

## Financial Literacy of the Economically Disadvantaged Sector in a Philippine Community

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### ABSTRACT

The study primarily examined the demographic characteristics of the Pantawid Pamilyang Pilipino Program (4Ps) beneficiaries in the Philippines and how those attributes affect the beneficiaries' financial literacy. It was conducted in the Municipality of Tiaong Quezon with 342 respondents from 4Ps beneficiaries. Demographic aspects like age, the highest level of education attained, and income, as well as financial literacy components like financial knowledge, financial attitude, and financial behavior were investigated, appraised, and extensively examined. The study's findings showed that age does not affect the three main competencies of financial literacy. However, the respondent's highest level of education impacts their financial knowledge but not their financial behavior and attitude, while income influences their financial behavior but not their knowledge and attitude. This study could serve as a springboard for policies that could be adopted by the Department of Social Welfare and Development (DSWD), the locale of the study, and concerned businesses in formulating financial programs, trainings and seminars that are expected to elevate the financial literacy level of 4Ps beneficiaries. Likewise, social programs for marginalized communities in other countries may use this study as a pattern in assessing their own services.

**Keywords:** Financial Literacy, Economically Disadvantage Sector, Pantawid Pamilyang Pilipino Program (4Ps), 4Ps beneficiaries.

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## 1. INTRODUCTION

A wide range of educational institutions and other organizations conducted researches on components of financial literacy and how they connect with one another (Banthia & Dey, 2021; Hirdinis & Elly, 2021; Hidayatullah & Basuki, 2020; Pandey et al., 2020; Yuesti, Rustiarini & Suryandari, 2020; Pecson, Lampa & Tadeo, 2019; Rai, Dua & Yadav, 2019; Ponio & Timog, 2017; Nano, 2015). Also, there are various analyses conducted on the effect of demographic factors on financial literacy (Bangco et al., 2022; Akbulaev & Mammadova, 2021; Duzakin & Yilmaz, 2021; Jayanthi & Rau, 2019; Quang & Anh, 2019; Amran et al., 2018).

In this paper, the probable influence of the demographic profile of 4Ps beneficiaries in the Municipality of Tiaong, Quezon Province on financial literacy was studied. The Filipinos are challenged by financial problems and difficulties which include vulnerable

groups like Pantawid Pamilyang Pilipino Program (4Ps) beneficiaries. The Republic Act (RA) No. 11310, also known as "An Act Institutionalizing the Pantawid Pamilyang Pilipino Program (4Ps)," was passed to help the government in the promotion of a social order that is dynamic and just, so that its poorest citizens may be moved out of poverty. Also, 4Ps is a nationwide poverty-reduction and financial literacy program in the Philippines that distributes conditional cash transfers to eligible household beneficiaries to help Filipino families and diminish economic inequalities (Pecson et al., 2019).

The OECD/INFE Core Competencies Framework on Financial Literacy for Adults underpinned this study. The framework is specifically designed for adults, and one of the framework's target groups is vulnerable groups with low levels of basic competencies (OECD, 2016). Thus, this will benefit 4Ps beneficiaries, commonly emerging from economically disadvantaged sectors. Moreover, the framework is relevant in studying the financial literacy of the 4Ps as it offers a thorough set of core competencies necessary for people to make solid financial decisions. Furthermore, this enables identifying areas where the 4Ps beneficiaries require help and guidance to manage their finances well. The framework also accentuates the value of financial behavior and decision-making, which is appropriate for the 4Ps beneficiaries in managing their conditional cash grants.

The 4Ps operate across the Philippines, extending over 17 regions with 81 provinces, 146 cities, and 1,488 municipalities, including the Municipality of Tiaong in Quezon Province (DSWD, 2022, April). Based on the quarterly report of DSWD for March 2022, the total number of 4Ps beneficiaries increased compared to the total number of qualified beneficiaries in their quarterly report in March 2020. According to the established setup of standardized targeting and indigence criterion set by the Philippines Statistics Office, to be an eligible and qualified member of the 4Ps, the household should be categorized as either poor or near-poor. Additionally, the household should have members who are in the age bracket 0 - 18 years old, or have pregnant members during registration, and are amenable to the conditions in the mutually-agreed household intervention plan and oath of commitment (DSWD, 2019, December). Moreover, the Municipality of Tiaong's increasing 4Ps beneficiary population implies that additional residents are currently categorized as poor or near-poor. Thus, given the rise in eligible beneficiaries, this research may help the Municipality's most vulnerable population become more financially literate and develop their autonomous ability to distribute their limited resources following their financial priorities properly.

## **2. REVIEW OF RELATED LITERATURE**

The ensuing discussions are intended to give some insights on the different variable used in this study.

### ***2.1 Age***

The start of financial literacy is when a child commences counting. This age is certainly not too early to initiate the development of sound financial practices with the right knowledge, skills, and characteristics (Claremont Graduate University, 2022, April). However, Lusardi (2009 as cited in Jayanthi & Rau, 2019, p300) finds financial literacy as inferior among young individuals. Merely 1/3 of young adults maintain essential knowledge of financial matters.

One of the demographic elements that influence financial literacy is age. It is assumed that the older the individual then the higher the financial literacy score. Therefore,

older people frequently have a lot of financial experiences and have an increased status of financial literacy (Quang & Anh, 2019).

Savings and spending practices will partake in multiple heights and troughs over a person's lifetime. Age significantly influences financial priorities and how income is divided between savings and spending. Additionally, as people age, their financial priorities change. For instance, baby boomers (on average) gradually allocate their money and focus on selecting profitable investments. However, Canadian millennials frequently accomplish their short-term objectives by increasing their savings and decreasing debt (Canadian Home Plan Income Reverse Mortgage by Home Equity Bank, 2019, August).

