ETHNICITY, ACCOUNTING RECORD AND THE PRODUCTIVITY OF MALAYSIAN PADDY FARMERS

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ABSTRACT

The study examines the accounting record practices for in Kedah and Perlis. The results found that different ethnicity demonstrates different point of view about the practicing of accounting record among farmers. The findings expose that paddy is still the product of instinct not of intelligence. Farmers are far unaware a potential progression of accounting to paddy. Further analysis focuses on activities in paddy paddock preparation, paddy seeds plantation, paddy growing and caring, paddy harvesting time and paddy delivery. Fixed assets, subsidies, incomes, rents, operations and wages costs are scrutinized. The study suggests that efforts must be made to keep the three costs for wages, rents and operations to a minimum.

Keywords: paddy, bookkeeping, productivity, Malaysia

INTRODUCTION

In tropical countries such as Malaysia, rice is one of the major staple foods and the paddy rice fields' account for more than 20% of food crops. Agriculture remains an important sector of Malaysia's economy, contributing 12 per cent to the national GDP and produces 2.645 million tonnes per year (Department od Statistics, 2014). Rice production is particlularly involves stages from cultivation to harvesting the paddy and being the consumables rice.

In a recent article, Masso and Man (2016) respond rice production in Malaysia is still at insufficient level, often involves traditional farming and the work force is limited in skill and expertise. In paddy literature, there are a lot of discussions about changing technique to improve production. These include machine-scheduling for rice production (Deris and Ohta, 1990), irrigation scheme (Johnson, 2000; Alam et al., 2012) and the introduction of varieties of rices in the market such as MR 219, MR 220, and MR 253 (Azman at al., 2014; Oladosu et al., 2014).

The current study aims to investigate accounting record and link with the production outcome of paddy farmers. In this paper, we discuss this productivity issue on paddy from a particular enquiry on the practices of accounting record based on ethnic categories. In particular, we seek to understand whether accounting record could help to throw light on our paddy processes and the formula how to achieve a more productivity paddy farmer society in this population-based multi ethnic country. This investigation is expected to introduce on the practical level of accounting record in paddy field lead to find responses could accounting record become a source of productivity for paddy farmers and thus improving their income.

The paper is outlined in the remaining six main sections. The following section informs the scope of the research. The details a demographic data for respondent farmers is presented. This includes all the three main ethnic groups; Malays, Chinese and Indians. The second section provides an exploratory analysis of farmers' application on accounting record from the case research. It discusses the relationship between accounting record and paddy productivity. The third section advances the discussion with issues and challenges faced by the farmers. The final section ends with the conclusions and the contribution of the paper to accounting in paddy cultivation literature.

RESEARCH SCOPE

This study examines Kedah and Perlis as these two were the earliest paddy cultivation in Malaysia. Kedah is the largest state by land area and 8th most populated state in Malaysia, with total land area of 9,425 km2 and a population of 2.10 million in 2015[1]. As the "rice bowl" of Malaysia (Liu, 2006; Almayahi et al., 2012), Kedah is accounted for one third of Malaysia's total

[1] 2012 - 2015: Population Estimates based on the adjusted Population and Housing Census of Malaysia 2010, Department of Statistics Malaysia, 2016.

production of rice, and known to contain the inheritance of the biggest small-scale paddy cultivation systems in Malaysia. Perlis has a population of 0.25 million and land area 795 km2 in 2015[2]. During 59 years after independence in 1957, the Perlis State Government embarked on numerous ambitious and imaginative development programmes in order to hasten the development of the state. The largest sector of the economy is agriculture (58.9%), followed by services (26.2%), manufacturing (12.2%), construction (1.8%) and mining/quarrying (0.9%). Like Kedah, Perlis has potential in paddy sector (Perlis Strategic Development Plan, 2012-2030). In this study, the total of 300 farmers who are involved in paddy-based activity have been visited and interviewed, either commercially or for subsistence. In Kedah the number of respondent farmers is 120, whilst in Perlis 180.

Demographic Statistics

The person-farmer stratified by age is shown in Table 1. Totally, group 40's, 50's and 60's are the most preferred ages for paddy farming activities, whilst the middle 30 and the middle 70 are the beginning and the ending ages for this occupation.

