



# **The Role of Insurance Ownership and Financial Literacy in Predicting Financial Health in the Philippines**

***Yolafe R. Paciente, RRT, MSRT***

*Davao City, Philippines*

*Keywords: Financial literacy, insurance ownership, financial health, social science, descriptive-predictive, Philippines*

## **Introduction:**

The COVID-19 pandemic has most recently highlighted the longitudinal gaps in global household financial systems, exemplifying the inadequacy of financial access for billions during economic shocks. In developing economies, this is severely exacerbated by the lack of institutional frameworks, low financial literacy, and the absence of social safety nets such as insurance, limiting individuals' capabilities to make optimal financial decisions (World Bank, 2020; OECD, 2020). This culminates in a widening financial health gap—an evolved biopsychosocial construct that explains the ability to absorb shocks and manage expenses beyond just access to finance (CFPB, 2020; Financial Health Network, 2021).

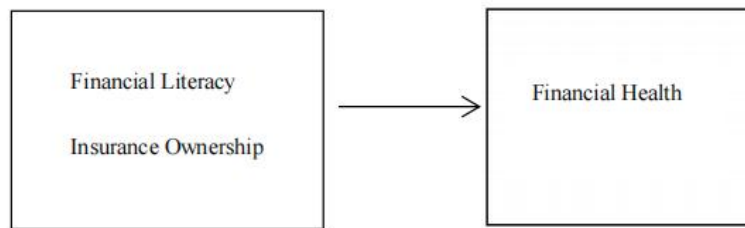
Recent efforts to promote financial inclusion have achieved significant progress in expanding access. However, access alone is no longer enough and should not be seen as a sufficient outcome by itself (Goyal & Kumar, 2021; Lusardi, 2020). In this perspective, access represents only one dimension of a more complex picture that also includes cognitive and behavioral factors, as well as institutional elements like financial literacy and insurance ownership (PRA & UNCDF, 2021; Gonzales et al., 2022).

The 2021 Financial Inclusion Survey by the Bangko Sentral ng Pilipinas (BSP) showed both advancement and enduring gaps within the country. The report indicated that while 56% of Filipino adults reported having a formal financial account, only 2% successfully answered all six financial literacy questions, and approximately 48% held some form of insurance coverage, including PhilHealth, microinsurance, and other non-life products. These statistics highlight a concerning contradiction: access to formal financial services and basic insurance is broadening, but the ability to function financially and the presence of adequate protection mechanisms remain significantly underdeveloped. Moreover, coupled with only 37% of adults reporting savings and a high reliance on informal lending and remittances, this raises concerns about the potential of financial inclusion to improve financial well-being in a meaningful way. While financial literacy and ownership of an insurance policy have each been linked to positive financial behaviors such as budgeting, saving, and risk mitigation in (Goyal & Kumar, 2021; Lusardi, 2020), there exists a striking gap in empirical research examining their combined and predictive impact on financial well-being, especially in the context of low-and-middle-income countries like the Philippines. Much of the literature on financial inclusion revolves around access to a banking facility (e.g., having a bank account) or behavioral outcomes (e.g., saving regularly) without capturing financial health in all its dimensions as an outcome reflecting resilience, control, and proactive planning. (CFPB, 2020; PRA & UNCDF, 2021). So far, no published studies have used data-driven predictive methods on the 2021 Financial Inclusion Survey data to explore how financial literacy and insurance ownership relate to financial health among Filipino adults (Author's synthesis of the literature). This gap is important because recent economic crises have shown that evidence-based policies are essential for helping households recover and build long-term financial security (World Bank, 2022; Gonzales et al., 2022). Research in this area could help policymakers and institutions design programs that improve not just access, but also financial capability and well-being. The need for such research is pronounced in the wake of recent economic crises where evidence-based policy frameworks are essential to building household financial recovery (World Bank, 2022; Gonzales et al., 2022).

## **Research Design**

The study utilized a quantitative, correlational, and predictive framework to assess the extent to which financial literacy and insurance ownership predict the financial health of Filipino adults. In the absence of micro-level data, a simulated dataset derived from the 2021 Financial Inclusion Survey (FIS) conducted by the Bangko Sentral ng Pilipinas (BSP) was utilized.

### Conceptual Framework



### Data Source and Simulation

The primary data source for this study was the 2021 BSP Financial Inclusion Survey (FIS), which was obtained through formal communication with the BSP Financial Inclusion Office. The BSP provided access to the summary tables and questionnaire from the most recent national survey. Given that the BSP public dataset is available only in aggregated form, the researcher created a simulated dataset comprising 1200 respondents. This data captured the proportional distributions of key variables reported in the summary report of the BSP, which included insurance ownership, financial literacy scores, and indicators of perceived financial well-being.

### BSP Survey Instrument Content

Financial literacy was assessed by the Bangko Sentral ng Pilipinas (BSP) using six core questions included in the 2021 Financial Inclusion Survey. These items measured understanding of foundational financial concepts, including division, risk and return, inflation, diversification, simple interest, and compound interest. The questions were adapted from the OECD/INFE Financial Literacy Measurement Toolkit (OECD, 2020), ensuring alignment with established international benchmarks. Insurance ownership was defined as holding any form of insurance, primarily those required by law or employment, such as PhilHealth, microinsurance, or other mandatory non-life insurance products. This information was also collected by BSP as part of the same survey. Financial health was evaluated through subjective self-assessments provided by survey respondents, covering four key dimensions: perceived financial readiness, security regarding future needs, the ability to manage unexpected financial challenges, and overall satisfaction with one's current financial situation.

### Variables and Coding

| Variable                 | Type        | Description                        |
|--------------------------|-------------|------------------------------------|
| Financial Literacy Score | Scale (0–6) | Simulated based on correct answers |
| Insurance Ownership      | Nominal     | Coded as: 0=None, 1=With Insurance |
| Financial Health Score   | Scale (1–5) | Simulated as a continuous variable |

### Measures

All statistical analyses were conducted using IBM SPSS Statistics (Version 22). The following procedures were applied:

1. Kolmogorov-Smirnov Test was used to evaluate the normality of the distribution for the key continuous variables. The results indicated that the data deviated from a normal distribution, particularly for financial literacy, insurance ownership, and financial health.
2. Spearman's Rho Correlation was employed to assess the relationships between financial literacy, insurance ownership, and financial health. This non-parametric test was appropriate given the non-normality of the data and the presence of ordinal or non-linear variables.
3. Simple Linear Regression Analysis was utilized to determine the predictive value of financial literacy on financial health. Despite the observed non-normality, regression analysis was considered valid based on the Central Limit Theorem (CLT), which states that the sampling distribution of the mean approaches normality as the sample size increases, regardless of the distribution of the population. Given the sufficiently large sample size in this study ( $n \geq 30$ ), the CLT supports the robustness of parametric tests like linear regression. Furthermore, diagnostic checks for linearity, homoscedasticity, and influential outliers were conducted to ensure the model's assumptions were adequately met. The interpretation of regression outcomes was made with cautious acknowledgment of the data's distributional limitations.

### Ethical Considerations

No actual respondent information was accessed. All data used in this study was either publicly available or simulated. Ethical research practices were maintained, and the data was used strictly for academic purposes.

## Results and Discussion

**Table 1. Descriptive Statistics of Continuous Variables**

| Variables                | N    | Mean | Standard Deviation |
|--------------------------|------|------|--------------------|
| Financial Literacy Score | 1200 | 3.46 | 1.001              |
| Financial Health Score   | 1200 | 3.27 | 0.534              |

Table 1 summarizes the descriptive statistics for the primary variables. The financial literacy score had a mean of 3.46 (SD = 1.001), indicating moderate financial knowledge among respondents, with a relatively symmetrical distribution as suggested by low skewness (-0.074) and kurtosis (-0.176). This reflects a mid-level grasp of basic financial concepts such as interest rates, inflation, and diversification, consistent with the OECD (2020) finding that only a minority of Filipinos answer all financial literacy items correctly.

