Personality Traits for the Majority of Paddy Farmers, in Mada, Kedah, Malaysia

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Abstract

The aim of this study is to describe the traits for the majority of paddy farmers; to determine the correlation between the traits for the majority of paddy farmers with the performance; and to identify the strengths of the traits correlation with the performance for the majority of paddy farmers. The study has been conducted in one of Malaysia's paddy granaries, MADA. A total of 146 farmers, with the range of production yield of 4 to 6 metric tons per hectare were randomly selected as respondents. All data were analyzed by using SPSS version 21.0, with the analysis of descriptive, correlation and regression. The study found seven (7) traits of the majority paddy farmers such as: willingness to take risks, information seekers, problem solving ability, willingness to spend on capital, extensive network of information, dare to make decisions, and highly disciplined. All these traits have positive correlation with the performance. The strength of traits correlation for the majority of paddy farmers with varied performance, Highly disciplined was the personality trait that has strong and significant correlation with the performance. While the other traits such as, information seekers, willingness to spend capital, extensive network of information and dare to make decisions have moderate correlations with the performance. The appropriate development programs are required to be implemented in order to enhance the ability for the majority of paddy farmers so that they can contribute to the improved performance results.

Keywords: Personality traits; paddy farmers, mada

1.0 Introduction

Food is a basic human need for survival. Rice (paddy) is the staple food for most of the population in the world, including Malaysia. The government is aiming the paddy subsistence level of 72%. The demand for paddy continues to increase in line with growth of population. The need for rice of the population in Malaysia by 2020 is expected to increase to 2.60 million metric tons compared to 2.30 million metric tons in 2010 (Ministry of Agriculture and Agro-based Industry, Malaysia, 2013). At the same time, the areas of agricultural land are competing with other sectors, such as the settlement which is also being the basic human need. As for the security measure, eight paddy granaries have been developed into key production areas with 389,544 hectares of planted areas. From this total area, almost 50% or 193,020 hectares belong to MADA. According to the data, the performance of paddy production in 2011 was ranked fourth highest at 4.96 mt/ha, right after the IADA Northwest of Selangor, IADA KETARA, and IADA Penang (Malaysia Department of Agriculture, 2012). Given that half of the paddy granary areas are in the area of MADA, therefore it can influence the performance of the paddy production yield of the overall paddy granaries in Malaysia. The government has released varieties of high-yielding paddy (MR219) which can produce up to 10 metric tons per hectare, as well as the manual of technology for paddy or "rice check" since 2002. Most of the paddy granaries have been using these new varieties. In addition, the government has also completed the facilities of paddy field infrastructure as well as providing the effective management bodies, however, the paddy yield performance is still at low level that is lesser than half of the potential production yield. The question is, why does this happen? What are the traits for most of paddy farmers? What are the traits correlation for the majority of paddy farmers and the yield performance? To what extent the strengths of traits correlation for the majority of farmers and the yield performance? In order to answer this question, a study should be conducted.

2.0 Objective

The main objective of this study is to describe the traits for the majority of paddy farmers; to determine the correlation between the traits of the performance for the majority of paddy farmers; to identify the most important traits for the majority of paddy farmers in influencing the performance. In addition, this study also is to identify the profile for the majority of paddy farmers.

3.0 Methodology

The methods of survey research, face to face interviews, using structured questionnaire, Likert scale has been used in this study. The study has been conducted in one of the paddy granaries, in Northern Peninsular Malaysia, namely MADA. A pilot study was conducted in January 2013, involving 10 paddy farmers, which aimed to gain an understanding of the questionnaire by the respondents. The actual study was conducted in February 2014, after the correction of the original questionnaire in accordance with the understanding of the farmers. Each interview took between 30 to 45 minutes, depending on the capacity of the farmers. There are four main sections of the questionnaire, the profile of the farmers, the profile of the paddy fields, the traits and performance of the farmers. The questionnaire consists of 7 traits of the farmers that were asked. For each trait, it consists of 7 to 9 questions. The unit of analysis for the study was the paddy farmers. A total of 146 paddy farmers, who have the production yields ranging from 4 to 6 metric tons per hectare were randomly selected by phases, namely in accordance to the zone of the respondents. SPSS version 21 was used to analyze the data. The data were analyzed descriptively, such as frequencies and percentages, regression and correlation in order to answer the research questions.

