# BRIDGING THE GAP BETWEEN FINANCIAL LITERACY AND FINANCIAL INCLUSION: INSIGHTS FROM RURAL NEPAL

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#### **Abstract**

Having financial literacy and belonging to the financial sector are key to empowerment and the development of the economy. Being financially literate helps you understand and use financial concepts, but financial inclusion is about opening equal access to financial services. This study explores how financial literacy and financial inclusion are related and how cognition works as a moderator for impoverished people in rural Kirtipur, Nepal. Using a structure questionnaire, an active selection of 441 participants was made for the survey. The study included things like financial literacy (knowledge, abilities, attitude, and behavior), cognitive functions (procedural and declarative) and how financially included people are (whether they have access, use services, how the services work and their well-being). Results indicated that people's financial knowledge, financial skills and attitudes support being financially included. Cognition played a big role in making both financial literacy and financial inclusion easier for many individuals. Additionally, it found that while financial attitude and behavior in people's lives had a stronger impact on financial inclusion, their level of financial skill did not. Interestingly, cognition lessened the harmful effect of having financial knowledge on inclusion. The findings show that cognition is important for improving people's financial judgments and use of financial resources. Helping underserved money managers improve their thinking skills can make a big difference in boosting their inclusion in financial systems. This study helps policymakers, banks and those in the technology sector design reliable financial literacy efforts that support both the economy and the fair treatment of people.

Keywords: Financial Literacy, Financial Inclusion, Financial Attitude, Financial Behavior, Nepal.

#### 1. INTRODUCTION

Learning about personal finance is important for both economic growth and proper use of money. Being financially literate is about knowing how financial systems operate and financial inclusion centers on helping every member of society get the chance to deal with money. They allow people and groups to be informed when making financial choices, handle unpredictable risks and fully join in economic activities. Many experts and leaders are paying closer attention to the link between financial inclusion and financial literacy (Dinç et al., 2021). It is understood that financial literacy is a necessary part of financial inclusion, even though there are many additional elements involved. Certain people think that teaching financial literacy can encourage more people to use financial services. Alternatively, it is suggested that people might not be able to use financial products and services even if they understand them well. During the Hamburg summit last year which was hosted by Germany, leaders suggested that focusing on financial inclusion remains essential for helping the poor break free from poverty. It is agreed upon by the fact that about 3 billion individuals in developing countries do not have regular access to financial services and are considered underbanked (Muchandigona & Kalema, 2023).

The Bank of Uganda defines financial inclusion as giving everyone who can access financial services the chance to do so easily and with dignity, by offering all services at affordable fees.





According to Qiao (2024), competency in a foreign language (FL) is understood through knowledge, ability, skill, attitude and confidence. To guide their work, the investigators used a modified version of the PISA 2012 framework from the OECD for the domain, exploring various ways to show FL proficiency. The research looked at the possible link between terrorism and how many people have access to financial services. Having and using affordable formal financial services is what financial inclusion means (Oberrauch et al., 2025; West et al., 2023). According to Noreen et al. (2022); Simatele and Maciko (2022) when the poor are allowed to use essential financial tools such as loans, insurance, savings and payments, they can move out of poverty and become more involved in society. Using financial inclusion allows the impoverished to live, overcome hard times and make the most of opportunities. Asset accumulation and consumption become simpler when financial inclusion occurs which may strongly improve people's lives. For this reason, experts and organizations working in development encourage learning about finances as a way to help more people get and make use of financial services (Mhlanga, 2024; Nwosu & Ilori, 2024). The complex financial products weakens the ability of the poor to choose well, because they do not always fully understand all the options presented to them. So, being financially literate helps them select the best financial choices before using complex services or products from banks and similar companies. Because of the problems that result from gender inequality, demands for changes in the financial sector to promote gender equality have increased (Agu et al., 2024; Mahesha, 2023). There are still too few people included financially in Nepal, despite progress in education, technology and more branches opened by overseen financial organizations.

The Global Findex Database 2017 revealed that the global share of adults owning an account (with a financial institution or through a mobile money service) was 69 percent, while in Nepal, the figure stood at 45 percent. With respect to gender, the share for men was 50 percent, with women at 42 percent. The national banking access point ratio is still less than one bank branch for every 10,000 adults and an ATM for every 10,000 adults. Financial literacy proponents and practitioners have traditionally tended to create financial literacy resources with the presumption that if people are given financial tools and knowledge, they would be better equipped to make decisions that will most likely lead them to their financial objectives. These financial literacy resources, however, hardly address how cognition influences financial decision-making, particularly in the case of the impoverished who are thought to be illiterate. In fact, the cultural-cognitive institution acknowledges that external cultural frameworks influence internal interpretive processes (Mancone et al., 2024; Sulistianingsih & Santi, 2023). Thus, typification, scripts, or concepts as elements of cultural-cognitive qualities offer comprehension that permits people to participate in social and economic activity (Raja et al., 2023; Salla et al., 2023). Furthermore, Anyichie and Butler, (2023) contends that people's ability to access resources is aided by the cultural-cognitive factor, which is predicated on more deeply held, identifiable, and culturally validated beliefs.

