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FACTORS AND INDICATORS SHAPING FINANCIAL LITERACY: A MULTICRITERIA ANALYSIS OF SELECTED PROGRAMS AND STRATEGIC INSIGHTS FOR RESILIENT ECONOMIC DEVELOPMENT

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Abstract

In examining the multifaceted determinants of financial literacy and its critical role in fostering resilient economies, this paper seeks to provide insight. For the effective design of financial literacy programs, it is essential to identify the determinants of an individual's financial knowledge. The study made new contributions toward the drivers of financial literacy by deriving these consolidated theoretical insights by factoring in socio-economic, educational, cultural, and technological factors. It also analyzes existing financial literacy programs from a perspective of their impact and gaps and proposes mechanisms for improvements dedicated toward these determinants. The article provides some practical guidance for policymakers and educators on creating relevant, responsive financial literacy programs based on a cross-section of empirical research and case studies. Ultimately, it is hoped that this knowledge will contribute towards building a more resilient economy capable of weathering the storms of uncertainty—becoming of use both to academic researchers and the broader practical applications of financial literacy.

Keywords: financial literacy, resilience, education, youth, determinants, initiatives

JEL Codes: I21, D14, G53

1. Introduction

One must understand that financial literacy is the cornerstone of economic sustainability; it is one part of decision-making in a complex and fast-moving financial world. Over the past few years, the narrative around financial literacy has progressed from awareness to a multidimensional exploration with drivers, outcomes, and leverage points. As global economies bumble through the aftermaths of recent uncertainties in a world of changing plans, finding the determinants of financial literacy becomes the need of the hour.

So, in a world of increasing financial digitization and unstable economies brought on by global events like the COVID-19 pandemic, financial literacy is vital. Unfortunately, financial literacy levels are still shockingly low, resulting in poor financial decisions, over-indebtedness, and long-term financial threats. Gaps in financial literacy have been linked with higher personal debt, lower savings, and insufficient retirement savings, contributing to widening socio-economic inequalities (European Commission, 2023; OECD, 2023). Initiatives to address financial literacy exist, but these are generally investments with limited funding, staff, or reach, especially targeting the most vulnerable demographics. In Lithuania, financial education is not yet systematically integrated into school curricula, and adult education initiatives are scarce, leaving diverse demographic groups underserved in financial education. These reasons highlight an urgent need to rethink and strengthen financial education programs, given the growing demand for financial literacy and the limitations of current programs. It is a world that confused consumers will continue to face until we have much broader, participatory, and inclusive programs undergirding their economy and entering the birth canal of negotiation and business cooperation. Until we implement such systems, consumers will continue to have less clarity as the game gets increasingly complicated—in ways that compromise their economic safety and systemic macroeconomic stability. To promote the evidence, you may explicate the need and importance of the present study that seeks to address the gaps and suggest strategic guidelines for enhancing financial literacy programs for economic resilience.

A large body of research has widely recognized the scientific relevance of financial literacy. Okicic et al. (2019) investigated the impact of financial literacy on investment patterns, finding that increased financial knowledge significantly decreases exposure to financial risk. Gavurova et al. (2019), exploring the socio-economic factors relevant to financial literacy, noted that income and education were the leading determinants, especially in transitional economies. Garg et al. (2018) researched the existing gender gaps in financial literacy, and the overall findings revealed that women, as compared to men, have lesser awareness of financial education, leading them towards conservative managing behavior when it comes to finance. Digital technologies involved in financial literacy were pointed out by Dundure and Sloka (2021), explaining how digital tools positively affect financial decisions.

Tinghog et al., Aoki et al. (2021), investigated and identified behavioral biases among Mara diet consumers using experimental approaches with a focus on financial decision-making, where cognitive biases still contribute to individuals' financial decisions even for those classified as possessing high financial literacy. In their study on cultural influences on financial literacy, Sharif and Naghavi (2020) found that societal attitudes play a crucial role in shaping financial behaviors, especially in non-Western communities. A national survey of financial education programs by Allgood and Walstad (2016) indicated that while financial literacy programs increase knowledge of finance, the overall impact on sustained financial behavior has been less clear. According to Angulo-Ruiz and Pergelova (2016), financial literacy positively influences business performance. Finally, Mountain et al. (2020) analyzed the role of financial literacy in cultivating economic resilience and found that individuals with higher levels of financial literacy are better able to navigate economic challenges.

This wide-ranging body of research, using everything from empirical surveys to experimental design, reflects this heterogeneity of definition but also underscores the importance of financial literacy to individual financial behavior and broader economic performance.

Problem Statement: The value of financial literacy has become widely accepted; however, a more nuanced view focusing on how it develops through a wide range of contributing factors has been harder to find. While this field of research has a rather heavy focus on the socio-economic, education, culture, and technology levels, there are considerable gaps in the empirical practices informing how such literacies could develop.

