Synergy of Financial Literacy and Financial Inclusion in Nepal

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Abstracts

This paper explores the synergy between financial literacy and financial inclusion in Nepal using a quantitative approach based on baseline survey data from the Nepal Rastra Bank. The investigation focuses on three key components: financial knowledge, attitude, and behavior, analyzed through descriptive and multiple regression techniques. Financial literacy is treated as the independent variable and financial inclusion as the dependent variable, with demographic factors as controls. The Ordinary Least Squares (OLS) regression analysis reveals a significant positive relationship; specifically, a one-unit increase in financial literacy correlates with a 0.215-unit increase in financial inclusion, reducing to 0.161 units when controlling for demographic variables. Notably, formal employment participation enhances financial inclusion by 0.527 units, and higher education levels are positively associated with financial inclusion. These findings highlight the critical role of financial literacy in fostering financial inclusion emphasizing the need for targeted interventions to strengthen financial literacy.

***Keyword**: Financial literacy, financial inclusion, OLS regression, financial behavior, financial attitude, financial knowledge.*

JEL Classification: G53, G20, O16, C50

Introduction

The concept of financial inclusion has become crucial for economic development and poverty alleviation. It involves ensuring that all segments of society, especially the economically vulnerable, have access to financial services. Research shows that financially excluded individuals face persistent poverty and inequality (Lyons et al., 2019). Enhancing financial literacy is key to addressing this issue.

Nepal Rastra Bank's fiscal policy for 2076/77 significantly advanced financial inclusion by allowing branchless banking in all local wards and encouraging microfinance institutions to expand into rural areas. By mid-2080, almost all local governments had commercial bank branches, showing notable progress.

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Financial literacy, the ability to make informed financial decisions, greatly impacts financial behavior. Higher financial literacy correlates with better savings practices and reduced reliance on informal borrowing (Lyons et al., 2019). Fitri (2020) found that increased earnings from businesses can enhance financial literacy.

Despite the benefits of financial literacy, rural populations often lack access to financial education and services (Lyons & Kass-Hanna, 2019). Addressing this gap through targeted education initiatives is essential for improving financial inclusion.

The interconnections between financial literacy, financial inclusion, and their broader economic implications across various regions. Akpene et al. (2021) explored how financial literacy influences financial inclusion and stock market participation in Ghana, uncovering a significant impact of literacy on both inclusion and market engagement. Omojolaibi et al. (2021) highlighted the role of financial literacy in deepening financial integration in Africa, advocating for policy measures to enhance access and education. Hasan et al. (2021) and Kass-Hanna et al. (2022) emphasized the critical importance of financial and digital literacy in improving financial access and building resilience in rural Bangladesh and developing regions like South Asia and Sub-Saharan Africa. Studies by Jin (2022) in rural China and Pandey et al. (2022) in North India further underscored the benefits of financial literacy on household welfare and sustainable growth. Research from Ranabhat et al. (2023), Hasan et al. (2023), Desai et al. (2023), and Abbas et al. (2023) highlighted similar themes, focusing on the positive effects of financial literacy on inclusion in Nepal, women's financial inclusion globally, and Islamic banking in Indonesia. Collectively, these studies reveal the pivotal role of financial literacy in fostering financial inclusion and promoting economic development.

Financial inclusion being vital for economic development, yet achieving it remains difficult in regions like Nepal, where access to formal financial services and financial literacy levels are low. Despite efforts, a significant gap persists in understanding and accessing financial resources, especially in rural areas. This study seeks to address the problem of whether enhancing financial literacy can lead to greater financial inclusion in Nepal. It will explore if improved understanding of financial concepts such as savings, credit, and electronic payments can increase the usage of these services, ultimately contributing to economic stability and growth. In this background, this study has two fold objectives. Firstly, to study the nature and extent of financial literacy and financial inclusion in Nepal secondly to examine the relation between financial literacy and financial inclusion in Nepal.

Review of the Literature

Research shows a strong link between financial literacy and financial inclusion,

especially in developing countries like Nepal. Ghosh & Vinod (2017) highlighted gender gaps in India, calling for targeted literacy programs. Mouna & Anis (2017) found that low literacy limits investment in Tunisia, while Kodongo (2018) stressed its role in making markets more inclusive. Ozili (2020) offered frameworks connecting literacy to inclusion, and Khan et al. (2022) emphasized rising awareness of their importance. Together, these studies suggest that improving financial literacy is key to advancing financial inclusion and economic growth in Nepal.

Studies highlight the vital role of financial literacy in advancing financial inclusion and economic development in Nepal. Grohmann et al. (2018) found that financial literacy boosts inclusion alongside infrastructure. Thapa & Nepal (2015) revealed low literacy among college students, while Pant (2016) pointed to poor infrastructure and literacy as barriers, advocating digital solutions. Chaulagain et al. (2018) stressed literacy's role in empowering marginalized groups. Together, these findings show that improving financial literacy is key to expanding financial inclusion in Nepal.