## **2.2 Gender**

One remarkable aspect of the empirical information on financial literacy is the huge and constant gender difference (Lusardi and Mitchell, 2014). This is in accordance with the article by Bucher-Koenen et al. (2016) that examined gender differences in Germany, the United States, and the Netherlands, which revealed a constant gender gap in financial literacy regardless of the respondents' socioeconomic status and their cultural background. Another study, this time in India, supports the aforementioned claims. Afandy et al. (2019) found that gender has an effect on financial literacy. Their research result indicated that the influence of gender on financial literacy is significant ( $9.327 > 1.96$ ). This means that there are differences between women and men in their financial literacy.

A question often asked is, how financially literate are women compared to men? Many papers show that women manifest lower financial literacy and confidence than men, rendering them at a possible disadvantageous position (Hasler & Lusardi, 2017). Also, Hurney (n.d.) revealed that women are significantly less financially literate compared to men, and they lack the confidence to make financial decisions. Even for those whom financial knowledge is apparently to be very important—for example single women and widows—are less knowledgeable of the concepts necessary for the day-to-day financial decision making (Hasler & Lusardi, 2017).

## **2.3 Education**

Tomaskova et al. (2011 as specified in Bangco et al., 2022, p. 326), claimed that financial literacy is an important element in a person's everyday life. In addition, financial literacy should be covered in curriculum and taught in schools since this is the most effective approach to preventing citizens from being overly indebted.

People with a higher level of education are more conscious of financial literacy. This indicates that they have a better understanding of their financial needs, are familiar with financial institutions and services, and can make better financial decisions (Rashid et al., 2021). Moreover, individuals with higher education levels have more access to financial information and are more financially literate (Chen & Vople, 1998 and Lusardi & Mitchell, 2009 as cited in Lotto, 2020, p4). Sanglay et al. (2021) found that some farmers in San Pablo Laguna, Philippines who have minimal or no formal education are inefficient in distribution and management of acquired financial resources.

## **2.4 Income**

Income is paramount in daily life (Altitas, 2011, as cited in Bangco et al., 2022, p. 234). The most significant contributors to family income typically include wages and salaries, entrepreneurial activities, cash receipts from overseas, imputed rent, and income from domestic sources (The Manila Times, 2022, April). As a person's income rises, so do their financial literacy score. High-income persons frequently have more information regarding

spending, saving, and investing (Quang & Anh, 2019). The higher an individual's income, the more financially literate they manage to be (Adentunji & David-West, 2019).

Financial priorities and how income is allocated between savings and spending are heavily influenced by income (Canadian Home Plan Income Reverse Mortgage by Home Equity Bank, 2019, August). According to Sanglay et al. (2021), with a limited budget, it is important to allocate money wisely and consider where it will be spent. The income level also influences the distribution of a family's financial priorities. Families with lower incomes may contribute less to other preferences because they must put their basic needs first.

### **2.5 Financial knowledge**

Financial knowledge means understanding financial concepts and procedures and utilizing this proficiency to solve financial problems and make sound decisions (Banthia & Dey, 2021). Financial knowledge includes insights and understanding the concepts of loan interest, risk & return trade-off, time value of money, inflation, and other financial ideas (Amran et al., 2018). This knowledge is significant for individuals to acquire information that can contribute to their prosperity regarding financial matters (Arofah et al., 2018). In addition, increased financial knowledge is necessary for saving, financial planning, and investment opportunities (Banthia & Dey, 2021). However, people lacking financial knowledge tend to make low-grade financial decisions, resulting in unmanageable debts that undermine their relationships' well-being (Sanglay et al., 2021).

Long-term financial literacy development goals include increasing financial knowledge. This can be achieved in a larger scale by elevating the number of users of financial products and services thereby improving the literacy of someone previously less literate. Interestingly, research conducted on the indigent families, particularly 4Ps members in one of the provinces in the Philippines, revealed that a person's knowledge of finance has a substantial impact on his financial literacy (Pecson et al., 2019). Though financial knowledge has long been seen as a critical factor in determining financial literacy, Nicolini and Haupt (2019) agreed that low financial knowledge comes with a financial literacy that is also low. Thus, having sound financial knowledge is a must in making good financial decisions and is also an indicator that people are financially literate (Lusardi, 2008, as cited in Arifah et al., 2018).

### **2.6 Financial attitude**

The financial attitude of a person influences his manners and state of mind when making judgments during financial transactions. It is a person's ideas, mindset, and sense of values connected to various concepts of personal finance, e.g., if he thinks that saving money is vital (Moore, 2003 as cited in Quang & Anh, 2019, p. 5). It is also defined as an individual's reaction and attitude to personal financial challenges and a preference for financial issues (Banthia & Dey, 2021; Rai et al., 2019; Kadoya & Khan, 2020). Moreover, it is an individual's judgmental statement and outlook about finances, which may be favorable or unfavorable (Vaidaya & G.C., 2021).

The criteria by which people's financial attitudes are measured are dependent on how they relate their financial problems in achieving future economic benefits. Individuals are less likely to safeguard their future if they have a negative attitude toward financial matters concerning future security (Kadoya & Khan, 2020). Financial attitude indicator involves organizing in and out cash flow, availing of short and long-term investments, and being able to handle financial situations that are suited for the present and future (Budiono, 2020 as cited in Baptista, 2021, p. 93).