For instance, according to the European Commission (2023), only 18% of EU citizens have a high level of financial literacy, while the majority, 64%, have a medium level of literacy, and the remaining 18% demonstrate low levels of this crucial skill, which highlights the urgent need to improve financial education. At the global level, as shown with studies conducted by the OECD (2023), only 60% of adults are financially literate, and inequalities are more marked among lower-income and less-educated people. These statistics emphasize the immediate need for financial literacy programs to be adapted to various socio-economic environments. Solely focusing on existing programs may fail to accommodate the variety of needs target audiences face in rapidly changing digital settings. Therefore, there is a significant difference between the theory and the practice of financial literacy. This requires critical interrogation of how these schemes can be strategically strengthened to address that gap and promote enhanced financial inclusion and resilience.

In light of this context, the study's main objective is to carefully investigate the factors that contribute to financial literacy to design better and tailor effective financial literacy programs. To accomplish this overarching goal, the following specific objectives will be sought:

1. To examine the social, economic, pedagogical, cultural, and technological factors that shape individual financial literacy, such as income, education, parental heuristics, social mindsets, and digital innovations.
2. To identify the strengths and weaknesses of existing financial literacy initiatives and to assess fish tankers relevant to various socio-economic and cultural backgrounds.

Through these goals, this study aims to add to the unfolding conversation about financial literacy and its critical contribution towards resilient economies. By utilizing a combination of bibliographic analysis as well as content analysis with regard to financial literacy programs, the paper aims to provide practical recommendations and strategies that could drive policymaking, program design, and educational interventions to cultivate a financially literate citizenry that is equipped to navigate the intricacies of the contemporary financial world with confidence.

This research is novel in taking a comprehensive lens approach to understand the drivers of financial literacy and recommendations for tailored improvements to financial literacy initiatives. Previous research has investigated socio-economic, cultural, and technological factors separately; however, this study integrates them in an integrated model to derive a more generalizable understanding of how these factors influence financial literacy. Furthermore, this study also aims to determine the potential flexibility of existing financial education models through the assessment of computer-assisted financial education models, and whether the education is meeting the needs of diverse demographic groups as technology and finance adapt quickly. While previous scholarship has tended towards narrower investigations—limited either in terms of regional comparisons or with an isolated factor focus—this research provides an overarching assessment of financial literacy efforts in multiple contexts. It offers evidence-based, strategic recommendations to enhance the effectiveness of interventions. This research aims to generate insights that offer actionable pathways to individual financial literacy and the greater economic resilience of entire nations and the broader global economy.

2. Theoretical approach

Concern about the low level of youth financial literacy worldwide has received scholarly attention (Garg et al., 2018). To systematically investigate the literature on the subject, a search was performed using the Clarivate Analytics database, Web of Science, using the English term "financial literacy youth." All of the identified publications were tabulated. The articles included were used in the context of network analysis and the development of a taxonomic classification that identified overarching themes related to youth financial literacy. The topics related to youth financial literacy were also rated for their relevance.

2.1. Bibliometric Analysis of Youth Financial Literacy

Using VosViewer[1] to explore the data provides insights into several different areas of recent research on financial literacy. Such issues related to financial literacy are often discussed in the realms of education (youth) and behavioral aspects. Analyzing correlations within research findings allowed investigation of intersections between these thematic elements. Moreover, financial literacy is often evaluated in terms of three key dimensions,

1 VOSviewer is a software tool for constructing and visualizing bibliometric networks. Available at: https://www.vosviewer.com/

namely, knowledge, attitude, and behavior. For instance, Okicic et al. (2019) highlight that financial literacy, essentially a life skill facilitating successful inclusion in current society functioning, can be extrapolated to constitute a set of awareness, knowledge, skill, attitude, and behavior requisite for sound financial decision-making leading to ultimate individual financial well-being (OECD, 2018). The data on financial literacy are identified and operationalized through variables corresponding to its fundamental constituents, such as financial knowledge, financial behavior, and financial attitude (Okicic et al., 2019).

