



***THE RELATIONSHIP BETWEEN PERSONALITY TRAITS AND
PERFORMANCES OF POTENTIAL PADDY FARMERS IN IADA
ROMPIN, PAHANG***

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2017/2018

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179124

**A project report submitted for Faculty of Agriculture, University Putra Malaysia,
in fulfillment of the requirement of FINAL YEAR PROJECT (PRT 4999) for the
award of the degree of BACHELOR OF HORTICULTURAL SCIENCE**

Faculty of Agriculture

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CERTIFICATION

This project paper entitled “The Relationship between Personality Traits and Performances of Potential Paddy Farmers in IADA Rompin, Pahang”. Prepared by Siti Norbazilah binti Mustafa and submitted to the Faculty of Agriculture in partial fulfilment to the requirement of PRT4999 (Final Year Project) for the award of the degree of Bachelor of Horticultural Science based on my own original works.

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ABSTRACT

The paddy and rice sector has been a strategic sector and always getting a special management by the government of Malaysia. Furthermore, rice is the staple food for all people in Malaysia's with the total population was estimated at 31.7 million persons. Hence, the government took an action to build new granary areas by upgrading the existing granary in Malaysia; which are IADA Rompin, IADA Pekan, IADA Kota Belud and IADA Batang Lupar. The objectives for this study are to investigate the level of personality traits and work performances of potential paddy farmers; to determine the relationship between personality traits and work performances of potential paddy farmers; and to identify the personality traits that most influences affect the working performances. The study was conducted in one of the new granary areas which are IADA Rompin, Pahang. The total respondents involved are 158 from 1103 paddy farmers in Paya Setajam and Paya Sepayang which using the stratified selection for respondents. The data was collected using a surveying method with the instrument of questionnaire which comprised of 4 sections. All the data analyzed using software of Statistical Package for the Social Sciences version 23 (SPSS 23) for analysis of descriptive, correlation coefficient and linear regression. Result indicated that the level of personality traits and work performances of potential paddy farmers was at the moderate levels. Well-disciplines and ability for solving a problems are highly significant towards work performances. However, all the personality traits shows a positive a relationship towards work performances and the strongest influences personality traits to the performances of potential paddy farmers was well-disciplines.

ABSTRAK

Sektor padi dan beras adalah merupakan sektor yang strategik dan mendapat pengurusan yang istimewa daripada pihak kerajaan Malaysia. Tambahan pula, nasi adalah makanan rugi bagi semua rakyat Malaysia dengan dianggarkan jumlah populasi penduduk ialah 31.7 juta orang. Oleh itu, pihak kerajaan telah mengambil langkah membina jelapang padi baharu dengan menaik taraf jelapang padi yang sedia ada di Malaysia; iaitu IADA Rompin, IADA Pekan, IADA Kota Belud, dan IADA Batang Lupar, Objektif kajian ini adalah untuk menentukan tahap ciri-ciri personaliti dan pesawah padi yang berpotensi; untuk menentukan perkaitan ciri-ciri personaliti dan pesawah padi yang berpotensi dan untuk mengenal pasti ciri-ciri personaliti paling mempengaruhi prestasi kerja. Kajian ini telah dijalankan di salah satu jelapang padi baharu iaitu IADA Rompin Pahang. Jumlah responden yang terlibat adalah 158 orang daripada jumlah keseluruhan 1103 orang pesawah padi di Paya Setajam dan Paya Sepayang iaitu menggunakan pemilihan secara rawak bagi responden. Data yang telah dikumpul menggunakan kaedah kaji selidik dan borang soal selidik sebagai instrumen yang digunakan terbahagi kepada 4 bahagian. Semua data yang telah dianalisis adalah melalui perisian 'Statistical Package for the Social Sciences' versi 23 (SPSS 23) untuk menganalisis deskriptif, korelasi dan regrasi. Hasil kajian menunjukkan tahap ciri-ciri personaliti dan prestasi kerja pesawah padi yang berpotensi adalah sederhana. Berdisiplin dan kemampuan menyelesaikan masalah adalah signifikan yang tertinggi terhadap prestasi kerja. Walau bagaimanapun, kesemua ciri personaliti juga menunjukkan perkaitan yang positif terhadap prestasi kerja dan ciri-ciri personaliti yang paling mempengaruhi prestasi kerja pesawah yang berpotensi adalah berdisiplin.

