Financial Literacy and Investment Behaviour in the European Union: Exploring the Role of Financial Knowledge, Behaviour, and Economic Conditions

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Abstract

This study investigates the relationship between financial literacy, financial knowledge, financial behaviour, and GDP across European Union (EU) countries. The research aims to examine how financial literacy influences investment behaviour, with a particular focus on the mediating role of financial knowledge. Additionally, it assesses the moderating effect of GDP on the relationship between financial literacy and behaviour. Using secondary data from the Eurobarometer and other reputable sources, The findings aim to provide insights into how economic conditions, such as GDP, interact with financial literacy to shape financial behaviours. By identifying key factors influencing investment decisions, this study contributes to the broader understanding of financial literacy's role in the economic well-being of individuals within the EU.

IMPLICATIONS

This study emphasises tailoring financial education to a country's economic conditions and improving access through collaboration. It helps individuals make smarter investments, guides businesses in creating tailored products, and provides a foundation for further research on financial behaviour. Enhancing financial literacy can reduce inequalities, support smarter decisions, and boost economic growth across the EU.

Keywords: Financial Literacy, Financial Knowledge, Financial Behaviour, GDP growth

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INTRODUCTION

Despite efforts by policymakers and educators, financial literacy disparities persist across EU member states, impacting financial decision-making and economic behaviour (Demertzis et al., 2024; Nicolini & Haupt, 2019). Higher financial literacy is linked to prudent behaviours like budgeting and saving, but the influence of external factors, such as GDP, remains underexplored (Lusardi & Mitchell, 2013; Çera et al., 2020).

Financial literacy and behaviour vary widely across countries with different economic profiles, where wealthier nations often benefit from stronger financial education infrastructure (Batsaikhan & Demertzis, 2018; Todorov et al., 2022). This research examines how financial literacy impacts behaviour across the EU, considering the moderating role of GDP, in informing targeted and context-sensitive policies (Çera et al., 2020; Demertzis et al., 2024).

Literature Review

Financial literacy has emerged as a pivotal determinant of individual and collective financial well-being, influencing decision-making processes and economic outcomes. Within the European Union (EU) context, disparities in financial literacy and its associated variables—financial knowledge, financial behaviour, and GDP—offer a unique lens for examining economic development and investment patterns. This literature review synthesises insights from scholarly research to provide a comprehensive understanding of these variables and their interrelationships, contributing to the discourse on financial literacy's role in shaping the EU economy.

Financial literacy encompasses effectively comprehending and utilising financial knowledge for sound decision-making. Lusardi and Mitchell (2013) argue that financial literacy is integral to economic stability, as it mitigates risks associated with financial exclusion and poor decision-making. Studies conducted within the EU reveal significant disparities in literacy levels, often correlating with socioeconomic status and access to education (Batsaikhan & Demertzis, 2018). Nicolini and Haupt (2019) further identify literacy gaps between Western and Eastern Europe, with the former exhibiting stronger financial literacy indicators.

Eurobarometer surveys underscore these disparities, showing that targeted policies are necessary to enhance financial literacy in economically disadvantaged regions (Eurobarometer, n.d.). As a driver of financial inclusion, literacy facilitates better access to investment opportunities, thereby fostering inclusive growth.

Financial Knowledge

As a subset of financial literacy, financial knowledge refers to the understanding of core financial principles and concepts. It provides the foundation for informed decision-making and prudent financial behaviour. Riitsalu and Murakas (2019) highlight that financial knowledge mediates the relationship between education and financial decision-making, enabling individuals to navigate complex financial products and markets effectively.

Recent surveys, such as those by Demertzis et al. (2024), reveal that financial knowledge varies significantly across EU member states, with higher levels observed in countries with robust educational frameworks. Çera et al. (2020) emphasise that knowledge fosters long-term financial planning, particularly in investment activities, indicating a symbiotic relationship between education, knowledge, and behaviour.

Financial Behaviour

Financial behaviour reflects the practical application of financial knowledge and literacy in daily life, encompassing activities such as budgeting, saving, and investing. Santos and Teles (2016) argue that financial behaviour is shaped by a combination of internal factors, such as psychological biases, and external factors, such as cultural norms and economic conditions. Asaad (2015) highlights the role of behavioural biases, such as overconfidence and loss aversion, which can lead to suboptimal financial decisions despite adequate knowledge.