Financial health averaged 3.27 (SD = 0.534), suggesting that the majority of respondents perceive themselves as moderately capable of handling financial obligations and future planning. The lower variability and slightly negative skew (-0.136) indicate that most simulated participants clustered around the mid-scale, likely reflecting a generally cautious but not dire self-assessment of financial well-being. This aligns with CFPB (2020) and Financial Health Network (2021) definitions that frame financial health not solely as the absence of debt, but as ongoing capacity to plan, absorb shocks, and feel secure.

These trends mirror national-level findings, where the majority of Filipino adults report modest control over their financial lives despite increased access to accounts and services, reinforcing the view that access alone does not translate to resilience without accompanying capability-building interventions.

**Table 2. Frequency of Insurance Ownership (N = 1200)**

| Insurance Ownership | Frequency | Percent | Cumulative Percent |
|---------------------|-----------|---------|--------------------|
| None (0)            | 621       | 51.7%   | 51.7%              |
| With Insurance (1)  | 579       | 48.3%   | 100.0%             |

Table 2 shows how insurance ownership is spread across the people we simulated. Roughly half the sample claimed some cover (48.3%), a figure that matches the Bangko Sentral ng Pilipinas (BSP) 2021 Financial Inclusion Survey report of 48.31% of Filipino adults holding at least one insurance component, from PhilHealth and micro policies to other non-life contracts. Still, BSP breakdowns warn that most of these counts rest on basic public schemes or micro offerings, not on the full private plans many experts picture. That detail matters, because the cheaper options usually deliver slight protection and are often acquired without deliberate choice-linked loans or workplace rules-rather than through an intentional review of personal risks and savings.

**Table 3. Test of Relationship between Financial Literacy and Financial Health**

| Variables                              | Correlation Coefficient ( $\rho$ ) | p-value | Remarks         |
|----------------------------------------|------------------------------------|---------|-----------------|
| Financial Literacy & Financial Health  | .746                               | < .001  | Significant     |
| Insurance Ownership & Financial Health | -.015                              | .613    | Not Significant |

*Legend:  $p$  - value < .05 = significant*

Table 3 shows that financial literacy is strongly and positively correlated with financial health ( $\rho = .746$ ,  $p < .001$ ), while insurance ownership has no significant correlation ( $\rho = -.015$ ,  $p = .613$ ). The present results may stem from the passive character of most insurance products; without sound financial knowledge, their advantages can go untapped. Furthermore, many held policies are either public-such as PhilHealth-or low-cost micro options that arguably provide less buffer than full private coverage. This distinction matters. While headline ownership rates seem high, the actual quality, type, and everyday use of insurance vary widely. Many Filipinos enter insurance schemes through compulsory programs like PhilHealth or through loan-linked micropolicies, moves that often reflect obligation more than deliberative planning. Such dynamics likely underlie the present study's finding that insurance ownership correlates weakly, if at all, with broader financial health ( $\rho = -.015$ ,  $p = 0.613$ ).

The present results concur with Gropper and Kuhn (2021), who argue that insurance contributes little to subjective well-being without commensurate financial literacy, yet they diverge from Liu et al. (2022), who report more pronounced effects in contexts where private insurance is widely adopted. Consequently, the evidence here underscores that financial know-how-rather than coverage alone-remains central to enhanced financial health outcomes.

**Table 4. Test of Prediction of Financial Literacy and Insurance Ownership on Financial Health**

| Predictor                | B     | SE    | $\beta$ | t      | p-value |
|--------------------------|-------|-------|---------|--------|---------|
| Financial Literacy Score | 0.297 | 0.010 | 0.557   | 28.574 | < .001  |

Legend: **B** = unstandardized coefficient; **SE** = standard error;  **$\beta$**  = standardized coefficient; **t** = t-value, and **p** indicates statistical significance;  $p < 0.05$  = significant

The regression model was statistically significant overall,  $F(1, 1198) = 817.19$ ,  $p < .001$ , explaining 57.7% of the variance in financial health ( $R^2 = .577$ , Adjusted  $R^2 = .577$ ). Financial literacy was a significant predictor ( $\beta = .557$ ,  $p < .001$ ). Insurance ownership was removed from the model due to its non-significance.

The results reinforce the importance of financial literacy as a key predictor of financial health among Filipino adults. This finding validate the CFPB (2020) framework, which underscores knowledge, planning, and decision-making as core to financial well-being. The result aligns with previous work by Lusardi and Messy (2023), who highlight the importance of financial education as a prerequisite to the effective use of financial products. This study found that financial literacy significantly predicts financial health, while insurance ownership, despite its conceptual value, was not statistically associated with improved financial health in this dataset. The findings advocate for an increased emphasis on financial education programs to strengthen household resilience and long-term financial wellness. Given the use of simulated data, future studies should seek access to granular microdata to validate these patterns across various demographic profiles.

### Limitations:

This study's primary limitation revolves using simulated data. Although attempts were made to align the simulation with the nationally representative patterns captured by the 2021 Financial Inclusion Survey (FIS) conducted by Bangko Sentral ng Pilipinas (BSP), individual-level raw data was not accessible. There was an attempt to obtain data, but the office concerned indicated that there were no existing policies regarding the release of raw datasets, and only aggregate-level reports were accessible. Therefore, the findings, while suggestive and modeled on reality, need to be approached with caution. Subsequent work should aim to obtain microdata in order to confirm and improve these findings.

### Acknowledgements:

The researcher thanks the Financial Inclusion Office of the Bangko Sentral ng Pilipinas (BSP) for sharing the aggregate data from the 2021 Financial Inclusion Survey, which formed the basis of this study's simulated dataset. Their reports were very helpful in building the research model. The researcher also sincerely thanks her family for their constant support, patience, and encouragement during this study.

### References:

- Bangko Sentral ng Pilipinas. (2021). *2021 Financial Inclusion Survey*.
- Bangko Sentral ng Pilipinas. (2022). *2021 Financial inclusion survey: Insights on the financial health of Filipinos*.
- CFPB (Consumer Financial Protection Bureau). (2020). *Measuring financial well-being: A guide to using the CFPB Financial Well-Being Scale*.
- Choung, H., Kim, J., & Park, S. (2023). Digital financial literacy and its impact on financial well-being. *Journal of Financial Counseling and Planning*, 34(1), 45–59.
- Choung, H., Lee, J., Kim, J., & Yoon, S. (2023). Digital financial literacy and resilience in the post-pandemic economy. *Journal of Financial Services Research*, 63(2), 211–229.
- Eling, M., Pradhan, S., & Schmit, J. (2021). Risk preferences and insurance demand. *Journal of Risk and Insurance*, 88(2), 415–442.
- Financial Health Network. (2021). *U.S. Financial Health Pulse: 2021 Trends Report*.
- Galzote, J. R. S., & Abao, J. C. P. (2023). The effect of financial literacy and budgeting skills on financial wellbeing among finance students of one of the universities in Cagayan de Oro. *ResearchGate*.
- Galzote, M., & Abao, E. (2023). Financial literacy and budgeting as predictors of financial well-being among young adults. *Philippine Journal of Social Sciences and Humanities*, 28(1), 55–68.
- Gonzales, A., Llanto, G., & Soriano, C. R. R. (2022). *Promoting inclusive insurance in the Philippines: Lessons for policy and regulation*. Philippine Institute for Development Studies.
- Goyal, K., & Kumar, S. (2021). Financial literacy: A systematic review and bibliometric analysis. *International Journal of Consumer Studies*, 45(1), 80–105.
- Gropper, D. M., & Kuhnen, C. M. (2021). Financial literacy and insurance coverage. *Journal of Risk and Insurance*, 88(3), 613–640.
- Gropper, D. M., & Kuhnen, C. M. (2021). Insurance and household financial health. *Journal of Finance*, 76(5), 2207–2245.
- Gropper, D. M., & Kuhnen, C. M. (2021). Insurance literacy and financial well-being: How information influences coverage choices. *Review of Financial Economics*, 39(3), 151–167.
- Hwang, S., & Park, S. (2022). Enhancing financial decision-making: The role of financial literacy and behavioral traits. *International Journal of Consumer Studies*, 46(4), 345–360.

