

Financial Literacy and Income Distribution of Rice Farmers



¹Preachy Mae D. Sanglay, ²Elaine Joy C. Apat, ³Julieta A. Sumague & ⁴Efren T. Tec

Abstract

This study evaluated the financial literacy and income management practices of rice farmers in the Philippines. The study employed descriptive quantitative research method with researcher-made questionnaire as the primary tool. Data were collected from purposively chosen rice farmers in San Pablo City. Statistical treatments such as mean and Pearson r correlation were utilized. Results showed that respondents' age, educational attainment, and monthly income have significant differences on their financial literacy as to attitude whereas gender, educational attainment, and monthly income differ significantly with financial literacy as to behavior. Age, gender, and monthly income differ significantly in income distribution as to family needs whereas age, gender, and educational attainment have significant differences in income distribution as to debt repayment. Financial literacy based on attitude and behavior; family needs have an inverse correlation. Debt repayment has a positive correlation to attitude and behaviors. Farmers spend less than what they earn and seldom save money. Older male farmers have high level of income distribution on basic family needs, paying debts, and financial matters as to attitude. Farmers who are low-income earners prioritize family needs and have positive attitude and behavior toward paying their debts. It was further revealed that there is a positive correlation between financial literacy as to attitude and behavior and income distribution as to family needs and debt repayment. It is recommended to provide knowledge, confidence, and skills for these farmers to manage money effectively and to make financial decisions that promote financial sufficiency, stability, and well-being of their family.

Keywords:

farmers, financial, financial literacy, income distribution, literacy, alternative program

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About the authors:

¹Corresponding author. Instructor I, Laguna State Polytechnic University- San Pablo City Campus

²Instructor I, Laguna State Polytechnic University- San Pablo City Campus

³Assistant Professor III, Laguna State Polytechnic University- San Pablo City Campus

⁴Part-Time Instructor, Laguna State Polytechnic University- San Pablo City Campus

1. Introduction

Income management has been one of the pressing challenges facing entrepreneurs and workers. Ideal entrepreneur and worker tend to balance income and personal affairs in the money management. Earnings are the fuel of day-to-day household and business expenditures of entrepreneurs. This implies proper allocation of income to different needs to satisfy the many uncertainties of an individual. The entity concept of accounting suggests the separation of enterprise and owners. Therefore, farmers should intelligently plan and employ strategic techniques at making money yield the highest value for any amount spent. However, real business gives a completely different picture. These farmers are primarily expecting to finance their household and farming needs from the earnings of their harvests.

Cash availability is the lifeblood of an organization. With it, assuming there is proper management and economical, efficient, and effective operations, the company can grow and prosper, without it the business perishes (Reider and Heyler, 2003). Even in individuals, it is indeed their lifeblood to survive. The ability of a farmer to obtain sufficient cash as an income to provide for their family will always be tested through some challenges of expenses, risks and unexpected emergencies in the family. For some, there are numerous sources of cash whereas for farmers the primary source of cash is their income from harvesting and small amount of sales from crops. In connection with this, financial literacy is undeniably imperative in the sustainability of income distribution.

Every farmer has to be continuously in the selling and buying goods to survive everyday situations. The process starts with a cash infusion, produces products or services for customers, sells and delivers the product or service, bills, collects payment, and adds the resulting cash to the business coffers. A successful business collects more cash from customers than it expends for providing and servicing its products and services. When the business ultimately liquidates, profit and cash are the same. Even if the company generates a profit, it must be concerned with managing its cash and minimizing the gap between cash outflow and cash inflow (Reider and Heyler, 2003). Proper management generates positive impact on the cash flow of the business.

Farmers face a different range of problems than their larger counter parts due to their inability to enjoy some of the same advantages in the marketplace, like paying them in a low price by purchasers. Most of these problems occur due to lack support, training and a moral boost. Knowledge of the financial problems faced by the farmers can mean the difference between moving forward or engaging to debt all over again. Many of the financial issues are

interrelated wherein successful business owners understand and try to avoid financial issues, but they also know how to repair the damage if problems occur (Amisano, 2005). The basic of sound financial management is the ability of an individual to allocate its income to fixed, working and growth expenditures. Furthermore, the separation of personal and business affairs should be established.