Recent studies highlight the strong link between financial literacy, regulation, and financial inclusion across developing countries. Kodongo (2018) found that supportive regulations in Kenya, like agency banking, enhance inclusion, while strict KYC rules hinder it. Bire et al. (2019) showed that financial training improves MSME inclusion in Indonesia. In Nigeria, Adetunji et al. (2019) linked literacy to better saving habits. Qamruzzaman et al. (2019) emphasized that financial inclusion attracts foreign capital. Morgan et al. (2020) and Okello et al. (2020) stressed the role of literacy and social networks in Laos and Uganda, respectively. Several 2021 studies-Hasan & Hoque, Rostogi, Cicchiello, and Grohmann & Menkhoff-reinforced the global importance of financial literacy, especially in rural and low-income areas, for boosting inclusion and economic growth. While most findings are positive, Fauziah et al. (2021) found no strong link in Indonesia, suggesting the need for targeted strategies.

Christiani et al. (2023) propose strengthening the oversight of Financial Services Authorities (FSA) in Indonesia to improve public trust, literacy, and financial inclusion. Karki et al. (2023) find that financial literacy training significantly enhances financial behavior in rural Nepal. Yang et al. (2023) show that financial literacy boosts digital finance usage in China, especially among disadvantaged groups. Khongwir et al. (2023) use bibliometric analysis to map trends in financial literacy and inclusion research. Majid et al. (2023) emphasize the role of Islamic financial literacy and socialization in promoting financial inclusion in Aceh, Indonesia.

Recent studies further emphasize the vital role of financial literacy and technology in inclusive development. Marini et al. (2024) link financial literacy and tech use to improved MSME performance in Indonesia, while Dris et al. (2024) show its positive

impact on indigenous communities in the Philippines. Ghosh (2024) and Suprapti et al. (2024) offer reviews to guide future financial inclusion research.

Miswanto et al. (2024) examined how financial literacy and supply chain management enhance SME sustainability. Collectively, these studies underscore the critical role of financial literacy in promoting inclusion and economic growth. The synergy between literacy and inclusion is clear, empowering individuals and supporting sustainable development. Future research should explore the roles of digital finance, regulation, and education in strengthening this relationship.

Data

The data used for the study is from the secondary financial literacy survey data collected by the Nepal Rastra Bank. The study gathers data through a cross-sectional multistage survey in Nepal Rastra Bank. The survey covers financial literacy, inclusion, and demographics, with a carefully determined 9361 sample size (NRB, Baseline survey). The questionnaire used in the study can be accessed in the report. In our study after the selection of the variables and cleaning for the missing data, the sample size chosen for this study is 3355 individuals.

Methodology

The main objective of the study is to examine the relationship between financial literacy and financial inclusion in Nepal. OLS regression is a statistical technique used to estimate the linear relationship between a dependent variable and one or more independent variables. In our model, financial inclusion serves as the dependent variable, representing various dimensions such as access to banking services, credit availability, and participation in the formal financial sector. Financial literacy, along with control variables such as education, income, age, and male, were included as independent variables. The OLS regression analysis allowed us to assess the impact of financial literacy on financial inclusion while controlling for the influence of demographic characteristics.

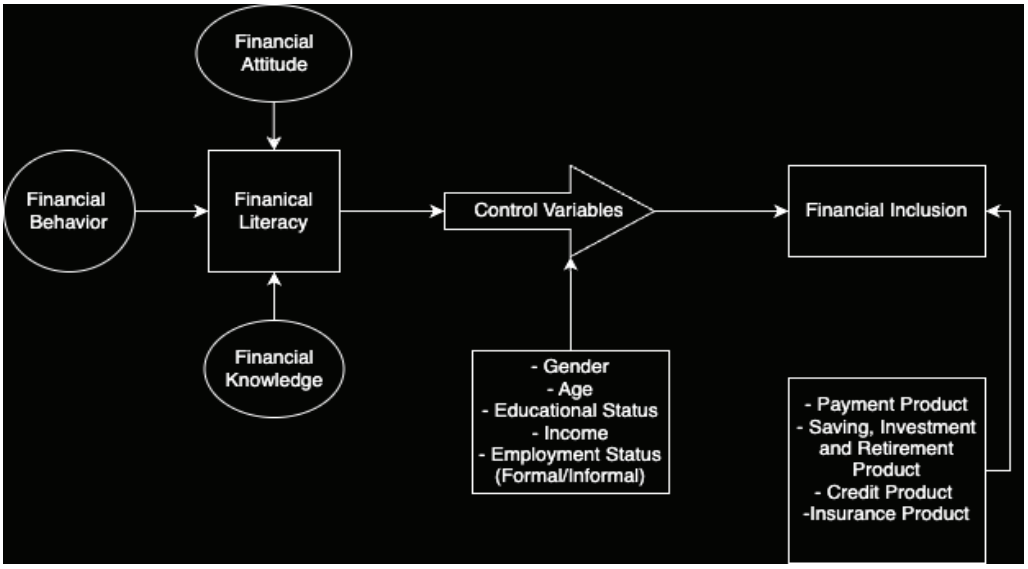
FI= f (FL, Age, Gender, Education, Income, Formal)
Where;
FI= Financial Inclusion
FL= Financial Literacy (measure on financial knowledge, financial attitude and financial behavior)
Control variables= Age, Gender, Education, Income
Formal= Employment sector (Formal/Informal)

The conceptual framework developed as in the figure 3.2 shows how the financial knowledge, financial attitude and financial behavior determine the financial literacy. Then, it also illustrates the relationship between the financial literacy and financial inclusion including the control variables such as age, gender, Education status, Income

and Employment (formal and informal sector). Also financial inclusion measure in the different components payment product, saving investment retirement product, Insurance product and Credit product dependently.