- Hwang, S., & Park, S. (2022). Subjective vs. objective financial literacy: What matters more? *Financial Services Review*, 31(2), 101–118.
- Liu, H., Zhu, L., & Xu, H. (2022). Health shocks, insurance, and asset mobility in low-income households. *Health Economics*, 31(7), 1049–1062.
- Liu, Y., Zhang, H., & Chen, Q. (2022). Insurance ownership and household financial vulnerability: Evidence from China. *Journal of Risk and Insurance*, 89(1), 95–120.
- Liu, Y., Zhou, M., & Zhang, J. (2022). Financial protection through insurance and household financial stability: Evidence from emerging economies. *International Journal of Social Economics*, 49(2), 267–284.
- Lone, F. A., & Bhat, S. A. (2024). Exploring the mediating role of financial self-efficacy between financial literacy and financial well-being. *Asian Journal of Economics and Banking*, 8(1), 32–47.
- Lone, U. M., & Bhat, S. A. (2024). Impact of financial literacy on financial well-being: A mediational role of financial self-efficacy. *Journal of Financial Services Marketing*, 29(1), 122–137.
- Lusardi, A. (2020). Financial literacy and the need for financial education: Evidence and implications. *Swiss Journal of Economics and Statistics*, 156(1), 1–8.
- Lusardi, A., & Messy, F. (2023). Trends in global financial literacy. *OECD Working Paper*.
- Lusardi, A., & Messy, F.-A. (2023). Financial education, inclusion, and wellness: New evidence and policy implications. *OECD Working Papers on Finance, Insurance and Private Pensions* (No. 51).
- Maretalinia, T., Fitriastari, F., & Andayani, T. (2023). Determinants of insurance uptake in Southeast Asia. *Asian Economic Policy Review*, 18(1), 102–117.
- OECD (Organisation for Economic Co-operation and Development). (2020). *OECD/INFE 2020 International Survey of Adult Financial Literacy*.
- PRA & UNCDF. (2021). *The role of inclusive insurance in improving financial health*.
- Satriawan, E., Oktavilia, S., & Anindita, R. (2021). Barriers to health insurance among informal workers. *Social Science & Medicine*, 285, 114290.
- World Bank. (2022). *Global Findex Database 2021: Financial inclusion, digital payments, and resilience in the age of COVID-19*.
- Zhang, L., & Chatterjee, S. (2023). Financial literacy, resilience, and behavior in emerging economies. *Journal of Economic Behavior & Organization*, 205, 133–149.
- Zhang, L., & Chatterjee, S. (2023). The effect of objective and subjective financial literacy on financial well-being. *Journal of Economic Behavior & Organization*.

## Appendices:

### Formal Request on Data



**YOLAFE PACIENTE**

Sat, Jan 18, 7:39 PM



Dear Sir/Madam, Good day! I am Yolafe Paciente, a PhD student at the University of Southeastern Philippines. I am currently submitting a paper titled Exploring



**Financial Inclusion** <financialinclusion@bsp.gov.ph>

Thu, Jan 23, 11:44 AM



to Mynard, Golda, Cheyence, Johann, Jhaine, Elicia, Ana, me

Dear Mr./Ms. Paciente,

This refers to your email dated 18 January 2025 requesting 2021 Financial Inclusion Survey (FIS) raw datasets. We appreciate your interest.

While we are prohibited from disclosing raw datasets with external parties, we understand the importance of this data for research purposes; thus, we are crafting implementing guidelines for data sharing. However, we cannot provide specific timeline on the completion of the guidelines as we need to ensure compliance with the law and safeguard the rights of all parties that will be involved in data sharing.

Nevertheless, we may be able to share the 2021 FIS questionnaire and data tables which contain summary statistics per question. If these will be useful, kindly accomplish the attached Terms of Use prior the release of the summary tables and questionnaire.

Please do not hesitate to contact us for any other inquiries.

Thank you very much.

Best regards,  
Financial Inclusion Office

/ESM

Classification: GENERAL

Data Shared by Financial Inclusion Office:

# PROJECT: SERENA

## L1-L4,E6 Financial Literacy

Filter: Total Interviews

[Back to 'Table of Contents'](#)

|                    |         | AREA    |         |         |         |         |
|--------------------|---------|---------|---------|---------|---------|---------|
|                    | Total   | NCR     | NCL     | SL      | VIS     | MIN     |
| L1 to L4, E6       |         |         |         |         |         |         |
| 1 correct answers  | 7.39    | 4.52    | 7.54    | 4.68    | 5.75    | 13.02   |
|                    | 5700595 | 464868  | 1261283 | 839096  | 835412  | 2299936 |
| 2 correct answers  | 22.79   | 20.65   | 24.53   | 22.41   | 21.33   | 23.98   |
|                    | 1.8E+07 | 2125113 | 4103489 | 4019555 | 3098985 | 4237094 |
| 3 correct answers  | 30.17   | 29.03   | 29.03   | 31.4    | 27.99   | 32.46   |
|                    | 2.3E+07 | 2988440 | 4856372 | 5632427 | 4066658 | 5735033 |
| 4 correct answers  | 25.64   | 28.39   | 22.27   | 29.41   | 28.94   | 20.71   |
|                    | 2E+07   | 2922030 | 3725967 | 5275728 | 4203778 | 3658686 |
| 5 correct answers  | 12.1    | 15.48   | 12.47   | 10.69   | 15.09   | 8.74    |
|                    | 9333974 | 1593835 | 2087163 | 1916829 | 2192584 | 1543563 |
| 6 correct answers  | 1.91    | 1.94    | 4.17    | 1.41    | 0.89    | 1.08    |
|                    | 1471616 | 199229  | 697160  | 253732  | 129833  | 191661  |
| No correct Answers | 0.83    | -       | 1.9     | -       | 0.91    | 1.07    |
|                    | 637978  | -       | 317480  | -       | 132262  | 188237  |
| Total              | 100.83  | 100     | 101.9   | 100     | 100.91  | 101.07  |
|                    | 7.8E+07 | 1E+07   | 1.7E+07 | 1.8E+07 | 1.5E+07 | 1.8E+07 |

Prepared by RLR Research & Analysis



# PROJECT: SERENA

## D1. INSURANCE OWNERSHIP

Filter: Total interviews

[Back to 'Table of Contents'](#)

|                                     | Total        | AREA         |              |              |             |              |
|-------------------------------------|--------------|--------------|--------------|--------------|-------------|--------------|
|                                     |              | NCR          | NCL          | SL           | VIS         | MIN          |
| D1 INSURANCE OWNERSHIP              |              |              |              |              |             |              |
| <b>Weighted Base</b>                | 7.7E+07      | 1E+07        | 1.7E+07      | 1.8E+07      | 1.5E+07     | 1.8E+07      |
| <b>Unweighted Base</b>              | 1200         | 155          | 265          | 280          | 225         | 275          |
| PhilHealth                          | 39.26        | 41.29        | 37.78        | 33.92        | 38.18       | 45.8         |
|                                     | 3E+07        | 4250226      | 6321529      | 6084635      | 5546376     | 8090866      |
| Life                                | 7.76         | 3.23         | 6.81         | 1.43         | 8.85        | 16.82        |
|                                     | 5985430      | 332049       | 1139041      | 256248       | 1286183     | 2971908      |
| Microinsurance                      | 6.24         | 1.94         | 4.51         | 7.17         | 9.34        | 6.88         |
|                                     | 4813854      | 199229       | 755043       | 1286272      | 1357172     | 1216138      |
| Non-life – Accident                 | 2.35         | 0.65         | 1.13         | 2.16         | 2.68        | 4.44         |
|                                     | 1815323      | 66410        | 188761       | 386888       | 389498      | 783767       |
| Non-life - Health (e.g., HMO)       | 1.93         | 1.29         | 2.64         | 2.14         | 1.35        | 1.87         |
|                                     | 1485886      | 132820       | 441881       | 384372       | 195964      | 330850       |
| Non-life – Vehicle                  | 1.08         | 1.29         | 1.51         | 0.36         | 1.32        | 1.08         |
|                                     | 834027       | 132820       | 253120       | 65320        | 191106      | 191661       |
| Combination of life and non-life    | 0.83         | 0.65         | 0.76         | -            | 0.89        | 1.81         |
|                                     | 643380       | 66410        | 126560       | -            | 129833      | 320577       |
| Non-life – Fire                     | 0.34         | -            | 0.37         | -            | 0.46        | 0.75         |
|                                     | 260671       | -            | 62201        | -            | 66131       | 132340       |
| Others                              | 0.67         | 0.65         | 0.38         | 0.35         | 0.89        | 1.08         |
|                                     | 515068       | 66410        | 64360        | 62804        | 129833      | 191661       |
| None                                | 51.69        | 55.48        | 56.53        | 58.21        | 52.5        | 37.62        |
|                                     | 4E+07        | 5711241      | 9457465      | 1E+07        | 7626130     | 6645400      |
| Total                               | 112.15       | 106.45       | 112.42       | 105.74       | 116.46      | 118.17       |
|                                     | 8.7E+07      | 1.1E+07      | 1.9E+07      | 1.9E+07      | 1.7E+07     | 2.1E+07      |
| Prepared by RLR Research & Analysis |              |              |              |              |             |              |
| <b>TOTAL</b>                        | <b>48.31</b> | <b>44.52</b> | <b>43.47</b> | <b>41.79</b> | <b>47.5</b> | <b>62.38</b> |