The objectives of this study were to evaluate the financial literacy and explore the capacity of the farmers of San Pablo City in distributing their income properly and provide broad knowledge about financial literacy and its impact in income distribution.

2. Literature review

Agriculture plays an important role in the country's economy. This is measured as the value added of the agricultural sector as percent of GDP. According to the World Bank data from 1960 to 2016, the average value for the Philippines during the period was 21.36% with a minimum of 9.65% in 2016 and a maximum of 31.06% in 1974. This shows a sad truth that the percent of GDP (value added) contributed from the agriculture sector continues to decrease. In the modern world, all the activities are concerned with the economic activities and very particular to earning profit through any venture. Increasing the profit is the main aim of any kind of economic activity. Thus, present day cash management plays a major role because it helps meet the short-term liquidity position of the concern. Each and every business concern must maintain adequate amount of finance for their smooth running (Paramasivan and Subramanian, 2010). However, a study conducted by the National Federation of Independent Business reported in 2008 revealed that the primary problem that business owners face is the cost of running the business. The inability to control some costs add stress to the business owner's bottom line. This concerns the management of income or profit. Iowa State University Extension and Outreach said that many farm families found difficulty in knowing how much to spend every day or each month to family living needs and crops expenses. Farm income can be both irregular and unpredictable. Although living standards on the farm have become more and more comparable to those of nonfarm families, there are some important differences in managing farm family finances.

Several notable studies revealed that financial management is the leading problem of many small and medium entrepreneurs. Financial issues like developing a savings plan,

paying off debt and balancing a check book have a major impact on one's ability to raise capital and make smart decisions about running a business. Unfortunately, too many entrepreneurs were never taught about basic financial literacy (Laney, 2013). Studies show that individuals who are not financially literate tend to borrow at higher interest rates (Moore, 2003). Raising funds through equity is little bit difficult because of lack of financial knowledge and also their financial corpus is also low, so loans are primary source of finance for them which proved to be a greatest obstacle in its growth and development (Saxena, 2012). One of the challenges faced by government is to convince lowly farmers to take risks on modern farming because they are used to conventional farming that usually result to poor harvest. Farmers are lacking of basic skills in farming. Many are not educated or can only read and write basic words and numbers. Second, good fertilizers, pesticides and seeds are imported from other countries, making them very expensive and unaffordable for lowly farmer. Third, the government has not developed a good infrastructure for farmers. Fourth, most of the farmers do not own the land they till. They cannot maximize the use of the land that results in low income. In addition to that, most farmers do not have extra income during the vegetative and growing phase of the rice. Fifth, farmers have difficulty in financing their farming endeavors high rates of borrowing institutions. And when harvest time arrives, the money from the sale is only enough to pay their debts and nothing is left for them. Sixth, farmers lack protection from the middlemen who take advantage of their weaknesses. The middleman buys their products at a very low cost.

During the Innovation Olympics 2018 held at 8 Waves Resorts in Bulacan last April, East-West Seeds Philippines general manager Henk Herman's said that farmers represent the second poorest sector in the country. This has resulted in the young people's disenchantment in pursuing a career in agriculture. He also noted that the average age of Filipino farmers is 57-59 years old and therefore there is a great need to encourage the youth to engage in crop production to ensure the country's food security. He also pointed out that farming practices are outdated and majority of the farmers are reluctant to use modern technology in farming, making their work labor intensive and unsustainable.

The Philippine Development Plan for 2017 – 2022 seeks to: expand economic opportunities for those who are engaged in agriculture; increase access to economic opportunities for small farmers. It was really a priority of the current government.

Empowering the natural resources that the Philippines have is such an easy and hard at the same time. Proper knowledge, strategies, contingency plans and trainings must be given to the farmers.

Nizar Matar from An-Najah National University commented in one forum of researchgate.com: “Many farmers in 3rd world countries, including our country, have basic [preliminary] education. They are oblivious of financial matters such as cost & profit analysis, increasing income by proper selection of crops, and application of optimum conditions that end up with successful marketing.