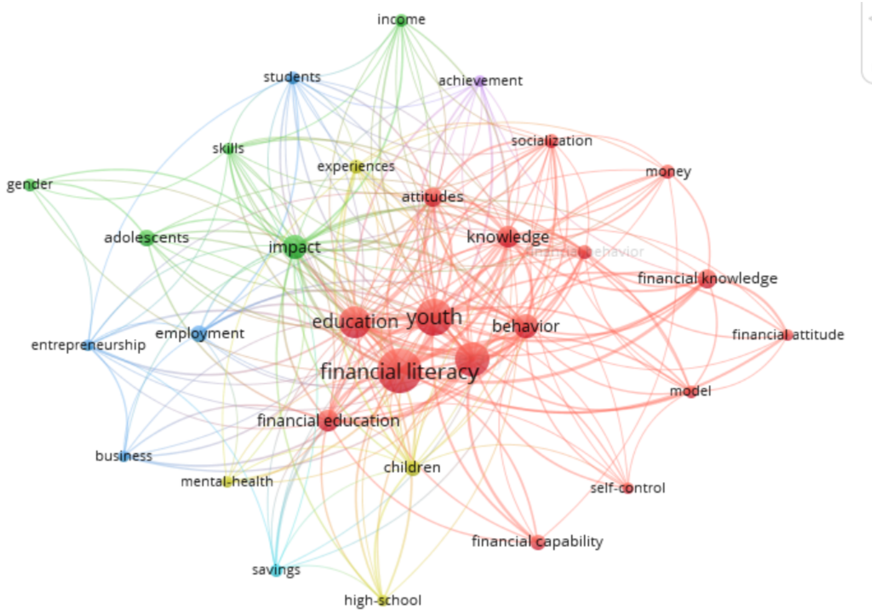

Figure 1. Map on Financial literacy scientific sources keywords from Web of Sciences data base (compiled by author)

The fundamental research topic is the so-called predictors and traces of financial knowledge, especially in adolescents' behaviors related to handling money. Recent studies have highlighted a few significant aspects that define the financial literacy levels of young people:

- **Gender**: The importance of gender as a variable in the study of financial literacy itself has been addressed by several studies (Okicic et al., 2019; Gavurova et al., 2019; Garg et al., 2018; Dundure and Sloka, 2021; Tinghog et al., 2021). Studies found consistently that young women differed from men on financial knowledge and financial attitudes and behaviors (Okicic et al., 2019). Most importantly, according to some authors, men usually have higher levels of financial literacy than women (Gavurova et al., 2019). Furthermore, Tinghog et al. (2021) show that gender disparity related to financial literacy continues in contexts that are not even numerically related, highlighting that innate gender biases may hinder women's overall financial performance due to stereotype threats.

- **Age and Income**: Scholars largely agree that age and income are prominent predictors of financial literacy among young people (Garg et al., 2018; Dundure and Sloka, 2021). Other demographics vary by gender and age, reflecting the gap between generations, continuing to change toward personal finance education in society (Gavurova et al., 2019). It has also been discovered that this gap can be attributed to income (Garg et al., 2018; Dundure and Sloka, 2021), in that among youth from different income levels, differing financial literacy can be found.
- **Marital Status and Education**: Garg et al. (2018) include marriage and education among the determinants of financial literacy. They state that socio-economic and demographic factors such as marital status and educational attainment are very important variabls explaining the financial knowledge of youth.
- **Number of Siblings:** The most fascinating and under-studied dimension is the number of family members, which was pointed out as a causative factor for one to become financially literate (Gavurova et al., 2019). At the same time, children from larger families have a higher level of financial literacy and could attribute that to the role modeling that occurs in those larger family units. This finding accords with the analysis from Sharif and Naghavi (2020).

In summary, studies have found that youth financial literacy can depend on demographic factors such as gender, age, income, marital status, education, and family relationships, among others. Such insights are crucial as they can help in gaining a deeper understanding of adolescents' financial literacy and will support adopting effective strategies for enhancing financial literacy and decision-making among adolescents. Another open aspect of the topic is perceived or actual financial literacy.

2.2. The Multifaceted Nature of Financial Literacy

In the context of the United States, Allgood & Walstad (2016) conducted an in-depth analysis of financial literacy that involved both objective measures of financial knowledge and individuals' subjective assessments of their financial literacy. Their probit analysis showed that both actual and perceived financial literacy were significant at explaining financial behaviors. Thus, while they cannot confirm a causal link, individuals' feelings about financial literacy may contribute just as much to financial behaviors as financial literacy (Allgood and Walstad, 2016).

This, to some extent, supports the conclusion by Sharif and Naghavi (2020) that examined how the financial information-seeking behavior of individuals predicts the financial-literate youth. Their research found that parents' responsible financial behavior was directly related to their children's seeking financial information. Also, parental financial instruction and behavior did not directly influence the youth to search for risk information and process this information but indirectly encouraged the youth to actively seek financial knowledge through the process of seeking and processing risk information. In addition, Sharif and Naghavi (2020) stated that parental financial socialization, directly or indirectly within the framework of the risk information-seeking process, sheds light on young people's avoidance of financial information.