Almansour et al., (2023) notes that non-financial factors drive and constrain financial decisions. These comprise people's personality traits as well as the social context in which they make decisions. Furthermore, (Rusdian et al., 2024) contends that people's ability to access resources is aided by the cultural-cognitive factor, which is predicated on more deeply held, identifiable, and culturally validated beliefs. Because financial instruments are complex and people make financial decisions on a daily basis, people need to demonstrate a solid understanding of finance (Robba et al., 2024). The connection between religiosity and sound financial management practices has been the subject of academic research. Studies such as Antara and Musa (2021) have focused on improving Islamic financial literacy (IFL) by raising community awareness and identifying factors that influence IFL.

Thus, this aims to explore the interplay between financial literacy and financial inclusion, with a specific focus on the moderating role of cognition. By examining how cognitive abilities moderate the relationship between financial literacy and financial inclusion, we can gain insights into how to design more effective interventions and policies to promote financial wellbeing for all individuals.

#### 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

# **Financial Literacy and Inclusion**

Many researchers have presented their view point about the relationship between financial literacy and financial inclusion on their research works. According to research by Lusardi and Mitchell (2011), households with more financial literacy were also more likely to make retirement plans and, as a result, have significantly more assets when they reach retirement than non-planners. Furthermore, Bertrand and Morse (2011) discovered that people's propensity to renew payday loans was decreased when they were informed about the costs associated with borrowing money. As a result, we speculate first four hypothesis that:

- > H1: Financial knowledge significantly affects financial inclusion.
- ➤ H2: Financial skill significantly affects financial inclusion.
- > H3: Financial attitude significantly affects financial inclusion.
- ➤ H4: Financial behavior significantly affects financial inclusion.

# **Cognition and Financial Literacy**

Some researchers tried to suggest the relationship between an individual's cognition abilities (such as decision-making, problem-solving, and information processing) and their level of financial inclusion. It asserts that a person's ability to access and use financial services and products is significantly influenced by cognitive variables. In order to determine the degree to which cognitive ability influence financial inclusion, this hypothesis can be objectively examined. To make better financial decisions, most households rely in part on their capacity to access several memory facets and cognitive abilities (McArdle and Woodcock, 1998). This supports the findings of Christelis et al. (2014), who discovered a high correlation between stock market investment and cognitive ability as measured by math, verbal, and recall tests. Therefore, we speculate fifth hypothesis that:

➤ H5: Cognition significantly affects financial inclusion.

# **Cognition and Financial Inclusion**

According to Piaget's cognitive theory (Piaget, 2008), which is based on four developmental stages, as people mature, their cognitive abilities increase more complex at each level. Therefore, the capacity to follow rules and apply reasoning are crucial skills for making financially prudent decisions that develop in the third stage. It's true that having the ability to think ahead and weigh all of the options can help people make better financial decisions. Therefore, cognitive theory emphasizes the significance of stage-appropriate financial literacy due to the gradual development of cognitive abilities. Therefore, it may be stated that in order to prevent misunderstandings regarding the financial services offered by financial institutions, financial literacy—which comprises acquiring the knowledge and skills to make better financial decisions—should be in line with the past knowledge of those who are impoverished. According to a study by Cole et al. (2011), households in Indonesia and India had higher financial literacy scores when their cognitive capacity increased. This suggests that a





significant factor in determining financial literacy is cognitive ability. As a result, we speculate Sixth hypothesis that:

➤ H6: Cognition significantly affects the financial literacy.

# Cognition, Financial Literacy and Financial Inclusion

According to Willis (2009), as a person gets older, their level of expertise with financial concerns increases, contributing to their increased financial understanding. As people age, their cognitive abilities, particularly their fluid intelligence, alter. Consequently, as most people find financial topics to be complex, their capacity to evoke many cognitive skill characteristics may be a determining factor in financial concerns. Undoubtedly, one of the main factors influencing financial decisions is an individual's cognitive capacity. Cole, Shastry and Zia (2011) argue that although financial literacy may not directly influence financial decisions made by individuals, it may influence financial decision making through attributes related to cognition-based personality. As a result, individuals make educated financial decisions by applying the information to assess financial goods. Thus, we make the following four hypothesis:

- ➤ H7: Cognition significantly moderate the relationship between financial knowledge and financial inclusion.
- ➤ H8: Cognition significantly moderate the relationship between financial skill and financial inclusion.
- ▶ H9: Cognition significantly moderate the relationship between financial attitude and financial inclusion.
- ➤ H10: Cognition significantly moderate the relationship between financial behavior and financial inclusion.