**PROJECT: SERENA****L10. FINANCIAL HEALTH - Total**

Filter: Total Interviews

[Back to 'Table of Contents'](#)

| L10 FINANCIAL HEALTH |         |                                                                                                                    |                                                    |                                                                                                  |                                                                                                          |                               |                                           |                              |                                                                                             |                                                               |                                          |
|----------------------|---------|--------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------------------------|------------------------------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------|
|                      | Total   | I find it difficult to meet cost of living expenses like house rental, electricity, water, and food, among others. | I can fully meet my current financial obligations. | In case an emergency that will require a big amount of money comes, I will be able to handle it. | Giving a gift for a wedding, birthday or other occasion would put a strain on my finances for the month. | I have clear financial goals. | I am on track to meet my financial goals. | My finances control my life. | Because of my financial situation, I feel like I will never have the things I want in life. | I am concerned that the money I have or will save won't last. | I feel secure about my financial future. |
| L10 FINANCIAL HEALTH |         |                                                                                                                    |                                                    |                                                                                                  |                                                                                                          |                               |                                           |                              |                                                                                             |                                                               |                                          |
| Top 2 Box - Net      | 91.78   | 40.95                                                                                                              | 63.94                                              | 45.77                                                                                            | 28.04                                                                                                    | 65.99                         | 67.32                                     | 46.31                        | 38.03                                                                                       | 45.86                                                         | 59.7                                     |
|                      | 7.1E+07 | 3.2E+07                                                                                                            | 4.9E+07                                            | 3.5E+07                                                                                          | 2.2E+07                                                                                                  | 5.1E+07                       | 5.2E+07                                   | 3.6E+07                      | 2.9E+07                                                                                     | 3.5E+07                                                       | 4.6E+07                                  |
| Completely Agree     | 48.43   | 12.35                                                                                                              | 19.75                                              | 12.67                                                                                            | 9                                                                                                        | 20.34                         | 22.37                                     | 14.83                        | 11.28                                                                                       | 13.93                                                         | 19.7                                     |
|                      | 3.7E+07 | 9530791                                                                                                            | 1.5E+07                                            | 9778746                                                                                          | 6942410                                                                                                  | 1.6E+07                       | 1.7E+07                                   | 1.1E+07                      | 8704980                                                                                     | 1.1E+07                                                       | 1.5E+07                                  |
| Agree                | 82.79   | 28.59                                                                                                              | 44.18                                              | 33.1                                                                                             | 19.05                                                                                                    | 45.65                         | 44.95                                     | 31.48                        | 26.75                                                                                       | 31.93                                                         | 40                                       |
|                      | 6.4E+07 | 2.2E+07                                                                                                            | 3.4E+07                                            | 2.6E+07                                                                                          | 1.5E+07                                                                                                  | 3.5E+07                       | 3.5E+07                                   | 2.4E+07                      | 2.1E+07                                                                                     | 2.5E+07                                                       | 3.1E+07                                  |
| Neither              | 67.43   | 20.3                                                                                                               | 19.46                                              | 27.35                                                                                            | 21.99                                                                                                    | 20.63                         | 19.3                                      | 20.44                        | 22.63                                                                                       | 22.8                                                          | 24.41                                    |
|                      | 5.2E+07 | 1.6E+07                                                                                                            | 1.5E+07                                            | 2.1E+07                                                                                          | 1.7E+07                                                                                                  | 1.6E+07                       | 1.5E+07                                   | 1.6E+07                      | 1.7E+07                                                                                     | 1.8E+07                                                       | 1.9E+07                                  |
| Bottom 2 Box - Net   | 74.29   | 35.08                                                                                                              | 13.7                                               | 23.47                                                                                            | 46.54                                                                                                    | 10.64                         | 10.56                                     | 29.75                        | 36                                                                                          | 28.26                                                         | 13.24                                    |
|                      | 5.7E+07 | 2.7E+07                                                                                                            | 1.1E+07                                            | 1.8E+07                                                                                          | 3.6E+07                                                                                                  | 8205748                       | 8147125                                   | 2.3E+07                      | 2.8E+07                                                                                     | 2.2E+07                                                       | 1E+07                                    |
| Disagree             | 59.12   | 21.41                                                                                                              | 9.11                                               | 14.75                                                                                            | 28.79                                                                                                    | 7.32                          | 7.65                                      | 16.66                        | 22.05                                                                                       | 17.57                                                         | 9.31                                     |
|                      | 4.6E+07 | 1.7E+07                                                                                                            | 7030945                                            | 1.1E+07                                                                                          | 2.2E+07                                                                                                  | 5644107                       | 5905566                                   | 1.3E+07                      | 1.7E+07                                                                                     | 1.4E+07                                                       | 7181112                                  |
| Completely Disagree  | 38.8    | 13.67                                                                                                              | 4.59                                               | 8.71                                                                                             | 17.75                                                                                                    | 3.32                          | 2.91                                      | 13.09                        | 13.95                                                                                       | 10.69                                                         | 3.93                                     |
|                      | 3E+07   | 1.1E+07                                                                                                            | 3537639                                            | 6721376                                                                                          | 1.4E+07                                                                                                  | 2561641                       | 2241559                                   | 1E+07                        | 1.1E+07                                                                                     | 8245564                                                       | 3030673                                  |
| Don't know           | 8.97    | 2.59                                                                                                               | 2.25                                               | 2.66                                                                                             | 2.67                                                                                                     | 2.16                          | 1.9                                       | 2.74                         | 2.67                                                                                        | 2.49                                                          | 2.07                                     |
|                      | 6923538 | 1997291                                                                                                            | 1735441                                            | 2053161                                                                                          | 2057878                                                                                                  | 1665310                       | 1469762                                   | 2112849                      | 2060132                                                                                     | 1923143                                                       | 1598952                                  |
| Refused to Answer    | 3       | 1.08                                                                                                               | 0.66                                               | 0.75                                                                                             | 0.75                                                                                                     | 0.59                          | 0.91                                      | 0.75                         | 0.67                                                                                        | 0.59                                                          | 0.59                                     |
|                      | 2311853 | 836129                                                                                                             | 510514                                             | 576375                                                                                           | 579142                                                                                                   | 452523                        | 703809                                    | 581439                       | 514484                                                                                      | 453047                                                        | 452283                                   |
| Mean                 | 3.1     | 3                                                                                                                  | 3.7                                                | 3.3                                                                                              | 2.7                                                                                                      | 3.7                           | 3.8                                       | 3.2                          | 3                                                                                           | 3.2                                                           | 3.6                                      |
| Standard deviation   | 1.28    | 1.26                                                                                                               | 1.05                                               | 1.14                                                                                             | 1.23                                                                                                     | 0.98                          | 0.98                                      | 1.27                         | 1.24                                                                                        | 1.22                                                          | 1.03                                     |
| Total                | 308.54  | 100                                                                                                                | 100                                                | 100                                                                                              | 100                                                                                                      | 100                           | 100                                       | 100                          | 100                                                                                         | 100                                                           | 100                                      |
|                      | 2.4E+08 | 7.7E+07                                                                                                            | 7.7E+07                                            | 7.7E+07                                                                                          | 7.7E+07                                                                                                  | 7.7E+07                       | 7.7E+07                                   | 7.7E+07                      | 7.7E+07                                                                                     | 7.7E+07                                                       | 7.7E+07                                  |