By building on the empowerment theory as their fundamental framework, Angulo-Ruiz and Pergelova (2016) argued that youths' financial conduct relied not only on financial literacy but also on intrapersonal factors such as locus of control and motivation, as well as interactional factors such as parental financial teaching and behavior. According to their results, the strongest total effect (from highest to lowest) identified in their analysis of youth financial behavior was external locus of control, then parental influence, then motivation. "In addition, the authors proposed a more extensive view of empowerment, encompassing the influence of personal worldview, motivation, and social context, as a potential instrument to mold youth financial behavior (Angulo-Ruiz & Pergelova, 2016). Suyanto et al. identified financial socialization as one of the main determinants of financial literacy and a key determinant in the contextualization and formation of financial behavior (2021). Their study found that financial socialization, financial attitude, financial confidence, and financial behavior have positive impacts on overall financial well-being. With the theory of adulthood personality development, these authors verified whether, from the interaction of financial socialization and financial attitude, financial literacy can be enhanced, demonstrating the influence of social agents on the financial literacy and attitudes students possess (Suyanto et al., 2021)."

Within the avatars of financial role models, Mountain et al. (2020) also emphasized the impact of parents serving as financial role models, which positively correlated with the financial behaviors of young individuals. In addition, they discovered multiple factors that correlate with positive financial behaviors, including consulting with financial advisors, reading personal finance books, and obtaining objective financial education. As opposed to attending workshops and seminars, which were negatively related to financial behaviors (Mountain et al., 2020).

Figure 1: Determinants of Financial Literacy – Experience, Skills, and Education. While the family and schools are still in discussions about the right point of financial literacy education, it is clear that higher education institutions, colleges, and universities also fail to cultivate this key difference. Tawfik et al. (2008) identified various factors affecting levels of credit card literacy in their study on student financial literacy and behavior. Such determinants were the students' academic level, credit card status, and daily patterns. On the other hand, knowledge pertaining to loans was affected by the status of credit card ownership, gender, and living arrangements. In the context of pension-related knowledge, work status, year of study, and housing arrangements were found to be most relevant (Tawfik et al., 2008). This means that higher education has a high likely impact on reducing society's indebtedness through the improvement of students' financial literacy. Individuals with higher levels of financial knowledge tend to exhibit positive financial behaviors, a

greater propensity to invest wisely, and a higher potential for long-term investment success (Susilowati et al., 2018).

In a study, Zhu (2021) focused on the gap between objective financial knowledge and subjective financial knowledge among youth and adolescents. The findings revealed that teens who were overconfident in their financial literacy were more likely to exhibit risky behaviors with money and reported more financial independence. On the other hand, the study noticed a significant rise in underconfidence after a financial education intervention. These findings highlight the common phenomenon of financial illiteracy overconfidence, found in both adolescent and adult populations, and have important implications for financial advisors and educators. Although at first sight, this creates a link between mentality and the finance world, Zhu (2021) argues that things aren't just that simple. When understanding how to increase the financial engagement of adolescents, this type of overconfidence will need to be tackled.

Furthermore, Morris et al. (2002) argued how learning capacity informs an individual's financial confidence, which is an important driver of financial behavior. In general, financial knowledge will need a major improvement, as will confidence in your own ability to learn. These efforts have become important not just to address current borrowing problems, but also to prevent new financial problems from developing. The creation and execution of constructive strategies that are goal-specific can lead to overall financial well-being (Morris et al., 2002).

Lastly, there is a strong emphasis on the relationship between experience, skills, and education in understanding the different aspects that comprise financial literacy, and thus, colleges and universities are at the forefront of fostering this literacy in youth. There are studies presented above with the possibility of preventative measures as a direct pathway to positive financial behaviors (including reaching optimal financial outcomes): increasing general financial education, controlling individual autoregulation of overconfidence regarding literacy and future-based motivations, understanding personal motivations towards financial confidence, and learning capability attainment that leads to more immediate behavioral choices.

2.3. The Role of Perception, Socialization, and Culture

Financial literacy is not solely a technical skill; it is a deeply contextualized one with social and cultural nuances that significantly influence how people conceptualize and interact with their finances. Every culture has evolvement and beliefs regarding money, prevalent in its rich history, social, and economic conditions. From cultural norms and values that shape people's priorities and decision-making processes to the likelihood of engaging with financial education initiatives that encourage or impair financial literacy. In addition, social norms surrounding financial literacy—such as how socially desirable it is for members of the public to understand finance and whether financial literacy is part of school curricula and public conversations—are critical to the prevalence and effectiveness of financial literacy programs. These are societies that view financial education as one of the cornerstones of personal empowerment, and that invest significant resources in ensuring that their entire populations are financially literate and financially responsible. On the contrary, an underqualified financial education in societies can create literacy gaps and consequences later on.

The work of Csorba (2020) and De Beckker et al. emphasizes cultural nuances and social attitudes towards financial literacy that serve as strong determinants of individuals' financial behaviors. Csorba's "The Determining Factors of Financial Culture, Financial Literacy and Financial Behavior" centers on the importance of non-financial culture to generate group cultural attitudes and behavior towards financial matters.