Table 1. A summary of age groups of paddy farmers

Age	**Race**						
	Malay		**Chinese**		**Indian**		**Total**
	Kedah	**Perlis**	**Kedah**	**Perlis**	**Kedah**	**Perlis**	
30's	3	3	1	0	0	0	**7**
40's	35	31	5	2	0	0	**73**
50's	33	78	5	15	0	1	**132**
60's	26	36	2	7	0	0	**71**
70's	7	7	3	0	0	0	**17**
Total	**104**	**155**	**16**	**24**	**0**	**1**	**300**
Percent	**86.33%**		**13.33%**		**0.33%**		**100%**

As the number of ages shown, gender is seen to be a non-determining factor. All of them were found to consist of the male full-time farmers. This is not surprising since in terms of the world-view of paddy field, women have devoted to work at home, sharing responsibility for land and its paddy with their family. Another common feature of the paddy farmers that explains their business "as usual", as indicated in Table 1, is the fact that it is Malays who are the majority of the community of paddy farmers in Malaysia. This sounds very much related with the persistence of poverty amongst Malay households in the rural sector after several decades of policy attention in agricultural and non-agricultural activities (Shukor_Omar, 2006).

Traditional farmers have much to recommend their inheritors in terms of operation efficiency in their own way. Whilst technology is a vital ingredient in the ability to run the land smoothly, ability to engage mentally in the project is always the first. Education level therefore is secondary. Table 2 shows the number of children per-family and Table 3 shows that the highest level of education for them is the secondary school. It is physical energy not intellectual that is important to the farmers. Most farmers are exclusively having between 3 to 6 children – the common view of their endowment of the farm's life, which see children as their most desired blessings (Tan and Tey, 1994).

Table 2. Children of race groups of paddy farmers

No. of children in a family	**Race**						
	Malay		**Chinese**		**Indian**		**Total**
	Kedah	**Perlis**	**Kedah**	**Perlis**	**Kedah**	**Perlis**	
0	0	0	0	0	0	0	0
1	0	0	2	4	0	0	6
2	3	2	4	5	0	0	14
3	5	15	3	7	0	0	30
4	32	41	2	4	0	0	79
5	33	54	2	0	0	1	90
6	19	28	2	1	0	0	50
7	6	8	1	2	0	0	17
8	5	7	0	0	0	0	12
9	1	0	0	1	0	0	1
Total	**104**	**155**	**16**	**24**	**0**	**1**	**300**
	259		**40**		**1**		

[2] 2012 - 2015: Population Estimates based on the adjusted Population and Housing Census of Malaysia 2010, Department of Statistics Malaysia, 2016.

Table 3. Education level among paddy farmers

Education	Frequency	
	Kedah	Perlis
Primary School	57	50
Secondary school	63	130
Total	**120**	**180**

The above demographical data is used to assess the level of mastery and comprehension skill of the farmers. Based on the above characteristic of population, we suggest the study should be conducted with the recognition of the basic application of the accounting record which farmers can best understand. Basic accounting record should be seen as a way to avoid much more academic-like language to paddy farmers whose majority have just a basic education and are at the age of 50 and over.

Technically, we understand the extraordinary effort to handle fragmentary data that we received from the paddy farmers and we have decided to elaborate the accounts without any preconceived frameworks. Although, there is an accounting standard for agriculture but the standard is not complying with paddy cultivation. The MASB (Malaysian Accounting Standards Board) has approved the release MFRS (Malaysian Financial Reporting Standards) 141 for distribution to professional accounting bodies, regulator, users and other interested individuals and organizations for comments. MFRS 141 is identical with IAS 41 Agriculture, which was issued by the IASB (International Accounting Standards Board) on 22 February 2001 and effective for annual periods beginning on and after 1 January 2012. At the present time, the MASB has no solid standard in accordance with paddy cultivation systems.

ACCOUNTING RECORD AND THE PRODUCTIVITY

In our interview with them only 1 person each in Kedah and Perlis has heard about Malaysian Accounting Standard Board (MASB). They have no means of apprehending accounting inside their activities, presumably because only land, seeds, weeds, fertilizers, water pumping, paddy diseases and the like that appear to be acknowledged as the objective knowledge. This "experience" knowledge is necessarily imperfect and still for most generation of paddy farmers, the custom based standard of practices from their predecessors is of vital importance for references. Tables 4 and 5 exhibit an insight from our questions to the farmers on whether they record the information regarding incomes and expenses, and how frequently are they?

Table 4. Yearly "Income and Expenses" records among paddy farmers

Records	Race								
	Malay			Chinese			Indian		
	Kedah	Perlis	Percent	Kedah	Perlis	Percent	Kedah	Perlis	Percent
No	84	136	84.94%	12	22	85.00%	0	1	100.00%
Yes	20	19	15.06%	4	2	15.00%	0	0	0.00%
Total	**104**	**155**	100.00%	**16**	**24**	100.00%	**0**	**1**	100.00%

Table 5. Monthly "Income and Expenses" records among paddy farmers

Records	Race								
	Malay			Chinese			Indian		
	Kedah	Perlis	Percent	Kedah	Perlis	Percent	Kedah	Perlis	Percent
No	104	148	97.30%	14	13	67.50%	0	1	100.00%
Yes	0	7	2.70%	2	11	32.50%	0	0	0.00%
Total	**104**	**155**	100.00%	**16**	**24**	100.00%	**0**	**1**	100.00%

More than 80% Malay farmers admitted not to make any records for their paddy cultivation activities and these practices showed an increasing trend if periods of yearly and monthly were included. For Chinese farmers, the large percentage of not recording was obviously happened for yearly, but dropping to monthly which appeared to slice the figure into nearly half equally for "no" and "yes" recording in the end. This shows that Chinese farmers were consistently organized their farming activities (i.e. recoding from the monthly not yearly details) about their practical information. For Indian farmers, looking at the number of respondent, this sort of analysis was not sufficient anyhow.

