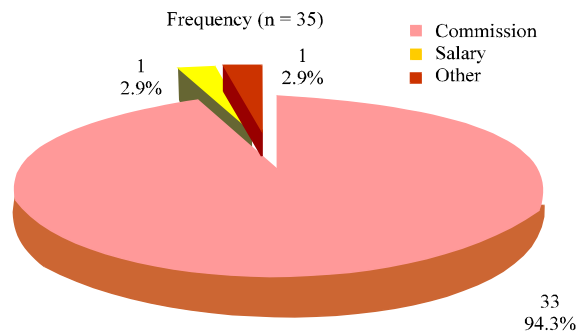


Fig. 2: Methods of payment received

strongly agree with the statements posed to them. The highest score was obtained for the statement “I strongly believe my contribution is needed by farmers,” at a mean of 4.4857.

Types of agreement between farmers and brokers: Two types of agreement are used between the farmers and brokers: Verbal and written. From the Fig. 3, it can be seen that the majority use verbal agreements (about 64 respondents, 98.5%) and the remainder use written agreements (1 respondent, 1.4%).

Perceptions of brokers' roles: From Table 10, it can be seen that the majority of farmers see brokers as intermediaries between machine owners and farmers (about 53 respondents, 81.5%), followed by organizers or managers of job timetables in areas such as land management, harvesting and rice transporting (about 23 respondents, 35.4%), loan providers (about 23 respondents, 35.4%), intermediaries between brokers (about 18 respondents, 27.7%) and others (about 2 respondents, 3.1%).

Reasons for using brokers and machine/tractor/lorry services: There are three reasons why the farmers use

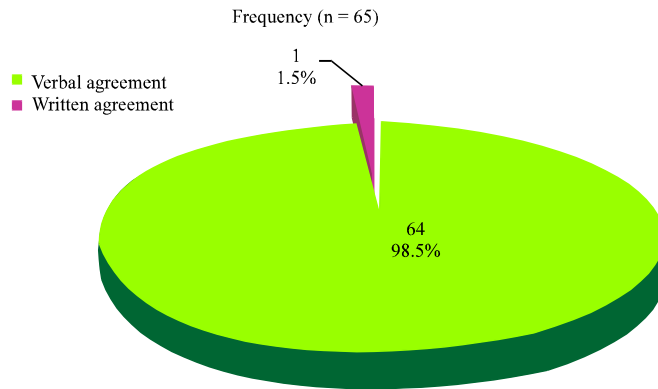


Fig. 3: Types of agreement between farmers and brokers

Table 8: Problems and risks as broker

Problem	Frequency (n = 35)	Percentage	Ranking
Payment default by farmers	19	54.3	1
Competition with other brokers	14	40.0	2
Dishonesty of farmers	14	40.0	3
Difficulties in getting new areas	13	37.1	4
Shortage of machines	9	25.7	5
Struggling to get the business	6	17.1	6
Payment problems by machine owners	5	14.3	7
Problems with machine operators	2	5.7	8
Too-few operators	1	2.9	9
Dishonesty of machine owners	1	2.9	10
Problems with paddy millers	0	0.0	11
Problems with machine owners	0	0.0	12