# 3. METHODOLOGY

This study examines the interaction effect of cognition on the relationship between financial literacy and financial inclusion among impoverished individuals in rural Uganda, employing a quantitative research approach with a descriptive and causal-comparative design. A deductive methodology was adopted, with hypotheses derived from existing literature to inform data collection and analysis. The research employed a cross-sectional strategy, enabling the collection of data at a single point in time to test the proposed hypotheses.

The target population comprised financially underserved individuals residing in rural areas of Kirtipur, Kathmandu, where formal financial services reportedly reach only a small fraction of the population. A purposive sampling method was used to recruit participants based on their relevance to the study objectives, focusing on individuals with experience or exposure to basic financial services. A total of 441 respondents were surveyed, exceeding the minimum required sample size of 384 as calculated using Godden's (2004) formula for infinite populations at a 95% confidence level and 5% margin of error.

Primary data were collected through a structured questionnaire consisting of 70 items, adapted from validated scales in prior studies. The constructs measured include Procedural and Declarative Cognition (Schmitt, Borzillo and Probst, 2012), Financial Literacy dimensions such as Knowledge, Skills, Attitudes, and Behavior (Atkinson & Messy, 2012; Lusardi & Mitchell, 2011, 2017), and Financial Inclusion components including Access, Usage, Quality, and Welfare. Minor modifications were made to ensure contextual relevance to rural Kirtipur





settings. All items were rated on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Data analysis techniques were employed to assess relationships among variables and evaluate the moderating role of cognition, providing a systematic approach to hypothesis testing and interpretation.

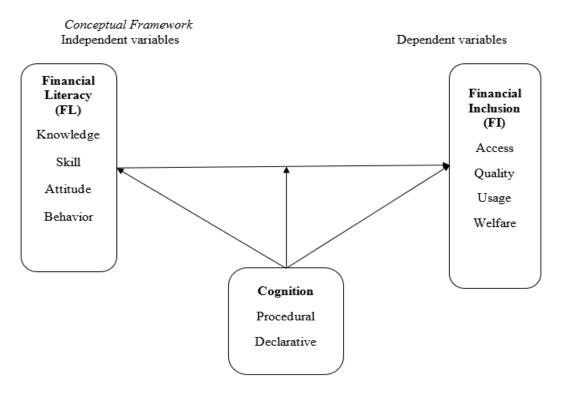


Figure 3

#### 4. ANALYSIS AND RESULTS

Table 1: Correlation test between FL, CO with FI

		FL	CO	FI		
FL	Pearson Correlation	1				
CO	Pearson Correlation	.636**	1			
FI	Pearson Correlation	.535**	.690**	1		
	Sig. (2-tailed)	.000	.000			
**. C	**. Correlation is significant at the 0.01 level (2-tailed).					

Table 1 shows the amount of correlation and significance for financial literacy and cognition in connection to financial inclusion of an individual.

Financial literacy and financial inclusion have a 0.535 correlation coefficient, which implies a good association. Similar to this, the P value for the association between financial literacy and financial inclusion is less than 0.01 threshold of significance, indicating a substantial relationship between the two. It means that individual living in Kirtipur are more likely to engage in financial inclusion as their degree or level of financial literacy increases. Therefore, there is a significant and positive association between financial literacy and financial inclusion (r = 0.535, p = 0.000 < 0.01).

Financial literacy and cognition have a 0.636 correlation coefficient, which indicates a good association. The P value for financial literacy to cognition is also less than 0.01 level of



significance, indicating that there is meaningful association between the two. It means that the cognitive process of an individual is directly related to the financial literacy. It indicates that there is a significant and positive association between the financial literacy and cognition (r=0.636, P=0.000<0.01).

Financial inclusion and cognition have a 0.690 correlation coefficient, which implies a good association. The P value for financial inclusion and cognition is also less than 0.01 level of significance, showing that there is a meaningful association between the two. It means that the cognitive process of an individual directly influences the financial inclusion. It indicates that there is a significant and positive association between the financial inclusion and cognition (r=0.690, P=0.000<0.01).