TABLE OF CONTENTS

CONTENT	PAGES
CERTIFICATION	I
ACKNOWLEDGEMENT	II
ABSTRACT	III
ABSTRAK	IV
TABLE OF CONTENT	V
LIST OF TABLE	IX
LIST OF FIGURE	XI
CHAPTER	
1 INTRODUCTION	
1.0 Introduction	1
1.1 Agriculture and Paddy Farming Sector in Malaysia	1
1.2 Personality Traits	2
1.3 Performances	3
1.4 Potential Paddy Farmers	4
1.5 Relationship between Personality Traits and Performance of Potential Paddy Farmers in IADA Rompin	5
1.6 IADA Rompin Pahang	5
1.7 Problem Statements	7

1.8 Objectives	10
1.8.1 General Objectives	10
1.8.2 Specific Objectives	10
1.9 Definition of Terminology	10
i. Personality Traits	10
ii. Performances	11
iii Potential Paddy Farmers	11
2 LITERATURE REVIEW	
2.0 Introduction	12
2.1 Model and Theory Related to Personality Traits	12
2.2 Analysis Personality Traits by The Previous Study	15
2.3 The Research Framework	18
3 METHODOLOGY	
3.0 Introduction	23
3.1 Location of Study	23
3.2 Respondent Selections	26
3.3 Research Design	27
3.3.1 Quantitative Analysis	27
3.3.2 Surveying Method	27
3.3.3 Data Collection	29

3.3.4 Data Analysis Techniques	29
i. Descriptive Analysis	30
ii. Correlation Coefficient Analysis	30
iii. Linear Regression Analysis	31
4 RESULT AND DISCUSSION	
4.0 Introduction	32
4.1 Respondent's Demographic Profile	32
4.1.1 Ages Range of Respondents	32
4.1.2 Education Levels	33
4.1.3 Work Focus	34
4.1.4 Year Started of Planting Paddy	35
4.2: Respondent's Farm Profile	36
4.2.1: Village	36
4.2.2: Yield Performances	36
4.2.3: Paddy Varieties	37
4.2.4: The Purpose of Production	38
4.2.5: Land Ownerships	39
4.3 The Personality Traits of Potential Paddy Farmers	39
4.3.1: Willingness to Face Risk	40
4.3.2: Information Seekers	42

4.3.3: Ability for Solving a Problem	44
4.3.4: Readiness to Use Own Capital	46
4.3.5: Ability to Make a Decisions	48
4.3.6: Information Networks	50
4.3.7: Well-Disciplines	52
4.4: Performances of Potential Paddy Farmers	54
4.5: Result of Correlation Coefficient and Linear Regression Analysis	56
4.5.1: The Relationship between Personality Traits and Performances of Potential Paddy Farmers	56
4.5.2 Estimate Coefficient for Respondent's Performance Model	57
5 CONCLUSION	
5.0 Introduction	60
5.1 Summary and Conclusion	60
5.2 Recommendations	64
5.3 Limitation of Study	65
REFERENCES	66
APPENDIX	71