From a business perspective and accounting practices, accounting record is always associated with sale or profit. This sort of reflection is important in the first step of preparing the other thorough analyses. Thus, each farmer was asked to record their sale figures in both sessions (Sale1 = 1st session; Sale2 = 2nd Session) and in both "Malaysia Ringgit (RM)" and "kilogram (kg)" unit of measurements. As shown in Table 6, in both states, Perlis farmers were shown to gain more sale than their Kedah's counterparts. The other conclusion can be derived is the mean for Chinese farmers in all variables outweighed Malays' although the number of observation was only 40 farmers. The maximum amount of Sale1RM and Sale2RM for Chinese in Perlis were RM55200 and RM46000 respectively while for Malays were only RM41400 and RM34500. This is interesting as we discovered previously that Chinese farmers were the ones who championed in recording the information regarding incomes and expenses. Without detailing what did they record, one respondent informed that he records using the "special book for paddy cultivation",

the other twelve using the "book" that they bought from shop or from their grandchildren's schoolbook, and the other six using "notes" only. Surely, these records have something to be related with their productivity of land and its activities.

Table 6. Summarize Sale1RM, Sale1kg, Sale2RM, and Sale2kg between farmers

State	Variables	Malay			
		Mean	Std. Dev.	Min	Max
Kedah Observation = 104	Sale1RM	10684.78	5272.994	3779.82	37798.2
	Sale1kg	9291.112	4585.212	3286.8	32868
	Sale2RM	11015.35	5139.548	3703.46	37034.6
	Sale2kg	9578.568	4469.172	3220.4	32204
Perlis Observation = 155	Sale1RM	12701.03	5954.992	4485	41400
	Sale1kg	10293.69	5032.164	3900	36000
	Sale2RM	11895.38	4999.534	5175	34500
	Sale2kg	10288.76	4369.77	4500	30000
State	**Variables**	**Chinese**			
		Mean	**Std. Dev.**	**Min**	**Max**
Kedah Observation = 16	Sale1RM	18171.48	7249.018	5670	27600
	Sale1kg	16528.79	6703.84	5400	24651
	Sale2RM	18852.32	7670.193	5670	27775.95
	Sale2kg	16593.86	6452.646	5400	24153
Perlis Observation = 24	Sale1RM	24454.76	14085.84	4830	55200
	Sale1kg	20018.5	11237.76	4200	48000
	Sale2RM	22487.26	11660.05	4600	46000
	Sale2kg	19686.75	10001.42	4000	40000
State	**Variables**	**Indian**			
		Mean	**Std. Dev.**	**Min**	**Max**
Perlis Observation = 1	Sale1RM	10800	-	10350	10350
	Sale1kg	9000	-	9000	9000
	Sale2RM	12240	-	11730	11730
	Sale2kg	10200	-	10200	10200

Notes: 1. Sale1RM and Sale2RM were counted plainly based on 1 kg = RM1.15 at 1000kg = 1 ton.
2. Sale1kg and sale2kg were after the standard moisture deduction of 170 kg for every ton.

ISSUES AND CHALLENGES

Most farmers are content that bookkeeping, or accounting recording, is too ideal for them and must therefore be associated with the highest demand on accounting information. They found it more convenient to define accounting information in a way they wish to maintain. Thus, not surprisingly, even until today accounting for paddy is still the product of instinct not of intelligence. Farmers are unaware what a specialized account for the paddy should be for them.

Table 7 contains items and activities for accounting record. From the interview, we finalised five activities in paddy cultivation. These include paddy paddock preparation, paddy seeds plantation, paddy growing and caring, paddy harvesting time and paddy delivery. Subsidies of paddy seeds, fertilizers, and chemical poisons are considered income to farmers, but expenses to government. These subsidies are not saleable thus fail to represent inventory (assets) for farmers. In Table 8 the subsidies' columns in paddy paddock preparation and paddy seeds plantation stages are ticked with wages column indicating that farmers required labours to sow the subsidised-seeds, and to apply the subsidised-fertilizers and subsidised-chemical poisons. Technically, in monetary form, this relationship of wages and subsidy items is one-sided view. Hence, the latter, not the former, is the most unrecorded items in farmers' accounting records.