Figure 1:

Conceptual Framework



Source: Author drawing

In the figure the channel is discussed briefly. The financial literacy depends on three components: Financial Attitude, Financial Behavior, and Financial Knowledge and in the channel between financial literacy and financial inclusion there are certain Control Variables. This can be depicted in the figure above.

Empirical Model

The empirical model in this study quantitatively examined the connection between financial literacy and financial inclusion in Nepal. Financial literacy, representing knowledge, attitude, and behaviors, was the main independent variable, while demographic factors served as controls. Financial inclusion, encompassing access to banking services and credit, was the dependent variable. Using OLS regression, the model estimated coefficients to reveal the strength and direction of these relationships

The model used in the study is:

$$FI_{scores} = \alpha + \beta_1 FL_{scores} + \beta_2 X_i + \epsilon$$

Here, the dependent variable, FI_{score} is the financial inclusion score which constituent

financial Inclusion scores from:

1. Payment Products
2. Saving, Investment and Retirement Products
3. Insurance Products
4. Credit Products

Similarly, the independent variable, FI_{score} is the financial literacy score, which constituent the financial literacy score attributed from:

1. Financial Knowledge
2. Financial Attitude
3. Financial Behavior

Here, α is the constant; β_1 and β_2 are the coefficient of financial literacy score and control variables respectively.

X_i Denote the set of control variable which constituents the following individual characteristics:
Gender - 1 if male and 0 either
Age - continuous variable
Education Status - 1 if educated and 0 either (From the questionnaire if the respondents are illiterate or have not taken any formal education then is classified as 0 and 1 for other response.
Income - continuous variable
Employment Sector (Formal/Informal) – 1 if involved in formal sector 0 otherwise.

Operational Definition of Variables

The computation of financial indicators involves assessing an individual's financial literacy through three key components: Financial Knowledge Score, Financial Behavior Score, and Financial Attitude Score. The assessment of financial inclusion involves evaluating six indicators, in accordance with the OECD/INFE 2022 guidelines, as outlined in Table 2.1. A score of 1 is assigned when the specified conditions are fulfilled, while a score of 0 is assigned if the conditions are not met.

Financial Literacy: The Financial Literacy Score is determined by adding up the scores obtained in the financial knowledge, financial attitude, and financial behavior components. This score can fall within the range of 1 to 20. The minimum target score is considered achieved when the respondent attains the required minimum score in all three components.

Financial Knowledge Score: The Financial Knowledge Score is calculated by assessing the accuracy of responses to seven financial knowledge questions. These questions pertain to fundamental financial concepts including the effects of inflation on purchasing power, interest principles, the correlation between risk and return, and the concept of

diversification (Q21-Q27). The score can vary from 0 to 7, and achieving a minimum target score of 5 or more indicates a satisfactory level of financial knowledge.

Financial Behavior Score: The Financial Behavior Score is derived by totaling the scores acquired in eight financial behavior questions. These questions encompass areas such as budgeting (Q17, Q18.1, Q18.2, Q18.3, and Q18.4), active saving (Q19), refraining from borrowing(Q41), selecting financial products (Q38 and Q39), seeking expert advice, overseeing financial matters (Q33), working towards goals (Q34), making thoughtful purchases (Q28) and paying bills on time (Q31). Each behavior is assigned a score of 1, except for choosing financial products, where a score of 2 is allotted if done with an independent financial adviser. The overall score can range from 0 to 9, with a minimum target score for satisfactory financial behavior set at 6 or more.

Financial Attitude Score: The Financial Attitude Score is determined by calculating the average scale of responses to three attitude questions, which are rated on a 5-point Like it scale. These questions explore attitudes concerning money, saving, and long-term saving (Q29, Q30, and Q35). The resulting score is then rescaled to fall within a range of 1 to 4. A minimum target score of 2.4 or higher is set to indicate a satisfactory level of financial attitude.

Financial Inclusion: The financial inclusion score is calculated based on the indicator as below. The indicators are included in the questionnaire and it is quantified as below in table.

