

# Financial Literacy Assessment of the Indigenous Peoples in Magsingal, Ilocos Sur: Basis for Extension Program

**Joshua D. Puller**

University of Northern Philippines

[joshua.puller@unp.edu.ph](mailto:joshua.puller@unp.edu.ph)

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Corresponding Email:

[joshua.puller@unp.edu.ph](mailto:joshua.puller@unp.edu.ph)

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## Index Terms:

financial literacy, financial knowledge, financial attitude, financial behavior, financial access and exposure

**Abstract.** Financial literacy is widely recognized as a key driver of financial well-being, yet indigenous communities in rural Philippines remain underexamined in empirical research. This study assessed the level of financial literacy among Itneg/Tingguian ethnic people in Barangay Cadanglaan, Magsingal, Ilocos Sur, Philippines and examined the influence of financial access and exposure to the financial literacy in terms of financial knowledge, attitude, and behavior to develop culturally responsive extension program. A quantitative descriptive research design was employed using a structured survey administered to indigenous/ethnic group residents aged 18 years old and above. The instrument measured the level of financial access and exposure to financial institutions, financial literacy seminars, financial support programs, and media and information, as well as the level of their financial literacy across saving, budgeting, spending, debt management, investment, insurance, and retirement planning. Gathered Data were analyzed using descriptive statistics and multiple regression. The results indicated a high level of financial access and exposure ( $M = 3.84$ ). The overall level of the financial literacy of the respondents rated very high ( $M = 4.28$ ). However, their financial knowledge ( $M = 4.58$ ) and financial attitude ( $M = 4.57$ ) rated very high but weaker financial behavior ( $M = 3.68$ ) in selected components, particularly investment and retirement planning. The level of financial access and exposure of the Itneg/Tingguian respondents showed significant influence on their overall level of financial literacy. Findings suggest that improving culturally relevant financial access and education may strengthen financial practices in indigenous communities. The study provides an empirical basis for targeted financial literacy interventions aimed at promoting long-term financial resilience.

## Introduction

Financial literacy has become an essential life skill that enables individuals to make informed financial decisions, manage resources effectively, and achieve long-term economic stability. In both developed and developing economies, financial literacy is closely associated with improved saving behavior, responsible borrowing, investment participation, and overall financial well-being. For marginalized populations, particularly indigenous communities, financial literacy plays a critical role in promoting financial inclusion, reducing vulnerability to economic shocks, and supporting sustainable livelihood development.

Studies have consistently established that financial literacy is a multidimensional construct composed of financial knowledge, financial attitude, and financial behavior. Research demonstrates that individuals with higher financial literacy are more likely to engage in prudent financial practices, including budgeting, saving, and retirement planning. Financial education programs have also been shown to improve financial capability, particularly when tailored to the socio-economic and cultural context of the target population. Moreover, access to financial institutions, financial education, and information sources has been identified as a significant factor influencing financial literacy outcomes, especially among low-income and rural populations.

Financial knowledge is essential for effective money management and is now considered as important as reading, writing, and mathematics; with rapid changes in the financial sector requiring assessment of individuals' readiness to handle daily financial decisions and identifying knowledge gaps being vital for developing targeted programs to strengthen financial skills. This is especially true in underserved communities where financial literacy deficits hinder effective financial decision making (Nogueira et al. 2025). Financial education improves financial literacy, particularly among economically vulnerable populations. Individuals from low-income backgrounds often have limited exposure to financial knowledge due to restricted access to educational resources and formal financial institutions (Lusardi & Mitchell, 2014). Empirical evidence also shows that financial literacy significantly affects saving behavior, retirement planning, and wealth accumulation (Klapper et al., 2013). Individuals with higher financial knowledge are more likely to build wealth because they understand compounding, inflation, and risk diversification.

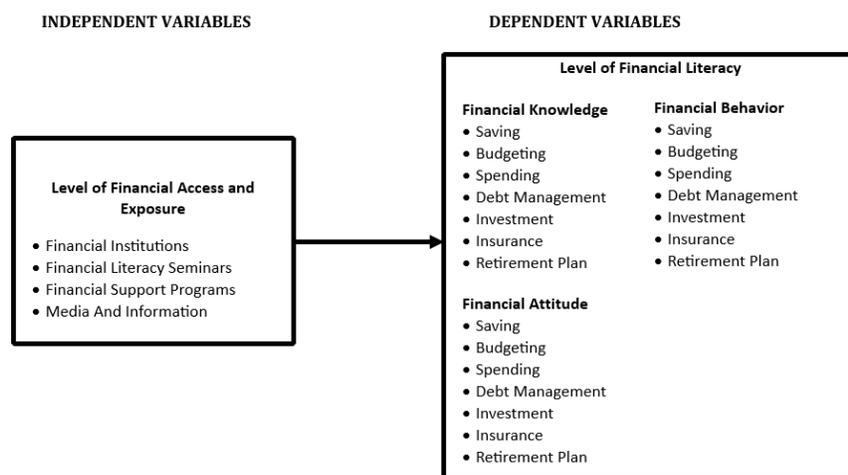
Despite this growing body of literature, Indigenous communities remain underrepresented in financial literacy research, particularly at the local level in the Philippines. Existing studies have largely focused on students, urban households, or entrepreneurs, leaving a gap in understanding how Indigenous peoples develop financial knowledge, attitudes, and behaviors within their specific socio-cultural and economic environments. Furthermore, while prior research has examined financial literacy levels, fewer studies have investigated how financial access and exposure influence financial literacy dimensions among Indigenous populations. This limitation constrains the development of culturally appropriate financial education and extension programs that address the unique needs of Indigenous communities. Addressing this gap is important for advancing financial inclusion, informing policy interventions, and designing culturally responsive financial literacy programs. Indigenous communities often face structural barriers such as limited access to formal financial institutions, lower educational opportunities, and geographic isolation, which may affect their financial capability and long-term economic resilience. Understanding the relationships between financial access, socio-demographic characteristics, and financial literacy dimensions is therefore essential for developing targeted interventions that promote financial empowerment and sustainable community development.