Table 9: Brokers' perceptions towards the custom farming system

Statement	Scale frequency (%)					Mean	S.D
	1	2	3	4	5		
I strongly believe that the custom farming system in terms of renting machinery, tractors, paddy transport and other services really helps MADA paddy farming development	0 (0.0)	0 (0.0)	0 (0.0)	19 (54.3)	16 (45.7)	4.4571	0.5054
Fee increments are properly notified to farmers, along with a good reason for the increase	0 (0.0)	0 (0.0)	3 (8.6)	20 (57.1)	12 (35.3)	4.2571	0.6108
I have excellent knowledge of the land condition, ownership and farmers under my supervision	0 (0.0)	0 (0.0)	1 (2.9)	20 (57.1)	14 (40.0)	4.3714	0.5469
Any problems with services must be reported to the machine owner	0 (0.0)	1 (2.9)	1 (2.9)	22 (62.9)	11 (31.4)	4.2286	0.6456
Service fee charge to customer should be increase due to the increase of price of petrol and spare parts.	0 (0.0)	1 (0.0)	20 (57.1)	14 (40.0)		4.3714	0.5469
I aim to ensure the satisfaction of the farmers with the services provided	0 (0.0)	0 (0.0)	1 (2.9)	20 (57.1)	14 (40.0)	4.3714	0.5469
I clearly understand the contents of written agreement or verbal agreement given by agriculture service provider	0 (0.0)	0 (0.0)	1 (2.9)	19 (54.3)	15 (42.9)	4.4000	0.5530
The machine owners are liable for risks such as land damage, spilled rice and so on	0 (0.0)	2 (5.7)	1 (2.9)	24 (68.6)	1 (2.9)	3.9714	0.8570
Increases in service fees are made after giving due consideration to avoiding difficulties for the farmers	0 (0.0)	0 (0.0)	2 (5.7)	21 (60.0)	12 (34.3)	4.2857	0.5724
I strongly believe my contribution is needed by farmers	0 (0.0)	0 (0.0)	0 (0.0)	18 (51.4)	17 (48.6)	4.4857	0.5070
I would never breach the trust and confidence placed in me by the farmers and the machine owners	0 (0.0)	0 (0.0)	0 (0.0)	20 (57.1)	15 (42.9)	4.4286	0.5021
I understand the objectives and the direction of the country's paddy farming development	0 (0.0)	0 (0.0)	3 (8.6)	20 (57.1)	15 (34.3)	4.2571	0.6108
The price of the farmers' rice must be taken into consideration by the rice miller	0 (0.0)	4 (11.4)	5 (14.3)	14 (40.0)	12 (34.3)	3.9714	0.9847

brokers and machinery/lorry services: Because they cannot afford to buy machines, tractors or lorries

(about 43 respondents, 66.2%), due to a lack of time and energy (about 31 respondents, 47.7%), or although, they

Table 10: Roles of brokers

Roles	Frequency (n = 65)	Percentage	Ranking
Intermediary between machine owner and farmer	53	81.5	1
Organizer/manager of job timetables in areas such as land management, harvesting and rice transporting	23	35.4	2
Loan provider	23	35.4	3
Intermediary between brokers	18	27.7	4
Monitor of paddy field operation activities	12	18.5	5
Input supplier (e.g., paddy seeds)	12	18.5	6
Farm operation advisor	3	4.6	7
Other	2	3.1	8

Table 11: Reasons for using brokers and machinery/lorry services

Reasons	Frequency (n = 65)	Percentage	Ranking
Cannot afford to buy machines/tractors/lorries	43	66.2	1
Lack of time and energy	31	47.7	2
Can afford to buy but do not want to get involved in debt risk and management	19	29.3	3
Other	8	12.3	4

Table 12: Benefits of using a broker service

Benefits	Frequency (n = 65)	Percentage
Makes the entire job easier and quicker compared to doing it all themselves	61	93.8
Less risk in managing paddy fields and machine ownership	49	75.4
Farmers can get part-time jobs (as brokers/operators/hired workers)	33	50.8
Farmers can get credit facilities/loans from brokers and machinery/lorry owners	31	47.7
Farmers can gain knowledge and get access to technology services and the latest machinery via machine owners and the brokers	21	32.3
Provides an opportunity for farmers to become owners of the machinery/lorries, or become hired workers	19	29.2

can afford to buy, they do not want to get involved in debt risk and management (about 19 respondents, 29.3%). Other reasons were cited by eight respondents (12.3%) (Table 11).