Table 1:

Financial Inclusion Indicator

Indicator	**Financial Products**
Payment products	Mobile banking, internet banking, credit card/debit card, saving and current account and digital wallets. (1 if have at least one)
Saving Investment and Retirement Products	Bank saving, current account, fixed deposit, micro saving, saving in cooperatives and informal group saving, Provident fund, Citizen Investment Trust (CIT), Shares and bonds. (1 if have at least one)
Insurance	Life insurance and non-life insurance. (1 if have at least one)
Credit product	Bank loan, microfinance loan, and unsecured loan, credit from cooperatives, informal group loan, Government grants and loans. (1 if have at least one)
Aware of at least 5 products	Aware of 5 products from list of 24 products in the questionnaire.
Relying on family and friends	Either rely on family and friends to save or rely on family and friends to meet end needs.

Source: NRB Baseline Survey, 2022

Then the score of each indicator is added and the financial inclusion score is calculated. The minimum value of the financial inclusion is 0 and the maximum value of the financial inclusion is 6.

Discussion and Result

This section presents the descriptive statistics of the study variables for a sample of 3,355 individuals. Financial literacy scores among respondents range from 2.847 to 9, with the maximum possible score being 20 according to the NRB report. Financial literacy is assessed through three components: financial knowledge (FK), financial behavior (FB), and financial attitude (FA). The FK scores range from 0 to 7, with a mean of 4.189, falling short of the NRB target of 5 or higher; however, 50.31% of respondents achieve or exceed this target. In contrast, the FA scores, ranging from 0.8 to 4, have a mean of 2.6, surpassing the minimum target of 2.4, with 66.23% of respondents meeting or exceeding this threshold. The FB scores range from 0.016 to 9, with a mean of 5.426, which is below the targeted minimum of 6; only 39.4% of respondents achieve this target. The financial inclusion scores range from 0 to 6, with a mean of 3.403. Detailed breakdowns show that payment product scores range from 0 to 4, with a mean of 0.966; saving, investment, and retirement product scores range from 0 to 9, with a mean of 3.343; insurance product scores range from 0 to 2, with a mean of 0.520; and credit product scores range from 0 to 6, with a mean of 1.08. These statistics provide insights into the financial literacy levels and the extent of financial inclusion among the respondents, highlighting areas for potential improvement.

Table 2:

Descriptive Statistics

Variable	Obs.	Means	Std. dev	Min	Max
Financial Literacy	3355	5.95	3.448	2.847	20
FK	3355	4.189	2.409	0	7
FA	3355	2.6	0.8114	0.8	4
FB	3355	5.426	1.609	0.016	9
Financial Inclusion	3355	3.403	1.43	0	6
FI_PayPro	3355	0.966	1.373	0	4
FI_SIRP	3355	3.343	1.98	0	9
FI_Ins	3355	0.520	0.654	0	2
FI_CP	3355	1.08	1.346	0	6
Control Variables					
Male	3355	0.701	0.453	0	1
Age	3355	41.45	12.7	18	89
Edu	3355	0.766	0.423	0	1
Income	3355	34560.8	54647.13	200	1500000
Formal	3355	0.470	0.5	0	1

Author's calculation

Similarly, the male population used in this study was 2382 and the female population was 973. The average age of the respondents was 41.45 and range of the age was between 18 and 89. The monthly income of respondent range between 200 and 15, 00,000.

In this section, we analyze the correlation between financial literacy (FL) and financial inclusion (FI), as well as their respective components. The correlation matrix reveals a moderate positive correlation of 0.5164 between FL and FI, indicating that higher financial literacy is associated with greater financial inclusion. This relationship is statistically significant, underscoring the importance of financial literacy in promoting financial inclusion.

Table: 3

Correlation Matrix

	FI	FL
FI	1	
FL	0.5164	1

Author's Calculation

Breaking down the components, the correlation between financial inclusion and financial knowledge (FK) is 0.4013, and with financial behavior (FB) it is 0.4689, both moderate positive correlations. In contrast, financial attitude (FA) shows a minimal correlation of 0.0730 with financial inclusion.

Table 4

Correlation Matrix (Financial Inclusion and Components of Financial Literacy)

	FI	FK	FA	FB
FI	1			
FK	0.4013	1		
FA	0.0730	-0.0054	1	
FB	0.4689	0.3566	0.0360	1

Author's Calculation

Further analysis of financial inclusion components shows positive correlations with financial literacy: payment products (0.4758), savings and investment products (0.4951), insurance products (0.3709), and credit products (0.2135). These correlations indicate that improved financial literacy is linked to greater use of various financial services, supporting the idea that enhancing financial literacy can boost financial inclusion and economic engagement.

Table 5:

Correlation Matrix (Financial Literacy and Components of Financial Inclusion)

	PayProd	SIRP	Ins	Credit	FL
PayProd	1				
SIRP	0.4828	1			
Ins	0.4596	0.5188	1		
Credit	0.1735	0.4710	0.2370	1	
FL	0.4758	0.4951	0.3709	0.2135	1

Author's Calculation

Relation Between Financial Literacy and Financial Inclusion

Components of Financial Inclusion

In this study, we explore the relationship between financial literacy and various indicators of financial inclusion: Payment Products, Savings, Investment and Retirement Products, Insurance, and Credit Products. Simple regression analysis reveals that financial literacy is a significant predictor for all these indicators at the 1% significance level. Specifically, a 1-point increase in financial literacy is associated with a 0.189 unit increase in access to payment products, a 0.284 unit increase in the use of savings, investment, and retirement products, a 0.0703 unit increase in insurance usage, and a 0.0834 unit increase in credit product use. Among these, financial literacy most strongly influences the use of savings, investment, and retirement products, while its impact on insurance and credit products is smaller. These findings highlight the critical role of financial literacy in enhancing financial inclusion, supporting literature that underscores its importance in fostering access to financial services.