Because they are financially illiterate, many farmers passed through repeated cycles of losses. This moved them from the more productive farming jobs to the less productive "white-collar" jobs. It is the duty of educational institutions & agricultural departments to teach farmers what they need in financial awareness. Once, they know the "golden" value of the land & how to manage it, they will stick to it utilizing most of the potential that is present.” Dickson Adom added: “It is distressing to know that many farmers who have minimal or no formal education gain a lot from their proceeds yet, all of the financial gains drain away due to poor management of the gained financial resources. Financial literacy for these farmers would help them manage efficiently their finances, reducing their often-impoverished state, having enough start up and working capitals to reduce the seeking for financial loans with skyrocketed interests that takes away all the profit gained by these poor farmers! Lessons on Financial management with the illiterate farmers would be the greatest good we can offer to them, to relief their pain and put a smile on their always sad faces.”

Financial Literacy is a major contributor to the all the business sectors. The Webster dictionary defines financial literacy as "the set of skills and knowledge that allows an individual to make informed and effective decisions through their understanding of finances". Financial literacy is rapidly recognized as a core skill, essential for consumers operating in an increasingly complex financial environment. Financial Literacy is a prerequisite for farmers from all walks of life to manage their farming business, family expenses and give access to productive credit. Financial Literacy is vital element of farmer trainings in order to pave the way for increases in productivity, income and profitability, improved and sustainable livelihoods. It is therefore no surprise that governments around the

world are finding effective approaches to improve the level of financial literacy amongst their populations. (Atkinson & Messy, 2012).

According to Apat (2019) in her research entitled ‘Spend Analysis and Budget Stability of Employed Solo Parents in San Pablo City’, income of every individual varies in source as well as in amount. In general, an entity or an individual practically generate income through salary or wages; form of payment from an employer to an employee. Farmers face a different range of problems than their larger counter parts due to their inability to enjoy some of the same advantages in the marketplace, like paying them in a low price by purchasers. Most of these problems occur due to lack support, training and a moral boost. Knowledge of the financial problems faced by the farmers can mean the difference between moving forward or engaging to debt all over again.

A financially literate farmer can manage agricultural system. Financial literacy does not only mean making a profit and minimizing losses but equally save for future expenses too. Farmer’s situations are at times delicate, what becomes critical is to make a safe decision at the right moment. As a farmer you can sell your products at a loss so as to minimize losses. For one to do this it requires Financial literacy. Basic costing of farming activities and all inputs is critical. Farmers need to be able to cost their products properly and make economic decisions in their selling conduct as well. It simply means making the best out of every situation that you encounter in everyday business. Income distribution is definitely poor without Financial Literacy.

3. Methodology

This paper is a descriptive quantitative research. Descriptive quantitative was employed to collect quantifiable information through survey and correlate the data gathered using appropriate statistical treatment.

The study purposely selected the Barangays with rice fields, coordinated with the chairman and gave the 300 researcher-made questionnaires in Tagalog version for respondents’ easy comprehension. A barangay staff distributed the questionnaires and was able to retrieve 224 accomplished questionnaires. Most of the respondents or 175 out of 224

were males and most of them have 1 -2 dependents (54% of the respondents). Majority of the ages usually range from 39 – 59 years of age. 189 of the respondents out of the 224 are married while 79 of them were High school undergraduate and 56 were high school graduate. In the status of their work in the farm, majority of them with 71% are tenants. Rice farmers earns monthly in average below P 10,000 with 111 out of 224 of them followed by the P 10,000 – 30,000 with 72 rice farmer, respectively.

The main tool for gathering data was the researcher-made questionnaire anchored on the various literature, studies and theories cited in the study. The first part contains the demographic profile of the respondents whereas the second and third parts comprises the individual assessment on the financial literacy and attitudes and the income distribution. These are answerable in a 5-scale Likert type checklist.

The Pearson-r correlation was utilized to determine the correlation between financial literacy and income distribution of the farmers.

4. Findings and Discussion

Table 1

The rice farmers' attitude on financial literacy

| Indicators | Mean | Verbal Interpretation |
|---|-------------|-----------------------|
| Maintaining adequate financial records | 4.03 | Important |
| Spending less than your income | 4.79 | Very important |
| Planning/ Implementing savings program | 4.00 | Important |
| Planning/ Implementing investment program | 3.44 | Important |
| Maintaining adequate insurance coverage | 3.21 | Moderately Important |
| Overall mean | 3.90 | Important |

Legend: 1.0-1.80 (Not Important), 1.81-2.60 (Slightly Important), 2.61-3.40 (Moderately Important), 3.41-4.20 (Important), 4.21-5.0 (Very Important)

Table 1 shows the respondent's attitude on financial literacy. Spending less than their income got the highest mean of 4.79 with verbal interpretation of very important. Farmers in the Philippines spend less than they earn since they rarely have excess money and their earnings are mainly spent on essentials such as family needs. They do not usually have enough to spend on savings and insurance.