Previous research has found that one's financial attitude has a favorable and significant influence on financial literacy (Rai et al., 2019; Ameliawati & Setiyani, 2018; Yuesti, et al., 2020). Furthermore, Kadoya and Khan (2020) claim that changing people's financial attitudes through various techniques can help them improve their financial literacy. The study on indigent families in the Philippines revealed that financial attitude moderately influences financial literacy (Pecson et al., 2019). However, research has indicated that one's attitude toward finance has a detrimental impact and does not influence financial literacy (Venkataramanl & Venkatesan, 2018; Pandey et al., 2020).

### **2.7 Financial behavior**

Financial behavior is a crucial component of financial literacy, as it assesses how people act in financial transactions. Financial behavior involves saving, budgeting, insurance, and investing (Kadoya & Khan, 2020; Parrotta et al., 1998 as cited in Banthia & Dey, 2021, p. 328). Furthermore, it is linked to how people treat, manage, and use their money and be responsible and effective with their financial resources (Nababan & Sadalia, 2012 as cited in Iriani et al., 2021, p. 35).

Making payments on time, keeping good records, regulating finances, saving habits, and having an emergency fund are all indicators of good financial behavior (Sugiyanto et al., 2019). In simple terms, it signifies an individual's saving desires, spending habits, investment motivating factors, and financial strategies (Vaidaya & G.C., 2021). Hence, a clear indication that one is adequately equipped with financial knowledge and have the proper financial attitude because of the behavior exhibited towards personal financial management.

Previous research has demonstrated that financial behavior has a favorable and significant influence on financial literacy (Yuesti et al, 2020; Pandey et al., 2020; Kadoya & Khan, 2020; Rai, et al., 2019). On the contrary, in Odisha, India, it was found that financial behavior negatively influences and affects financial literacy (Banthia & Dey, 2021

## **3. FRAMEWORK**

This study is anchored on the OECD/INFE Core Competencies Framework on Financial Literacy for Adults (OECD, 2016). The said comprehensive framework was used to measure financial literacy in different countries worldwide. The framework contains the core competencies that can be used to produce a solid financial decision. The competencies such as knowledge, attitude and behavior are the noteworthy or fundamental elements of financial literacy that might be advantageous to every individual.

The following null hypothesis were framed to analyze the influence of demographic profile on financial literacy:

H<sub>01</sub>: The 4Ps beneficiaries' age does not affect the following financial elements of their literacy in finance:

- a. attitude,
- b. knowledge, and
- c. behavior.

H<sub>02</sub>: The 4Ps beneficiaries' highest educational attainment does not affect the following financial elements of their literacy in finance:

- a. attitude,
- b. knowledge, and
- c. behavior.

H<sub>03</sub>: The 4Ps beneficiaries' income does not affect the following financial elements of their literacy in finance:

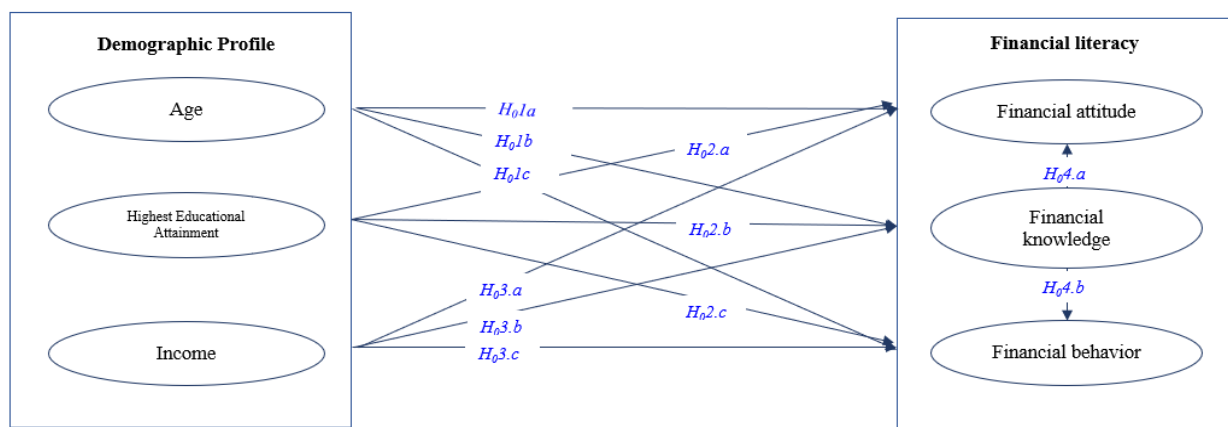
- a. attitude,
- b. knowledge, and
- c. behavior.

Furthermore, Hirdinis and Elly (2021), Vaidaya and G.C. (2021), Banthia and Dey (2021), Hidayatullah and Basuki (2020), Ponio and Timmog (2017), and Nano (2015) established the elements of financial literacy which may have some relationships among them. Accordingly, the following null hypothesis is drawn for this research:

H<sub>04</sub>: The 4Ps beneficiaries' level of financial knowledge does not affect the other financial elements of their literacy in finance:

- a. attitude, and
- b. behavior.

Figure 1 portrays the hypothesized model of the study. The independent variables are the demographic profile of 4Ps beneficiaries, such as age, highest educational attainment, and income, while the dependent variables are the core finance competencies highlighted in the OECD/INFE Framework of Financial literacy for adults (OECD, 2016), namely: attitude, knowledge, and behavior.