Simultaneously, De Beckker et al.'s "The role of national culture in financial literacy: Cross-country evidence" shows a broader nexus between national culture and financial literacy levels, addressing cultural dimensions (e.g., uncertainty avoidance and individualism) that play a significant role as well. In addition, explorers of the issue Riitsalu and Põder (2016) highlight complexity in determining aspects accounting for financial literacy, indicating that socio-economic indicators matter but are obviously not delivering full explanations for differences in personal finance management. (cf. Riitsalu and Põder 2016: 417) Cultural and language frames have a more considerable impact on financial literacy outcomes than demographic factors, highlighting a better way to understand cultural nuances and public perspectives when considering financial education initiatives. Taken together, these insights provide a more sophisticated comprehension of the ways in which cultural factors, societal mindset, and degrees of financial literacy are intertwined, underscoring the urgency of factoring in cultural considerations for endeavors aimed at fostering financial empowerment and resilience. Greed is a common phenomenon in the financial market, especially in the field of digital finance, and modern-day studies have focused significantly on the importance of financial literacy and its influence by technological innovation. A recent study done by the Bank of Lithuania revealed a concerning decline in financial literacy of about 20 percent, positioning this country below 39 others, including Central and Eastern Europe. Digital financial literacy is declining, as only 16 percent of respondents demonstrate at least a basic level (Bank of Lithuania, 2023). Studies by Wewengkang et al. (2021), Humaidi et al. (2021), and Farida et al. (2021) offer important insights into this dynamic relationship. Wewengkang et al. highlight the positive impact of using financial technology on financial inclusion; however, Humaidi et al. emphasize the huge positive impact of financial technology and literacy on financial management behavior. Furthermore, Farida et al. explain the relationship between financial literacy, financial technology usage, financial behavior, and financial satisfaction. All three of these studies collectively showcase the significant changes that digital finance, as a technology, has brought about and how this has shaped users' financial literacy, wealth, and habits. Integration of technology into financial reflection services can promote financial education in various ways.

In this study, an article review method is taken to confirm essential themes of youth financial literacy through network analysis and thematic classification of literature. A search across the field using the Web of Science database yielded key papers across domains including education, youth, and behavioral finance for financial literacy. These core dimensions of financial literacy—knowledge, attitude, and behavior—were analyzed, which significantly highlight the multi-faceted nature of this construct. The study explored determinants like gender, age, income, marital status, education, and family dynamics, and how they impact youth financial literacy. Furthermore, the influence of subjective perceptions, cultural differences, and societal orientation in financial conduct was explored, indicating a broader perspective in designing educational measures and addressing common issues in financial conduct. Methodology: This study will perform a program analysis of schools of education to establish each school's areas of strength and weakness, focusing on finding areas of improvement.

3. Methodology

The research encompasses systematization and comparative analysis of financial literacy education programs in Lithuania, Estonia, and Poland secondary schools. After the introduction follows a brief presentation of each of the countries' published educational programs, focusing on the presence of financial education in their educational program and its implementation. The following section will perform a structured analysis using the SWOT methodology (Strengths, Weaknesses, Opportunities, and Threats). We will compare this by looking into the essential internal and external factors influencing the strength, sustainability, and success of delivering financial literacy programs in the choice of countries.

It will also perform multicriteria analysis to further elaborate on the strengths, weaknesses, opportunities, and threats SWOT analysis recognizes. Finally, this analysis will yield a more detailed understanding of how significant and impactful each factor was regarding the overall success of the programs.

Disclaimer: The word "factors" in this publication refers to things or conditions that affect something, in this case, financial literacy. The term "criteria" is used to identify the guiding principles for evaluating financial literacy programs. They were Estonian and Polish students because they performed better in the 2018 OECD PISA (the most recent economic summary that is within my means) than Lithuanian students did in several compiled financial literacy measures. Although I mostly collated the students from four participating nations, Estonia and Poland, for financial testing. Additionally, the proximity in geography, history, culture, and economy among these countries presents them as good candidates for comparison.

The chosen method is the SWOT analysis methodology, which effectively assesses internal and external factors affecting a venture or program. The SWOT analysis is a beneficial tool for systematically evaluating external and internal factors that may impact marketing effectiveness for strategy development and management (Kotler & Armstrong, 2018).

Altogether, they help the organization assess which areas it works well in and which areas it could improve (strengths and weaknesses), as well as outline the things the program could draw upon (opportunities) and the potential hurdles it faces (threats) that can, respectively, help or hinder its success. Systematically, by evaluating these grounds, the stakeholders can form a strategy to use the strengths, reduce weaknesses, open opportunities, and avoid any threats.