**Table 2: Collinearity Statistics (VIF) for Indicators** 

Constructs	VIF
Financial Knowledge	3.431
Financial Skills	2.160
Financial Attitude	2.878
Financial Behavior	1.747

Table 2 shows the inner VIF values used in the current investigation. All constructs have inner VIF values that are less than 5, which indicates that there is no collinearity among the predictors.

**Table 3: Multiple Regression Analysis** 

Model		<b>Unstandardized Coefficients</b>		Standardized Coefficients		
	Model	В	Std. Error	Beta	t	Sig.
	(Constant)	1.291	.152		8.490	.000
	FLK	.145	.074	.143	1.964	.050
	FLS	.145	.055	.153	2.637	.009
	FLA	.253	.059	.289	4.326	.000
	FLB	.301	.045	.346	6.630	.000

The P- values for all the independent variables FLK, FLS, FLA and FLB show statistically significant association with the dependent variable i.e. less than 0.05. These seem to have a considerably greater influence on predicting financial inclusion. The proportional contribution of the independent variables to the prediction of the dependent variable can be compared using the standardized coefficients (Beta).

H1 examined whether financial knowledge has a significant positive impact on financial inclusion. The findings revealed that financial knowledge has a negative and significant impact on financial inclusion ( $\beta = 0.143$ , t = 1.964 and p = 0.050 < 0.05). So, H1 was rejected.

H2 examined whether financial skill has a significant positive impact on financial inclusion. The finding depicted that the financial skill has a significant and positive impact on financial inclusion ( $\beta = 0.153$ , t = 2.637 and p = 0.009 < 0.05). So, H2 was accepted.

H3 investigated whether financial attitude has a significant positive impact on financial inclusion. The finding revealed that the financial attitude has a positive and significant impact on financial inclusion ( $\beta = 0.289$ , t = 4.326, p = 0.000 < 0.05). So, H3 was accepted.

H4 investigated whether financial behavior has a significant positive impact on financial inclusion. The finding revealed that financial behavior has a positive and significant impact on financial inclusion ( $\beta = 0.346$ , t = 6.630 and p = 0.000 < 0.05). So, H4 was accepted.

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Table 4: Multiple Regression Analysis between CO and FI

	<b>Unstandardized Coefficients</b>		Standardized Coefficients	efficients		lized Coefficients 4 S:	
Model	В	Std. Error	Beta	τ	Sig.		
(Constant)	.801	.121		6.626	.000		
CO	.710	.036	.690	19.937	.000		

#### a. Dependent variable: FI

H5 investigated whether cognition has a significant positive impact on financial inclusion. The finding revealed that cognition has a positive and significant impact on financial inclusion ( $\beta = 0.690$ , t = 19.937 and p = 0.000 < 0.05). So, H5 was accepted.

Table 5: Multiple Regression Analysis between CO and FL

	Unstandar	dized Coefficients	Standardized Coefficients	4	Sig.
Model	В	Std. Error	Beta	τ	
(Constant)	1.422	.120		11.895	.000
CO	.608	.035	.636	17.250	.000

# a. Dependent variable: FL

H6 investigated whether cognition has a significant positive impact on financial literacy. The finding revealed that cognition has a positive and significant impact on financial literacy ( $\beta$  = 0.636, t = 17.250 and p = 0.000 < 0.05). That is why, H6 was accepted.

It appears from the study that the effect of financial literacy on individuals' financial inclusion is moderated by cognitive skills. We use the coefficient measure to gauge how strong and which way cognition relates to both financial literacy and financial inclusion. Below is the data that was used:

**Table 6: Multiple Regression Analysis** 

	<b>Unstandardized Coefficients</b>		Standardized Coefficients	4	S:a
Model	В	Std. Error	Beta	ι	Sig.
(Constant)	1.869	.071		26.145	.000
Int1_FLK*CO	045	.019	260	-2.327	.020
Int2_FLS*CO	.004	.014	.026	.310	.756
Int3_FLA*CO	.081	.015	.493	5.306	.000
Int4_FLB*CO	.074	.012	.462	6.277	.000

#### a. Dependent variable: FI

H7 examined whether people thought processes could affect the connection between knowledge about finance and financial inclusion. Results revealed that cognition reduced a notable effects of financial knowledge on financial inclusion ( $\beta$  = -0.260, t = -2.327 and p = 0.020 < 0.05). So, H7 was accepted.

H8 examined whether the moderating role of cognition affect the relationship between financial skill and financial inclusion. The findings revealed that cognition has a positive and insignificant impact on the relationship between financial skill and financial inclusion ( $\beta = 0.026$ , t = 0.310 and p = 0.756 > 0.05). So, H8 was rejected.