**Figure 1** Hypothesized model

#### 4. RESEARCH METHODS

A descriptive-correlational quantitative research approach was used for a cross-sectional analysis of survey data. The descriptive research design entailed systematically examining the subject to investigate more than one variable, collecting quantifiable data through a survey, and evaluating the data acquired using appropriate statistical treatment. Moreover, the study engaged a correlational research design to investigate the link between two variables without attempting to control them. Specifically, this study used a predictive correlational design to see how the independent variables (age, highest educational attainment, and income) affect the dependent variable (financial literacy).

This study utilized the 4Ps “grantees” from the Municipality of Tiaong in Quezon Province as the respondents. A grantee is considered to be the most responsible adult member of a qualified beneficiary household who is authorized to receive the conditional cash

transfer. Non-probability sampling techniques such as quota and snowballing sampling technique are used to determine the sample population. Initially, quota sampling is used to determine the number of 4Ps beneficiaries in each barangay. The researcher obtained an equal number of 4Ps beneficiaries across 31 barangays of the Municipality of Tiaong (See Table 1 retrieved from Philatlas, 2020) by splitting the overall sample size evenly across all barangays. As of March 2022, the Municipality of Tiaong had 2,820 4Ps active beneficiaries representing the total population size of the research (DSWD, 2022, April). An online based calculator namely Raosoft drew a total sample size of 342 with a given of 95 percent confidence level and 5 percent response distribution. Furthermore, 11 respondents are allocated to each of the 31 barangays of the Municipality. Finally, the snowball sampling technique is used to select 4Ps beneficiaries. Specifically, the linear snowballing sampling technique is utilized where the corresponding respondent is referred by the first respondent. The process continued until enough participants of the study are gathered.

Table 1 List of Barangays of Municipality of Tiaong, Quezon Province

Anastacia	Lagalag	Quipot
Aquino	Lalig	San Agustin
Ayusan I	Lumingon	San Francisco
Ayusan II	Lusacan	San Isidro
Behia	Paiisa	San Jose
Bukal	Palagaran	San Juan
Bula	Poblacion I	San Pedro
Bulakin	Poblacion II	Tagbakin
Cabatang	Poblacion III	Talisay
Cabay	Poblacion IV	Tamisian
Del Rosario		

Source: Philatlas (2020)

The survey questionnaire was adapted from earlier studies of the following authors:  
1. Preachy Mae D. Sanglay, Elaine Joy C. Apat, Julieta A. Sumague and Efren T. Tec (2021). “Financial Literacy and Income Distribution of Rice Farmers in Philippines”;

2. Dhananjay Bantia and Sanjeeb Kumar Dey (2022). “Impact of Financial Knowledge, Financial Attitude and Financial Behavior on Financial Literacy: Structural Equation Modeling Approach in India”

The research questionnaire was divided into four parts: the demographic profile, financial attitude, financial behavior, and financial knowledge.

For the first part, the demographic factors of the respondents which focused on the respondents' age, educational attainment, and income are determined. The second part is financial attitude based on 9 statements. The statements are centered on adhering to the family budget, having an optimistic mindset about the financial future, participate in the government financial programs, having confidence in handling finances, studying the offered investment opportunities, importance of practicing the responsible use of debt and accessing to a financial product like insurance to protect future financial against risk (Bantia & Dey, 2022; Sanglay et al., 2021; DWSD-NPMO, 2020). Then, 15 statements made up the financial behavior section, which is the third part of the research instrument. In this section, keeping track of expenses, the notion of working overtime to earn extra money, regular savings, price comparison before making a purchase, how the financial situation affects financial needs, and the significance of paying bills on time, regularly add to savings, having

positive action in purchasing financial products like insurance and savings product, and being vigilant on the possible financial fraud are the key points (Banthia & Dey, 2022; Sanglay et al., 2021; DWSD-NPMO, 2020). A 4-point Likert scale for each item ranges from 1 (strongly disagree), 2 (disagree), 3 (agree), to 4 (strongly agree).

Furthermore, the fourth part is about financial knowledge, which contained 15 questions. The researcher-prepared questions are divided into four topics: money management, debt management, budgeting, planning and investing. Each topic is composed of three questions that involve a simple mathematical calculation and qualitative statement. This part employed a multiple-choice format with four different possible answers, including two numerical options, (a) and (b), or qualitative statements, namely: none of the above (c), and do not know (d). Moreover, each topic involved three questions. The number of correct answers a respondent got from each topic is interpreted as follows: no correct answer means very low, one (1) correct answer means low, two (2) correct answers mean high, and three (3) correct answers mean very high.

Since all the statements and questions are in English, the instrument had been translated from English into Filipino, which is the native language of the Municipality of Tiaong. The translation prepared by the researchers ensured that the target respondent would understand the statements and questions in the research instrument. To verify the clarity of the translation, three residents from one barangay in the Municipality of Tiaong (a high school graduate, an elementary school graduate, and an elementary undergraduate) are invited to read the translated instrument in Filipino language to ascertain whether they could comprehend and recognize each statement and question. The translation process ended with the Komisyon sa Wikang Filipino (KWF)'s "Pagsusuri o Pagwawasto ng Salin,".

The "Pagsusuri o Pagwawasto ng Salin," is an outside service offered for private individuals (personal and academic) and institutions by the KWF. The KWF was founded as a result of Republic Act No. 7104, which was passed on August 14, 1991, and is in charged with conducting, organizing, and promoting studies for the growth, dissemination, and preservation of the Philippine languages including Filipino. It is the vision of KWF to make a modern language out of Filipino so it can be an effective national development instrument (Inquirer.Net, 2017 August).