This study specifically addresses the following research questions: (1) What is the level of financial access and exposure of indigenous people in terms of financial institutions, financial literacy seminars, financial support programs, and media and information (2) What is the level of financial literacy of indigenous people in terms of financial knowledge, attitude, and behavior? (3) Does financial access and exposure significantly influence financial literacy dimensions? Accordingly, the primary objective of this study is to examine the level of financial literacy among indigenous peoples in Barangay Cadanglaan, Magsingal, Ilocos Sur. The study also aims to examine the influence of financial access and exposure on financial knowledge, attitude, and behavior.

The succeeding sections present the research methodology, including research design, participants, instruments, and data analysis procedures, followed by the results of the statistical analyses and a discussion of the findings in relation to existing literature and implications for financial literacy extension programs.

### *Conceptual Framework*

In the conduct of the study, the researcher is guided by the paradigm in Figure 1 presented as follows.



*Figure 1. Conceptual Framework*

The study framework consisted of independent and dependent variables. The independent variables included financial access and exposure (financial institutions, financial literacy seminars, financial support programs, and media and information). The dependent variables were the respondents' level of financial literacy, measured in terms of financial knowledge, financial attitude, and financial behavior. The study assessed the level of financial access and exposure and analyzed how financial access and exposure influence the level of financial literacy, including how financial knowledge and attitude are reflected in financial behavior.

## Methodology

### *Research Design*

This study employed a descriptive quantitative research design to determine the level of financial literacy and assessed the influence of financial access and exposure among the Itneg/Tingguian indigenous people to the level of their financial literacy. The descriptive design was used to systematically present and characterize the respondents' level of financial access and exposure and level of financial literacy. This approach was appropriate because it allowed the researcher to document existing conditions and establish a factual baseline without manipulating any variables.

Furthermore, multiple linear regression analysis was employed to examine the influence of financial access and exposure on the components of financial literacy, namely financial knowledge, financial attitude, and financial behavior. In this design framework, financial access and exposure served as the independent variables, while financial literacy components served as the dependent variables.

### *Participants and Sampling Procedure*

The participants of the study consisted of indigenous people residing in Barangay Cadanglaan, Magsingal, Ilocos Sur, Philippines. Inclusion criteria required respondents to be (1) officially recognized members of an Indigenous group, (2) at least 18 years of age, and (3) permanent residents of the community. Individuals who were not members of the Indigenous group or who declined voluntary participation were excluded from the study.

A total enumeration was employed to ensure that only qualified indigenous participants were included, as the study specifically focused on financial literacy within this ethnic group. As of November 2025, a total of 205 indigenous individuals were initially identified. However, only individuals aged 18 years old and above were considered eligible to participate, as they are legally recognized as adults and can make independent financial decisions. Participation in the study was strictly voluntary and based on informed consent. Due to unavailability, refusal, or incomplete responses, only 86 individuals agreed to participate and provided complete and usable data. These 86 respondents constituted the final sample of the study, ensuring compliance with the established eligibility criteria and ethical standards for voluntary participation.

Classification	N	n
Itneg/Tingguian	205	86

*Table 1. Distribution of the Respondents of the Study*

### *Data Gathering Instrument*

The survey questionnaire was adapted in the study of Buccat (2023) and Nidoy (2024). Some parts of the questionnaire were self-constructed. The questionnaire was validated by experts and members of indigenous group to ensure the validity and reliability of the instrument. The data-gathering instrument used in this study was a checklist survey questionnaire and some items and portions were modified to suit the study and were validated by pool of experts in the field, yielding a validity index of 4.79.