H9 examined whether the moderating role of cognition affect the relationship between financial attitude and financial inclusion. The findings revealed that cognition has a positive and significant impact on the relationship between financial attitude and financial inclusion  $(\beta = 0.493, t = 5.306 \text{ and } p = 0.000 < 0.05)$ . So, H9 was accepted.





H10 examined whether the moderating role of cognition affect the relationship between financial behavior and financial inclusion. The findings revealed that cognition has a positive and significant impact on the relationship between financial behavior and financial inclusion ( $\beta = 0.462$ , t = 6.277 and p = 0.000 < 0.05). So, H10 was accepted.

#### 5. DISCUSSION AND CONCLUSION

Behavioral finance has transformed traditional finance by assuming that psychology influences how people make financial decisions (Vigoda-Gadot, Eldor, and Schohat, 2013). Cognitive and emotional errors that contribute to behavioral biases include erroneous data interpretation, calculations, and memory errors, while emotional errors are generated by thoughts and feelings (Kumari and Sar, 2017). Socioeconomic, cultural, and behavioral factors, among others, might influence an individual investor's behavior (Fathima, Khan and Alam, 2024).

The research was aimed at understanding how well people are financially literate and whether cognition moderates their link with financial inclusion. In the study, the researchers apply Cognitive theory, Prospect Theory, Theory of Reasoned Action and Theory of Planned Behavior. Xiao et al. (2011) looked at how cognition affects the relationship between having financial knowledge and financial inclusion. Results showed that having greater cognitive skills helped people make better use of financial literacy to access more financial resources. According to the authors, having strong cognitive abilities helps people better use and understand financial services. In the same way, Kanheman and Tversky (1979) introduced prospect theory, explaining risks and gains when investors decide on investments. It fits with the key ideas of Prospect Theory, as it looks closely at cognitive biases and risky decisions, helping us understand how to help more people with financial literacy and inclusion by including this information. The Theory of Reasonable Action (Fishbein & Ajzen, 1975) looks at a factor that shapes how people form their attitudes and decide to do something. These researchers defined attitude as how a person views something, belief as the link between an object and an attribute and behavior as an outcome. In addition, Ajzen and Fishbein (1980) introduced the Theory of Planned Behavior, a new version of the Theory of Reasoned Action. The Theory of Planned Behavior States that individual behavioral is influenced by the behavioral intention of the individual and this intension is affected by attitude, subjective norms and perceived behavioral control.

The interplay between financial literacy and financial inclusion with the moderating effects of cognition has been proven by numerous academics. Similar data showing the influence of financial literacy on financial inclusion are inconsistent. In order to increase access to and utilization of financial services, especially in developing countries, academics and development organizations have advocated financial literacy (Cole, Sampson, and Zia, 2010; Lusardi and Mitchell, 2011; Lusardi and Tufano, 2015; Stango and Zinman, 2009; van Rooij et al., 2007). This is because people, particularly the impoverished, struggle to make informed financial decisions due to the increasingly complicated array of financial products that banks offer. As a result, before using the sophisticated financial services and products offered by official financial institutions, financial literacy enables consumers to make informed financial decisions. Financial inclusion in Nepal is still low despite notable advancements in financial literacy programs, the use of digital financial tools, and the expansion of supervised financial institutions' access points.

The study findings suggested that financial knowledge has a positive and significant influence on financial inclusion of an individual ( $\beta = 0.143$ , p = 0.05 < 0.05). The findings supports with



those of Lusardi and Mitchell (2007), who found that financial knowledge positively and significantly influences financial inclusion in the favor. The results showed that financial skill has a significant positive impact on financial inclusion ( $\beta$  = 0.153, p = 0.009 < 0.05). Morgan and Trinh (2019b); Fernandes, Lynch, and Netemeyer (2014) and Hasan et al. (2023) agree with the findings that financial skill had significant and positive impact on financial inclusion. Similarly, financial attitude significantly influences financial inclusion in a positive way ( $\beta$  = 0.289, p = 0.000 < 0.05). George Okello Candiya Bongomin, John Munene, Joseph Mpeera Ntayi and Charles Akol Malinga (2018) confirmed the findings that financial attitude has significant and positive impact on financial inclusion. The study also discovered that the financial behavior has significant positive effects on financial inclusion ( $\beta$  = 0.346, p = 0.000 < 0.05). The findings of Ozili (2020), which showed that financial behavior has a good and favorable impact on financial inclusion.