In the EU, financial behaviour exhibits significant variation across member states, influenced by disparities in financial education and literacy levels (Todorov et al., 2022). Comparative studies during the COVID-19 pandemic indicate that households in wealthier EU countries demonstrated more disciplined financial behaviour, further reinforcing the interplay between economic development and behaviour (Equilibrium, 2021).

GDP and Financial Literacy

GDP serves as a proxy for a country's economic development, influencing access to financial education and literacy programs. Studies by Batsaikhan and Demertzis (2018) suggest a positive correlation between GDP and financial literacy, with wealthier EU nations such as Germany and Sweden reporting higher literacy levels compared to lower-income countries like Bulgaria and Romania.

This relationship underscores the importance of economic resources in enhancing financial literacy. Nicolini and Haupt (2019) caution, however, that neglecting lower-income countries in literacy initiatives may exacerbate economic inequalities within the EU. Higher GDP also enhances access to financial services, amplifying the impact of financial literacy on economic outcomes (OECD, 2015).

The interrelationships among financial literacy, knowledge, behaviour, and GDP are complex and multifaceted. Çera et al. (2020) propose that financial knowledge mediates the influence of literacy on behaviour, enabling individuals to apply theoretical understanding in practical scenarios. Additionally, Demertzis et al. (2024) argue that GDP moderates these relationships, with wealthier nations experiencing stronger linkages between literacy and behaviour.

The role of financial behaviour as both an outcome and a predictor of economic outcomes is well-documented. Santos and Teles (2016) highlight its feedback effects on literacy, suggesting that individuals who exhibit prudent financial behaviour are more likely to engage in lifelong learning and literacy improvement.

The reviewed literature highlights the interconnected nature of financial literacy, knowledge behaviour, and GDP in the EU context. These variables collectively influence individual financial decision-making and broader economic outcomes. Disparities in literacy behaviour across member states underscore the need for targeted policies that account for regional differences. Future research should explore causal mechanisms and evaluate the long-term impact of financial literacy initiatives, particularly in economically disadvantaged regions, to inform policy and educational interventions.

Research Gap

Although financial literacy is recognised as a cornerstone of economic well-being, gaps in its analysis persist, particularly within the European Union (EU). Most studies provide general insights into financial literacy but fail to address its variability across the EU's economically diverse member states (Batsaikhan & Demertzis, 2018; Nicolini & Haupt, 2019). Financial knowledge, a core subset of literacy, is often treated independently without exploring its mediating role in shaping financial behaviour (Riitsalu & Murakas, 2019). Similarly, financial behaviour, an applied outcome of literacy, lacks comprehensive analysis, especially concerning its reciprocal effects on literacy improvement (Asaad, 2015).

Furthermore, macroeconomic factors such as GDP are shown to correlate with financial literacy (Lusardi & Mitchell, 2013), yet their moderating role in the interplay between financial literacy, knowledge, and behaviour remains underexplored. Existing studies also neglect the integrated relationships among these variables, particularly in the context of the EU's unique economic and policy landscape (Todorov et al., 2022).

This research fills these gaps by examining financial knowledge as a mediator, GDP as a moderator, and their combined impact on financial literacy and behaviour within the EU, offering insights for policy and financial education.

Research Objective

Hypotheses:

- **H1**: Impact of Financial Literacy on Financial Behaviour.
- **H2**: Impact of Financial literacy, Financial knowledge and Financial behaviour on GDP.

To Investigate the Influence of Financial Literacy on Investment Behaviour:

- Examine how financial literacy affects investment Behaviour across EU member states.
- Explore the interplay between economic knowledge and financial Behaviour in shaping individual investment decisions.
- Build upon the seminal work of Lusardi and Mitchell (2013) and recent findings by Demertzis et al. (2024) to analyse how financial literacy drives financial outcomes.