In analyzing and interpreting the data on the level of financial literacy of the indigenous peoples in Magsingal, Ilocos Sur the following norms were used in the study:

Statistical range	Item DR	Overall
4.21-5.00	Always (A)	Very High (VH)
3.41-4.20	Often (O)	High (H)
2.61-3.40	Sometimes (S)	Fair (F)

1.81-2.60	Rarely (R)	Low (L)
1.01-1.80	Never (N)	Very Low (VL)

### *Data Gathering Procedure*

The researcher sought permission and assistance from the National Commission on Indigenous People in the Philippines and Barangay Government Unit of Cadanglaan, Magsingal, Ilocos Sur, Philippines to collect relevant and pertinent data and information about the study. A formal letter was given to the office of NCIP and Barangay Government Unit of Cadanglaan requesting access to necessary permission, records, and coordination in identifying eligible respondents. Upon approval, the researcher proceeded with the distribution of survey questionnaires to the respondents.

### *Ethical Considerations*

The researcher ensured the protection of the legal and moral rights of all respondents. The study underwent Ethics Review with ERC No. A-2025-332. Privacy and confidentiality were maintained by assigning codes to respondents and securely storing all records, which were properly disposed of after the study. Informed consent was obtained through formal permission from the National Commission on Indigenous Peoples (NCIP) and by explaining the purpose of the study to the respondents. Participation was strictly voluntary, and respondents had the right to withdraw at any time. The study was conducted with respect for the community, and its findings aim to support future programs and activities in Magsingal, Ilocos Sur. No monetary compensation was provided to the respondents.

### *Data Analysis and Statistical Treatment*

Data were encoded and analyzed using the Statistical Package for the Social Sciences (SPSS) version 27. Descriptive statistics, including mean, was used to describe the financial access and exposure, and level of financial literacy. Multiple regression analysis was conducted to examine the influence of financial access and exposure on financial knowledge, financial attitude, and financial behavior. All statistical tests were conducted using a significance level of  $p < 0.05$  to determine statistical significance.

## **Results and Discussion**

<b>Financial Access and Exposure</b>	<b>Mean</b>	<b>DR</b>
Financial Institutions	4.05	H
Financial Literacy Seminars	3.30	F
Financial Support Programs	4.12	VH
Media and Information	3.88	H
<b>Overall Mean</b>	<b>3.84</b>	<b>H</b>

<b>ON FINANCIAL ACCESS AND EXPOSURE, FINANCIAL KNOWLEDGE, FINANCIAL ATTITUDE</b>		
<b>Statistical range</b>	<b>Item DR</b>	<b>Overall DR</b>
4.21-5.00	Strongly Agree (SA)	Very High (VH)
3.41-4.20	Agree (A)	High (H)
2.61-3.40	Neutral (N)	Fair (F)
1.81-2.60	Disagree (D)	Low (L)
1.01-1.80	Strongly Disagree (SD)	Very Low (VL)

*Table 2. Level of Financial Access and Exposure*

Table 2 shows that the overall level of financial access and exposure among respondents was **M = 3.84**. Among the components, financial support programs recorded the highest mean **M = 4.12**, followed by financial institutions **M = 4.05** and media and information **M = 3.88**. Financial literacy seminars obtained the lowest mean score **M = 3.30**.

These findings suggest that respondents have substantial access to institutional and program-based financial support, whereas formal financial education through seminars is less utilized.

High participation in financial support programs such as the Pantawid Pamilyang Pilipino Program (4Ps) has been linked to improvements in financial behaviors among beneficiaries. For example, studies of 4Ps recipients in the Philippines show that households often exhibit high levels of financial knowledge, budgeting ability, and savings practices, indicating positive effects of structured support and education on financial management skills (Cabuenas et al., 2025). Additionally, community-led development initiatives that embed assistance within trusted local systems have been shown to strengthen social capital, trust, and collective action—key components of community resilience and cohesion that support long-term outcomes beyond immediate financial relief (World Bank, 2025).

In contrast, the lower rating for financial literacy seminars reveals a gap between access to financial services and participation in structured education. Research shows that even when financial services and inclusion improve, financial literacy levels and engagement with formal training can remain limited—rural and marginalized populations often encounter barriers such as unfamiliarity with financial concepts, limited culturally tailored educational channels, and perceptions of complexity that discourage participation in seminars or workshops (Inquiro, 2024; de los Angeles Hidalgo-Mayorga et al., 2025). For example, studies among indigenous households in Barangay Paitan found that while access to financial services was linked to inclusion, respondents expressed the need for more culturally sensitive financial literacy programs to effectively translate financial knowledge into practice. These findings suggest that exposure through programs alone does not automatically translate into engagement with formal training unless educational approaches are tailored to local contexts and communication preferences.

These findings extend Financial Literacy Theory by reinforcing that access and exposure function as enabling conditions, but their effectiveness depends on cultural alignment and delivery mechanisms. Financial knowledge becomes actionable only when individuals can meaningfully interact with services and information in trusted environments. The study contributes to existing literature by demonstrating that Indigenous communities may show high institutional exposure while still experiencing educational participation gaps, highlighting the importance of contextualized literacy models. These data support interventions targeting the integration of financial support programs with culturally responsive literacy education. Policymakers should strengthen partnerships between financial institutions and community leaders to deliver seminars in locally trusted settings. Financial education initiatives should incorporate participatory methods, vernacular language use, and real-life community scenarios to increase engagement. Expanding media-based financial information through trusted local channels may further enhance exposure and practical application.