Additionally, the findings demonstrated that cognition has a strong and favorable influence on financial inclusion ( $\beta$  = 0.690, p = 0.000). The access and utilization of formal financial institutions' financial services by the impoverished establishes their level of financial inclusivity. Furthermore, the study discovered a strong and favorable correlation between financial literacy and cognition ( $\beta$  = 0.636, p = 0.000). Increased financial literacy is a direct result of cognitive capacity, indicating that cognitive aptitude is a significant factor in determining financial literacy. George Okello Candiya Bongomin, John Munene (2018) confirmed that cognition has a significant positive effect on financial inclusion and financial literacy; the study supports their findings.

In conclusion, study's primary goal is to investigate the role that cognition plays in the connection between financial inclusion and literacy. The findings showed that financial inclusion was significantly and favorably impacted by financial literacy. The study indicated that there is insignificant interaction effect of cognition in the relationship between financial literacy and financial inclusion. By highlighting the moderating effect of cognition, this study explores the complex relationship between financial inclusion and financial literacy. As a result of the research, people are better equipped to interact with and take use of financial services, which is a major factor in improving financial inclusion. Yet, cognitive talents are key in deciding how much financial literacy affects financial inclusion.

Cognition is important for two different functions. First, it helps people understand and work with financial data which makes it easier for them to handle financial systems. Furthermore, it helps to alleviate the many difficulties that normally come with financial services for people in Nepal and similar countries. People who understand financial matters better tend to put that information into practice, shows the study. As a result, we must help people understand finance and also address any issues that affect their thinking skills. Supporting cognitive skills in financial education raises the chance of success in these campaigns and can improve financial inclusion.

Because Nepal has low rates of literacy about money, approaches that mix mental exercises with financial learning can be the most beneficial. Both policymakers and financial firms should work on programs that combine financial knowledge with brain skills which would improve inclusivity in finances.

Overall, the study implies that promoting financial inclusion requires a comprehensive approach that recognizes the connection between financial literacy and cognition. By closing these gaps, we may enable individuals, particularly those in under-served places, to fully





engage in and benefit from the financial system, thereby promoting economic growth and resilience.

Among the financial knowledge, financial literacy variables financial skill, financial attitude and financial behavior are the ones that have the most favorable effects on financial inclusion. Lastly, referencing the findings of the research, the behavioral factors that affect financial inclusion of individual are financial skill, financial attitude, financial behavior and cognition which is a moderator. Financial skill showed the significant and positive impact on financial inclusion. It indicated that individual's skill to choose appropriate financial products and service and plan their future investment or savings affects the decision of financial inclusion of that individual. Similarly, financial attitude has revealed a positive and significant impact on financial inclusion which showed that individual have good attitude towards financial and money matters. Likewise, financial behavior depicted a positive and significant impact on financial inclusion which indicates that individual can manage their money and future expenditure well. Furthermore, cognition has a positive significant impact on both financial inclusion and financial literacy which indicates that the cognitive thinking or mental process of an individual affects the knowledge and skill acquiring capability and utilizing the financial products and services offered by financial institution.

## 6. IMPLICATIONS

#### **Practical Implications**

Policymakers can create more effective financial education programs that cater to various cognitive capabilities. Recognizing that cognition effects financial literacy, programs can use a variety of instructional methods, including visual aids, interactive workshops, and practical exercises, to accommodate a wide range of cognitive talents. Groups with poorer cognitive capacities can be the subject of interventions if the cognitive factors influencing financial literacy are understood. This guarantees that these populations are included in the agenda for financial inclusion. Banking institutions can find ways to offer products that are easier for people to use, regardless of their degree of thinking skills and money knowledge. If banks make communication clear, their banking processes easier and their digital platforms easy to understand, it can solve this issue. Financial technology companies can design digital platforms that support users with different cognitive needs by coming up with new ideas. With the aid of artificial intelligence and big data, educational sites can personalize learning to match each person's way of thinking which makes financial literacy programs more valuable.

#### **Social Implications**

Exploring financial inclusion and financial literacy, taking cognition into account, has a big role in cutting down poverty and supporting economic growth. Education about money can give someone everything they need to manage their finances in the best way possible. Empowering people in this way can lead them to take key steps on investments, savings and using financial services which help combat poverty. Programs designed for learners can be formed using strategies that are sensitive to special requirements of different groups and moderate cognitive impacts. Being inclusive lets people with different mental abilities take part in financial services which brings financial fairness to everyone. Reducing the financial gap in society is possible by giving financial literacy to all people.

A well-understood approach to money usually results in improved financial safety for an individual. With stable income, the dangers of taking on debt and financial issues are lessened from home. Economically stable people generally help stabilize the economy, thereby





reducing significant dangers and keeping the economy growing. People's ability to rise up the social ladder can be increased through gaining knowledge about finances. Those with some financial knowledge can turn to these tools to lift their level of finance. Better chances for the next generation to move away from poverty can only be achieved if upward mobility is available. Teaching people about money and ensuring everyone can participate may help them financially, emotionally and improve their health in general.