4.0 Literature Review

Diffusion of Innovations theory expounded by Rogers (2007) has been used to explain human behaviour in adopting the technology. Rogers has categorized man into five (5) groups based on the level of technology adoptability. The groups as well as the percentages are: Pioneer (2.5%), First Recipient (13.5%), Early Majority (34%), Late Majority (34%) and those who were left behind (16%). Early and late majority groups have the highest percentage of 68%. This means that these groups have the highest influence on the performance yield. The question is what are the personality traits owned by these groups? The study of Hassan Salim (2012) found that the advanced rice producers in the Northwest of Selangor have seven (7) dominant personality traits, positive and adopting the recommended paddy technology. These personality traits are: information seekers, willingness to take risks, capable of producing high capital, able to solve the major problems, extensive network of information, dare to make decisions, and highly disciplined. However, the percentage of developed paddy producers are small and their influences on the performance of the production yield is low. The percentage of developed producers is equal to the percentage of the group of those who were left behind, namely 16% and 16% respectively. Thus, if the traits of the developed group can be applied to the majority of the producer groups, most likely the performance yield can be improved. The study by Abdullah, Johari (2010) found that knowledge, attitudes and practices affect the adoptability level of good agricultural practices.

5.0 Findings of the Study

5.1 The Traits for Majority of Paddy Producers

Overall, the study found that all respondents possessed the seven (7) personality traits. Those traits are; willingness to take the risks, information seekers, problem-solving skills, the ability to finance high project expenses, extensive network of information, dare to make decisions and highly disciplined. The explanations for each of these characteristics are as follows;

5.1.1 Willingness to Take the Risks

Most (60.3%) of the respondents have moderate level of willingness to take the risks. While a small proportion have high and low level of percentage which were 23.3% and 16.4% respectively. Details are as **Data 1.**

Data 1: Willingness to Take the Risks

Level	Frequency	Percentage
Low	24	16.4
Moderate	88	60.3
High	34	23.3

5.1.2 Information Seekers

Most (73%) of the respondents have high desire to seek for more information. A small portion (26%) have moderate desire and almost none (0.7%) were low. Please refer to the **Data 2.**

Data 2: Information Seekers

Level	Frequency	Percentage
Low	1	0.7
Moderate	38	26
High	107	73

5.1.3 Ability of Problem Solving

The ability of problem solving was moderate to high. The percentage was at 52% to 42.5% respectively. Only a small proportion (5.5%) who are at low level. Please see the **Data 3.**

Data 3: Ability of Problem Solving

Level	Frequency	Percentage
Low	8	5.5
Moderate	76	52.1
High	62	42.5

5.1.4 Ability to Finance High Project Expenses

The ability to finance high project expenses which respondents were moderate to high, 48% and 50% respectively. Only a small fraction (2%) were at low level. Refer to **Data 4**.

Data 4: Ability to Finance High Project Expenses

Level	Frequency	Percentage
Low	3	2.1
Moderate	70	47.9
High	73	50

5.1.5 Extensive Network of Information

Almost 60% of the respondents have extensive network of information, while 37.7% were at moderate level and small proportion (3.4%) only were at low level. Further details are as **Data 5.**

Data 5: Extensive Network of Information

Level	Frequency	Percentage
Low	5	3.4
Moderate	55	37.7
High	86	58.9

5.1.6 Dare to Make Decisions

Over 60% of the respondents have high level of courage to make decisions, 37% were at moderate level and about 3% were at low level. Refer to **Data 6.**

Data 6: Dare to Make Decisions

Level	Frequency	Percentage
Low	4	2.7
Moderate	54	37.0
High	88	60.3

5.1.7 Highly Disciplined

Almost 70% of the respondents have high level of discipline, about 30% were moderate and 1.4% were low or less disciplined. Please refer to **Data 7**.

Data 7: Highly Disciplined

Level	Frequency	Percentage
Low	2	1.4
Moderate	43	29.5
High	101	69.2

5.2 Correlation between the Personality Traits

The study found that there was a positive correlation between personality traits of the respondents. However, the strength of the correlation was different from each other. For example, there was a moderate correlation between the highly disciplined with the information seekers; the highly disciplined and dare to make decisions; dare to make decisions with the information seekers; dare to make decisions with the extensive network of information; the extensive network of information with the information seekers. Other personality traits have weak correlation. There is no strong correlation between personality traits of the respondents. Refer to **Data 8.**

Data 8: Correlation between the Personality Traits

	X_1	X_2	X_3	X_4	X_5	X_6	X_7
X_1 Willingness to take the risks	1						
X_2 Information seekers	0.30	1					
X_3 Ability of problem solving	0.23	0.15	1				
X_4 Ability to finance high project expenses	0.12	0.29	0.32	1			
X_5 Extensive network of information	0.20	**0.56**	0.33	0.33	1		
X_6 Dare to make decisions	0.09	**0.51**	0.45	0.32	**0.56**	1	
X_7 Highly Disciplined	0.22	**0.61**	0.44	0.36	0.46	**0.65**	1

5.3 Performance of the Respondents

Almost 60% of the respondents have high performance, about 40% were moderate and 1.4% were at the low. Refer to **Data 9**.