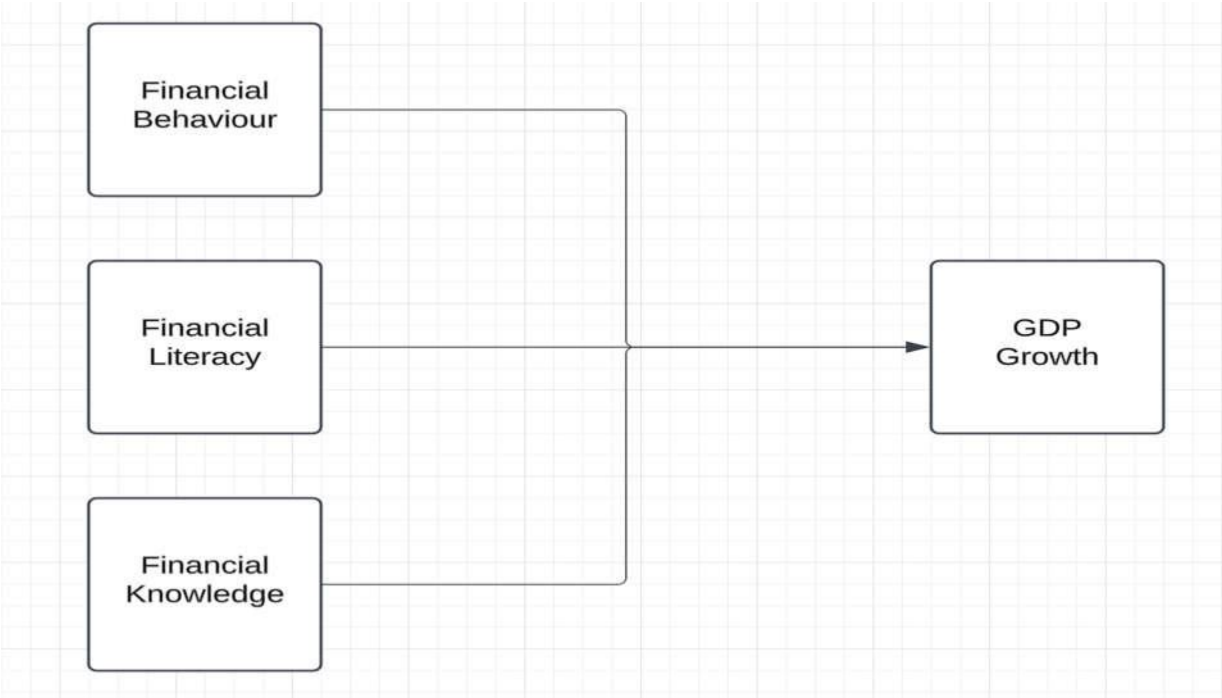
To Analyze the Mediating Role of Financial Knowledge:

- Investigate the mediating effect of financial knowledge on the relationship between financial literacy and financial Behaviour.
- Assess whether individuals with higher levels of financial knowledge exhibit more responsible financial Behaviour and make informed investment choices, as suggested by prior studies (Çera et al., 2020; Riitsalu & Murakas, 2019).
- Enhance the understanding of underlying mechanisms through which financial literacy influences Behavioural and decision-making outcomes.

To Assess the Moderating Role of GDP:

- Evaluate how GDP moderates the relationship between financial literacy and financial Behaviour across diverse economic environments within the EU.
- Investigate the influence of macroeconomic conditions, particularly GDP, on the accessibility, application, and effectiveness of financial literacy initiatives.
- Integrate insights from Batsaikhan and Demertzis (2018) and Santos and Teles (2016) to contextualise the role of economic factors in shaping financial literacy's impact on Behaviour.

Conceptual Framework



Data Collection and Source

The data for this research were sourced from publicly available and credible databases to ensure reliability and comprehensiveness. The primary variables examined include financial literacy, financial knowledge, and GDP. Each source provides critical data that underpins the analysis of the relationships among these variables in the context of the European Union (EU).

Financial Literacy, Knowledge, and Behaviour

The data on financial literacy, financial knowledge, and financial Behaviour were derived from the Eurobarometer Survey (Eurobarometer, n.d.). This survey is a well-established tool used to assess public opinion and Behaviour across EU member states. It offers insights into citizens' financial knowledge, their ability to make informed decisions, and their financial Behaviours. These metrics are particularly relevant for understanding regional variations and identifying areas requiring policy interventions.

Macroeconomic Indicator: GDP

GDP data, used as a proxy for economic development, were obtained from two credible sources: the World Bank Open Data database and the List of Sovereign States in Europe by GDP (Nominal) Per Capita on Wikipedia (World Bank Open Data, 2015; Wikipedia, 2021). These sources provide consistent and widely accepted measures of economic performance, allowing for a comparative analysis of financial literacy within diverse economic contexts.