The English and Filipino versions of the research instrument are uploaded to the google form provided by the KWF. The KWF designated an assistant who closely worked with the researchers for clarifications and consultations about the instrument. The "Sertipiko ng Kawastuhan" was awarded by the KWF to the researcher certifies that the research instrument was accurately and completely translated into Filipino.

The researchers submitted the English and Filipino versions of the survey instrument to at least three experts who attested to the survey's exceptional quality. The three experts were: First is from the academe who is a Graduate School professor at the University of Santo Tomas. Then, a Senior Executive Vice Chairman at International Marketing Group, a company that teaches financial literacy. Finally, the PO IV/OIC-Division Chief of Region-IVA- DSWD.

The researchers conducted the questionnaire pre-testing to confirm its effectiveness in gathering data from respondents. This process showed whether respondents comprehend the questions and whether the available answers are appropriate. Although the survey questionnaire was adapted from previous studies, pre-testing is still needed since this process offered the questionnaire's most direct reliability. A total of 26 beneficiaries from at least one or two of the barangays were used in the pilot testing to guarantee the survey questionnaire's reliability. Moreover, the chosen participants in the pilot testing were not part of the respondents in the actual gathering of data.



The reliability test in Table 2 presents the result for financial literacy core competencies. The coefficient Cronbach's Alpha is for assessing the reliable of a scale, thus, the reliability of the study's core competencies was assessed using this approach. Nunnally (1978); Sekara and Bouguie (2010); Awang (2012), as cited in Baistaman et al. (2022) p. 3, opined that a more favorable coefficient alpha is above 0.70. Also, according to "Statistics Solution," the accepted ground rules are the following: Cronbach's alpha of  $\geq 0.70$  is good,  $\geq 0.80$  is better, and  $\geq 0.90$  is best (statisticssolutions.com).

Table 2 Test Result of Reliability of Financial Literacy Core Competencies

Component	Component name	Number of Items	Cronbach's Alpha ( $\alpha$ )
a	Financial Attitude	9	0.710
b	Financial Behavior	15	0.709
c	Financial Knowledge	15	0.704

Source: Authors Own Table (2023)

Financial literacy in this paper is a second-order construct measured by the three core financial competencies: attitude, behavior, and knowledge. Table 3 presents the Cronbach's alpha which was computed using the internal reliability statistics test. The nine items in financial attitude, fifteen items in financial behavior, and fifteen items in financial knowledge garnered a Cronbach alpha value above the significance level which are 0.710, 0.709, and 0.704, respectively. These results show the suitability and reliability of the items in measuring the responses for the three financial literacy components.

Initially, the researcher submitted the required documents, including the review of ethics approval, to the DSWD – Central Office (which has the copyright of the manual) to request a copy of the financial literacy manual for 4Ps since the manual is not yet readily available online because it is on its implementation stage. Additionally, the researchers asked permission to DSWD – Regional Office (the approving authority) to employ 4Ps beneficiaries of the Municipality of Tiaong, Quezon Province, as the respondents of this research.

Once the manual is provided by the DSWD, the researchers created a documentary analysis protocol for assessing it. Also, when consent from the regional government is obtained by the researchers, the local government or the barangay is asked for their permission to conduct the research in their area. After the barangay offered its support, the researchers asked assistance from two residents of the Municipality of Tiaong, Quezon to gather one DSWD appointed parent leader in each barangay since this parent leader handles 4Ps beneficiaries. Once identified, the researchers requested the parent leader as the initial subject of the study to answer the research questionnaire. Then, the researchers asked for referrals from the parent leader for the additional 4Ps beneficiaries in their barangay who can be part of the eleven samples needed. However, not all barangays could provide the eleven samples because they have only a certain number of enrolled 4Ps recipients, like Poblacion 1. Thus, to complete the total number of samples, the researchers got the remaining 4Ps beneficiaries from another barangay with the highest number of registered beneficiaries.

During the data collection process, the researchers rendered a face-to-face home visit to administer the survey instrument through a pen-and-paper approach. At the beginning of the home visit, an informal introduction began the data collection process. After the introductions, a brief orientation on the research objectives and significance of the study is given before the researchers seek the consent of the respondent through a consent form in Filipino language. Once consent has been given, the respondent is asked to answer the survey

questionnaire. The researchers guided them in answering, particularly questions with simple mathematical computation. This process continued for two months.

The following statistical tools were employed in this study: Cronbach's Alpha ( $\alpha$ ) for the reliability of the survey questionnaire; descriptive statistics such as frequency, percentage, and mean; and multiple linear regression for the causal relationships among variables. There was also a computation to measure the difference between the observed data and the fitted values, R and R<sup>2</sup> (Vibora and Mandigma, 2022).

## 5. RESULTS AND DISCUSSIONS

### 5.1 Respondents Demographic Profile

The demographic profile in Table 3 presented the participants information in terms of gender, age distribution, highest educational attainment and monthly income.

Table 3. Respondents' Demographic Profile

		Frequency (f)	Percent (%)
Age	18 and below	1	.3
	19 to 24	4	1.2
	25 to 34	36	10.5
	35 to 44	131	38.3
	44 to 55	113	33.0
	55 to 64	49	14.3
	64 and above	8	2.3
Highest Attainment (Education)	No Education	4	1.2
	Elementary (Undergraduate)	58	17.0
	Elementary (Graduate)	84	24.6
	High School (Undergraduate)	54	15.8
	High School (Graduate)	122	35.7
	College (Undergraduate)	15	4.4
	Technical Vocational/College (Graduate)	5	1.5
Monthly Family Income (in Php)	Below 2,000	140	40.9
	2,001 to 4,000	109	31.9
	4,001 to 6,000	40	11.7
	6,001 to 8,000	32	9.4
	8,001 to 10,000	20	5.8
	10,001 to 12,000	1	.3

It can be noted that the majority of the respondent beneficiaries are from the age bracket 35 to 44, which accounts for 38.3%, and the age group of 44 to 55, which accounts for 33.0%. These two age groups are equivalent to 71.3% of the total sample size used in the study. Moreover, these two age groups are millennials (27 to 42 years old) and generation x (43 to 58 years old), respectively (Beresfordresearch.com). Hence, part of the prevailing age group is still in their productive years that they can take advantage of the financial literacy lessons to boost their full potentials. This is considered as the working age population (15-64 years old) according to the (PSA) Philippine Statistics Authority (2017).