However, respondents were unsure with 3.44 and 3.21 means in planning and implementing investment program and maintaining adequate insurance coverage accordingly. Financial issues like developing a savings plan, paying off debt and balancing a check book have a major impact on one's ability to raise capital and make smart decisions about running a business. Unfortunately, too many entrepreneurs were never taught about basic financial literacy (Laney, 2013).

Table 2 depicts the mean distribution as to the financial attitude towards control in financial situation of the rice farmers. The highest mean of 4.45 describe those farmers' finances are a significant source of worry or hassle. Financial problems, like any other form of stress can have a significant impact on the quality of life of a farmer's family especially if their source of income is limited and came only from one source, farming. With limited budget and income that they have, the respondents were certain about to where their money is spent, with a mean of 3.72. Meanwhile, with a mean computation of 2.45, respondents were "undecided" of using future income to achieve financial goals.

Table 2

The rice farmers' financial attitude

| Indicators | Mean | Verbal Interpretation |
|--|-------------|-------------------------------|
| I feel in control of any financial situation | 3.68 | Agree |
| I feel capable of using my future income to achieve my financial goals | 2.45 | Neither Disagree nor Disagree |
| I am certain about where my money is spent | 3.72 | Agree |
| Purchasing things is very important to my happiness | 3.54 | Agree |
| My finances are a significant source of worry or hassle for me. | 4.45 | Strongly Agree |
| Overall Mean | 3.57 | Agree |

Legend: 1.0-1.80 (Strongly Disagree), 1.81-2.60 (Disagree), 2.61-3.40 (Neither Disagree nor Disagree), 3.41-4.20 (Agree), 4.21-5.0 (Strongly Agree)

Every farmer has to be continuously in the selling and buying goods to survive everyday situations. The process starts with a cash infusion, produces products or services for customers, sells and delivers the product or service, bills, collects payment, and adds the resulting cash to the business coffers. A successful business collects more cash from

customers than it expends for providing and servicing its products and services. When the business ultimately liquidates, profit and cash are the same. Even if an individual generates a profit, it must be concerned with managing its cash and minimizing the gap between cash outflow and cash inflow (Poonkulali Thangavelu, 2020). Proper management generates positive impact on the cash flow of the business.

As shown in table 3, the majority of the respondents work extra hours for extra income. In the Philippines, especially those small-time farmers residing in San Pablo City, tilling traditional crops like rice is impossible to earn a decent income. That is why they work extra hours for additional income. According to Adriano (2020), a farmer can earn a decent income from 1.5 hectares of land if he is cultivating high value crops like vegetables or cut flowers.

Table 3

The rice farmers' behavior on financial literacy

| Indicators | Mean | Verbal Interpretation |
|---|-------------|------------------------------|
| I budget and track spending | 2.98 | Sometimes |
| I compare my receipt of purchases to my monthly statements. | 2.35 | Seldom |
| I work extra hours for extra income | 3.71 | Often |
| I contribute to my savings regularly | 2.16 | Seldom |
| I compare prices before purchasing an item. | 3.08 | Sometimes |
| Overall Mean | 2.86 | Sometimes |

Legend: 1.0-1.80 (Never), 1.81-2.60 (Seldom), 2.61-3.40 (Sometimes), 3.41-4.20 (Often), 4.21-5.0 (Always)

Farmers tend to seldom contribute to their savings; they simply allocate their income to the urgent needs of the family rather than savings. Respondents also compare their receipts of purchases for monthly recording with the means distribution of 2.16 and 2.35, respectively. Most of the respondents tend to compare prices in between stores before purchasing an item. In the Study of Hussain Al-Salamin and Eman Al-Hassan (2016), in the short run the consumers are switching to the particular store which offers promotional prices. Majority of consumers usually prefers what is cheaper or has

promotions and discounts. Moreover, the consumers are switching to the brands which are engaged in promotional pricing frequently. Farmers unfortunately have less savings due to prioritization of expenses as to needs of family and business.