Prepared by RLR Research &amp; Analysis

Statistical Analysis:

**Statistics**

InsuranceOwnership

|   |         |      |
|---|---------|------|
| N | Valid   | 1200 |
|   | Missing | 0    |

Insurance Ownership

|          | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------|-----------|---------|---------------|--------------------|
| Valid .0 | 621       | 51.7    | 51.7          | 51.7               |
| 1.0      | 579       | 48.3    | 48.3          | 100.0              |
| Total    | 1200      | 100.0   | 100.0         |                    |

DESCRIPTIVES VARIABLES=FinancialLiteracyScore FinancialHealthScore

/STATISTICS=MEAN STDDEV.



**Descriptives****Notes**

|                        |                                                                                                       |                                                     |
|------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| Output Created         | 20-JUN-2025 09:29:08                                                                                  |                                                     |
| Comments               |                                                                                                       |                                                     |
| Input                  | Active Dataset                                                                                        | DataSet1                                            |
|                        | Filter                                                                                                | <none>                                              |
|                        | Weight                                                                                                | <none>                                              |
|                        | Split File                                                                                            | <none>                                              |
|                        | N of Rows in Working Data File                                                                        | 1200                                                |
| Missing Value Handling | Definition of Missing                                                                                 | User defined missing values are treated as missing. |
|                        | Cases Used                                                                                            | All non-missing data are used.                      |
| Syntax                 | DESCRIPTIVES VARIABLES=FinancialLiteracyScore<br>FinancialHealthScore<br><br>/STATISTICS=MEAN STDDEV. |                                                     |
| Resources              | Processor Time                                                                                        | 00:00:00.00                                         |
|                        | Elapsed Time                                                                                          | 00:00:00.00                                         |

**Descriptive Statistics**

|                        | N    | Mean  | Std. Deviation |
|------------------------|------|-------|----------------|
| FinancialLiteracyScore | 1200 | 3.46  | 1.001          |
| FinancialHealthScore   | 1200 | 3.269 | .5343          |
| Valid N (listwise)     | 1200 |       |                |

EXAMINE VARIABLES=FinancialLiteracyScore FinancialHealthScore

/PLOT BOXPLOT HISTOGRAM NPLOT

/COMPARE GROUPS

/STATISTICS DESCRIPTIVES

/CINTERVAL 95

/MISSING LISTWISE

/NOTOTAL.

**Explore****Notes**

|                |                                |          |
|----------------|--------------------------------|----------|
| Output Created | 20-JUN-2025 10:11:18           |          |
| Comments       |                                |          |
| Input          | Active Dataset                 | DataSet1 |
|                | Filter                         | <none>   |
|                | Weight                         | <none>   |
|                | Split File                     | <none>   |
|                | N of Rows in Working Data File | 1200     |

|                        |                       |                                                                                                                                                                                                                                    |
|------------------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Missing Value Handling | Definition of Missing | User-defined missing values for dependent variables are treated as missing.                                                                                                                                                        |
|                        | Cases Used            | Statistics are based on cases with no missing values for any dependent variable or factor used.                                                                                                                                    |
| Syntax                 |                       | EXAMINE        VARIABLES=FinancialLiteracyScore<br>FinancialHealthScore<br><br>/PLOT BOXPLOT HISTOGRAM NPLOT<br><br>/COMPARE GROUPS<br><br>/STATISTICS DESCRIPTIVES<br><br>/CINTERVAL 95<br><br>/MISSING LISTWISE<br><br>/NOTOTAL. |
| Resources              | Processor Time        | 00:00:00.84                                                                                                                                                                                                                        |
|                        | Elapsed Time          | 00:00:00.93                                                                                                                                                                                                                        |

#### Case Processing Summary

|                        | Cases |         |         |         |       |         |
|------------------------|-------|---------|---------|---------|-------|---------|
|                        | Valid |         | Missing |         | Total |         |
|                        | N     | Percent | N       | Percent | N     | Percent |
| FinancialLiteracyScore | 1200  | 100.0%  | 0       | 0.0%    | 1200  | 100.0%  |
| FinancialHealthScore   | 1200  | 100.0%  | 0       | 0.0%    | 1200  | 100.0%  |

#### Descriptives

|                        |                                  | Statistic   | Std. Error |
|------------------------|----------------------------------|-------------|------------|
| FinancialLiteracyScore | Mean                             | 3.46        | .029       |
|                        | 95% Confidence Interval for Mean | Lower Bound | 3.40       |
|                        |                                  | Upper Bound | 3.51       |
|                        | 5% Trimmed Mean                  | 3.46        |            |
|                        | Median                           | 3.47        |            |
|                        | Variance                         | 1.002       |            |
|                        | Std. Deviation                   | 1.001       |            |
|                        | Minimum                          | 0           |            |
|                        | Maximum                          | 6           |            |
|                        | Range                            | 6           |            |
|                        | Interquartile Range              | 1           |            |
|                        | Skewness                         | -.074       | .071       |
|                        | Kurtosis                         | -.176       | .141       |

|                      |                                  |       |       |
|----------------------|----------------------------------|-------|-------|
| FinancialHealthScore | Mean                             | 3.269 | .0154 |
|                      | 95% Confidence Interval for Mean |       |       |
|                      | Lower Bound                      | 3.239 |       |
|                      | Upper Bound                      | 3.300 |       |
|                      | 5% Trimmed Mean                  | 3.273 |       |
|                      | Median                           | 3.292 |       |
|                      | Variance                         | .285  |       |
|                      | Std. Deviation                   | .5343 |       |
|                      | Minimum                          | 1.7   |       |
|                      | Maximum                          | 4.9   |       |
|                      | Range                            | 3.1   |       |
|                      | Interquartile Range              | .8    |       |
|                      | Skewness                         | -.136 | .071  |
|                      | Kurtosis                         | -.351 | .141  |