Table 6:

Regression result of financial inclusion indicator and Financial Literacy

	(1)	(2)	(3)	(4)
VARIABLES	FI_PayPro_Used	FI_SIRP_Used	FI_Ins_Used	FI_CP_Used
FL	0.189***	0.284***	0.0703***	0.0834***
	(0.00605)	(0.00860)	(0.00304)	(0.00659)
Constant	-1.348***	-0.122	-0.339***	0.0629
	(0.0768)	(0.109)	(0.0386)	(0.0836)
Observations	3,355	3,355	3,355	3,355

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Author's Calculation

The regression result here suffers from the omitted variable bias as it studies the relation between the indicators of financial inclusion and financial literacy. There could be other variables that are individual characteristics that could affect the financial inclusion of the individual. Hence, to cope with the omitted variable bias, the regression result is again run with the introduction of the control variables.

In Table (8) the regression result is reported along with the introduction of the control variable to the previous regression result in Table (7). After the introduction of the control variable also Even after controlling for variables, the regression results confirm that increased financial literacy positively impacts the use of payment products, savings, investment and retirement products, insurance, and credit products. Notably, the strongest influence of financial literacy is seen in the use of savings, investment, and retirement products. Education stands out as a significant factor, with higher educational attainment linked to greater use of these financial services. Income also shows a positive relationship, highlighting the importance of financial capacity in service adoption. Interestingly, the use of payment and insurance products decreases with age, while the use of savings, investment, retirement, and credit products remains positive, revealing nuanced patterns in financial behavior. We can see the variable of interest i.e. FL is significant at the 1% significance level.

Table7:

Regression Result with Control Variable

	(1)	(2)	(3)	(4)
VARIABLES	FI_PayPro_Used	FI_SIRP_Used	FI_Ins_Used	FI_CP_Used
FL	0.120***	0.219***	0.0507***	0.0777***
	(0.00652)	(0.00961)	(0.00346)	(0.00764)
Male	0.188***	-0.255***	0.0280	-0.152***
	(0.0436)	(0.0643)	(0.0231)	(0.0511)
Age	-0.0133***	0.0105***	-6.99e-05	0.00486**
	(0.00167)	(0.00247)	(0.000887)	(0.00196)
Edu	0.138**	0.369***	0.0709**	0.143**
	(0.0548)	(0.0807)	(0.0290)	(0.0642)
Income	2.97e-06***	2.10e-06***	9.44e-07***	3.75e-07
	(3.64e-07)	(5.36e-07)	(1.93e-07)	(4.26e-07)
Formal	0.722***	0.826***	0.223***	0.0343
	(0.0445)	(0.0656)	(0.0236)	(0.0521)

Constant	-0.633***	-0.330*	-0.308***	-0.0991
	(0.114)	(0.169)	(0.0607)	(0.134)
Observations	3,355	3,355	3,355	3,355

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Author's Calculation

Components of Financial Literacy

Financial literacy is composed of three key indicators: Financial Knowledge (FK), Financial Attitude (FA), and Financial Behavior (FB). To assess the impact of these components on financial inclusion (FI), regression analyses were conducted. The results, shown in Table 4.8, reveal significant relationships. Specifically, a one-unit increase in FK leads to a 0.239-unit rise in FI, significant at the 1% level. Similarly, a one-unit increase in FA results in a 0.129-unit increase in FI. The most substantial impact is seen with FB, where a one-unit increase corresponds to a 0.418-unit increase in FI. These findings highlight the strong influence of financial behavior on financial inclusion.

Table 8:

Regression Result of Component of Financial Literacy and Financial Inclusion

	(1)	(2)	(3)
VARIABLES	FI	FI	FI
FK	0.239***		
	(0.00941)		
FA		0.129***	
		(0.0304)	
FB			0.418***
			(0.0136)
Constant	2.403***	3.068***	1.137***
	(0.0455)	(0.0828)	(0.0769)
Observations	3,355	3,355	3,355

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Author's Calculation

After introducing control variables in the regression analysis, the results reveal key factors influencing financial inclusion (FI) among 3,355 observations. Financial knowledge (FK), financial attitude (FA), and financial behavior (FB) all positively correlate with FI, with FB showing the strongest association at 0.323. Demographic factors like age, gender, and education also play significant roles: being male and older negatively impacts FI, while higher education and income are positively associated. Additionally, formal sector employment strongly boosts financial inclusion, with a coefficient of 0.864, highlighting its importance.