Initially, it can be noticed that most of the respondents are either high school or elementary graduates, with a combined share of 60.3% of the total sample size used in the research. High school graduates comprised 35.7% of responses, while elementary school graduates comprised 24.6%. This result is the same as in the study of Reyes and Briones in 2018 on the 4Ps residents in San Carlos City. Meanwhile, it can be noted in the table that

1.5% of the respondents achieved a technical vocational or college degree, while 1.2% had no educational attainment.

Most respondents' monthly income falls below P4,000, which accounts for 72.8% of the total sample size used in the study. Notably, 40.9% of respondents had incomes under P2,000, while 31.9% had monthly revenues between P2,001 and P4,001. Families earning less than Php 9,100 per month are categorized as "low-income class" under "poor" cluster according to the segregation of classes set by PSA (Divina, 2023). Therefore, despite the respondents' productive years and a certain degree of educational attainment, their meager income might be a hindering factor to their ability to budget their finances since most of the income derived is hardly sufficient to provide even for the basic needs of the family, including food and clothing with a skinny slice for health and education (Dulliyao, 2019).

### 5.2 Respondents' Financial Literacy

The respondents' financial literacy also provided information about the financial level of their attitude, behavior, and knowledge,

Table 4 Financial Literacy Level of 4Ps Beneficiaries

Financial Indicators/Variable	Mean	Verbal Interpretation
Attitude	3.23	Agree
Behavior	3.21	Agree
Knowledge	8.003	High

Table 4 exhibited the financial literacy core competencies of the selected beneficiaries of the 4Ps in the Municipality of Tiaong, Quezon, such as financial attitude, financial behavior, and financial knowledge. The table also presented each core competency's overall mean distribution and its corresponding verbal interpretation.

Initially, the mean score for financial attitude is 3.23, with the verbal interpretation of "agree." In the present study, respondents agreed that they should have confidence in their ability to manage their limited income, should study the financial opportunities that are offered to them, make use of short- and long-term investment avenues, use of debt properly and responsibly, and prepare and create their financial future by accessing different financial resources. With these indicators, respondents may create a good and solid financial attitude which will translate into good financial literacy, according to a 2018 study by Ameliawati and Setiyani. It was noted by the authors that financial illiteracy would be influenced by the poor attitude of individuals toward money. Further, they opined that people can invest in financial goods for their future benefits, if they are financially literate. Meanwhile, the current study also discovered that respondents agreed on the financial attitude indicator that participating in various government initiatives will help them achieve financial stability in the present and in the future. The launched of the DSWD's financial literacy manual for the 4Ps in the Philippines is a government initiative that helps 4Ps beneficiaries become more financially literate and have financial independence (Manila Bulletin, 2021, February).

The verbal interpretation of "agree" for financial behavior was then shown to have a mean of 3.21 in the results. Fundamentally, financial behavior is essential to financial literacy since it evaluates how people behave in financial transactions, according to Kadoya & Khan, 2020; Parrotta et al. 1998, as referenced in Banthia & Dey, 2021, p. 328. Additionally, strong and positive financial behavior indicators include timely payment of bills, keeping track of all payments, and planning of all future financial activities (Hilgert et al., 2003, as cited in Banthia & Dey, 2022, p. 328; Sanglay et al., 2021). In the study of Quang and Ahn (2019), it was concluded that people who invest wisely, save money, and spend money precisely will

generally be more accurate and positive. In the current research, respondents concurred on the importance of keeping track of their expenditures, paying their bills on time, checking prices before making a purchase, recording all financial transactions, and keeping a close eye on their finances. The respondents also agreed on the financial indicator that individuals should take proactive measures regarding various financial issues in various financial conditions, such as obtaining savings products, insurance, and investing. Respondents' agreement with these indicators employed in the study is a sign of having a positive financial behavior.

Finally, financial knowledge received a strong verbal interpretation of "high" with a mean score of 8.003. This indicates that the 4Ps beneficiaries have a basic understanding of finance and have insights into money management, budgeting, planning, debt management, and investing, all of which can help them become more financially literate. The study of Arena, et al. (2023) supports this result, along the line of stock market investing, by stating that financial knowledge was regarded as the most significant influence in this type of financial endeavor. According to Rai et al. (2019), who cited the Howlett et al. (2008) study, those with sound financial knowledge are more financially literate and have better money management skills. Interestingly, Nicolini and Haupt (2019) concurred that low financial understanding goes hand in hand with low financial literacy. However, when financial knowledge is heightened, the impact and influence on financial literacy are dependent on the individual's application of that knowledge.