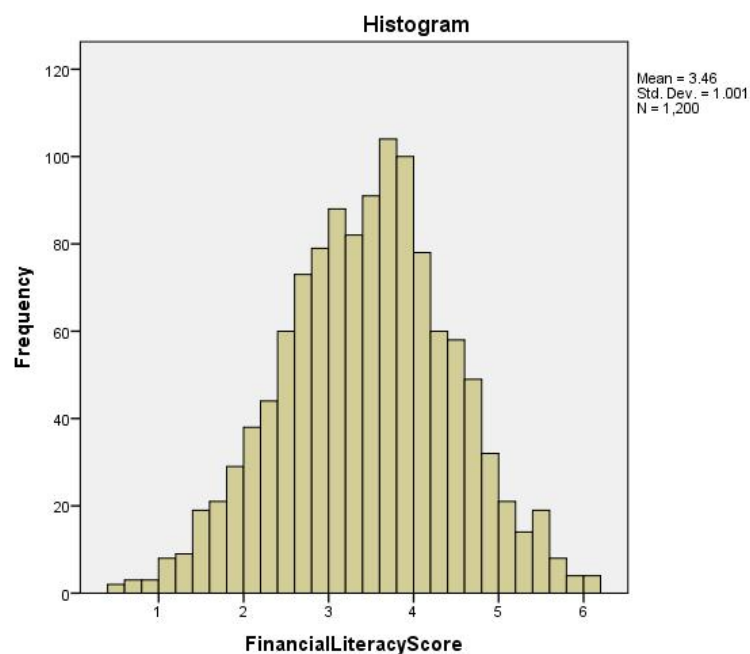
#### Tests of Normality

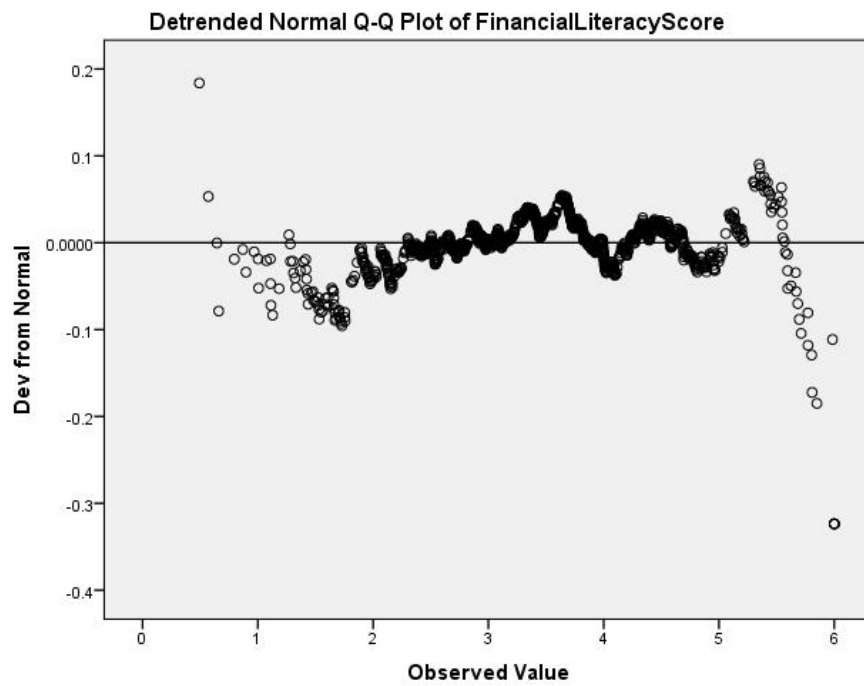
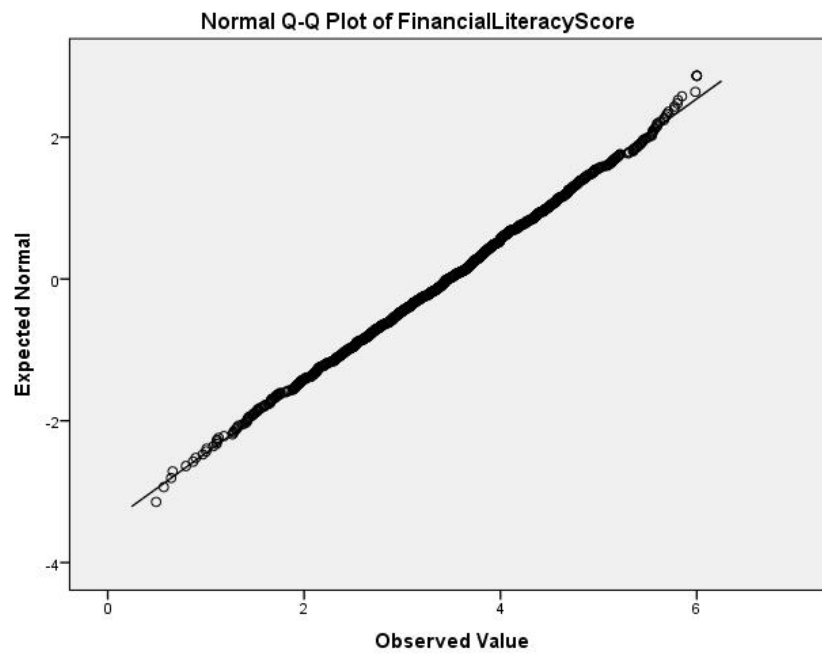
|                        | Kolmogorov-Smirnov <sup>a</sup> |      |       | Shapiro-Wilk |      |      |
|------------------------|---------------------------------|------|-------|--------------|------|------|
|                        | Statistic                       | df   | Sig.  | Statistic    | df   | Sig. |
| FinancialLiteracyScore | .022                            | 1200 | .200* | .998         | 1200 | .118 |
| FinancialHealthScore   | .041                            | 1200 | .000  | .995         | 1200 | .001 |

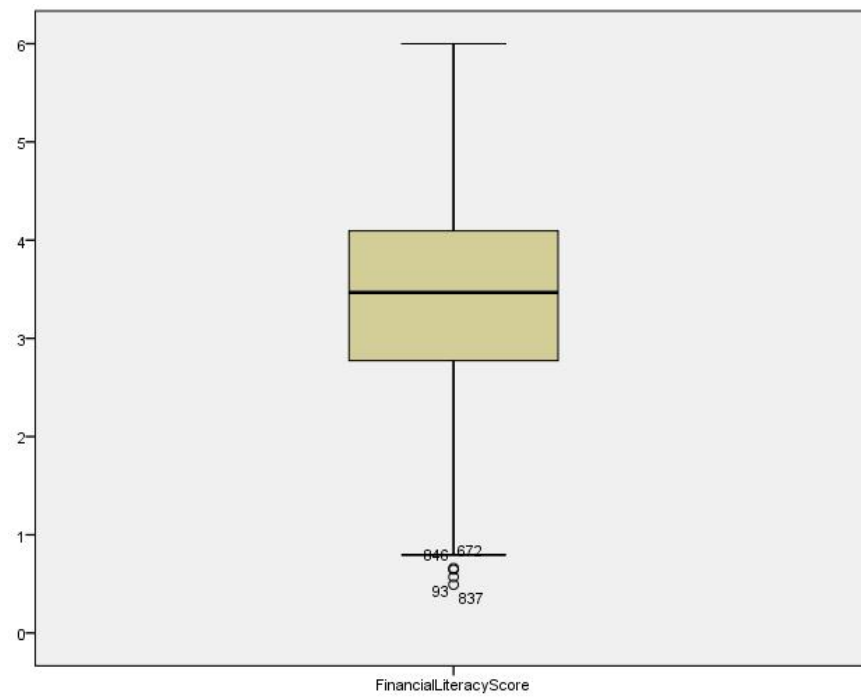
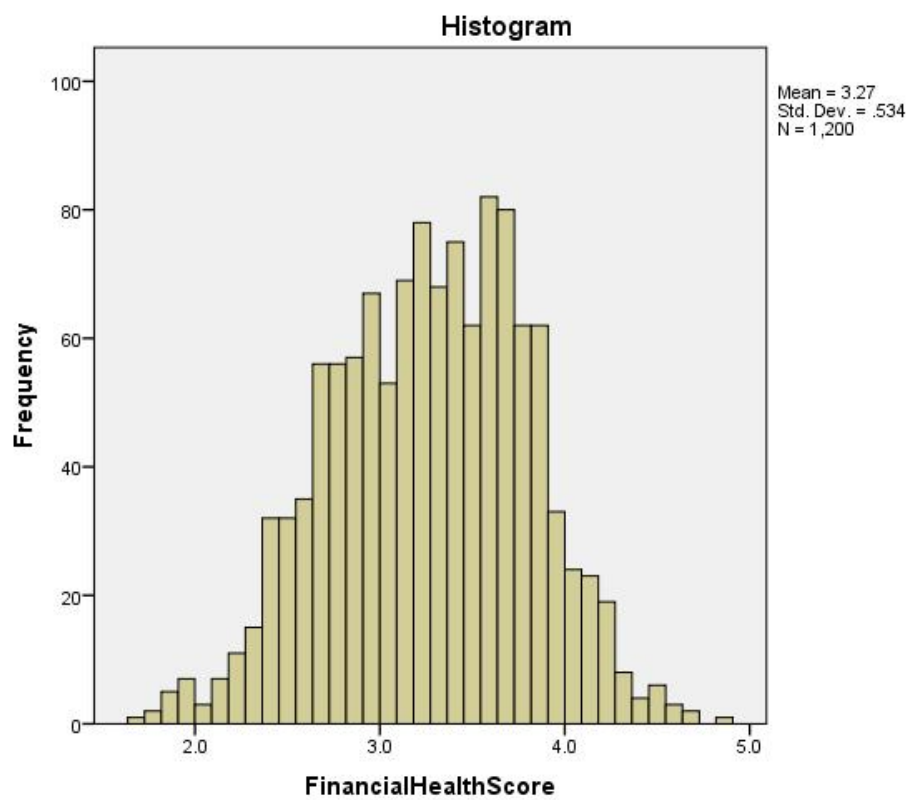
\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