Despite the localized sample, which may limit generalizability, the results indicate opportunities to enhance financial literacy by combining existing institutional access with culturally relevant educational programs. Future research could explore longitudinal impacts of seminar participation on financial behavior and evaluate adapted curricula designed to increase engagement among indigenous communities.

<b>Financial Knowledge</b>	<b>Mean</b>	<b>DR</b>
Saving	4.84	VH
Budgeting	4.66	VH
Spending	4.76	VH
Debt Management	4.77	VH
Investment	4.42	VH
Insurance	3.84	H
Retirement Plan	4.74	VH
<b>Overall Mean</b>	<b>4.58</b>	<b>VH</b>

*Table 3. Level of Financial Knowledge of the Indigenous Peoples in Magsingal, Ilocos Sur*

Table 3 shows that the overall mean for financial knowledge was **M = 4.58**. Respondents demonstrated very high levels of financial knowledge, with the highest scores in Saving (**Mean = 4.84**), Debt Management (**Mean = 4.77**), Spending (**Mean = 4.76**), Retirement Planning (**Mean = 4.74**), and Budgeting (Mean = 4.66). Investment knowledge was also rated very high (**Mean = 4.42**), while Insurance received a slightly lower rating (**Mean = 3.84**). These results suggest that respondents possess a well-developed cognitive foundation for financial decision-making. These results indicate that respondents possess strong understanding and competence in core financial areas, particularly in day-to-day management and planning. Knowledge of insurance, while still high, represents a relative gap compared to other domains.

The pattern shows stronger performance in experience-based financial domains (e.g., saving and budgeting) and relatively lower—though still high—scores in more technical areas such as insurance and investment. Rather than isolated weaknesses, these differences reflect variation in exposure and practical engagement.

These data reinforce Financial Literacy Theory by demonstrating that knowledge is the cognitive backbone of financial behavior, but its strength varies across domains depending on exposure and contextual relevance. The strong saving knowledge suggests that experiential learning environments cultivate durable financial competence. Practically, the results support interventions that move beyond basic saving education and instead deepen technical literacy in insurance, long-term planning, and risk diversification. Embedding culturally relevant retirement education, community-based savings cooperatives, microinsurance literacy modules, and simplified pension orientation programs could translate high awareness into stronger structural

The very high overall knowledge level observed is consistent with research showing that many rural and underserved populations exhibit strong basic financial competencies, often developed through firsthand budgeting, saving, and money management out of necessity rather than formal instruction (Galapin et al., 2025). Nonetheless, evidence from rural Filipino contexts highlights persistent difficulties with more complex financial topics such as insurance and long-term investment planning, where comprehension and uptake remain comparatively lower than basic budgeting and savings behavior (Apiag et al., 2025). These patterns mirror global findings that, while foundational financial knowledge may be high in contexts where day-to-day money management is vital, the technical complexity and limited exposure to insurance and investment instruments often result in weaker performance in those areas (Philippas & Avdoulas, 2019). Together, these results suggest that practical experience can build strong basic financial management skills, but formal financial education and exposure are still needed to improve understanding of risk-transfer and investment instruments.

Unlike research suggesting pervasive literacy gaps among marginalized groups, these findings demonstrate that Indigenous respondents can exhibit very high knowledge levels, particularly when financial practices are integrated into daily survival strategies. This represents an important corrective to deficit-based narratives.

These findings underscore the value of leveraging existing strengths in saving, budgeting, debt management, and retirement planning, while directing educational efforts toward insurance literacy and investment strategies. Methodologically, the study's localized sample may limit generalizability, but the high knowledge levels suggest a strong foundation for designing targeted financial literacy programs. Future research could assess behavioral outcomes linked to knowledge, such as actual saving rates or insurance adoption, and explore interventions tailored to bridge knowledge gaps in underrepresented financial areas.

Financial Attitude	Mean	DR
Saving	4.77	VH
Budgeting	4.70	VH
Spending	4.70	VH
Debt Management	4.75	VH
Investment	4.27	VH
Insurance	4.08	H
Retirement Plan	4.70	VH
<b>Overall Mean</b>	<b>4.57</b>	<b>VH</b>

Table 4. Level of Financial Attitude of the Indigenous Peoples in Magsingal, Ilocos Sur

Table 4 shows that the overall mean for financial attitude was  $M = 4.57$ . Respondents exhibited very high levels of financial attitude, with the strongest ratings in Saving (**Mean = 4.77**), Debt Management (**Mean = 4.75**), Budgeting (**Mean = 4.70**), Spending (**Mean = 4.70**), and Retirement Planning (**Mean = 4.70**). Investment attitude was slightly lower but still very high (**Mean = 4.27**), while Insurance received a rating of (**M= 4.08**). These findings suggest that respondents maintain positive and proactive attitudes toward managing their finances, particularly in areas related to saving, budgeting, debt management, and long-term planning. The comparatively lower scores in insurance reflect a more cautious or less engaged attitude toward formal risk management tools. These results suggest that respondents not only understand financial concepts but also value prudence, discipline, and long-term planning as guiding principles in decision-making.