#### References

- 1) Agu, E. E., Abhulimen, A. O., Obiki-Osafiele, A. N., Osundare, O. S., Adeniran, I. A., & Efunniyi, C. P. (2024). Proposing strategic models for integrating financial literacy into national public education systems. *International Journal of Frontline Research in Multidisciplinary Studies*, 3(2).
- 2) Ajzen, I., & Fishbein, M. (1980). Understanding attitudes and predicting social behavior. Prentice-Hall.
- 3) Almansour, B. Y., Elkrghli, S., & Almansour, A. Y. (2023). Behavioral finance factors and investment decisions: A mediating role of risk perception. *Cogent Economics & Finance*, 11(2), 2239032.
- 4) Antara, P. M., & Musa, R. (2020). Validating Islamic financial literacy instruments among mum generation: Rasch analysis approach. *International Journal of Business and Society*, 21(3), 1113-1121.
- 5) Anyichie, A. C., & Butler, D. L. (2023, February). Examining culturally diverse learners' motivation and engagement processes as situated in the context of a complex task. In *Frontiers in Education* (Vol. 8, p. 1041946). Frontiers Media SA.
- 6) Atkinson, A., & Messy, F. A. (2012). Measuring financial literacy. *Journal of Consumer Affairs*, 44(2), 296-316.
- 7) Bertrand, M., & Morse, A. (2011). Information disclosure, cognitive biases, and payday borrowing. *The Journal of Finance*, 66(6), 1865-1893.
- 8) Bongomin, G. O. C., Munene, J. C., Ntayi, J. M., & Malinga, C. A. (2018). Nexus between financial literacy and financial inclusion: Examining the moderating role of cognition from a developing country perspective. *International Journal of Bank Marketing*, 36(7), 1190–1212.
- 9) Christelis, D., Jappelli, T., & Padula, M. (2010). Cognitive abilities and portfolio choice. *European Economic Review*, *54*(1), 18-38.
- 10) Cole, S., Sampson, T., & Zia, B. (2011). Prices or knowledge? What drives demand for financial services in emerging markets?. *The journal of finance*, 66(6), 1933-1967.
- 11) Dinc, Y., Çetin, M., Bulut, M., & Jahangir, R. (2021). Islamic financial literacy scale: an amendment in the sphere of contemporary financial literacy. *ISRA International Journal of Islamic Finance*, 13(2), 251-263.
- 12) Fathima MS, A., Khan, A., & Alam, A. S. (2024). A bibliometric review of consumers' purchase behaviour for solar energy products. *International Journal of Energy Sector Management*, 18(6), 1328-1355.
- 13) Fernandes, D., Lynch Jr, J. G., & Netemeyer, R. G. (2014). Financial literacy, financial education, and downstream financial behaviors. *Management science*, 60(8), 1861-1883.
- 14) Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research.* Addison-Wesley.
- 15) Hasan, R., Ashfaq, M., Parveen, T., & Gunardi, A. (2023). Financial inclusion—does digital financial literacy matter for women entrepreneurs?. *International Journal of Social Economics*, 50(8), 1085-1104.
- 16) Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 263–291.
- 17) Kumari, N., & Sar, A. K. (2017). Recent developments and review in behavioural finance. *International Journal of Applied Business and Economic Research*, 15(19), 235-250.
- 18) Lusardi, A., & Mitchell, O. S. (2011). Financial literacy and planning: Implications for retirement wellbeing. *Pension Research Council Working Paper*, *1*(1), 1–30.