The financial knowledge competency in Table 4 above has the highest mean of 8.003, indicating that it is the most significant indicator of the level of the 4Ps beneficiaries' financial literacy among the three core competencies. This finding is consistent with that of the study of Banthia & Dey (2021). Additionally, the study found that financial attitude has a positive but insignificant impact on financial literacy, while financial behavior has a negative and insignificant effect. Meanwhile, the investigation of Venkataraman & Venkatesan in 2018 on the Indian salaried class in Bangalore, found that financial literacy was determined by 2 predictors, namely: financial knowledge and financial influence. Accordingly, the development of a person's financial knowledge may be enhanced through initiatives like starting a program on financial literacy, and support it with case studies and role plays from valuable investments. These are designed to develop skills in better financial planning, as well as retirement planning (Mandigma, 2016; Mandigma, 2014). The study by Pecson et al. (2019) in Pampanga, Philippines involving 4Ps families, discovered that among the 4 variables financial knowledge, skills, values, and attitudes, financial knowledge had the highest mean, indicating that 4Ps families are highly literate. Contrastingly, Rai et al. (2019) studied the relationships among the three core competencies amidst the women working in various public and private organizations in Delhi, India. It was found that financial behavior and attitude are more related with financial literacy than knowledge. In the study of Yuesti et al. (2020) and Kadoya and Khan (2020), it can be deduced that financial literacy is positively and significantly influenced by financial attitude and financial behavior.

### ***5.3 Demographic Profile and Financial Literacy of 4Ps Beneficiaries***

Table 5 presents the effect of age, highest educational attainment and income on the core competencies of financial literacy.

The standardized coefficients are shown in Table 5 to demonstrate which of the independent variables (demographic profiles) has the significant impact on the dependent variable (core competencies in financial literacy), and which has the highest absolute value. Moreover, as a reference, p-values <0.5 are regarded significant thus, the null hypothesis is

not supported; and those values greater than 0.05 are considered not significant thus, the null hypothesis is supported.

Table 5 Effect of Demographic Profile of 4Ps Beneficiaries to Financial Literacy

Financial Literacy Core Competencies		Age	Educational Attainment	Income
Financial Attitude	<i>Standardized Coefficients</i>	0.021	0.054	0.094
	<i>p - value</i>	0.717	0.339	0.087
	<i>Interpretation</i>	Not Significant	Not Significant	Not Significant
Financial Knowledge	<i>Standardized Coefficients</i>	0.033	0.192	0.103
	<i>p - value</i>	0.558	0.001	0.054
	<i>Interpretation</i>	Not Significant	Significant	Not Significant
Financial Behavior	<i>Standardized Coefficients</i>	0.025	0.034	0.114
	<i>p - value</i>	0.658	0.548	0.037
	<i>Interpretation</i>	Not Significant	Not Significant	Significant

Legend: <.05 means "Significant"; >.05 means "Not Significant"

Based on the result, the age of the 4Ps beneficiaries does not affect their financial attitude, financial knowledge, and financial behavior with a p-value of >.05 significance level. Thus, H<sub>01a</sub>, H<sub>01b</sub>, and H<sub>01c</sub> is supported. This means that age has no significant influence on the financial attitude, financial knowledge, and financial attitude of the 4Ps beneficiaries. However, Lusardi & Mitchell (2007), as cited in Quang and Anh in 2019, p. 396, demonstrated that financial behavior, especially planning, and budgeting, varies between young individuals and the middle-aged persons. Meanwhile, Scheresberg (2013), as cited by Quang and Anh in 2019, p. 396, opined that the association between age and financial literacy score is diversified among researchers (Quang & Anh, 2019).

Regarding the highest educational attainment, it appears to be a significant determinant of their financial knowledge, with a p-value of 0.001 which is less than the .05 significance level and with the highest standard coefficient of .192 among the three financial literacy core competencies, then H<sub>02b</sub> is not supported. This means that the highest educational attainment of 4Ps beneficiaries affects their financial knowledge. The majority of the respondents in the current research attained elementary or high school diploma. Financial literacy increases with more education. In other words, more educated people are more likely to be financially knowledgeable (Lusardi & Mitchell, as cited in Wagner, 2019, p 133). Contrastingly, according to the book by Kiyosaki and Sutton (Sar, 2023), pursuing higher education is not equivalent to having sound financial literacy because the schools do not teach specific skills and knowledge. This was backed by Yuen et al. (2022) who said that many people were never taught how to control their finances. Meanwhile, the highest educational attainment of the 4Ps beneficiaries does not affect their financial attitude and financial behavior with greater p-values than the significance level of .05. Thus, H<sub>02a</sub> and H<sub>02c</sub> are supported.

Finally, in terms of the variable income, the result showed that among the three financial literacy core competencies, financial behavior is the only one that was significantly affected with a p-value of .037 and standardized coefficients of .114. Thus, H<sub>03c</sub> is not supported, which means that income is statistically and significantly associated with financial behavior. This is similar to the findings of Johan et al. in 2021, where income affects behavior as individuals are empowered to save or spend. If people live on poverty-level incomes, they will need to manage their money very well to make ends meet. Another explanation could be that people with jobs have higher incomes thus, they can do better money management, and consequently score high in financial behavior (Xiao and O'Neill,

2016, as cited in Johan et al., 2021). Contrastingly, the study by Rahman and Risman (2021) found that income does not influence financial behavior. Regarding financial attitude and financial knowledge, the results show that these core competencies are not affected by the income of 4Ps beneficiaries garnering a p-value of more than the significance level of 05. Thus, H<sub>03a</sub> and H<sub>03b</sub> are supported. The study by Johan et al. (2021) also concluded that income has no significant influence on financial knowledge.

When gender was added as a control variable to the previous multiple regression equation, the results change as seen in Table 6.