The pattern shows exceptionally strong saving attitudes alongside moderately lower—though still high—confidence in insurance systems. These results suggest that financial attitudes are shaped both by experiential realities and by trust in institutions. Saving aligns closely with culturally embedded norms of thrift, preparedness, and communal accountability, while insurance requires engagement with formal systems that may carry historical or structural uncertainties.

The near-equivalent ratings of financial knowledge ( $M = 4.58$ ) and financial attitude ( $M = 4.57$ ) indicate a strong cognitive-affective alignment. This suggests that knowledge is not dormant; it is supported by motivational and value-based

orientations that favor responsible action. Within Financial Literacy Theory, attitude functions as the bridge between understanding and behavior. The data show that this bridge appears structurally intact.

The very high attitude scores are consistent with research showing that positive money attitudes and future financial readiness are shaped by cultural norms and social expectations, particularly in societies where familial obligations and long-term planning are valued (Manalo et al., 2025). Evidence from psychology and financial behavior research suggests that strong attitudes toward saving and planning are associated with proactive financial engagement and greater financial well-being, even among populations without extensive formal education (Manalo et al., 2025). The comparatively lower attitude toward insurance mirrors findings in rural Philippine contexts where awareness of insurance benefits exists alongside hesitation to adopt formal products, often due to complexity, limited exposure, or skepticism toward institutional providers (Inquiro, 2024; Apiag et al., 2025). Rather than indicating outright negativity, this pattern reflects measured engagement shaped by familiarity, trust, and perceived relevance of financial instruments within the community.

As with other constructs, attitudes were measured through self-report, which may reflect socially desirable responses. The cross-sectional design limits inference regarding whether strong attitudes consistently predict long-term behavioral outcomes. Contextual specificity to Indigenous respondents in Magsingal may also limit broader generalization.

These findings reinforce Financial Literacy Theory by illustrating that attitude is not secondary to knowledge but co-equal in importance. High knowledge without supportive attitude often results in inaction; here, the synergy suggests internal coherence between belief and intention.

Practically, interventions should not focus solely on increasing awareness but on strengthening institutional trust and experiential familiarity—particularly in insurance. Community-based insurance literacy campaigns, transparent policy education, and culturally anchored risk-sharing models could reduce hesitation while respecting traditional support systems. These results emphasize the opportunity to capitalize on strong attitudes toward saving, budgeting, debt management, and retirement planning while designing targeted interventions to improve attitudes toward insurance and investment. Although the study is limited by its localized sample, the high overall scores indicate readiness for behavioral financial programs. Future research could investigate the translation of attitude into actual financial practices, especially in underutilized areas such as insurance uptake.

Financial Behavior	Mean	DR
Saving	3.69	H
Budgeting	4.12	H
Spending	4.43	VH
Debt Management	4.31	VH
Investment	3.35	F
Insurance	2.69	F
Retirement Plan	3.14	F
<b>Overall Mean</b>	<b>3.68</b>	<b>H</b>

Table 5. Level of Financial Behavior of the Indigenous Peoples in Magsingal, Ilocos Sur

Table 5 presents that the overall mean for financial behavior was ( $M = 3.68$ ), categorized as High. Respondents demonstrated moderate to high levels of financial behavior, with the highest scores in Spending ( $Mean = 4.43$ ) and Debt Management ( $Mean = 4.31$ ), followed by Budgeting ( $Mean = 4.12$ ) and Saving ( $Mean = 3.69$ ). Conversely, Investment ( $Mean = 3.35$ ), Insurance ( $Mean = 2.69$ ), and Retirement Planning ( $Mean = 3.14$ ) scored lower. These findings indicate that respondents practice basic financial behaviors such as budgeting, spending management, and debt handling, while behaviors associated with long-term planning, investment, and insurance adoption are less frequent.

The pattern shows stronger engagement in immediate, tangible behaviors—such as spending management, budgeting, and debt control—than in long-term and institutional behaviors like insurance participation, investment, and retirement planning. These results suggest that financial behavior is influenced not only by internal knowledge and attitudes but also by structural accessibility, income stability, institutional trust, and cultural alignment.

The discrepancy between respondents' very high knowledge and attitudes (Tables 3 and 4) and the comparatively lower behavioral outcomes suggests a knowledge–practice gap, a common phenomenon in financial studies (Lusardi & Mitchell, 2018). While respondents understand and value prudent financial management, translation into consistent actions, especially in areas requiring long-term commitment like investment and retirement planning, remains limited.

The moderate application of long-term financial behaviors aligns with research showing that retirement saving and investment practices are influenced not only by financial literacy but also by institutional support, reinforcement mechanisms, and structured programs (Lusardi & Mitchell, 2014; Klapper, Lusardi, & Panos, 2013). Evidence from rural and Indigenous communities in the Philippines demonstrates that behavioral outcomes improve when financial programs are culturally tailored and embedded within community structures (Apiag et al., 2025; Manalo et al., 2025). Rather than low engagement reflecting a lack of awareness, these findings suggest that barriers are often structural—including the need for institutional trust and sufficient surplus income—while respondents maintain strong discipline in daily financial management but show reduced participation in formal systems requiring long-term commitment.