LIST OF TABLE

Table	Title of Table	Pages
1.	Table 1.1: Hectarage of Harvested Areas, Average Yield and Production of IADA Rompin, 2014	6
2.	Table 1.2: The Target Paddy Production of IADA Rompin	6
3.	Table 1.3: Hectarage of Planted and Harvested Areas, Average Yield and Production by Granary Area, Peninsular Malaysia, 2014	9
4.	Table 3.1: Block, Lot and Areas of Paya Sepayang	24
5.	Table 3.2: Block, Lot and Areas of Paya Setajam	25
6.	Table 3.3: Respondent's Location	26
7.	Table 3.4: Reliability Test for Likert-scale Questions	28
8.	Table 3.5: The Structures of Questionnaire Form	29
9.	Table 3.6 : Rule of Thumb for Interpreting Size of Correlation Coefficient	31
10.	Table 4.1: Ages Range of Respondents	33
11.	Table 4.2: Education Levels	34
12.	Table 4.3 : Work Focus	34
13.	Table 4.4 : Year Started of Planting Paddy	35
14.	Table 4.5 : Village	36
15.	Table 4.6: Yield Performances	37
16.	Table 4.7: Paddy Varieties	38
17.	Table 4.8: The Purpose of Production	38
18.	Table 4.9: Land Ownerships	39
19.	Table 4.10 (a): Willingness to Face Risk	40
20.	Table 4.10 (b): Detail Construct of Willingness to Face Risk	41
21.	Table 4.11 (a): Information Seekers	42
22.	Table 4.11 (b): Detail Construct of Information Seekers	43
23.	Table 4.12 (a): Ability for Solving a Problem	44
24.	Table 4.12 (b): Detail Construct of Ability for Solving a Problem	45

25.	Table 4.13 (a): Readiness to Use Own Capital	46
26.	Table 4.13 (b): Detail Construct of Readiness to Use Own Capital	47
27.	Table 4.14 (a): Ability to Make a Decisions	48
28.	Table 4.14 (b): Detail Construct of Ability to Make a Decisions	49
29.	Table 4.15 (a): Information Networks	50
30.	Table 4.15 (b): Detail Construct of Information Networks	51
31.	Table 4.16 (a): Well-Disciplines	52
32.	Table 4.16 (b): Detail Construct of Well-Disciplines	53
33.	Table 4.17 (a): Performances of Potential Paddy Farmers	54
34.	Table 4.17 (b): Detail Construct of Performances of Potential Paddy Farmers	55
35.	Table 4.18: The Relationship between Personality Traits and Performances of Farmers in IADA Rompin Pahang	56
36.	Table 4.19: Estimate Coefficient for Respondent's Performance Model	58

LIST OF FIGURE

Figure	Title of Figure	Pages
1.	Figure 2.1: Iceberg Model (Spencer & Spencer, 1993)	14
2.	Figure 2.2: Research Framework of Personality Traits and Its Relationship between Work Performances for Potential Paddy Farmers in IADA Rompin, Pahang	18
3.	Figure 3.1: Map of Paya Sepayang Areas	24
4.	Figure 3.2: Map of Paya Setajam Areas	25

CHAPTER 1

INTRODUCTION

1.0 Introduction

Chapter 1 is the introduction of the study. This chapter covers about Agriculture and Paddy Farming Sector in Malaysia, Personality Traits, Performances, Potential Paddy Farmers, Relationship between Personality Traits and Performances of Potential Paddy Farmers, IADA Rompin Pahang, Problem Statements, Objectives and Definitions of Terminology.

1.1 Agriculture and Paddy Farming Sector in Malaysia

Agriculture acts as one of the important sectors in Malaysia's economic development. Since the era of British colonial government, agriculture has believed to be the important role of being the backbone and powerful force behind the success of Malaysian economy (Chong & Chuan, 1990). According to Tunku Mahmud (n.d), oil palm, rubber, cocoa and rice have been the major crops for private and governments sectors in Malaysia. Besides that, Department of Statistics Malaysia (2016) stated that agriculture sector becomes expand in 2015 which is with the contribution 8.9 percent to the Gross Domestic Product (GDP). The major contributor of agriculture sector for GDP was oil palm at 46.9 percent followed by other agriculture (17.7 %), livestock (10.7%), rubber (7.2%) and forestry and logging (6.9%) in 2015. In addition, the production of paddy has increased by 473 thousand tons (16.6%) in 2015 compared to the previous year.

The paddy and rice sector has been a strategic sector and always getting a special management by the government of Malaysia. The government awareness towards rice industry started even before independence in 1957 which are the establishment of Rice Commission 1933, the Federation of Malayan Rice Committee 1966 and others various policy (Nazaruddin, 2012). Federal Agricultural Marketing Authority (FAMA) also was established in 1965 with the function for marketing rice and others agriculture commodities (Ray, 2016). Followed by the establishment of National Paddy and Rice Board (NPRB) on 1971 which took over FAMA's function in marketing rice (Official Portal of Federal Agricultural Marketing Authority, 2017). Besides that, the government needed to maintain a production of rice since rice as a staple food for whole Malaysian population. Hence, Zaim Fahmi et al. (2013) stated that the government was privatized The National Paddy and Rice Board (NPRB) on 1996 which then change the name to Beras Nasional Berhad (BERNAS). The functions of BERNAS as agencies in food grain management, rice institutions and also supporting the national food security of Malaysia (Salman, 2013).

