EKONOMICKÁ FAKULTA
UNIVERZITY MATEJA BELA
V BANSKEJ BYSTRICI

UNIVERZITA
MATEJA BELA
V BANSKEJ BYSTRICI

Student scientific conference

Financial Literacy and the Use of Formal Financial Instruments

Krasokha Olha

2nd-year Master Student, program "Financial institutions and risk-management" Taras Shevchenko National University of Kyiv (Kyiv, Ukraine)

Section: 3 Finance, Banking and Investment

Supervisor: DSc, Prof. Nataliia Versal (Taras Shevchenko National University of Kyiv)

Banská Bystrica

2026

Abstract

The purpose of the article is to examine the role of household financial literacy in the development of financial inclusion and to identify the key channels through which it affects population access to financial services. The study systematizes theoretical approaches to the interpretation of financial literacy and financial inclusion and analyses the relationship between the level of financial knowledge of the population and the use of payment, credit, and deposit financial instruments. The research findings indicate that improving household financial awareness contributes to the expansion of formal financial service usage, an increase in savings levels, greater trust in financial institutions, and more active adoption of digital financial services. Under these conditions, particular importance is attached to examining the mechanisms through which financial literacy is transformed into practical financial behaviour, specifically in the use of formal financial instruments. Assessing the impact of account ownership on the level of formal savings and borrowing enables the determination of the extent to which access to financial infrastructure facilitates the integration of households into the formal financial sector.

Keywords: financial inclusion, financial literacy, household well-being.

Introduction

In the modern global economy, financial inclusion is considered a key prerequisite for ensuring sustainable economic development, reducing socio-economic inequality, and improving population welfare. However, a significant share of households worldwide remains partially or fully excluded from the formal financial system, which is обусловлено not only by infrastructural barriers but also by insufficient levels of financial literacy. Only about 18% of individuals demonstrate a high level of financial knowledge, while 64% exhibit a medium level and another 18% a low level of financial competence [1].

The 2024 Global Findex Database of the World Bank indicates that approximately 1.3 billion adults lack access to formal financial services, which is equivalent to nearly 16% of the world's adult population, reflecting a relatively low level of financial expansion [2]. Insufficient awareness of financial instruments limits the use of formal financial services, increases the financial vulnerability of the population, and reduces the degree of household integration into the financial system. Under such conditions, the analysis of the impact of household financial literacy on the level of financial inclusion becomes particularly important.

1. Literature review

Financial inclusion is a comprehensive category that encompasses the availability of financial services, the protection of financial service consumers' rights, and the level of financial literacy of the population. Financial literacy serves as a key component of financial inclusion, as it determines the ability of individuals not only to gain access to financial products but also to use them effectively [3].

In particular, Houston [4], in his studies, considers financial literacy not only as the level of financial knowledge but also as the ability to apply this knowledge in practical financial activities, while A. Lusardi [5] emphasizes that financial knowledge contributes to a more efficient allocation of financial resources and more informed investment decision-making. Accordingly, the level of financial literacy directly determines the quality of individuals' financial behavior. Financial knowledge, skills, and attitudes directly influence people's perceptions and behavior, fostering more responsible and sustainable long-term decisions and contributing to the economic well-being of the population [6]. The most generalized definition is provided by the OECD, which defines financial literacy as a combination of awareness, knowledge, skills, attitudes, and behaviors necessary for making sound financial decisions and ultimately achieving financial well-being [7].

Financial literacy is considered an important component of human capital that reduces the informational and behavioral costs of financial decision-making by facilitating the search, understanding, and comparison of financial products. In this context, it serves as a «bridge» between formal access to financial services and their actual use, increasing the likelihood of opening and actively using transaction accounts that function as the basic infrastructure for access to savings, credit, insurance, and investment services [8]. As noted by Tulcanaza-Prieto, the development of financial literacy contributes to strengthening household financial stability, increasing savings levels, improving the quality of financial decision-making, and fostering long-term strategies for managing income, assets, and retirement planning, which collectively enhance the level of financial inclusion [9]. Furthermore, Listyaningsih et al. [10] emphasize such components as the understanding of financial concepts and terminology and the ability to use modern financial technologies, which indicates the transformation of the content of financial literacy under the influence of contemporary socio-economic and technological changes.