Behavior was assessed through self-report, which may not fully capture frequency, scale, or quality of financial actions. The cross-sectional design limits assessment of behavioral change over time. Additionally, economic variability within the sample may influence capacity for long-term financial engagement.

These findings reinforce that financial literacy alone does not guarantee behavioral transformation. Structural opportunity, cultural relevance, and institutional trust operate as mediating forces between intention and action. The high spending discipline demonstrates that culturally embedded norms can sustain consistent short-term behavior. The weaker insurance engagement suggests that formal financial mechanisms require relational trust-building and contextual adaptation.

Practically, interventions should focus on converting strong knowledge and attitudes into applied long-term behaviors. Community-based microinsurance education, participatory retirement planning workshops, simplified enrollment systems, and culturally aligned financial advisory models may strengthen behavioral uptake. Integrating traditional support systems with formal financial tools could reduce perceived institutional distance.

These results highlight the need for interventions that focus on converting knowledge and attitudes into practice, particularly regarding insurance, investments, and retirement planning. Methodological limitations include the localized sample, which may limit generalizability. Future studies could explore behavioral nudges, incentive-based programs, or culturally tailored strategies to strengthen the adoption of long-term financial behaviors. Longitudinal research could also track whether improvements in knowledge and attitude lead to measurable changes in financial behavior over time.

<b>Financial Literacy Level</b>	<b>Mean</b>	<b>DR</b>
Financial Knowledge	4.58	VH
Financial Attitude	4.57	VH
Financial Behavior	3.68	H
<b>Grand Mean</b>	<b>4.28</b>	<b>VH</b>

*Table 6. Overall Mean Summary of the Level of Financial Literacy of the Indigenous Peoples in Magsingal, Ilocos Sur*

Table 6 presents the overall financial literacy of the Indigenous Peoples in Magsingal, Ilocos Sur. Respondents demonstrated very high levels of financial knowledge (**Mean = 4.58**) and financial attitude (**Mean = 4.57**), while financial behavior was slightly lower, rated as High (**Mean = 3.68**). The grand mean across all domains was (**M = 4.28**), classified as Very High. These results indicate that while respondents possess strong understanding and positive attitudes toward financial management, the translation of knowledge and attitudes into consistent financial behaviors—particularly in areas such as investment, insurance, and retirement planning—is less pronounced.

The pattern reveals a structured gradient: knowledge highest, attitude similarly strong, behavior comparatively lower. These results suggest that cognitive competence and motivational alignment are present, yet enabling conditions for sustained behavioral execution may be uneven. Financial Literacy Theory posits that knowledge and attitude are necessary but not sufficient conditions for behavior; environmental supports act as catalytic mechanisms.

The present findings align with Lusardi and Mitchell (2014) and the OECD (2022), who argue that financial behavior depends heavily on contextual variables such as income security, institutional accessibility, and trust. Similarly, research in rural and Indigenous Filipino communities shows that while individuals often demonstrate strong financial awareness, structural constraints — including limited access to formal institutions, culturally mismatched services, and reliance on community-based financial practices — restrict engagement with formal financial systems (Apiag et al., 2025; Manalo et al., 2025).

Unlike deficit-based interpretations of financial literacy in marginalized communities, the data indicate that the primary constraint is not cognitive deficiency but structural mediation. Respondents demonstrate the intellectual and attitudinal

architecture required for sound financial decision-making; the behavioral gap appears context-dependent rather than capability-driven.

The findings underscore the importance of targeted interventions that not only provide financial education but also facilitate practical application, such as through culturally relevant workshops, behavioral nudges, or incentive-based programs. The study's localized sample limits generalizability, but the very high overall literacy indicates a strong foundation for designing community-based financial programs. Future research could examine longitudinal effects of educational and behavioral interventions on actual financial outcomes, bridging the gap between understanding, attitude, and practice.

<b>Level of Financial Knowledge</b>	<b>Beta</b>	<b>t-value</b>	<b>t-prob</b>
Saving	-.454	-2.873*	.005
Budgeting	.113	.628	.532
Spending	-.136	-.992	.324
Debt Management	-.365	-2.700*	.009
Investment	-.422	-2.153*	.034
Retirement Planning	-.500	-3.615*	.001
<b>Overall</b>	<b>1.808</b>	<b>5.526*</b>	<b>.000</b>

*MultiR* = .766      *F-ratio* = 15.853\*  
*RSq* = .587      *F-prob* = .000

*Table 7. Regression Analysis of the Level of Financial Knowledge on the Level of Financial Access and Exposure*

Table 7 reveals that the level of financial access and exposure significantly influence the respondents' overall financial knowledge (*F-ratio* = 15.853, *F-prob* < .01). Specifically, these factors together explain 58.7% of the variance in financial knowledge ( $R^2 = .587$ ), while the remaining 41.3% is attributable to other variables not included in the study. Overall, financial access and exposure positively affect financial knowledge ( $\beta = 1.808$ ,  $t = 5.526$ ,  $p = .000$ ), indicating that increased access and exposure are associated with statistically higher levels of financial understanding.