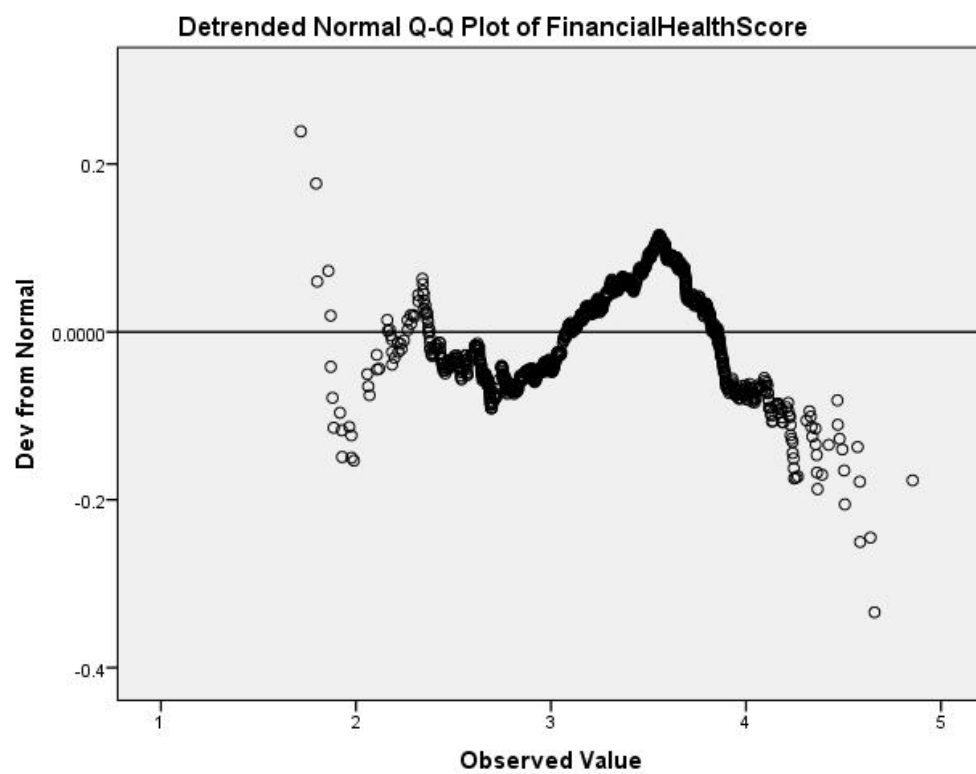
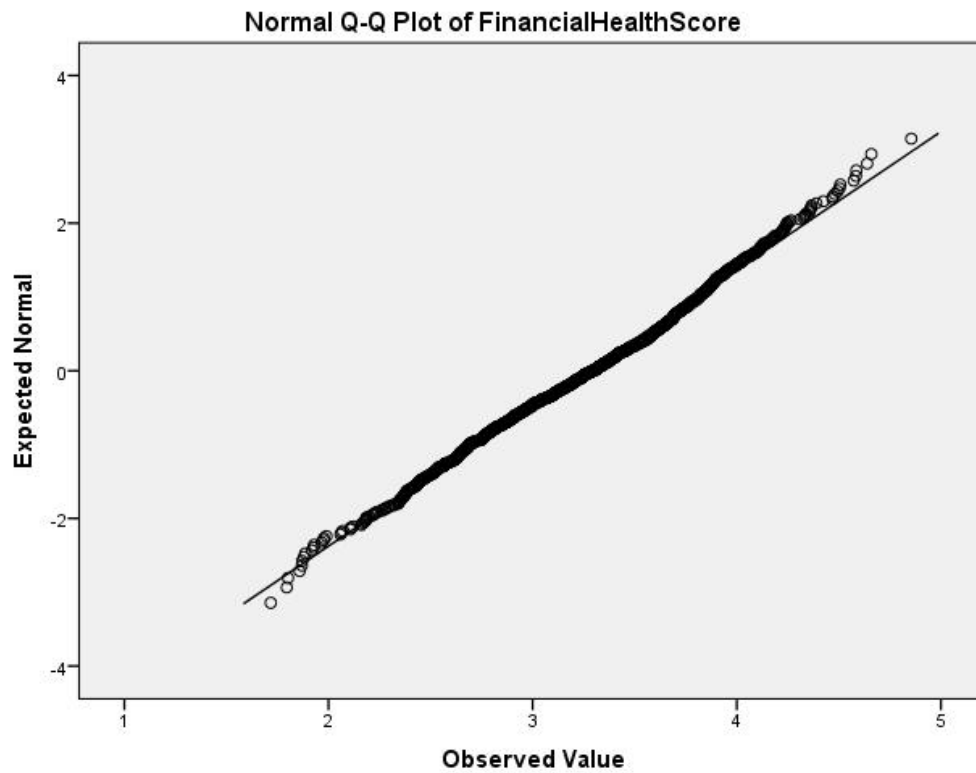
#### Financial Literacy Score

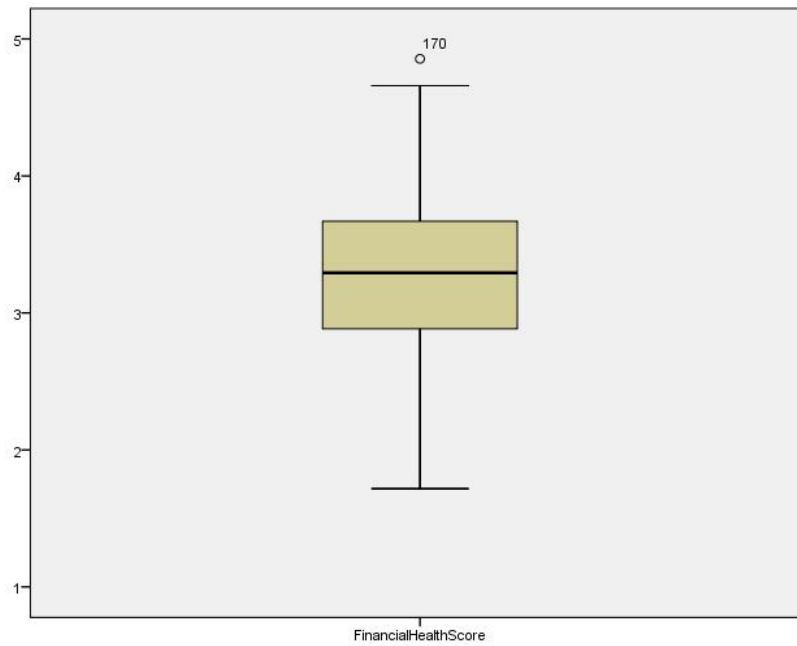




**Financial HealthScore**







## NONPAR CORR

```
/VARIABLES=FinancialLiteracyScore FinancialHealthScore
```

```
/PRINT=SPEARMAN TWOTAIL NOSIG
```

```
/MISSING=PAIRWISE.
```