These criteria are based on academic literature and cover the major dimensions that previous studies have shown to impact the efficacy of financial literacy teaching initiatives. These elements encompass curriculum coverage, pedagogical strategies, student engagement, socioeconomic considerations, cultural sensitivity, techno-integrative measures, teacher preparation and support, and structural sustainability. However, each of the following criteria can help to illuminate different aspects of the strengths, weaknesses, opportunities, and threats presented by the programs under study:

- **Curriculum Coverage**: It's important that schools focus on financial literacy topics. Research indicates that comprehensive coverage and the introduction of financial topics correlate with increased levels of student financial literacy (Fernandes et al., 2014).
- **E-Learning / Hedging**: Just another word for an ultimate answer to freedom with the financial system. For example, evidence suggests that traditional methods of delivering content (i.e., lecture) are not as effective at promoting financial literacy as interactive and experiential approaches (e.g., simulations, case studies, peer-to-peer) (Chen & Volpe, 1998).
- **Student Engagement**: Student engagement in financial literacy education means interest, motivation, and active participation in the learning process. Research also suggests that engaged students remember information in the long term, apply ideas to real life, and develop good financial habits in the future (Chen & Volpe, 1998).
- **Cultural Sensitivity:** Being aware of classroom diversity means being cognizant of students' differing cultures. If financial literacy learning opportunities are tuned to students' cultural frames, relevance, engagement, and effectiveness will improve (Klapper et al., 2015).
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– **Long-Term Impact**: The same as before, but looking at knowledge, attitudes, and behaviors over time. Studies have shown that financial literacy education can significantly impact an individual's income-generating habits and ability to repay loans (Fernandes et al., 2014).

4. Empirical results

The cause of such disparity can be found in the way European countries, including Lithuania, have implemented economic education into the core curriculum, which varies across schools and grades, as the economics subject itself is compulsory only for grades 9–10 with an optional evaluation in grades 11–12 (Kvieskiene, 2021). Interestingly enough, financial literacy as a concept is not officially recognized in the curriculum, thus limiting the focus on fundamental money functionalities that would potentially equip everyone. Students are exposed, at an essential level, overall, to market economics, without formal assessment, for the purpose of higher education entrance, at the expense of acknowledging discrepancies in student preparedness and involuntary economics electives. Despite this, the disparity in coverage remains as highlighted in the 2018 National Financial Capability Study and with studies showing effective teaching methods often eluding those in the ed-tech space. Although elements of financial literacy have been slowly infused into curricula, teachers continue to lack guidance and resources, as well as challenges involving educators' familiarity with financial terms and limited means to engage in professional development opportunities (NSA, 2020).

By contrast, Estonia, among other countries, integrated financial literacy into civics studies in 2010 and made available optional economics and entrepreneurship courses (OECD, 2018). Yet the Estonian educational system grants teachers significant freedom regarding the content and manner of financial literacy education, which can give rise to discrepancies between the educational contents and approach offered to students across schools.

Financial education in Poland is fragmented as it is integrated into different subjects of the primary and secondary school curriculum (e.g., mathematics, civic education, computer science, history, and geography) (OECD, 2022). While financial concepts are embedded in the core subjects, including topics like household budgeting and economic history, in secondary schools the key area of focus is the "Introduction to Entrepreneurship" course. In addition, a new subject called "Business and Management" will focus on skills that are important for economic decision-making as well as effective working in the financial and managerial fields (OECD, 2022).

This introduction paves the way for an analysis that follows. The results of the SWOT analysis are laid out in Table 1.

Table 1. SWOT Analysis for Lithuanian Financial Education Program (compiled by author)

Strengths	Weaknesses	Opportunities	Threats
1. Government Support	1. Limited Coverage	1. Digital Tools	1. Changing Curriculum Priorities
2. Integration into Curriculum	2. Pedagogical Approach	2. Community Engagement	2. Competing Demands
3. Collaborative Initiatives	3. Resource Constraints	3. Innovation in Teaching	3. Digital Divide
4. Teacher Training	4. Assessment Challenges	4. Inclusion Strategies	4. External Influences

There are several categories in Table 1 that are considered a strength in the SWOT analysis of the financial education program of Lithuania. First, high-level political support contributes to a strong basis for implementation and perpetuation of the program (OECD, 2018). Moreover, integrating financial education into the curriculum shows a commitment to providing students with skills they will use in real life (NSA, 2020). Through cooperation with stakeholders, in particular, this program ensures reach and a higher level of impact, as the cooperation with the key stakeholders (OECD, 2018). In addition, teacher professional development guarantees that instructors are provided with the right information and skills to successfully deliver financial education for their students (NSA, 2020).

Unlike others, the program also has some weaknesses that reduce its overall efficiency. The limited coverage in the curriculum could be a challenge, which is likely to leave students covering some essential financial knowledge and skills that make short of many (OECD, 2018). Teaching methods and learning outcomes may vary due to pedagogical approaches (NSA, 2020). Challenges are amplified by resource constraints that hinder the provision of materials and support to educators (OECD, 2018). When students are able to engage, assessment issues will impair assessment of student achievement and program outcomes (NSA, 2020).