Financial literacy serves as an important determinant of financial inclusion and household resilience; however, its effectiveness is largely constrained by the uneven distribution of financial knowledge across different social groups [7]. At the same time, the practical application of financial knowledge significantly depends on account ownership at a financial institution as a basic instrument for accessing the formal financial sector.

In contemporary research, account ownership is considered a key indicator of financial inclusion, as it enables individuals to save, obtain credit, and use other financial services [11]. Thus, access to financial infrastructure creates the conditions for the practical utilization of financial knowledge, which underscores the need for further empirical assessment of the impact of account ownership on the use of formal financial products.

2. Model construction and their results

In the context of modern financial system development, access to basic financial services is considered a key prerequisite for integrating the population into formal financial mechanisms. The possession of an account at a financial institution enables individuals to perform financial transactions, including saving funds and accessing credit resources, thereby shaping the financial behavior of households.

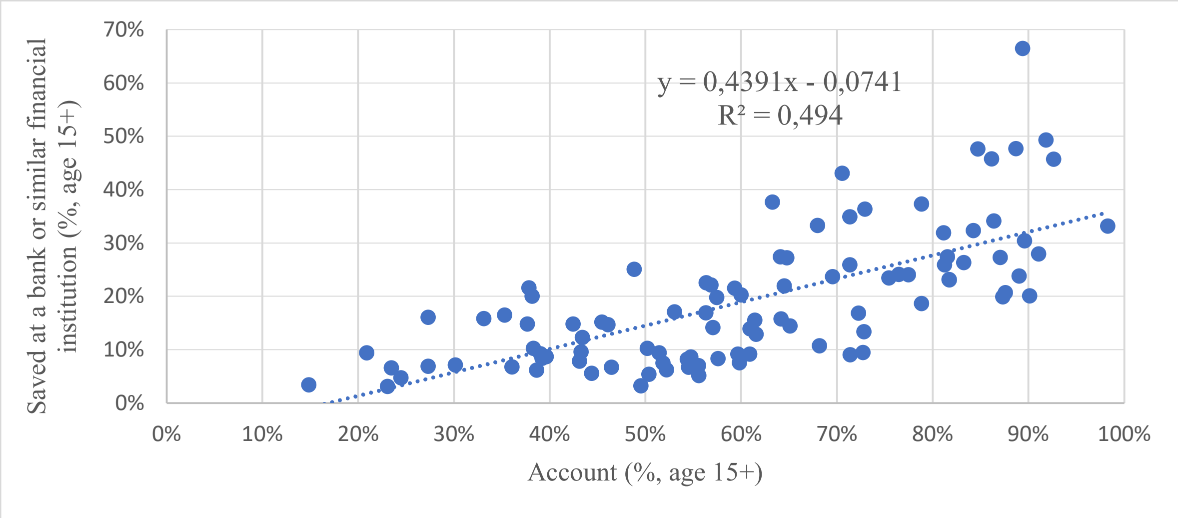
The empirical basis of this study is the Global Findex Database developed by the World Bank. The data used for the analysis were obtained from the most recent survey conducted in 2024 [2].

Based on this, the following research hypotheses were formulated:

- **H1**: Account ownership has a positive effect on the level of formal savings;
- **H2**: Account ownership has a positive effect on the level of formal borrowing.

These hypotheses were tested using simple linear regression models. In the first model, the dependent variable is represented by the share of the adult population saving at a bank or similar financial institution (Saved at a bank or similar financial institution (%, age 15+)), while the independent variable is the share of the population owning an account at a financial institution (Account (%, age 15+)).

Figure 1. Relationship between account ownership and formal savings across countries in 2024 year



Source: author’s calculations based on [2]

The estimated regression equation is as follows:

$$Saved_i(y) = -0.0741 + 0.4391x$$

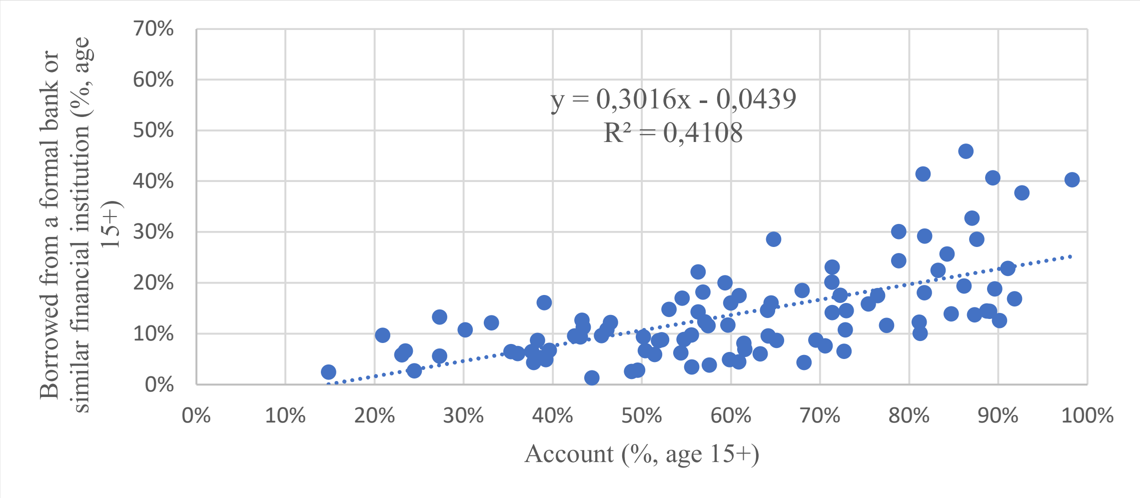
The chart demonstrates a stable positive relationship, indicating that increased access to bank accounts contributes to higher levels of savings among the population. At the same time, the presence of a noticeable outlier on the right-hand side suggests that in certain cases exceptionally high saving rates may be driven not only by the availability of financial services but also by additional factors, such as specific government policies or cultural saving practices.

The obtained results indicate a statistically significant positive relationship between the examined variables (t = 9.68; p-value < 0.001). An increase in the share of the population holding an account at a financial institution by 10 percentage points is associated with an average increase of 4.4 percentage points in the share of individuals making formal savings.

The coefficient of determination of the model is $R^2 = 0.494$, implying that approximately 49.4% of the variation in the dependent variable is explained by changes in account ownership. The significance of the model, confirmed by the F-test (F = 93.73; p-value < 0.001), supports its overall adequacy.

Second model is examined with Borrowed from a formal bank or similar financial institution (%, age 15+) specified as the dependent variable.

Figure 2. Relationship between account ownership and formal borrowings across countries in 2024 year



Source: author's calculations based on [2]

The estimated regression equation is as follows:

$$Borrowed(y) = -0.0439 + 0.3016x$$

The figure illustrates a positive correlation, indicating that increased access to financial accounts is associated with higher levels of formal borrowing. However, the greater dispersion of observations compared to the previous model suggests that the volume of formal borrowing is influenced by a broader set of factors beyond the mere availability of banking services.

The coefficient for x variable is statistically significant ($t = 8.18$; p-value < 0.001), indicating a positive effect on the level of formal borrowing. In particular, a 10-percentage-point increase in the share of the population holding an account at a financial institution is associated with an average increase of approximately 3.0 percentage points in the level of formal credit usage.

The coefficient of determination is $R^2 = 0.4108$, implying that about 41.1% of the variation in the dependent variable is explained by the model. The statistical significance of the model is further confirmed by the F-test ($F = 66.94$; p-value < 0.001).

The comparison of regression analysis results indicates that account ownership at a financial institution has a more pronounced effect on the formation of household savings than on access to formal credit. In particular, a 10-percentage-point increase in the level of financial inclusion is associated with an average increase of 4.4 percentage points in formal savings, while the level of formal borrowing rises by only 3.0 percentage points.

This suggests that expanding access to basic financial services primarily stimulates savings behavior among households, whereas participation in formal credit markets additionally depends on institutional, income-related, and risk characteristics of borrowers.

Given that previous studies (Frolova, Petrova) indicate the presence of gender differences in financial behavior, this study additionally examines the propensity of men and women to use formal savings and borrowing mechanisms.

To this end, a two-sample t-test for independent samples was conducted using the indicators Saved at a bank or similar financial institution (%, age 15+) and Borrowed from a formal bank or similar financial institution (%, age 15+). The results revealed statistically significant gender differences in the use of formal financial instruments.