Table 4

The rice farmers' Income distribution

| Indicators | Over-all Mean | Verbal Interpretation |
|--|----------------------|------------------------------|
| Family Needs (Food, Schooling, Utilities, House Renovation/Security) | 3.92 | Important |
| Business Needs (Increase in capital and technology, emergency fund for business) | 3.84 | Important |
| Debt Repayment (Dept for personal, business, family and Savings Insurance (Personal, Family and Business)) | 3.55 | Important |
| | 3.40 | Important |

Legend: 1.0-1.80 (Not Important), 1.81-2.60 (Slightly Important), 2.61-3.40 (Moderately Important), 3.41-4.20 (Important), 4.21-5.0 (Very Important)

In table 4, the over-all mean of respondents' income distribution as to family needs, business needs, debt repayment and savings insurance are shown. Results revealed that the income contributes the most in family needs like food, schooling, utility bills and house renovation or security with the highest mean of 3.92. For a responsible Filipino provider, family needs come first. It is part of Filipino culture that the head of the family must tend to the family's need especially food.

Distribution to their business needs has a 3.84 over-all mean. Debt Repayment and Savings Insurance had means of 3.55 and 3.40, respectively. Farm income can be both irregular and unpredictable especially in an archipelago like the Philippines that is always struck by tropical depression or a typhoon. These often results to extensive damage to rice crops that may decrease output productivity, hence income loss. A limited income may affect the family's contribution to business needs, savings, or insurance as they may prioritize the family's needs. Although living standards on the farm have become more and more comparable to those of nonfarm families, there are some important differences in managing farm family finances.

Each and every business concern must maintain adequate amount of finance for them at peace of running the business. More so, in a hearing held February 2017 by State of the Small Business Economy in USA, revealed that the primary problem that business owners face is the cost of running the business. The inability to control some costs add stress to the business owner's bottom line. This concerns the management of income or profit. Iowa State University Extension and Outreach said that many farm families found difficulty in knowing how much to spend every day or each month to family living needs and crops expenses.

Table 5

Significant difference between Respondents Profile and Financial Literacy

| PROFILE OF THE RESPONDENTS | f-value | p-value | Interpretation |
|-----------------------------------|----------------|----------------|-----------------------|
| Age | 4.947 | 0.008 | Significant |
| Gender | 0.013 | 0.911 | Not Significant |
| Civil Status | 0.487 | 0.615 | Not Significant |
| Educational Attainment | 2.365 | 0.041 | Significant |
| Status of Work | 0.022 | 0.979 | Not Significant |
| Monthly Income | 3.212 | 0.024 | Significant |
| Number of Dependents | 2.486 | 0.061 | Not Significant |

Table 5 reflects that the profile of the respondents such as age, educational attainment and monthly income has significant difference on financial literacy with p-value of 0.008, 0.041, and 0.024, respectively. This also revealed that the middle and older respondents were aware as to what comes first in terms of their financial issues. This implies that middle age farmers are more financially literate than those young adults. In the study of Atkinson and Messy (2012), financial knowledge, skills, and awareness are highest among middle aged individuals relative to younger and older persons. As Mokhtar (2018) concludes that young people demonstrate poorer financial literacy. Poor financial literacy definitely contributed to negative consequences for the younger generation. They are easily subject to various financial problems such as bankruptcy, high indebtedness, and financial fraud.

On the other hand, demographics like gender, civil status, status of work and number of dependents appears to have no significant difference on financial literacy. The evaluation of financial literacy level therefore must be analyzed in order to strategize transformation steps and produce financially knowledgeable individuals. Financial education is therefore vital to protect young adults from the costly consequences of financial illiteracy (Altintas, 2011).