1.2 Personality Traits

Personality is psychological traits, mechanisms within the people that are organized and relatively consistency and also affects their interactions and social life (Larsen & Buss, 2005) Personality traits are referred to the combinations of qualities of a person towards their behaviour, emotion and thinking (American Psychological Association, 2017).

According to Diener and Lucas (2017), whose are the professor of University of Utah, University of Virginia, Michigan State University and also with the backgrounds of psychology; there are three criteria to differentiate personal characteristics (1) consistency, (2) stability and (3) individual differences. People should have the consistent behaviour toward any kind of situations such as being punctuality both at home and also workplaces. Same goes for stability which is the behaviour of punctuality at age 25 and tends to be punctuality also at age 35. Besides, people were also different from each other on behaviour which related to the trait. Even though, sometimes there might be same among people but it could be differentiated towards their frequent and active in that behaviour and thus the personality traits such as disciplines. In brief, people tend to consistent, stable and differences in their behaviour related to their characteristic. Traits can be explained the causes for the behaviour of the person (Kressel & Uleman, 2009) and generally believed that traits directly will influence the behaviour of someone (Matthews, Deary & Whiteman, 2003).

1.3 Performances

Performances can be defined as an action that could be measured and the production of importance result when something well (Campbell et al., 1993). However, the core concept of the job and organizational psychology was an individual performance and it is very important for judging individual (Sonnentag & Frese, 2001). Furthermore, the result of performance appeared by judgemental and assessing methods (Ilgen & Schneider, 1991).

Although a performance is one of the major to evaluate the workers, it is not the only requirements for developments of career and success in employment markets (Sonnentag & Frese, 2001). According to Anthony (1965), the definition of performances can be differentiated into two main elements which is efficiency and effectiveness. Efficiency refers to great results between inputs and outputs in given time while effectiveness are the performance by which the achievements with various planning was successful. Reynaud (2003) also stated that generally, the performances are the combinations of economic performances, social performances and environmental performances, especially for sustainable strategies. That is why the performance not always been stable for their efficiency and effectiveness of productivity.

1.4 Potential Paddy Farmers

The potential paddy farmers were chosen for this study because they were contributed about 68% compared to others and also people that have high influences on the performance; in the diffusion of innovation theory especially for their field and business (Rogers, 1995). Moreover, Rogers also mentioned that majority groups have a threshold, in which, each of potential adopters or paddy farmer's views toward their friend before decided on the possibility to adopt based on technologies they are using. Hence, it makes them be successful compared to others group or farmers.

1.5 Relationship between Personality Traits and Performances of Potential Paddy Farmers

The study will find that there are positive or negative relationships between personalities of the potential paddy farmers in IADA Rompin. Even though, the strength of the relationship is different from each other. The personality traits of farmers will directly affect the performance of yield management and productions. For example, the farmers those have good ability to solve their problems toward their field will effort to find a solution quickly because worry it will give impact to their yield along the production of the year. Besides that, the traits of potential paddy farmers also directly influence their behaviour. If these farmers have the willing for taking a risk, their behaviour will face any type of the risk coming such as pest infestation, disease outbreaks and water shortage by keep continue to run the project and business.

1.6 IADA Rompin, Pahang

Integrated Agriculture Development Authority (IADA) Rompin Pahang was established on 2014 and according to Bernama (2015), during giving the pesticides incentives to 394 farmers of Paya Setajam at Tanjung Gemok Pahang that Rompin was the future of new granary areas in Malaysia with an area of 5 378 hectares. The government was applying for the funding about RM 151.1 million in The Eleventh Malaysia Plan and also allocated for upgrading the irrigation infrastructures of Paya Setajam with RM30 million and RM5 million for Paya Sepayang areas. Total farmers in Rompin areas is 1 638.