Despite those shortcomings, Lithuania's financial education initiative has opportunities for improvement and growth. In fact, using digital tools and innovative methods can increase engagement and effectiveness as students are mostly digital natives (OECD, 2018). When community engagement initiatives are strengthened, they can help to forge partnerships with local organizations and businesses that benefit the learning experience of students (NSA, 2020). In addition, strategies for increasing inclusion can guarantee that the program reaches all students, regardless of their socioeconomic background or learning capabilities (OECD, 2018).

However, threats to the program also loom that could thwart its success. Due to shifting curriculum priorities and other competing interests within the education system, there may be some change in how resources are allocated and the programs are implemented

(NSA, 2020). OECD (2018) notes that the digital divide could widen inequalities in access to financial education, where students without sufficient technological resources will be put at a disadvantage. Factors outside the program itself, such as economic challenges or policy shifts, might also affect sustainability and effectiveness (NSA, 2020).

Overall, however, there are elements of Lithuania's program which have real strengths, such as the government commitment and cooperation, but substantial challenges remain. Despite this, weaknesses in coverage of the curriculum, pedagogical mismatches, and a lack of resources are obstacles to the program's effectiveness. Nonetheless, by capitalizing on opportunities for innovation, community engagement, and inclusion, stakeholders can mitigate these weaknesses and bolster the program's impact. Oriented and relevant to address the evolving needs which aim to balance for sub-sectors to get served, while preventive suggestions to an approach of threat reduce such as change in curriculum priority to a digital divide, which is a national context for a sustainable and current program. By developing a comprehensive financial education program, addressing weaknesses and opportunities, Lithuania can empower its citizens with the financial knowledge and skills they need to thrive in an increasingly complex financial landscape.

Table 2. Comparative Evaluation of Financial Literacy Education Programs in Lithuania, Estonia, and Poland (compiled by author)

Criteria	**Lithuania**	**Estonia**	**Poland**
Curriculum Coverage	Moderate coverage with room for expansion	Comprehensive coverage across domains	Strong coverage with emphasis on basics
Pedagogical Approach	Traditional methods with limited innovation	Innovative and interactive teaching methods	Varied approaches with practical focus
Student Engagement	Moderate engagement levels	High engagement through interactive content	Moderate to high engagement levels
Accessibility	Accessible but may lack inclusivity	Highly accessible with inclusive design	Accessible with efforts to reach all students
Socioeconomic Factors	Acknowledged but may require further integration	Considered with tailored interventions	Addressed with targeted support programs
Cultural Sensitivity	Limited sensitivity to cultural diversity	Strong emphasis on cultural inclusivity	Culturally sensitive with diverse perspectives
Technological Integration	Moderate integration of technology	Extensive use of digital resources	Embraces technology for enhanced learning

Criteria	Lithuania	Estonia	Poland
Teacher Training & Support	Gaps in training and support	Strong emphasis on professional development	Invests in ongoing training and support
Long-Term Impact	Potential for improvement in sustainability	Aims for lasting impact on students	Emphasizes long-term outcomes and empowerment

In evaluating the financial literacy education programs of Lithuania, Estonia, and Poland in various aspects (Table 2), strengths and weaknesses can be identified. Even though Lithuania exhibits an average level of curricular coverage and student cooperation, there are areas to improve in terms of pedagogical practices and consideration of socioeconomic variables. Estonia has a balanced curriculum, an emphasis on creative teaching, and a high consideration for cultural diversity, resulting in comprehensive student engagement. In Poland, these aforementioned aspects manifest themselves as a focus on hands-on learning, technology integration, ongoing teacher professional development, and program delivery shifts as it learned what worked or did not - however, this did not come without the need to focus on ensuring the good ones maintained cultural and long-term relevance. Socioeconomic factors are acknowledged in all three nations, but the ways in which schools include and support marginalized students may need more work. In conclusion, each of the examined countries' financial literacy education programs demonstrated both strengths and areas for improvement, providing best practices that may improve the long-term impact of these programs.

Although the Lithuania program shows good coverage and engagement with students, it could use more emphasis on interactive teaching methods to allow for a deeper understanding and application of financial concepts. Providing real-world in-class experiences, such as financial modeling, budgeting exercises, and simulations, would enable students to apply their knowledge in practical settings. Also, where relevant, giving examples of case studies in the context of the Lithuanian economy and providing key curricula materials in the languages of the minority groups would make inclusion more tangible for the students.