Table 6

Significant difference between Respondents' Profile and Financial Literacy as to Attitude

| ATTITUDE | | | |
|-----------------------------------|----------------|----------------|-----------------------|
| PROFILE OF THE RESPONDENTS | f-value | p-value | Interpretation |
| Age | 2.434 | 0.090 | Not Significant |
| Gender | 39.609 | < 0.001 | Significant |
| Civil Status | 0.941 | 0.392 | Not Significant |
| Educational Attainment | 2.279 | 0.048 | Significant |
| Status of Work | 0.072 | 0.931 | Not Significant |
| Monthly Income | 7.769 | < 0.001 | Significant |
| Number of Dependents | 1.996 | 0.149 | Not Significant |

Table 6 shows the significant difference of the respondents' demographic profile and financial literacy as to attitude. As a reference, p-values <0.5 are considered significant, whereas those values greater than 0.05 are otherwise. Results show that the respondent's age, civil status, work status, and the number of dependents appeared to be no significant differences to financial attitudes with having greater value than the significance level. On the other hand, essential aspects that differs the respondents' financial literacy as to attitudes are gender, educational attainment, and monthly income with a p-value of < 0.001, respectively.

The result in this table corresponds to the respondents' attitude as to what they strongly believe where their financial issues must be allotted. Those with lower income tends to be different about financial literacy. In the study of Atkinson and Messy (2012) found that there is a positive relation between income and financial literacy. Lower income level is associated with lower financial literacy level. This indicates why many farmers passed

through repeated cycles of losses, for these farmers fall to low-income category which significantly affect their financial attitude.

Several studies indeed suggest that gender may have a significant impact on financial attitudes. Chen and Volpe (2002) find that the gender factor is still statistically significant. Studies have shown that women are less knowledgeable about finance than men. Not only older men are generally more financially knowledgeable than older women, but similar patterns also are shown up among younger respondents as well (Lusardi & Mitchell, 2014). In addition, according to a study report of the OECD in 2012, a larger proportion of male than female respondents gained high scores in knowledge in Albania. Further, it appears that in almost all countries where the average level of knowledge was relatively high, female respondents were less knowledgeable than male respondents (Atkinson and Messy, 2012).

Table 7

Significant difference between Respondents Profile and Financial Literacy as to Behavior

| PROFILE OF THE RESPONDENTS | BEHAVIOR | | |
|----------------------------|----------|---------|-----------------|
| | f-value | p-value | Interpretation |
| Age | 1.366 | 0.257 | Not Significant |
| Gender | 220.303 | < 0.001 | Significant |
| Civil Status | 1.418 | 0.244 | Not Significant |
| Educational Attainment | 6.748 | < 0.001 | Significant |
| Status of Work | 4.825 | 0.009 | Significant |
| Monthly Income | 11.749 | < 0.001 | Significant |
| Number of Dependents | 1.747 | 0.158 | Not Significant |

Table 7 shows the significant difference between respondents' demographic profile between financial literacy as to their behaviors. Result revealed that financial literacy is indeed influenced by demographic profile such as gender, educational attainment, status of work and monthly income.

Gender is a demographic character that has been found to have a significant relation with the level of financial literacy. In contrast with study of (Hasler & Lusardi, 2017), globally, 35% of men are financially literate compared with 30% of women (Hasler & Lusardi, 2017). A similar study that contradicts the results from this study was conducted by

Atkinson and Messy (2012), and OECD (2013), results revealed that financial literacy level is generally lower in women than in men. Financial literacy level among men is increasingly faster than in women; however, women with higher incomes are more confident in their personal finance and have higher financial literacy level. In addition, women are pointed out as having greater difficulty than men in performing financial calculations, and they also do not master the primary financial concepts and have lower knowledge level, something which hinders making responsible financial decisions (Sekita, 2011).

Farmers' educational attainment and monthly income also appears to be had a significant impact in financial literacy. In a meta-analysis of 126 impact evaluation studies of Kaiser (2017), it is revealed that financial education significantly impacts financial behavior and, to an even larger extent, financial literacy. Thus, it is important for these farmers to have financial literacy education through seminars and trainings in order for them to learn how to allocate their income properly.

On the other hand, age, civil status, and number of dependents had no significant impact on financial literacy.