According to Paddy Statistics Malaysia (2014) on Table 1.1, the average yield produced by IADA Rompin Pahang was only 3.442 metric tons per hectare for 2014 which is the second lowest after IADA Pekan Pahang. However, Table 1.2 shows that the target of paddy production by Ministry of Agriculture & Agro-based Industry from 2015 until 2020 which increase with 5 to 6.5 metric tons per hectares. Hence, IADA Rompin needs to increase their paddy production by 5 years starting from 2015 until reaching the target by the ministry.

Table 1.1: Hectarage of Harvested Areas, Average Yield and Production of IADA Rompin, 2014

Granary Areas	Harvested Areas		Average Yield	Productions
	Hectares	%	Metric tons	Rice Metric tons
1. IADA Rompin	5,065	99.31	3.442	11,411

(Paddy Statistics of Malaysia, 2014)

Table 1.2: The Target Paddy Production of IADA Rompin

	TARGET OF IADA ROMPIN			
	2017	2018	2019	2020
Paddy productions (metric tons)	35,040	35,040	37,960	37,960
Productivity (metric tons per hectare)	6.0	6.0	6.5	6.5

(Ministry of Agriculture & Agro-based Industry, 2015)

1.7 Problem Statements

Rice is the staple food for all people in Malaysia's with the total population was estimated at 31.7 million persons (Department of Statistics Malaysia Official Website, 2016). Even though, current self-sufficiency level of rice in Malaysia is only about 71.5 % and imported the remaining 800, 000 metric tons of rice (Malaysian Agricultural Research and Development Institute, 2017). Moreover, Malaysian people had taken rice with the estimated 0.2 kilograms per day or 78 kilograms per year (Ministry of Domestic Trade Cooperative and Consumerism, 2015). The demanding for rice was significantly increased when the population was increased. Due to this condition, the demanding for rice industry has obtained the exclusive services by the government by giving several of allocation and others aids to majority farmers (Rosnani, 2015). Hence, the government took an action to build new granary areas which are IADA Rompin (Pahang), IADA Pekan (Pahang), IADA Kota Belud (Sabah) and IADA Batang Lupar (Sarawak). This is because to accommodate the increasing demanding for rice in Malaysia and also achieve the target for yield production of 10 metric ton per hectare.

Even though, the number of existing granary areas in Malaysia was eight; which is act as the main rice production for the country and also with large irrigation scheme which is more than 4 000 hectare (Paddy Statistics of Malaysia, 2014). Moreover, all of these granaries have a good irrigation system and efficient management of great performance production of rice. However, the productivity performance of rice yield still limited and does not reach the targets which are 10 metric tons/ha.

The reason of targeting 10 metric tons per hectares of rice yield because Malaysian Agricultural Research and Development Institute have successes for achieved the potential rice yield on 2002 towards their projects. The reason yield productions of paddy decrease because the ability of the extension agents in the usage of paddy crops technologies such as irrigation system and also the competency of farmers to accept and use those technologies. The level of acceptance the technology was influenced by the personality trait of farmers. Hence, the study of personality traits should be carried out.

Table 1.3 showed that, the average yield achieved for eight granary areas throughout 2014 only about 5.07 metric tons per year which are achieved about 50.7% of 10 metric tons per hectare. Malaysia has a quite low production of rice although, after ten years, it is still with low advances in technology compared to others main producer such as Indonesia, Vietnam, Thailand and Myanmar. According to Department of Statistical Malaysia (2016), Malaysia took at the 8th place for paddy production in Asian Countries with 2 674.4 tones.