Data 9: Performance for the Majority of Paddy Farmers

Level	Frequency	Percentage
Low	2	1.4
Moderate	58	39.7
High	86	58.9

5.4 The Correlation between Personality Traits with Performance

The study found that the personality traits of the respondents have positive correlation with the job performance. A high level of discipline have strong correlation with the performance. While dare to make decisions was moderately related to the performance and the rest have low correlation. Refer to **Data 10.**

Data 10: The Correlation between Personality Traits with Performance

	Y
Y Performance	1
X_1 Willingness to take the risks	0.22*
X_2 Information seekers	0.44*
X_3 Ability of problem solving	0.37*
X_4 Ability to finance high project expenses	0.33*
X_5 Extensive network of information	0.45*
X_6 Dare to make decisions	**0.54***
X_7 Highly disciplined	**0.71***

5.4 Profile of the Respondents

The study has identified five (5) profile components of the respondents, namely; the purpose of planting paddy, the experience of planting paddy, age of the producers, the time focused and academic qualifications. Explanations for each profile are as follows:

5.4.1 Purpose of Planting Paddy

Data 11, shows that almost 95% of the respondents' purposes were to plant paddy for production of rice, 2.1% for seeds and 3.4% for both.

Data 11: Purpose of Planting Paddy

Purpose	Frequency	Percentage
Rice	138	94.50
Seeds	3	2.10
Rice and seeds	5	3.40

5.4.2 Experience of Planting Paddy

Data 12 shows that over 90% of the respondents have more than 10 years of planting paddy and about 10% with the experience of less than 10 years.

Data 12: Experience of Planting Paddy

Experience (years)	Frequency	Percentage
<10	13	8.90
11-20	26	17.80
21-30	34	23.30
31-40	34	23.30
>41	39	26.70

5.4.3 Age of the Respondents

Data 13 shows that the age of respondents were ranging between 20 to 70 years. The highest range was between the ages of 51 to 70 years, which is about 57%.

Data 13: Age of Respondents

Age	Frequency	Percentage
20-30	3	2.10
31-40	11	7.50
41-50	31	21.20
51-60	41	28.10
61-70	42	28.80
>70	18	12.30

5.4.4 Time Focused of Planting Paddy

From **Data 14,** it was found more than 80% of the respondents were full-time planting paddy, and the remaining of approximately 20% were planting paddy as their side income.

Data 14: Time Focused of Planting Paddy

Time Focused	Frequency	Percentage
Full Time	117	80.10
Part Time	29	19.90

5.4.5 Academic Qualifications

Finally, **Data 15** shows that over 90% of the respondents have formal education in the primary and secondary schools. Lesser than 10% have the certificates and above.

Data 15: Academic Qualifications

Level of qualification	Frequency	Percentage
Primary Schools	60	41.10
Secondary Schools	73	50.00
Certificates and above	13	8.90

6.0 Conclusion and Recommendation

6.1 Conclusion

All respondents have seven (7) dominant personality traits. The traits are: willingness to take the risks, information seekers, ability of problem solving, ability to finance high project expenses, extensive network of information, dare to make decisions and highly disciplined. These traits have positive correlation with the performance. The strength of the correlation with the performance varies. Highly disciplined has strong correlation; dare to make decisions has moderate correlation; extensive network of information, information seekers, ability of problem solving, ability to finance high project expenses have low correlation and willingness to take the risks of having little correlation to the performance of the respondents. The main purpose of planting paddy is for the production of rice. They plant paddy on full-time, although they do not have high education, but the experience in paddy cultivation is very broad.

6.2 Recommendation

Based on the above conclusion, it is recommended that the efforts should be taken seriously by the authorities to improve the quality of personality traits for the majority of paddy farmers in the country. The comprehensive and integrated actions from all groups such as the implementing agencies, researchers, academicians and non-governmental organizations need to be done in order to realize this noble goal. The blue ocean strategy can be used to highlight the potential of the majority of rice producers so that they can be self-reliant through the empowerment approach. If this is done, the productivity of the country's rice yield can be increased, God's willing. The proposed future study is on the personality traits for the supervisors of Malaysia's paddy granaries.

7.0 The Importance of the Study

This study has been able to contribute the valuable knowledge on the dominant personality traits that should be owned by every paddy producer. Such traits should be applied to the majority of those who have major impacts on the performance improvement.

References

Abdullah, Johari (2010) Tahap Penerimaan Guna Amalan Pertanian Tepat dalam Kalangan Pesawah di Sawah Sempadan, Selangor, Malaysia. The Thesis of Masters, Universiti Putra Malaysia.

Department of Agriculture, Malaysia (2012): Perangkaan Padi Malaysia, 2011.

Ministry of Agriculture and Agro-based Industry, Malaysia (2013). Dasar Agromakanan Negara (2011-2020). Chapter 3: Memperkukuh Industri Padi dan Beras.

Rogers, E. M. (2007). Diffusion of Innovations. New York: Free Press of Macmillan

Salim Hassan (2012). Orientasi Keperibadian, Sikap dan Amalan Pengusaha Padi Maju di Barat Laut Selangor. The Thesis of PhD.Universiti Putra Malaysia.