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- 19) Lusardi, A., & Mitchell, O. S. (2011). Financial literacy and retirement planning in the United States. *Journal of pension economics & finance*, 10(4), 509-525.
- 20) Lusardi, A., & Mitchell, O. S. (2017). How ordinary consumers make complex economic decisions: Financial literacy and retirement readiness. *National Bureau of Economic Research Working Paper*, 15350, 1–35.
- 21) Lusardi, A., & Tufano, P. (2015). Debt literacy, financial experiences, and overindebtedness. *Journal of pension economics & finance*, 14(4), 332-368.
- 22) Mahesha, V. (2023). Financial literacy: An initiative taken by the Government of Karnataka. *International Journal for Multidisciplinary Research*, 5(3), 3-7.
- 23) Mancone, S., Tosti, B., Corrado, S., Spica, G., Zanon, A., & Diotaiuti, P. (2024, October). Youth, money, and behavior: the impact of financial literacy programs. In *Frontiers in Education* (Vol. 9, p. 1397060). Frontiers Media SA.
- 24) McArdle, J. J., & Woodcock, R. W. (Eds.). (2014). *Human cognitive abilities in theory and practice*. Psychology Press.
- 25) Mhlanga, D. (2024). The role of big data in financial technology toward financial inclusion. *Frontiers in big Data*, 7, 1184444.
- 26) Morgan, P. J., & Trinh, L. Q. (2019). Determinants and impacts of financial literacy in Cambodia and Viet Nam. *Journal of Risk and Financial Management*, 12(1), 1-20.
- 27) Muchandigona, A. K., & Kalema, B. M. (2023). The catalytic role of mobile banking to improve financial inclusion in developing countries. *International Journal of E-Services and Mobile Applications* (*IJESMA*), 15(1), 1-21.
- 28) Noreen, M., Mia, M. S., Ghazali, Z., & Ahmed, F. (2022). Role of government policies to fintech adoption and financial inclusion: A study in Pakistan. *Universal Journal of Accounting and Finance*, 10(1), 37-46.
- 29) Nwosu, N. T., & Ilori, O. (2024). Behavioral finance and financial inclusion: A conceptual review and framework development. *World Journal of Advanced Research and Reviews*, 22(3), 204-212.
- 30) Oberrauch, L., Kaiser, T., & Lusardi, A. (2024). Assessing financial literacy among the young. *Journal of Financial Literacy and Wellbeing*, 2(1), 63-78.
- 31) Ozili, P. K. (2020). Financial inclusion research around the world: A review. *Forum for Social Economics*, 49(4), 457–479.
- 32) Piaget, J. (2008). Intellectual evolution from adolescence to adulthood. *Human development*, 51(1), 40-47.
- 33) Qiao, C. (2024). Factors influencing second language learning based on the research of Lightbown and Spada. *Frontiers in Psychology*, *15*, 1347691.
- 34) Raja, R., Ma, J., Zhang, M., Li, X. Y., Almutairi, N. S., & Almutairi, A. H. (2023). Social identity loss and reverse culture shock: Experiences of international students in China during the COVID-19 pandemic. *Frontiers in psychology*, *14*, 994411.
- 35) Robba, M., Sorgente, A., & Iannello, P. (2024). Disentangling the "crypto fever": An exploratory study of the psychological characteristics of cryptocurrency owners. *Current Research in Behavioral Sciences*, 6, 100151.
- 36) Rusdian, S., Sugiat, J., & Tojiri, Y. (2024). Understanding Consumer Behavior in Marketing Management: A Descriptive Study and Review of Literature. *Golden Ratio of Marketing and Applied Psychology of Business*, 4(2), 76-87.
- 37) Salla, A., Newbigging, K., Joseph, D., & Eneje, E. (2023). A conceptual framework for culturally appropriate advocacy with racialised groups. *Frontiers in Psychiatry*, *14*, 1173591.
- 38) Schmitt, A., Borzillo, S., & Probst, G. (2012). Don't let knowledge walk away: Knowledge retention during employee downsizing. *Management learning*, 43(1), 53-74.
- 39) Simatele, M., & Maciko, L. (2022). Financial inclusion in rural South Africa: A qualitative approach. *Journal of Risk and Financial Management*, 15(9), 376.



- 40) Stango, V., & Zinman, J. (2009). Exponential growth bias and household finance. *the Journal of Finance*, 64(6), 2807-2849.
- 41) Sulistianingsih, H., & Santi, F. (2023). Does SME's financing decisions follow pecking order pattern? The role of financial literacy, risk preference, and home bias in SME financing decisions. *Cogent Business & Management*, 10(1), 2174477.
- 42) Van Rooij, M., Lusardi, A., & Alessie, R. (2011). Financial literacy and stock market participation. *Journal of Financial economics*, 101(2), 449-472.
- 43) Vigoda-Gadot, E., Eldor, L., & Schohat, L. M. (2013). Engage them to public service: Conceptualization and empirical examination of employee engagement in public administration. *The American Review of Public Administration*, 43(5), 518-538.
- 44) West, T., De Zwaan, L., & Johnson, D. (2023). Do women have lower levels of financial literacy, or are they opting out? A look at the non-response gender bias in financial literacy measurement. *Financial Services Review*, 31(1), 55-71.
- 45) Xiao, J. J., Tang, C., Serido, J., & Shim, S. (2011). Antecedents and consequences of risky credit behavior among college students: Application and extension of the theory of planned behavior. *Journal of Public Policy & Marketing*, 30(2), 239-245.

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