## Nonparametric Correlations

## Notes

|                        |                                |                                                                                                                                             |
|------------------------|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Output Created         |                                | 20-JUN-2025 10:11:50                                                                                                                        |
| Comments               |                                |                                                                                                                                             |
| Input                  | Active Dataset                 | DataSet1                                                                                                                                    |
|                        | Filter                         | <none>                                                                                                                                      |
|                        | Weight                         | <none>                                                                                                                                      |
|                        | Split File                     | <none>                                                                                                                                      |
|                        | N of Rows in Working Data File | 1200                                                                                                                                        |
| Missing Value Handling | Definition of Missing          | User-defined missing values are treated as missing.                                                                                         |
|                        | Cases Used                     | Statistics for each pair of variables are based on all the cases with valid data for that pair.                                             |
| Syntax                 |                                | NONPAR CORR<br><br>/VARIABLES=FinancialLiteracyScore<br>FinancialHealthScore<br><br>/PRINT=SPEARMAN TWOTAIL NOSIG<br><br>/MISSING=PAIRWISE. |
| Resources              | Processor Time                 | 00:00:00.00                                                                                                                                 |
|                        | Elapsed Time                   | 00:00:00.00                                                                                                                                 |
|                        | Number of Cases Allowed        | 174762 cases <sup>a</sup>                                                                                                                   |

a. Based on availability of workspace memory

#### Correlations

|                |                        |                         | FinancialLiteracyScore | FinancialHealthScore |
|----------------|------------------------|-------------------------|------------------------|----------------------|
| Spearman's rho | FinancialLiteracyScore | Correlation Coefficient | 1.000                  | .746**               |
|                |                        | Sig. (2-tailed)         | .                      | .000                 |
|                |                        | N                       | 1200                   | 1200                 |
|                | FinancialHealthScore   | Correlation Coefficient | .746**                 | 1.000                |
|                |                        | Sig. (2-tailed)         | .000                   | .                    |
|                |                        | N                       | 1200                   | 1200                 |

\*\* . Correlation is significant at the 0.01 level (2-tailed).

#### NONPAR CORR

/VARIABLES=FinancialHealthScore InsuranceOwnership

/PRINT=SPEARMAN TWOTAIL NOSIG

/MISSING=PAIRWISE.

#### Nonparametric Correlations

##### Notes

|                        |                                |                                                                                                                                         |
|------------------------|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Output Created         |                                | 20-JUN-2025 10:12:34                                                                                                                    |
| Comments               |                                |                                                                                                                                         |
| Input                  | Active Dataset                 | DataSet1                                                                                                                                |
|                        | Filter                         | <none>                                                                                                                                  |
|                        | Weight                         | <none>                                                                                                                                  |
|                        | Split File                     | <none>                                                                                                                                  |
|                        | N of Rows in Working Data File | 1200                                                                                                                                    |
| Missing Value Handling | Definition of Missing          | User-defined missing values are treated as missing.                                                                                     |
|                        | Cases Used                     | Statistics for each pair of variables are based on all the cases with valid data for that pair.                                         |
| Syntax                 |                                | NONPAR CORR<br><br>/VARIABLES=FinancialHealthScore<br>InsuranceOwnership<br><br>/PRINT=SPEARMAN TWOTAIL NOSIG<br><br>/MISSING=PAIRWISE. |
| Resources              | Processor Time                 | 00:00:00.00                                                                                                                             |
|                        | Elapsed Time                   | 00:00:00.00                                                                                                                             |
|                        | Number of Cases Allowed        | 174762 cases <sup>a</sup>                                                                                                               |

a. Based on availability of workspace memory

**Correlations**

|                |                      |                         | FinancialHealthScore | InsuranceOwnership |
|----------------|----------------------|-------------------------|----------------------|--------------------|
| Spearman's rho | FinancialHealthScore | Correlation Coefficient | 1.000                | -.015              |
|                |                      | Sig. (2-tailed)         | .                    | .613               |
|                |                      | N                       | 1200                 | 1200               |
|                | InsuranceOwnership   | Correlation Coefficient | -.015                | 1.000              |
|                |                      | Sig. (2-tailed)         | .613                 | .                  |
|                |                      | N                       | 1200                 | 1200               |

**REGRESSION**

/DESCRIPTIVES MEAN STDDEV CORR SIG N

/MISSING LISTWISE

/STATISTICS COEFF OUTS CI(95) R ANOVA

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT FinancialHealthScore

/METHOD=ENTER FinancialLiteracyScore.

**Regression****Notes**

|                        |                                |                                                                                                                                                                                                                                                                       |
|------------------------|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Output Created         |                                | 20-JUN-2025 10:44:08                                                                                                                                                                                                                                                  |
| Comments               |                                |                                                                                                                                                                                                                                                                       |
| Input                  | Active Dataset                 | DataSet1                                                                                                                                                                                                                                                              |
|                        | Filter                         | <none>                                                                                                                                                                                                                                                                |
|                        | Weight                         | <none>                                                                                                                                                                                                                                                                |
|                        | Split File                     | <none>                                                                                                                                                                                                                                                                |
|                        | N of Rows in Working Data File | 1200                                                                                                                                                                                                                                                                  |
| Missing Value Handling | Definition of Missing          | User-defined missing values are treated as missing.                                                                                                                                                                                                                   |
|                        | Cases Used                     | Statistics are based on cases with no missing values for any variable used.                                                                                                                                                                                           |
| Syntax                 |                                | REGRESSION<br><br>/DESCRIPTIVES MEAN STDDEV CORR SIG N<br><br>/MISSING LISTWISE<br><br>/STATISTICS COEFF OUTS CI(95) R ANOVA<br><br>/CRITERIA=PIN(.05) POUT(.10)<br><br>/NOORIGIN<br><br>/DEPENDENT FinancialHealthScore<br><br>/METHOD=ENTER FinancialLiteracyScore. |
| Resources              | Processor Time                 | 00:00:00.02                                                                                                                                                                                                                                                           |

|                                               |             |
|-----------------------------------------------|-------------|
| Elapsed Time                                  | 00:00:00.01 |
| Memory Required                               | 1380 bytes  |
| Additional Memory Required for Residual Plots | 0 bytes     |

**Descriptive Statistics**

|                        | Mean  | Std. Deviation | N    |
|------------------------|-------|----------------|------|
| FinancialHealthScore   | 3.269 | .5343          | 1200 |
| FinancialLiteracyScore | 3.46  | 1.001          | 1200 |

**Correlations**

|                     |                        | FinancialHealthScore | FinancialLiteracyScore |
|---------------------|------------------------|----------------------|------------------------|
| Pearson Correlation | FinancialHealthScore   | 1.000                | .757                   |
|                     | FinancialLiteracyScore | .757                 | 1.000                  |
| Sig. (1-tailed)     | FinancialHealthScore   | .                    | .000                   |
|                     | FinancialLiteracyScore | .000                 | .                      |
| N                   | FinancialHealthScore   | 1200                 | 1200                   |
|                     | FinancialLiteracyScore | 1200                 | 1200                   |

**Variables Entered/Removed<sup>a</sup>**

| Model | Variables Entered                   | Variables Removed | Method |
|-------|-------------------------------------|-------------------|--------|
| 1     | FinancialLiteracyScore <sup>b</sup> | .                 | Enter  |

a. Dependent Variable: FinancialHealthScore

b. All requested variables entered.

**Model Summary**

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1     | .757 <sup>a</sup> | .574     | .573              | .3490                      |

a. Predictors: (Constant), FinancialLiteracyScore

**ANOVA<sup>a</sup>**

| Model |            | Sum of Squares | df   | Mean Square | F        | Sig.              |
|-------|------------|----------------|------|-------------|----------|-------------------|
| 1     | Regression | 196.303        | 1    | 196.303     | 1611.574 | .000 <sup>b</sup> |
|       | Residual   | 145.926        | 1198 | .122        |          |                   |
|       | Total      | 342.229        | 1199 |             |          |                   |

a. Dependent Variable: FinancialHealthScore

b. Predictors: (Constant), FinancialLiteracyScore

**Coefficients<sup>a</sup>**

| Model                  | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. | 95.0% Confidence Interval for B |             |
|------------------------|-----------------------------|------------|---------------------------|--------|------|---------------------------------|-------------|
|                        | B                           | Std. Error | Beta                      |        |      | Lower Bound                     | Upper Bound |
| 1 (Constant)           | 1.872                       | .036       |                           | 51.686 | .000 | 1.801                           | 1.943       |
| FinancialLiteracyScore | .404                        | .010       | .757                      | 40.144 | .000 | .384                            | .424        |

a. Dependent Variable: FinancialHealthScore