Table 9:

Regression Result with Control Variable

	(1)	(2)	(3)
VARIABLES	FI	FI	FI
FK	0.140***		
	(0.0103)		
FA		0.0887***	
		(0.0272)	
FB			0.323***
			(0.0133)
Male	0.0393	0.0934*	0.107**
	(0.0485)	(0.0496)	(0.0459)
Age	-0.00471**	-0.00676***	-0.00621***
	(0.00186)	(0.00190)	(0.00176)
Edu	0.417***	0.628***	0.467***
	(0.0609)	(0.0603)	(0.0561)
Income	1.80e-06***	2.21e-06***	1.61e-06***
	(4.04e-07)	(4.13e-07)	(3.83e-07)
Formal	0.679***	0.864***	0.642***
	(0.0490)	(0.0482)	(0.0455)
Constant	2.281***	2.422***	1.116***
	(0.108)	(0.128)	(0.118)
Observations	3,355	3,355	3,355

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Author's Calculation

Financial Inclusion and Financial Literacy

The regression analysis reveals the key factors driving financial inclusion. Financial literacy, education, income, and formal employment status all significantly contribute to higher financial inclusion, highlighting the importance of both knowledge and access. Younger individuals are more likely to be included in financial systems, suggesting that targeted strategies for different age groups may be beneficial. Surprisingly, gender does not have a statistically significant effect. In Model 1, a one-unit increase in financial literacy corresponds to a 0.215-unit rise in financial inclusion. When control variables are added in Model 2, this effect decreases slightly to 0.161 units. Additionally, being employed in the formal sector increases financial inclusion by 0.527 units, while higher education also leads to greater financial inclusion.

Hence, from the result we can say that, the financial literacy seems to contribute significantly to the financial inclusion of the individuals.

Table 10:

Regression between Financial Inclusion and Financial Literacy

	(1)	(2)
VARIABLES	FI	FI
FL	0.215***	0.161***
	(0.00615)	(0.00690)
Male		0.0461
		(0.0461)
Age		-0.00426**
		(0.00177)
Edu		0.287***
		(0.0579)
Income		1.54e-06***
		(3.85e-07)
Formal		0.527***
		(0.0471)
Constant	0.782***	1.060***
	(0.0780)	(0.121)
Observations	3,355	3,355

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Author's Calculation

Conclusion

In conclusion, this study provides a comprehensive examination of the synergy between financial literacy and financial inclusion in Nepal. By analyzing data from 3,355 respondents, it highlights the diverse levels of financial literacy, with scores ranging from 2.847 to 19.67, and explores how these scores correlate with financial inclusion. The moderate correlation of 0.5164 between financial literacy and inclusion underscores the importance of improving financial literacy to foster greater financial participation across the population. This study reveals that as individuals enhance their financial literacy, they are more likely to engage in a wider range of financial behaviors, from using payment products to investing and accessing credit.

The study also identifies significant gaps in financial literacy, particularly in financial knowledge and behavior, suggesting the need for targeted educational interventions. Addressing these gaps is crucial for ensuring that all segments of the population, regardless of their current financial literacy level, can benefit from the opportunities that financial inclusion offers. Tailored financial education programs, particularly those focused on improving financial behavior and knowledge, can play a pivotal role in achieving a more equitable distribution of financial literacy across Nepal.

Moreover, the study emphasizes the importance of demographic factors such as education, income, and employment status in shaping financial inclusion. It calls for policies that integrate financial literacy into the broader educational system and consider the diverse needs of different demographic groups. By prioritizing these strategies, Nepal can move towards building a financially resilient and inclusive society, which is essential for sustainable economic growth and overall social well-being.

Refferences

Abbas, A., Triani, N., Rayyani, W. O., & Muchran, M. (2023). Earnings growth, marketability and the role of Islamic financial literacy and inclusion in Indonesia. *Journal of Islamic Accounting and Business Research*, *14*(7), 1088-1105.

Adetunji, O. M., & David-West, O. (2019). The relative impact of income and financial literacy on financial inclusion in Nigeria. *Journal of International Development*, *31*(4), 312-335.

Akpene Akakpo, A., Amidu, M., Coffie, W., & Abor, J. Y. (2022). Financial literacy, financial inclusion and participation of individual on the Ghana stock market. *Cogent Economics & Finance*, *10*(1), 2023955.

Arianti, B. F. (2020). Pengaruh Pendapatan dan perilaku keuangan terhadap literasi keuangan melalui keputusan berinvestasi sebagai variabel intervening. *Jurnal Akuntansi*, *10*(1), 13-36.

Atkinson, A., & Messy, F. A. (2012). Measuring financial literacy: Results of the OECD/International Network on Financial Education (INFE) pilot study.

Atkinson, A., and Messy. F-A (2013). "Promoting financial inclusion through financial education: OECD/INFE Evidence, policies and practice". OECD Working Papers on Finance, Insurance and Private Pensions 34. Paris

Bire, A. R., Sauw, H. M., & Maria, M. (2019). The effect of financial literacy towards financial inclusion

through financial training. *International journal of social sciences and humanities*, *3*(1), 186-192.