Table 8

Significant difference between Respondents Profile and Financial Literacy as to Income Distribution (Family Needs and Business Needs)

| PROFILE OF THE RESPONDENTS | Family Needs | | | Business Needs | | |
|----------------------------|--------------|---------|-----------------|----------------|---------|-----------------|
| | f-value | p-value | Interpretation | f-value | p-value | Interpretation |
| Age | 6.600 | 0.002 | Significant | 1.783 | 7.189 | Not Significant |
| Gender | 39.820 | <0.001 | Significant | 3.863 | 0.051 | Not Significant |
| Civil Status | 0.059 | 0.942 | Not Significant | 0.599 | 0.55 | Not Significant |
| Educational Attainment | 4.369 | <0.001 | Significant | 0.731 | 0.601 | Not Significant |
| Status of Work | 0.527 | 0.590 | Not Significant | 0.985 | 0.375 | Not Significant |
| Monthly Income | 0.661 | <0.001 | Significant | 0.625 | 0.599 | Not Significant |
| Number of Dependents | 0.685 | 0.013 | Significant | 0.633 | 0.051 | Not Significant |

Table 8 depicts the significant difference between respondent's profile and financial literacy to their income distribution (on family needs and business needs), or how they distribute their income to their different needs. For their family needs, their age, gender, and monthly payment and number of dependents showed to be the most significant aspects, garnering a p-value of 0.001. This was followed by the number of their dependents, which holds a p-value of 0.013. Meanwhile, none of the aspects showed a significant impact on their decision to distribute their income to their business needs.

As cited by Potrich, Vieira, and Kirch (2015) those having a child are less likely to show low financial literacy levels than those with two or three children. In addition, Mottola (2013) found that families with dependent individuals were more prone to show low financial literacy levels.

In general, when people lack financial knowledge, they are more likely to make poor financial decisions, leading to unmanaged debts that jeopardize the well-being of their relationships.

Table 9

Significant difference between Respondents' Profile and Financial Literacy as to Income Distribution (Debt Repayment and Savings to Insurance)

| PROFILE OF THE RESPONDENTS | Debt Repayment | | | Savings to Insurance | | |
|----------------------------|----------------|---------|-----------------|----------------------|---------|-----------------|
| | f-value | P-value | Interpretation | f-value | P-value | Interpretation |
| Age | 7.189 | <0.001 | Significant | 2.088 | 0.126 | Not Significant |
| Gender | 29.270 | <0.001 | Significant | 9.305 | 0.003 | Significant |
| Civil Status | 1.279 | 0.280 | Not Significant | 0.561 | 0.571 | Not Significant |
| Educational Attainment | 6.102 | <0.001 | Significant | 2.486 | 0.032 | Significant |
| Status of Work | 0.438 | 0.646 | Not Significant | 0.957 | 0.386 | Not Significant |
| Monthly Income | 4.574 | 0.004 | Significant | 0.715 | 0.544 | Not Significant |
| Number of Dependents | 2.662 | 0.049 | Significant | 2.782 | 0.042 | Significant |

Table 9 exhibits the significant differences of the respondents' profile and financial literacy to their income distribution for debt repayments and savings for insurance. What appears to be the most significant aspects in terms of debt repayment is their age, gender, and educational attainment, with a p-value of 0.001. This is followed by their monthly income and number of dependents, having a p-value of 0.004 and 0.049, respectively. In terms of saving up for their insurance, gender, educational attainment, and the number of dependents appeared to be the significant aspects. Amongst these aspects, their gender is the most influential, possessing a p-value of 0.003.

As to debt repayment, several studies revealed that women are more reliable than men (Santandreu, et. al, 2020). In addition, scholars established that women are more reliable than men when it comes to the repayment of loans in Bangladesh, specifying that 81% of women did not show problems of reimbursement, whilst only 71% of men did not present problems. In China, Armendariz de Aghion and Murdoch (2003) showed the results of several microfinance institutions with high percentages of women who presented percentages of reimbursement of their loans of close to 100% in some cases.

As to savings, this results from decisions about the relative value of present and future goods. The subjective rate of transformation over time may well be affected by the amount of education possessed. Since the more educated should expect relatively steeply rising earnings streams, the prospect of increasing comforts might lead them to value future goods less and hence to save less for any level of current income. On the other hand, since the more educated may be better able to realize the worth of future goods, they may save more. The growth in savings resulting from higher educational attainment would contribute to the growth of the income and wealth of the society.

Financial education can influence positive changes in behavior and attitudes toward money-related practices such as saving, spending, investing, and risk management (FINRA Investor Education Foundation, 2013; Fluellen, 2013). Understanding and knowledge of money matters affects not only sound financial decision making but also the individual's financial health and confidence (Norman, 2010).