Rationale for Source Selection

The selected sources are internationally renowned for their credibility, precision, and commitment to providing high-quality, up-to-date data. The Eurobarometer Survey delivers detailed, region-specific insights into the European Union, capturing nuanced perspectives on financial literacy and behaviour across member states. Complementing this, the World Bank serves as a trusted authority on global macroeconomic indicators, ensuring comprehensive coverage of key economic variables.

Methodology

This research adopts a quantitative approach to investigate the relationships between financial literacy, financial knowledge, financial behaviour, and GDP Growth across European Union (EU) member states. The methodology is designed to ensure the robustness and replicability of the analysis, integrating structured data collection, and preparation.
Data cleaning involved addressing missing values using mean imputation, ensuring consistency across all observations. The data were then normalised to align the scales of different variables, enabling fair comparisons across metrics. Each variable's descriptive statistics, including the mean, median, and standard deviation, were calculated to identify outliers and understand data distribution.
This study is used to analyze the relationships between financial literacy, financial knowledge, financial behaviour, and GDP Growth.

Statistic	**Mean**	**Std. Deviation**	**Minimum**	**Maximum**
Low Financial Literacy	18	3.36	12	27
Medium Financial Literacy	63.32	4.14	56	72
High Financial Literacy	19.93	4.4	11	28
Low Financial Knowledge	21.79	4.71	13	31
Medium Financial Knowledge	50.43	5.07	39	61
High Financial Knowledge	27.71	8.48	19	43
Low Financial Behavior	9.18	5.08	4	32
Medium Financial Behavior	26.5	4.57	14	37
High Financial Behavior	64.5	8.22	36	82
GDP Growth	0.61	1.92	-5.53	3.3

Variable	Low FL	Med FL	High FL	Low FK	Med FK	High FK	Low FB	Med FB	High FB	GDP Growth
Low Financial Literacy	1.0 (0.0)	-0.1254 (0.5249)	-0.5323 (0.0036)	0.1149 (0.5606)	0.0261 (0.8951)	-0.2592 (0.1830)	0.6577 (0.0001)	0.3933 (0.0384)	-0.6270 (0.0004)	0.0885 (0.6542)
Medium Financial Literacy	-0.1254 (0.5249)	1.0 (0.0)	-0.6503 (0.0002)	0.2755 (0.1559)	0.4979 (0.0070)	-0.3353 (0.0811)	-0.4395 (0.0193)	0.0147 (0.9409)	0.2739 (0.1585)	0.1100 (0.5774)
High Financial Literacy	-0.5323 (0.0036)	-0.6503 (0.0002)	1.0 (0.0)	-0.2995 (0.1215)	-0.3523 (0.0660)	0.3523 (0.0660)	-0.1303 (0.5087)	-0.2873 (0.1383)	0.2429 (0.2131)	-0.1641 (0.4040)
Low Financial Knowledge	0.1149 (0.5606)	0.2755 (0.1559)	-0.2995 (0.1215)	1.0 (0.0)	0.3156 (0.1018)	-0.7022 (0.0000)	-0.4423 (0.0184)	-0.1702 (0.3865)	0.3731 (0.0505)	0.4915 (0.0079)
Medium Financial Knowledge	0.0261 (0.8951)	0.4979 (0.0070)	-0.3523 (0.0660)	0.3156 (0.1018)	1.0 (0.0)	-0.6465 (0.0002)	-0.1567 (0.4258)	-0.0367 (0.8529)	0.1181 (0.5495)	0.2347 (0.2293)
High Financial Knowledge	-0.2592 (0.1830)	-0.3353 (0.0811)	0.3523 (0.0660)	-0.7022 (0.0000)	-0.6465 (0.0002)	1.0 (0.0)	0.2951 (0.1274)	0.0946 (0.6322)	-0.2429 (0.2130)	-0.4588 (0.0141)
Low Financial Behavior	0.6577 (0.0001)	-0.4395 (0.0193)	-0.1303 (0.5087)	-0.4423 (0.0184)	-0.1567 (0.4258)	0.2951 (0.1274)	1.0 (0.0)	0.4180 (0.0269)	-0.8572 (0.0000)	-0.3114 (0.1067)
Medium Financial Behavior	0.3933 (0.0384)	0.0147 (0.9409)	-0.2873 (0.1383)	-0.1702 (0.3865)	-0.0367 (0.8529)	0.0946 (0.6322)	0.4180 (0.0269)	1.0 (0.0)	-0.8233 (0.0000)	-0.4020 (0.0340)
High Financial Behavior	-0.6270 (0.0004)	0.2739 (0.1585)	0.2429 (0.2131)	0.3731 (0.0505)	0.1181 (0.5495)	-0.2429 (0.2130)	-0.8572 (0.0000)	-0.8233 (0.0000)	1.0 (0.0)	0.4140 (0.0285)
GDP Growth	0.0885 (0.6542)	0.1100 (0.5774)	-0.1641 (0.4040)	0.4915 (0.0079)	0.2347 (0.2293)	-0.4588 (0.0141)	-0.3114 (0.1067)	-0.4020 (0.0340)	0.4140 (0.0285)	1.0 (0.0)