Empirical evidence indicates that greater access to financial services and financial literacy are mutually reinforcing drivers of financial inclusion and positive financial outcomes. In rural Philippines, higher financial literacy correlates with better loan repayment performance (Cabueñas et al., 2025), and PIDS research highlights that broader access to savings, credit, and insurance—together with literacy—supports asset accumulation and risk protection (PIDS, 2025). National survey data also show that higher financial literacy increases the likelihood of owning formal financial accounts and using financial services (Desello & Agner, 2023). Studies of financial behavior among educators and rural populations further confirm that financial literacy and behavior are linked to financial well-being (Galapon & Bool, 2021), while systematic reviews stress that financial literacy's determinants span social and psychological factors (Rehman & Mia, 2024). In the poorest regions of Luzon, financial literacy and inclusion jointly influence broader socio-economic outcomes like food security (Tivera et al., 2025), and global cross-country analysis shows that literacy combined with inclusion promotes financial stability (2025).

When examined individually, certain areas of financial knowledge were significantly influenced by financial access and exposure. Saving ( $t = -2.873$ ), debt management ( $t = -2.700$ ), investment ( $t = -2.153$ ), and retirement planning ( $t = -3.615$ ) were each significantly affected. Interestingly, the negative Beta coefficients suggest that higher access and exposure were associated with lower knowledge in these domains. This pattern indicates that access alone may not always translate into higher literacy. Global evidence summarized by Xu and Zia (2012) shows that financial literacy requires not just access to products and information but also structured education and guidance to translate exposure into effective skills and decision-making capacity (World Bank Policy Research Working Paper No. 6107).

In contrast, budgeting ( $t = .628$ ) and spending ( $t = -.992$ ) did not exhibit significant effects, suggesting that financial access and exposure alone do not influence knowledge in these areas. This aligns with findings that access without supportive education may be insufficient for meaningful knowledge acquisition (Xu & Zia, 2020).

These findings imply that while financial access and exposure are critical for improving overall financial knowledge, practical and structured educational interventions are necessary to ensure that exposure translates into understanding, particularly in saving, debt management, investment, and retirement planning. Programs that incorporate culturally relevant examples, hands-on training, and ongoing support may strengthen the translation of access into effective financial decision-making.

<b>Level of Financial Attitude</b>	<b>Beta</b>	<b>t-value</b>	<b>t-prob</b>
Saving	-.213	-1.833	.071
Budgeting	.224	1.551	.125
Spending	.022	.200	.842
Debt Management	-.173	-1.543	.127
Investment	.306	1.800	.076
Retirement Plan	-.448	-2.753*	.007
<b>Overall</b>	<b>.700</b>	<b>2.209*</b>	<b>.030</b>
<i>MultR = .744</i>		<i>F-ratio = 13.790*</i>	
<i>RSq = .553</i>		<i>F-prob = .000</i>	

*Table 8. Regression Analysis of the Level of Financial Attitude on the Level of Financial Access and Exposure*

Table 8 reveals that the regression analysis shows that financial access and exposure significantly influence the respondents' overall financial attitude (F-ratio = 13.790, F-prob < .01). Collectively, these factors explain 55.3% of the variance in financial attitude ( $R^2 = .553$ ), with the remaining 44.7% attributable to other variables not examined in the study. Overall, financial access and exposure positively affect financial attitude ( $\beta = 0.700$ ,  $t = 2.209$ ,  $p = .030$ ), indicating that higher levels of access and exposure are associated with meaningful improvements in general financial attitude.

This finding aligns with Demirgüç et al. (2021), who reported that greater access to financial services and exposure to financial programs foster proactive, responsible, and confident approaches to managing finances. The results emphasize that opportunities to engage with financial institutions, information, and literacy programs can shape positive attitudes, ultimately promoting better financial behavior and decision-making.

When examined individually, retirement planning ( $t = -2.753$ ,  $p = .007$ ) was the only domain significantly influenced by financial access and exposure. The negative Beta coefficient indicates that higher access and exposure are associated with a lower financial attitude toward retirement planning, suggesting that access alone does not necessarily foster a more positive attitude in this area.

Other domains—saving ( $t = -1.833$ ), budgeting ( $t = 1.551$ ), spending ( $t = 0.200$ ), debt management ( $t = -1.543$ ), and investment ( $t = 1.800$ )—did not show statistically significant influence from financial access and exposure in the current study. This pattern reflects a knowledge–attitude gap, where access to financial services or exposure does not automatically translate into stronger financial attitudes or behaviors. Data shows that even though respondents may have higher access or exposure, this did not correspond to stronger attitudes toward key financial domains, suggesting that access alone is insufficient to foster meaningful attitudes without complementary education, guidance, and reinforcement mechanisms. This interpretation is supported by Rehman and Mia (2024), who show that financial literacy is influenced by multiple determinants including educational interventions, and by Frisancho (2023), who finds that structured financial education improves knowledge and behavior, whereas mere access has limited effect.