Table 10*Correlation between Financial Literacy and Income Distribution*

| INCOME DISTRIBUTION | FINANCIAL LITERACY | | | | | |
|------------------------|--------------------|-------------|-----------------|-------------|-------------|----------------|
| | ATTITUDE | | Interpretation | BEHAVIOR | | Interpretation |
| | r- value | p- value | | r- value | p- value | |
| Family Needs | -0.301 | <.001 | Significant | -0.342 | <.001 | Significant |
| Business Needs | 0.029 | 0.662 | Not Significant | 0.230 | <.001 | Significant |
| Debt Repayment | 0.203 | 0.002 | Significant | 0.313 | <.001 | Significant |
| Savings to Insurance | -0.125 | 0.061 | Not Significant | -0.216 | 0.001 | Significant |

Table 10 depicts the results from testing the relationship between the Financial Literacy as to Attitude and Behavior and Income Distribution as to Family Needs, Business Needs, debt Repayment and Savings to Insurance. In Financial Literacy based on Attitude and Behavior, Family Needs has an inverse correlation, -.301 and -.342 respectively. In relation to that, Farmers then, neglect or forget to be financial literate as their family needs arises. The problem of financial illiteracy can be particularly limiting for families who live in communities where there is a low median income, where unemployment is common, and where financial capability is low. For “members of marginalized and low-income groups, it is basic financial knowledge and skills—in addition to a meager subsistence level income—that prohibits their amassing the necessary savings to even consider investment options” (Ek-Udofia & Spotton Visano, 2012). However, when it comes to debt repayment a positive correlation of .203 with p-value of .002 represents the attitude and behaviors of the farmers towards paying their debts. In most cases, almost every individual is required to borrow money at one point in their life. To ensure borrowing is done effectively, an understanding of interest rates, compound interest, time value of money, payment periods, and loan structure is crucial. If the criteria above are understood sufficiently, an individual’s financial literacy will increase, which will provide practical borrowing guidelines and reduce long-term financial stress. When it comes to financial literacy as to behavior, results revealed that they are vigilant in spending and buying. They tend to compare prices before buying and they sometimes work for extra income. Most of the respondents in this study revealed that they

belong to low – income earners that has below P10, 000 monthly income. Financial literacy refers to people’s understanding of financial concepts, as well as their skills and ability to manage money and make informed financial decisions. As noted by Calvet et al. (2007) and Van Rooij et al. (2011b), financially illiterate households and those with lower cognitive abilities are found to have difficulties in managing their daily expenditures, economic transactions, and financial resources. This is particularly true of and troubling for the poor, who, on the one hand, are more likely to be financial illiterate and, on the other hand, face constant and cumulative financial tightness. Therefore, their lack of skills and ability to manage their already limited resources to meet various basic living needs adds to the material hardship of their low and unstable incomes (Collins et al. 2010). Cohen and Nelson (2011) argue that financial literacy helps the poor by making them aware of financial issues and choices that they face, and develop strategies to deal with their financial state.

5. Conclusion

This study shows that majority of the male rice farmers are earning monthly income below PHP10,000 and therefore spend less than the income level and seldom save money but compare prices before buying. As majority of the farmers were older males, they have high level of income distribution on their basic family needs and paying their debts. Most of the older and low-income farmers have high level of literacy on financial matters in terms of attitude before the conduction of the study. Majority of the farmers, who are low income earners, prioritize their family needs as financial literacy is neglected, however, they have positive attitude and behavior toward paying their debts. Therefore, there is a positive correlation between financial literacy as to attitude and behavior and income distribution as to family needs and debt repayment.

Rice farmers need to manage money effectively by making financial decisions that promote financial sufficiency, stability, and well- being of the family. Financial literacy makes good financial decisions that could likely impact on the agricultural business. With proper financial management, savings, expenses and other emergencies are well taken care of. For this, the colleges and universities may lead collaborative activities such as seminars and trainings on income management. As part of the extension programs, these type of

activities equip farmers with basic knowledge and skills in effective financial decisions and savings. Likewise, crop management and livelihood programs could be introduced through collaboration with the barangays and the Local Government Units in order to help establish a better community for the Filipino farmers.

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