Findings and discussion

While foundational, financial literacy (FL) did not exhibit a direct and statistically significant relationship with GDP growth, suggesting its impact may be indirect or mediated through other factors, such as financial behaviour and knowledge.

Financial knowledge demonstrated contrasting effects on economic performance. A significant positive correlation between low FK and GDP growth underscores the critical role of foundational financial awareness in driving economic development. Populations with basic financial knowledge—encompassing skills such as budgeting and savings—appear better equipped to participate in economic activities that stimulate growth. However, a significant negative correlation between high FK and GDP growth suggests a complex dynamic, where advanced financial knowledge may emphasise financial system efficiency and stability over immediate economic expansion. This finding indicates that while advanced financial knowledge is undoubtedly valuable, its benefits may manifest in longer-term economic resilience rather than short-term growth.

Financial behaviour emerged as a decisive factor influencing GDP growth. Medium FB, often associated with inconsistent or suboptimal financial practices, was negatively correlated with GDP growth, reflecting its potential to hinder economic progress. In contrast, high FB—characterised by disciplined financial practices such as regular saving, strategic investing, and prudent borrowing—showed a positive and statistically significant correlation with GDP growth. These results underscore the transformative impact of responsible financial behaviour on macroeconomic outcomes, highlighting its role in enhancing economic participation and productivity.

These findings suggest that while financial literacy lays the groundwork for economic engagement, its impact is amplified through the cultivation of basic financial knowledge and the promotion of sound financial behaviours. Policymakers and educators should prioritise the dissemination of foundational financial knowledge across populations and implement programs that encourage proactive and responsible financial behaviours. Future research should explore the longitudinal effects of financial knowledge and behaviour on GDP growth, as well as the interplay between these variables and their combined impact on economic performance. This approach would provide a more comprehensive understanding of the mechanisms through which financial competencies influence economic development.

Conclusion

This study underscores the critical role of financial knowledge and financial behaviour as determinants of economic growth, with nuanced implications for policymakers, educators, and researchers. While financial literacy provides a necessary foundation for economic engagement, its direct impact on GDP growth appears limited. Instead, the findings highlight the significant influence of financial knowledge and behaviour in shaping economic outcomes.

The positive correlation between low financial knowledge and GDP growth suggests that basic financial awareness is a vital driver of economic activity, enabling individuals to make informed decisions about saving, spending, and investing. However, the inverse relationship between high financial knowledge and GDP growth reveals a complex dynamic where advanced financial expertise may contribute more to long-term stability than immediate economic expansion. This duality highlights the need for a balanced approach to financial education, emphasizing both foundational knowledge for the broader population and specialized financial training for targeted groups.

Financial behaviour emerged as a pivotal factor, with disciplined and proactive financial practices showing a positive and significant correlation with GDP growth. These findings reinforce the idea that economic growth is not solely a function of financial knowledge but also hinges on individuals' ability to translate knowledge into responsible financial actions. Conversely, the negative correlation between medium financial behaviour and GDP growth suggests that inconsistent or suboptimal financial practices can impede economic performance.

This research contributes to the growing body of literature on behavioural finance and macroeconomic growth by elucidating the pathways through which financial competencies influence economic performance. It emphasizes the need for policies and interventions that go beyond theoretical financial literacy to focus on cultivating actionable financial skills and behaviours. Future studies should investigate the longitudinal impacts of financial knowledge and behaviour on economic growth, as well as the potential moderating effects of cultural, institutional, and policy frameworks.

Fostering a financially literate population with a strong emphasis on actionable knowledge and responsible behaviour is critical for achieving sustained economic growth. By integrating these insights into educational curricula and policy frameworks, stakeholders can create environments that empower individuals to contribute meaningfully to economic development, ensuring long-term stability and prosperity.

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