These findings highlight the importance of combining access to financial services with targeted education and practical interventions. Programs that offer culturally relevant examples, workshops, and ongoing support can help ensure that increased exposure translates into positive financial attitudes, particularly in areas like retirement planning where proactive thinking is critical for long-term financial security. Overall, respondents' financial attitude is significantly influenced by their access and exposure, but specific domains such as retirement planning require additional educational reinforcement to convert exposure into constructive attitudes.

<b>Level of Financial Behavior</b>	<b>Beta</b>	<b>t-value</b>	<b>t-prob</b>
Saving	-.029	-.153	.879
Budgeting	-.175	-1.469	.146
Spending	-.448	-3.056*	.003
Debt Management	-.254	-2.182*	.032
Investment	-.365	-1.832	.071
Retirement Plan	-.571	-2.142*	.035
<b>Overall</b>	<b>1.603</b>	<b>2.962*</b>	<b>.004</b>
<i>MultR = .706</i>		<i>F-ratio = 11.080*</i>	
<i>RSq = .499</i>		<i>F-prob = .000</i>	

*Table 9. Regression Analysis of the Level of Financial Behavior on the Level of Financial Access and Exposure*

Table 9 presents that the regression analysis indicates that financial access and exposure significantly influence the respondents' overall financial behavior (F-ratio = 11.080, F-prob < .01). Collectively, these factors explain 49.9% of the variance in financial behavior ( $R^2 = .499$ ), while the remaining 50.1% is attributed to variables not included in the study. Overall, financial access and exposure positively affect financial behavior ( $\beta = 1.603$ ,  $t = 2.962$ ,  $p = .004$ ), suggesting that higher access and exposure are associated with meaningful improvements in general financial practices.

This finding aligns with Demirgüç-Kunt et al. (2021), who reported that greater access to financial services and exposure to financial programs is strongly associated with improved financial behaviors, such as responsible spending, budgeting, and saving. However, access alone is not sufficient; meaningful behavioral improvements require guidance, education, and practical experience. Policies and programs that increase financial access should be paired with literacy initiatives, workshops, and culturally relevant support to ensure that exposure translates into sustained and effective financial practices.

Individually, spending ( $t = -3.056$ ,  $p = .003$ ), debt management ( $t = -2.182$ ,  $p = .032$ ), and retirement planning ( $t = -2.142$ ,  $p = .035$ ) were significantly influenced by financial access and exposure. The negative Beta coefficients indicate that higher access and exposure were associated with lower financial behavior in these areas, suggesting that greater exposure does not automatically lead to better practices.

Other domains—saving ( $t = -0.153$ ), budgeting ( $t = -1.469$ ), and investment ( $t = -1.832$ )—did not show significant influence, indicating that access and exposure alone do not affect behavior in these areas. This pattern mirrors prior research showing that mere exposure or access to financial products typically does not produce meaningful behavior change unless it is complemented by financial education, skill development, or tailored guidance. For example, Bucher-Koenen and Lusardi (2021) find that financial literacy programs significantly increase meaningful financial behavior, while Mol et al. (2023) document that access to financial services without targeted education yields minimal improvements in saving and investment behaviors.

These results imply that while financial access and exposure are critical, interventions aiming to improve financial behavior must focus on translating exposure into actionable skills. Programs should integrate structured financial education, culturally relevant examples, and practical training to enhance responsible management of spending, debt, and retirement planning. By combining access with guided learning and support, individuals are more likely to adopt effective and sustainable financial practices across all domains.

## Conclusion and Implications

Based on the significant findings, the following conclusions were drawn:

1. The high level of financial access and exposure among respondents indicates that they have ample opportunities to interact with financial institutions, programs, and information. This highlights the importance of access as a foundational strategy for developing financial literacy, suggesting that increasing opportunities for exposure can effectively support knowledge, attitudes, and behaviors in marginalized communities.
2. The overall financial literacy of respondents is Very High, with knowledge rated Very High and both attitude and behavior rated High. While respondents demonstrate understanding and value for sound financial practices, there remains room to strengthen the translation of knowledge and attitudes into consistent, responsible behaviors. Practical, context-specific interventions—such as workshops, mentoring, and community-based financial programs—could enhance this behavioral alignment.
3. Financial access and exposure significantly influence all components of financial literacy—knowledge, attitude, and behavior—indicating a structural effect rather than a narrow informational effect. This underscores the role of systemic exposure in shaping financial understanding and practices and suggests that policies and programs designed to increase access can have broad, sustainable impacts. Future research could test these relationships across other indigenous communities or longitudinally to evaluate whether increased exposure leads to long-term behavioral improvements.

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## Data Availability Statement

The data supporting this study are available from the corresponding author upon reasonable request. Readers may contact the corresponding author for access. Requests will be reviewed within 30 days based on journal data policy.

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## Appendices

No appendices are attached in this article.