Benefits of broker services: As shown in Table 12, there are many benefits to farmers using brokers. The majority of respondents stated that brokers make their jobs easier and quicker compared to doing it all themselves (about 61 respondents, 93.8%), this was followed by reduced risk in managing paddy fields and machine ownership (about 49 respondents, 75.4%), allows farmers to get a part-time job as a broker, operator or hired worker (about 33 respondents, 50.8%), provides an option to obtain credit facilities or loans from brokers and machine or lorry owners (about 31 respondents, 47.7%), farmers can gain knowledge and get access to technology services and the latest machinery via machine owners and the brokers (32.3%) and finally provides an opportunity for farmers to become machinery or lorry owners, or hired workers (about 19 respondents, 29.2%).

Pearson correlation analysis : Correlation analysis helps to examine relationships among interval or ratio variables. The results of the tests reveal slightly different things about the relationship between two variables. The correlation coefficient may range from -1-1, where -1 or 1 indicates a “perfect” relationship. The further the coefficient is from 0, regardless of whether it is positive or negative, the stronger the relationship between the two variables. This study also considers the strength between

Table 13: Pearson correlation table (using Guildford (1973) rule of thumb)

Correlation coefficient (r)	Strength of relationship
<0.20	Negligible
0.21-0.40	Weak
0.41-0.70	Moderate
0.71-0.90	Strong
>0.90	Very strong

Table 14: Relationship between years of experience as a broker and land area under supervision

Parameters	Years of experience	Land area under supervision
Years of experience as broker		
Pearson correlation	1	0.403*
Significant (2-tailed)		0.016
N	35	35
Land area under supervision		
Pearson correlation	0.403*	1
Significant (2-tailed)	0.016	
N	35	35

*Significant at the 0.05 level (2-tailed)

two relationships. The basis used to consider correlation strength is Guildford (1973) Rule of Thumb, as shown in Table 13.

Relationship between years of experience as broker and land area under supervision: Table 14 reveals the relationship between years of experience as a broker and land area under supervision. Ho: There is no relationship between years of experience as a broker and land area under supervision. Ha: There is a relationship between years of experience as a broker and land area under supervision. From the analysis, it can be seen that there is a significant relationship between years of experience as a broker and land area under supervision, at a 0.05 level

of significance with $r = 0.403$ and $p = 0.016$. There is weak relationship between these two variables and thus H_0 can be rejected.

CONCLUSION

This study conducted a survey to determine the profile of brokers and farmers in the Muda area of Malaysia, determined the current status and role of brokers in paddy farming management and also identified the relationship between brokers and job income, years of experience and size of coverage area.

The results show that the majority of brokers are about 51-60 years old, followed by 61 years old and above. This suggests that older farmers do not have the energy or time to complete all work in their paddy fields themselves and thus delegate some activities to service providers. For brokers, the average number of years of experience is between 5-10 relung, though some have been brokers for more than 30; the size of land under their supervision is between 100-300 relung and the total number of villages under their supervision ranges between one and three villages. The majority of the brokers are from the brokers and farmers group.

The primary benefit of using a broker services is that it makes the overall work easier and faster compared to the farmers doing it all themselves. It also provides an opportunity for farmers to become owners of machinery, or become hired workers. Farmer can also get credit or loans from brokers and machinery/lorry owners and have an opportunity to get part-time jobs as brokers and thus increase their income. Three primary reasons were identified for why the farmers use brokers and machinery/lorry services: Because they cannot afford to buy machines, tractors or lorries themselves; because they lack time and energy and because although they can afford to buy, they do not want to get involved in debt risk and management.

Brokers manage and try to maintain or expand the area under their supervision. They try to influence the farmers to use their services or those of their service providers. The long-term relationship between brokers and farmers depends most on the trust and satisfaction of farmers toward the brokers' services and less on how many years the brokers have worked in the area or village.

There are still many improvements that can be made to the custom farming system. We suggest that the broker system can improved by the introduction of a better form of agreement between farmers and machine owners.

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