Table 7 also shows that relung (land), four-wheel tractor, water pump, seed sowing fertilizer drilling machine, spray machine chemical poison, paddy harvesting machine and lorry are those asset items as they contribute, either directly or indirectly, to the flow of cash and cash equivalents to the farmers. If these items are not the assets, they are reported as non-owned or rent items. Since most land, equipment, machine and vehicle were bought long time ago, most farmers felt difficult to value these asset items with the present book value. As a result, many failed to record the owned-assets. On the contrary, the non-owner easily recorded the rent payments of the assets as their expenses.

Table 7. Items and activities for accounting record

Activities	Fixed Asset	Subsidies	Income	Rent	Operations	Wages
PADDY PADDOCK PREPARATION						
Relung* (land)	✓			✓		
Four-wheel tractor	✓			✓		
Fuel for machinery and vehicle					✓	
Fertilizer delivery					✓	
The burning of paddy straw						
The sowing of fertilizer		✓				✓
The cleaning of borders, drains, and water irrigation controlling systems						✓
The removing of weeds		✓				✓
The flattening of the ground						✓
The ploughing of the paddock						✓
PADDY SEEDS PLANTATION						
Paddy seeds					✓	
Water pump	✓			✓		
Fuel for water pump					✓	
Seed sowing fertilizer drilling machine	✓			✓		
The sowing of fertilizer		✓				✓
The sowing of seeds		✓				✓
Spray machine chemical poison	✓			✓		
The using of rat chemical poison		✓				✓
The planting of the grown seeds						✓
PADDY GROWING AND CARING						
The sowing of fertilizer						✓
The using of rat chemical poison						✓
Snail poison		✓			✓	
Rat poison		✓			✓	
Weed-removing chemical		✓			✓	
Fuel for Fertilizer sower machine					✓	
PADDY HARVESTING TIME						
Harvesting paddy						✓
Paddy harvesting machine	✓			✓		
PADDY RICE DELIVERY						
Selling paddy (ton)			✓			✓
Lorry	✓			✓		
TOTAL	**7**	**8**	**1**	**7**	**8**	**13**

Note: *1 relung = 0.71 acres = 0.28 hectares.

Overall, from the table, more than sixty per cent of the recordable items were found to consist of the payments of rents (7 items), operations (8 items) and wages (13 items). The total number of items for wages was the highest, nearly half of the total payment. This happens as all the activities in paddy paddock preparation, paddy seeds plantation, paddy growing and caring, paddy harvesting time and paddy delivery stages involve human labour. Paddy rice delivery stage is the only one that encompasses income to farmers when they sold the paddy. Though, to get sale, farmers sometimes needed labour to help them and this incurred payment of wages as well.

CONCLUSIONS AND LIMITATIONS OF THE STUDY

If organizations have a potential progression to accounting, so too must paddy farmers. The activities in initial paddy cultivation stages can observe what have actually occurred to farmers and can provide an interesting answer for accounting researchers with the capacity for planning, controlling and organizing activities. Although this paper may appear inconsistent with the accounting practices employed in the other industry particularly in terms of the recognition and valuation of revenues and expenses, and the presentation of recordable items, we must acknowledge that paddy farmers are far unaware what a specialized accounting record the paddy should have for them. The study of productivity of paddy farmers is generally characterized by a normative perspective that defines accounting information in such a way the farmers wish to maintain. When faced with an external economic challenge, farmers organize themselves with spontaneous habitual process which becomes instead an institutional one. The researcher's limited knowledge of paddy farming and the farmer's limited knowledge of accounting must be taken into consideration within this research findings.

The present findings contribute to the growing literature on accounting in paddy cultivation systems in several ways. Firstly, this paper discovers different practices and awareness of accounting record between ethnics. This sort of reflection is important in the

first step of preparing future thorough analyses involving strategies and experiences (for e.g. Valle et al., 2004). Secondly, productivity and accountability are central to accountants' records as it was said that a systematic double enty record became a display of a merchantile virtue (Poovey, 1998). This paper opens up the discussion with the view that accounting, as the oldest attached agriculture discipline (Elliott and Jacobson, 2002; Juchau, 2002; Hollister and Schultz, 2010), is always very relevant to paddy. The environments in which farmers operate give them no control and little influence on the prices received for their paddy production. The paramount area in which control can be exercised is the payments of rents, operations and labour wages. Finally, different kinds of agricultural activities entail different standards. For paddy, there are number of uniqueness applied by farmers that could not match up to these accounting treatments sufficiently. Basic accounting knowledge amongst paddy farmers hence opens the way to a fresh look for both IASB and MASB.

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