Table 1. Results of t-Test: Two-Sample Assuming Unequal Variances for savings and borrowings

Indicator name	Saved at a bank or similar financial institution (%, age 15+) men	Saved at a bank or similar financial institution (%, age 15+) women	Borrowed from a formal bank or similar financial institution (%, age 15+) men	Borrowed from a formal bank or similar financial institution (%, age 15+) women
Mean	0,3055	0,2367	0,2217	0,1803
Variance	0,0117	0,0142	0,0103	0,0079
Observations	49	49	49	49
Hypothesized Mean Difference	0		0	
df	95		94	
t Stat	2,9978		2,1484	
P(T<=t) one-tail	0,0017		0,0171	
t Critical one-tail	1,6611		1,6612	
P(T<=t) two-tail	0,0035		0,0343	
t Critical two-tail	1,9853		1,9855	

Source: author’s calculations based on [2]

In particular, the average level of formal savings among men amounts to 30.6%, compared to 23.7% among women (p-value = 0.0035), indicating a higher propensity of men to accumulate funds in banks or similar financial institutions. Similarly, the share of men who borrowed from formal financial institutions is 22.2%, compared to 18.0% among women (p-value = 0.0343), confirming a statistically significant difference in the use of credit instruments.

Thus, men are statistically more likely than women to engage in both formal savings and formal borrowing, which may be attributed to differences in financial inclusion, access to financial resources, and economic activity.

Conclusions

Financial literacy is an important component of financial inclusion, providing a foundation for the effective use of financial services by the population. The conducted bibliographic analysis indicates that the research topic remains relevant and continues to acquire new dimensions in the context of modern financial system development. The results of the empirical analysis based on the construction of linear regression models confirmed that account ownership at a financial institution has a positive impact on both the level of formal savings and formal borrowing among the population across countries worldwide in 2024. At the same time, it was found that account ownership is not the sole factor determining saving and borrowing behavior, as financial decision-making also depends on income levels, financial literacy, institutional environment, and socio-demographic characteristics.

Furthermore, the results of the gender analysis revealed statistically significant differences in the financial behavior of men and women, indicating a higher propensity among men to engage in both formal savings and borrowing. This confirms the need to combine measures aimed at expanding access to financial infrastructure with the development of financial education initiatives, which may contribute to more effective use of formal financial instruments.

List of references

1. Official web site European Union. Monitoring the level of financial literacy in the EU. Available at:https://europa.eu/eurobarometer/surveys/detail/2953

2. World Bank. 2025. *The Global Findex Database 2025*. Washington, DC: World Bank. Available at:https://www.worldbank.org/en/publication/globalfindex (accessed on 14 September 2025).

3. Grohmann, Antonia & Klühs, Theres & Menkhoff, Lukas, 2018. «Does financial literacy improve financial inclusion? Cross country evidence,» *World Development, Elsevier*, vol. 111, pages 84-96.

4. Huston, S.J. (2010). Measuring financial literacy. Journal of Consumer Affairs, 44(2), 296-316. Available at:10.1111/j.1745-6606.2010.01170.x

5. Lusardi A., Streeter J. L. Financial literacy and financial well-being: Evidence from the US. Journal of Financial Literacy and Wellbeing. 2023. Vol. 1. No 2. P. 169–198

6. Asyik, Nur Fadjrih, Wahidahwati Wahidahwati, and Nur Laily. 2022. The Role Of Intellectual Capital In Intervening Financial Behavior and Financial Literacy on Financial Inclusion. *WSEAS Transactions on Business and Economics* 19: 805–14.

7. OECD (2023), «OECD/INFE 2023 International Survey of Adult Financial Literacy», OECD Business and Finance Policy Papers, No. 39, OECD Publishing, Paris. Available at: https://doi.org/10.1787/56003a32-en.
8. Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. Journal of Economic Literature, 52(1), 5-44
9. Tulcanaza-Prieto, Ana Belén, Alexandra Cortez-Ordoñez, Jairo Rivera, and Chang Won Lee. 2025. Is Digital Literacy a Moderator Variable in the Relationship Between Financial Literacy, Financial Inclusion, and Financial Well-Being in the Ecuadorian Context? *Sustainability* 17: 2476.
10. Listyaningsih, Erna, Rahyono Rahyono, Apip Alansori, and Amirul Mukminin. 2024. Financial Literacy, Financial Inclusion, and Financial Statements on MSMEs' Performance and Sustainability with Business Length as a Moderating Variable. *Ikonomicheski Izsledvania* 33: 108–27.