Table 1.3: Hectarage of Planted and Harvested Areas, Average Yield and Production by Granary Area, Peninsular Malaysia, 2014

Granary Areas	Planted Areas		Harvested Areas		Average Yield	Productions
	Hectares	%	Hectares	%	Metric tons	Rice Metric tons
MADA	190 127	48.8	190 127	100	5.539	684 525
KADA	50 268	12.91	50 268	100	4.297	140 400
IADA Kerian Sg Manik	41 944	10.77	41 944	100	4.514	123 081
IADA Barat Laut Selangor	37 842	9.71	37 842	100	6.403	157 508
IADA Pulau Pinang	25 564	6.56	25 564	100	5.872	97 573
IADA Seberang Perak	27 594	7.08	27 496	99.64	4.484	80 426
IADA Ketara	9 752	2.50	9 752	100	5.738	36 371
IADA Kemasin Semerak	6 512	1.67	6 483	99.55	3.715	15 726
TOTAL	389 603	100	389 476	99.90	5.07025	1 335 610

(Paddy Statistics of Malaysia, 2014)

Besides that, the granary areas will not have the same size after several years. This may due the use of land for development such as residential areas. This can be proven with the destruction of Muda Agricultural Development Authority (MADA) granary areas where about 2 500 hectares from 98 500 hectares of total paddy field areas was developed into housing areas, schools and hospitals. Since the land areas of MADA was larger, thus it was used for development because of the increase of the population in Alor Setar or other city areas. This gave the bad impacts to rice productions especially in MADA and reduce the cultivation of paddy field.

1.8 Objectives

1.8.1 General Objective

This thesis aim to investigate work performances of potential paddy farmers in IADA Rompin, Pahang in relation to individuals' personality traits.

1.8.2 Specific Objectives

The specific objectives of this study are:

- a) To investigate the level of personality traits of potential paddy farmers and working performances in IADA Rompin, Pahang.
- b) To determine the relationship between personality traits and performances of potential paddy farmers in IADA Rompin, Pahang.
- c) To identify the personality traits that most influences affect the working performances in IADA Rompin, Pahang.

1.9 Definition of Terminology

i. Personality Traits

The personality traits for this study are the individual characteristics of the potential paddy farmers which can affect their whole life and also with any kind of the situations including behaviour, emotion and thinking styles. There are seven personality traits such as the willingness for taking a risk, information seekers, ability for solving a

problem, readiness to use own capital, ability to make a decisions, wide information networks and well-disciplines (Salim, 2015).

ii. Performances

The work performances of potential paddy of farmers for this study are the presentation of the individual potential paddy farmers especially related to the field such as the problem solving and yield production per year. The performances from time to time could be more increasing or reducing due to the reaction towards the personality traits. For example, if farmers have the ability to solve the problem toward their field, they were an effort to find solutions for their problem fast, efficient and effective ways.

iii. Potential Paddy Farmers

According Rogers (1995), potential paddy farmers can be defined as a group of people that have the highest influence on the performances of yield with the highest percentage of 68% compared to other groups. The chosen of this farmers will become encouraged and support the others farmers which still not achieve the targeted yield to make it become reality for the next year. Hence, the potential paddy farmers become the highest contributions achieved the targeted 10 metric tons/hectare per year rather than others farmers. In brief, the potential paddy farmers that have the high value of personality traits will show the high performance, especially towards the yield productions.

REFERENCES

- Adams, R. B. & Mehran, H. (2003). Board structure and banking firm performance and the bank holding company organizational form, Working Papers of Federal Reserve Bank of Chicago, 408-422.
- Campbell, J. P., McCloy, R. A., Oppler, S. H., & Sager, C. E. (1993). A theory of performance, Personnel selection in organizations, San Francisco: Jossey-Bass, pp. 45–55.
- Chae, S. H., Kim, Y. D. & Lim, H. J. (2014). Analysis of the association between competence and performance-focusing on farmers and extension workers, *American Journal of Agricultural and Biological Science*, 9, 101-108.
- Diener, E. & Lucas, R. E. (2017). Personality traits, Noba textbook series: Psychology, DEF publishers.
- Green, P. C. (1999). Building Robust Competencies: Linking Human Resource Systems to Organizational Strategies. San Francisco: Jossey-Bass.
- Hernaus, T. & Mikulic, J. (2014), Work characteristics and work performance of knowledge workers. *Euromed Journal of Business*, 9(3), 268-292.