Estonia's course encourages levels of financial literacy to be taught in an all-inclusive way with innovative methods of teaching that expose students to financial literacy in stimulating ways. For instance, the use of gamification and digital platforms in Estonia makes learning exciting and more hands-on while preparing students for a tech-dominant financial future. In addition, the state's proactive measures to introduce cultural diversity in the curriculum — such as offering examples from all walks of life and appropriate support for students with a spectrum of learning needs — ensure that all students have an equal chance to learn about finance.

On the other hand, Poland's case is different and is returning students with the required skill set suited for real-time experiences combined with technology. The encouraging part is they promote entrepreneurial education with workshops where you learn to use your funds, so you gain first-hand experience of budgeting, investing, and growing a business. However, more can be done to encourage awareness of cultural nuances and behavior change in relation to long-term financial planning. Poland could have more culturally relevant examples and case studies included in the curriculum to more accurately represent the diversity of its population and ensure that all students feel represented and engaged in the learning process. Also, in order to yield a more consistent and effective financial curriculum across the states, there should be continuous support for teachers on how to effectively integrate the curriculum into their current plans through access to updated resources and professional development opportunities.

Following this logic, Estonia retains the first place in the mapping of the financial literacy education program, with Poland in a close second. This assessment showed that there is potential for improvement in Lithuania, for example, in the areas of cultural sensitivity, technology integration, and the training and support of teachers. For them all, though, there is a bedrock commitment to preparing students with the skills and information to make smart financial choices and to achieve financial wellness.

Overall, using the SWOT analysis, Lithuania's program shows strengths and weaknesses, as well as opportunities and threats. While the program is strengthened by government support and cooperation, it still suffers from limited curriculum coverage, pedagogical inconsistency, and resource constraints. Stakeholders can find ways to make the program more effective and meaningful by embracing new paradigms when reaching or working with local communities and helping to ensure that all parts of society are represented. But to make sure the program is sustainable in the long term, proactive measures must be taken to fight threats that can arise, for example, by altering curriculum priorities or addressing the digital divide.

Comparatively, Lithuania, Poland, and Estonia are given a full country review of their financial education initiatives, highlighting strengths and weaknesses in each country. The overall coverage in Lithuania is moderate, with best coverage for curriculum and student engagement and low for pedagogy and correlation to socioeconomic factors. Besides a curriculum, teaching practices, and approach to cultural diversity, Estonia gives an example of high student engagement. The Place D'Alsace emphasizes practical learning experiences and technological integration and the need for attention to cultural sensitivity and long-term impact. Such differences are not only beneficial for students in both countries but can also help them to share weaknesses so that schools can reflect on how to collectively improve financial education and prepare students for the complexities of the modern field.

5. Conclusion

This research endeavored to advance knowledge of financial literacy by exploring socio-economic, educational, cultural, and technology-related associations of financial knowledge and suggesting improvements in financial literacy programs. The novelty of this research is combining these factors into a comprehensive framework and reviewing the existing programs in international and contextual settings.

Factors that influence Socio-Economic, Pedagogical, Cultural, and Technological: The patterns also show that socioeconomic indicators, including income, education, and parental influences, were closely linked to financial literacy exposure. Educational pedagogies like personalized learning and realistic competence assessments are critical for engaging different demographics effectively, especially youth. Another factor in financial literacy behaviors is cultural influences, such as societal attitudes toward money and financial education. At the same time, technology innovation, especially digital finance and learning tools, plays a growing role in promoting financial literacy. Still, basic digital skills are lacking in some areas, notably here in Lithuania.

Opportunities and Challenges of Financial Literacy Programs: Financial Literacy Programs: High Government Support and Collaborative Initiatives: Particularly for Lithuania, programs in Latvia and Estonia are more limited; however, both countries offer potential through collaboration and government support. However, there are still weaknesses, particularly regarding curriculum coverage, resource allocation, and adaptability to different socioeconomic and cultural contexts. In contrast, Poland and Estonia teach lessons about the potential of digital tools and community involvement, from which Lithuania could learn by following inclusive strategies that consider the needs of different demographic groups.

Limitations. The analysis is limited because of the data availability and may not reflect Lithuania's or other countries' regional differences. Moreover, the study may be limited in its consideration of new educational innovations and technological tools that are evolving, as it is based on existing financial literacy programs.

Future Research Directions:

- Future studies should probe regional variations within countries to address specific local needs. Additionally, more research on the effectiveness of emerging digital tools and platforms in financial education could yield new insights.
- There is a need for longitudinal studies that evaluate the long-term effects of financial literacy programs and interventions on individuals' financial behaviors and economic resilience over time.
- The comparative analysis should include more nations and educational models to gain a wider understanding of effective financial literacy strategies.

Ultimately, there is potential to improve and build on this study to promote the following steps, essential to developing financial literacy initiatives crucial for a healthy society. Systematic, tailor-made, and full-fledged approaches can foundationally enhance positive knowledge and behaviors related to finance, contributing to indebtedness stability with greater resilience.

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