Chaulagain, R. P., & Devkota, S. P. (2018). Financial literacy for empowering marginalized people in Nepal. *Journal of Advances in Social Science and Humanities*, *4*(9).

Christiani, T. A., & Kastowo, C. (2023). Increased financial literacy and inclusion indexes versus the number of unlicensed financial institutions in Indonesia. *foresight*, *25*(3), 465-473.

Cicchiello, A. F., Kazemikhasragh, A., Monferrá, S., & Girón, A. (2021). Financial inclusion and development in the least developed countries in Asia and Africa. *Journal of Innovation and Entrepreneurship*, *10*(1), 1-13.

Desai, R., Bhatt, K., & Raval, A. (2023). Financial literacy and Its impact on financial inclusion: Moderating role of gender. *The Journal of Wealth Management*, *25*(4), 45-60.

Dris, B. J. R., Buenaflor, G. B., Sanz, C. B., Tulaylay, J. D. I., & Zamora, J. R.(2024). Influence of financial literacy on financial inclusion in Barangay Paitan, Naujan, Philippines.

Ezzahid, E., & Elouaourti, Z. (2021). Financial inclusion, mobile banking, informal finance and financial exclusion: micro-level evidence from Morocco. *International Journal of Social Economics*, *48*(7), 1060-1086.

Fauziah, F., Trivena, S. M., & Aini, Y. N. (2021). The effect of financial literacy and financial inclusion on economic growth in Indonesia. *JBMP (Jurnal Bisnis, Manajemen dan Perbankan)*, *7*(2), 339-359.

Ghosh, M. (2024). Financial inclusion studies bibliometric analysis: Projecting a sustainable future. *Sustainable Futures*, 100160.

Ghosh, S., & Vinod, D. (2017). What constrains financial inclusion for women? Evidence from Indian micro data. *World development*, *92*, 60-81.

Goyal, K., & Kumar, S. (2021). Financial literacy: A systematic review and bibliometric analysis. *International Journal of Consumer Studies*, *45*(1), 80-105.

Grohmann, A., & Menkhoff, L. (2017). Financial literacy promotes financial inclusion in both poor and rich countries. *DIW Economic Bulletin*, *7*(41), 399-407.

Grohmann, A., & Menkhoff, L. (2021). The relationship between financial literacy and financial inclusion. In *The Routledge Handbook of Financial Literacy* (pp. 517-530). Routledge.

Grohmann, A., Klühs, T., & Menkhoff, L. (2018). Does financial literacy improve financial inclusion? Cross country evidence. *World Development*, *111*, 84-96.

Hasan, M., Le, T., & Hoque, A. (2021). How does financial literacy impact on inclusive finance?. *Financial Innovation*, *7*(1), 1-23.

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.

Hung, A., Parker, A. M., & Yoong, J. (2009). Defining and measuring financial literacy.

Irman, M., Budiyanto, B., & Suwitho, S. (2023). Increasing financial inclusion through financial literacy and financial technology On MSMEs. *International Journal Economics Development Research*, 126-141.

Jin, S. (2022). *Financial inclusion towards economic inclusion: empirical evidence from China's rural households: A thesis submitted in partial fulfilment of the requirements for the Degree of Master at Lincoln University* (Doctoral dissertation, Lincoln University).

Karki, S. K., Andaregie, A., & Takagi, I. (2023). Impact of financial literacy training on the financial decisions of rural households in Nepal. *International Review of Economics*, 1-25.

Karpowicz, I. (2016). Financial inclusion, growth and inequality: a model application to Colombia. *Journal of Banking and Financial Economics*, *6*(2), 68-89.

Kass-Hanna, J., Lyons, A. C., & Liu, F. (2022). Building financial resilience through financial and digital literacy in South Asia and Sub-Saharan Africa. *Emerging Markets Review*, *51*, 100846.

Khan, F., Siddiqui, M. A., & Imtiaz, S. (2022). Role of financial literacy in achieving financial inclusion: A review, synthesis and research agenda. *Cogent Business & Management*, *9*(1), 2034236.

Khongwir, C. M., & Sharmiladevi, J. C. (2023). A bibliometric analysis on financial inclusion and financial literacy–Analyzing the current research trends. *Indian Journal of Finance*, *17*(2), 27-53.

Kodongo, O. (2018). Financial regulations, financial literacy, and financial inclusion: Insights from Kenya. *Emerging Markets Finance and Trade*, *54*(12), 2851-2873.

Le, T. H., Chuc, A. T., & Taghizadeh-Hesary, F. (2019). Financial inclusion and its impact on financial efficiency and sustainability: Empirical evidence from Asia. *Borsa Istanbul Review*, *19*(4), 310-322.

Lee, C. C., Wang, C. W., & Ho, S. J. (2020). Financial inclusion, financial innovation, and firms' sales growth. *International Review of Economics & Finance*, *66*, 189-205.

Lyons, A., Kass-Hanna, J., Zucchetti, A., & Cobo, C. (2019). Leaving no one behind: Measuring the multidimensionality of digital literacy in the age of AI and other transformative technologies.