- Kim, Y. D., Kim, S. G., Kim, H. M. & Chae, S. H. (2013). An impact analysis of farmer's individual competency on agricultural organization's performance. *J. Agri. Extens Community Development*, 20: 143-172.
- Kritharan, A. (2014). Differences in characteristics of paddy farmer in Selangor Northwest IADA, pp: 1-86.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities, *Educational and Psychological Measurement*, 38(1), pp: 607-610.
- Larsen, R. J., & Buss, D. M. (2005). Personality psychology: Domains of knowledge about humannature, New York: McGraw Hill, vol. 2.
- Medlin, B.D. (2001). The factors that may influence a faculty member's decision to adopt electronic technologies in instruction , Doctoral dissertation, Virginia Polytechnic Institute and State University, ProQuest Digital Dissertations.
- Motowidlo, S. J., Borman, W. C., & Schmit, M. J. (1997). A theory of individual differences in task and contextual performance, *Human Performance*, vol. 10, 71-83.
- Muhammad Uzair, A. (2013). Perubahan corak guna tanah sawah padi di negeri Kedah, *Keluasan Tanah yang ditukar Syarat Mengikut Jelapang Padi di Kawasan MADA*, Fakulti Geoinformasi & Harta Tanah University Teknologi Malaysia, pp: 4-5.

Nazarudin, A. (2012). Paddy and rice policy transformational: a historical policy analysis, *International Cooperation Policy*, pp: 6-19.

Newman, L. S., & Uleman, J. S. (1993). Behavior identification and dispositional inference in person memory, attribution and social judgment, *Personality and Social Psychology Bulletin*, 19(5), 513–525.

Norazmiera, W. M. (2015). Characteristics of majority paddy farmers in Sawah Sempadan, IADA Barat Laut Selangor, Malaysia Faculty of Agriculture.

Paddy Statistics of Malaysia (2014). Department of Agriculture Peninsular Malaysia.

Paddy Statistics of Malaysia (2016). Department of Agriculture Peninsular Malaysia.

Parisot, A.H. (1995). Technology and teaching: The adoption and diffusion of technological innovations by a community college, Faculty Doctoral dissertation Montana State University, ProQuest Digital Dissertations.

Rachdi, H. & Ben Ameer, I. G. (2011). Board characteristics, performance and risk taking behavior in Tunisian Bank, *International Journal of Business and Management*, 6(6), 88-97.

Ray, N. (2016). Business infrastructure for sustainability in developing economies, *Benefit of one baja fertilizer for attaining agricultural sustainability*, IGI Global, pp: 143-146.

Rogers, E. M. (1995). *Diffusion of Innovations*. The Free Press New York,
Canadian Journals of Nursing Informatics, vol.6, no. 2.

Roslan, N. A., Abdullah, A. M., Ismail, M. M. & Radam, A. (2012). Determining risk attitudes of paddy farmers in KETARA granary, Malaysia, *International Journal of Social Science and Humanity*, 2(3), pp: 225-231.

Salim, H. (2015). Personality traits for the majority of paddy farmers in MADA Kedah, Malaysia Faculty of Agriculture, 2(1), pp: 146-151.

Salim, H. & Syarafina, S. N. A. (2015). Personality traits for the majority of paddy farmers MADA Kedah, Malaysia Faculty of Agriculture, *J. Agric. Life Sci.*, vol. 2, no. 1, pp: 146-151.

Sarita, S. K. S. (2016). Relationship between personality traits and work performance among potential paddy farmers in Malaysian granary areas, Malaysia Faculty of Agriculture, vol. 1, pp: 33-62.

Schmitt, E., & Borman, W. C., (nd). *Personnel selection in organizations*, San Francisco: Jossey-Bass, pp. 35–70.

Spencer, & Spencer, M. (1993). *Competence at work: Models for superior performance*, N.Y.: John Wiley & Sons.

Unchasa (2015). Information behaviors in value adding of farmers' production and marketing in Thailand. *New Library World*, 116(3/4), pp: 227-242.

Van Scotter, J., Motowidlo, S. J., & Cross, T. C. (2000). Effects of task performance and contextual performance on systemic rewards. *Journal of Applied Psychology*, vol. 85, pp: 526–535.