Table 6

Financial Literacy Core Competencies		Gender	Age	Educational Attainment	Income
Financial Attitude	<i>Standardize Coefficients</i>	0.008	0.025	0.034	0.114
	<i>p - value</i>	0.888	0.654	0.544	0.038
	<i>Interpretation</i>	Not Significant	Not Significant	Not Significant	Significant
Financial Knowledge	<i>Standardize Coefficients</i>	-0.056	0.030	0.189	0.106
	<i>p - value</i>	0.293	0.593	0.001	0.049
	<i>Interpretation</i>	Not Significant	Not Significant	Significant	Significant
Financial Behavior	<i>Standardize Coefficients</i>	-0.011	0.020	0.054	0.094
	<i>p - value</i>	0.836	0.725	0.345	0.086
	<i>Interpretation</i>	Not Significant	Not Significant	Not Significant	Not Significant

Legend: <.05 means "Significant"; >.05 means "Not Significant"

Results showed that gender has no influence on the 3 components of financial literacy. This finding is in accordance with the studies of Bağcı & Kahraman (2020) and of Gupta & Hanagandi (2022). The addition of gender as a control variable also did not affect the association among the other variables except for the influence of income on the 3 elements of financial literacy.

Before, income affects financial behavior, but now it does not. This change now supports the findings of Rahman and Risman (2021), and of Arifin et al. (2018), where income does not influence financial behavior. Also, the addition of gender as a control variable in the multiple regression analysis resulted to significant effects of income on financial attitude and financial knowledge, which is the opposite of the previous findings. The study by Nano et al. (2015) supports the findings of the present study regarding the significant influence of income on financial attitude.

#### 5.4 Relationship of Financial Knowledge to Attitude and Behavior

Table 7 presents the influence of the respondents' financial knowledge on their financial attitude and behavior.

Table 7 Influence of Financial Knowledge to Attitude and Behavior

	Financial Knowledge		
	Standardized Coefficients	p - value	Interpretation
Financial Attitude	.245	.000	Significant
Financial Behavior	.300	.000	Significant

Legend: <.05 means "Significant"; >.05 means "Not Significant"

The standardized coefficients shown in Table 7 demonstrate the causal relationship among the financial knowledge of the respondents on their financial attitude and behavior—the bigger the value, the bigger is the influence of knowledge on attitude and behavior. In

addition, p-values are used as a standard, which means that those below 0.05 are deemed significant (do not support the null hypothesis), while those over 0.05 are not significant (support the null hypothesis). Based on the result, knowledge in finance has a significant and positive effect on financial attitude with a p-value of .000 which is less than the significance level of .05. Thus,  $H_{04a}$  is not supported. Meanwhile, it can be noted that financial attitude garnered favorable standardized coefficients of .245, indicating that as financial knowledge increases, financial attitude also increases. When it comes to financial behavior, financial knowledge has a significant effect on it, with a p-value of .000 which is less than the significance level of .05. With this, the  $H_{04b}$  is not supported. Moreover, financial behavior claimed a positive standardized coefficient of .300, indicating that as financial knowledge rises, so does financial behavior.

In the study of Hidayatullah & Basuki from 2020, it was found that financial knowledge affects behavior and attitudes. Furthermore, there is also a relationship between knowledge in finance and a person's behavior and attitude (Banthia & Dey, 2021; Ponio & Timog, 2017, Mandigma, 2013). Based on the current study's findings that financial behavior has the more significant standardized coefficient of .300, it can be deduced that financial knowledge has a more significant impact on financial behavior than on financial attitude. This is in consonance with the study of Hirdinis and Elly in 2021, which concluded that having more financial knowledge can lead to improved financial behavior.

## 6. CONCLUSION AND RECOMMENDATION

Financial literacy is one of the most crucial and paramount concepts to understand, specifically for people who belong to the country's marginalized sectors, as they are considerably vulnerable (Ali & Shah, 2019; Lusardi, 2019). The study's findings about the demographics of the 4Ps recipients showed that age does not affect the three main financial competencies of financial literacy, namely: knowledge, attitude, and behavior. However, the respondent's highest level of education impacts their financial knowledge but not their financial behavior and attitude, in agreement with the findings of Lusardi & Mitchell, as stated in the study of Wagner (2019, p 133). Also, income influences their financial behavior but not their knowledge and attitude, in accordance with the findings of Johan et al. (2021), but with the addition of gender as a control variable, the results were reversed. More so, based on the results, financial knowledge is the most significant indicator of financial literacy among the three core competencies which supports the studies of Banthia & Dey (2021), Venkataramnl & Venkatesan (2018), and Pecson et al. (2019). Further, a person's financial literacy may change based on the degree of knowledge or skills they have when he decides to handle investments (Mendoza, et al.,2023). However, this dependence could be used by investors as an advantage to making effective financial decisions. Furthermore, confirming the claims in the articles of Hidayatullah & Basuki (2020), Banthia & Dey (2021), Ponio & Timog (2017), it was found that individuals' financial knowledge significantly affects their financial attitude and behavior.

The 4Ps beneficiaries should be more aware of the core competencies of financial literacy as well as their importance. These financial literacy components may be enhanced through training and seminars which may be headed by the Department of Social Welfare and Development. It is expected that these trainings could help them have a better mindset regarding their financial situation presently and in the future, thus creating a positive action toward their daily financial transactions. Moreover, the 4Ps beneficiaries should participate in frequent financial coaching to display the best knowledge, attitude, and behavior, for them to eventually achieve their financial objective and solid financial independence. Further,

there should be extensive monitoring of their financial literacy through an evaluation of their finances by the local and national unit that takes care of the 4Ps beneficiaries.

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