Majid, M. S. A., Agustina, M., Nurdin, R., Riyaldi, M. H., & Sari, N. (2023, September). Promoting financial inclusion through financial literacy, socialization, and commitment to the implementation of Islamic financial institutions' law in Aceh, Indonesia. In *2023 International Conference on Decision Aid Sciences and Applications (DASA)* (pp. 262-267). IEEE.

Marini, M., Yusmaniarti, Y., Faradilla, I., & Setiorini, H. (2024). Measuring the financial performance of Msmes From the perspective of financial literacy, Financial Inclusion And Financial Technology. *EKOMBIS REVIEW: Jurnal Ilmiah Ekonomi dan Bisnis*, *12*(1), 285-296.

Miswanto, M., Tarigan, S., Wardhani, S., Khuan, H., Rahmadyanti, E., Jumintono, J., ... & Machmud, M. (2024). Investigating the influence of financial literacy and supply chain management on the financial performance and sustainability of SMEs. *Uncertain Supply Chain Management*, *12*(1), 407-416.

Morgan, P. J., & Long, T. Q. (2020). Financial literacy, financial inclusion, and savings behavior in Laos. *Journal of Asian Economics*, *68*, 101197.

NCFE (2019). National financial literacy and inclusion survey 2019, National Centre for Financial Education, Retrieved from https://www.ncfe.org.in/reports/nflis

Okello Candiya Bongomin, G., Mpeera Ntayi, J., & Akol Malinga, C. (2020). Analyzing the relationship between financial literacy and financial inclusion by microfinance banks in developing countries: social network theoretical approach. *International Journal of Sociology and Social Policy*, *40*(11/12), 1257-1277.

Okello Candiya Bongomin, G., Munene, J. C., & Yourougou, P. (2020). Examining the role of financial intermediaries in promoting financial literacy and financial inclusion among the poor in developing countries: Lessons from rural Uganda. *Cogent Economics & Finance*, *8*(1), 1761274.

Omojolaibi, J. A., & Iwegbu, O. (2023). The effect of financial inclusion and financial literacy on financial integration of West African monetary zone (Wamz). *The Journal of Developing Areas*, *57*(2), 159-180.

Ozili, P. K. (2020). Theories of financial inclusion. In *Uncertainty and challenges in contemporary economic behaviour* (pp. 89-115). Emerald Publishing Limited.

Ozili, P. K. (2021, October). Financial inclusion research around the world: A review. In *Forum for social*

economics (Vol. 50, No. 4, pp. 457-479). Routledge.

Pandey, A., Kiran, R., & Sharma, R. K. (2022). Investigating the impact of financial inclusion drivers, financial literacy and financial initiatives in fostering sustainable growth in North India. *Sustainability*, *14*(17), 11061.

Pant, B. (2016). *Promoting Financial Inclusion in Nepal: Policy Assessment and Priorities* (No. 34). NRB Working Paper.

Polloni-Silva, E., da Costa, N., Moralles, H. F., & Sacomano Neto, M. (2021). Does financial inclusion diminish poverty and inequality? A panel data analysis for Latin American countries. *Social indicators research*, *158*(3), 889-925.

Ranabhat, D., Verma, N., Sapkota, P., & Chhetri, S. D. (2023, April). Effects of Financial Literacy on Financial Inclusion: Evidence from Nepal's Gandaki Province. In *International Conference on Intelligent Computing & Optimization* (pp. 22-32). Cham: Springer Nature Switzerland.

Rastogi, S., Sharma, A., Panse, C., & Bhimavarapu, V. M. (2021). Unified Payment Interface (UPI): A digital innovation and its impact on financial inclusion and economic development. *Universal Journal of Accounting and Finance*, *9*(3), 518-530.

Setiawan, M. A., Salim, U., & Khusniyah, N. (2021). The mediating role of social capital in the relationship between financial literacy and financial inclusion. *Jurnal Aplikasi Manajemen*, *19*(4), 782-790.

Suprapti, I. A. P., Harsono, I., Sutanto, H., Chaidir, T., & Arini, G. A. (2024). Financial Inclusion Strategies (Exploring The Landscape Through Systematic Literatur Review). *Accounting Studies and Tax Journal (COUNT)*, *1*(1), 101-110.

Takmaz, S., Sarı, E., & Alataş, S. (2024). Financial inclusion in Turkey: unpacking the provincial inequality and its determinants. *Applied Economics Letters*, *31*(7), 661-669.

Thapa, B. S., & Nepal, S. R. (2015). Financial literacy in Nepal: A survey analysis from college students. *NRB Economic Review*, *27*(1), 49-74.

Xiao, H., & Xin, Z. (2022). Financial literacy is better than income to predict happiness. *Journal of Neuroscience, Psychology, and Economics*, *15*(3), 119.

Yang, J., Wu, Y., & Huang, B. (2023). Digital finance and financial literacy: Evidence from Chinese households. *Journal of Banking & Finance*, *156*, 107005.