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Araştırma Makalesi/ Research Article

Financial Inclusion and Financial Education- An Effective Tool for Poverty Reduction (The Case of Georgia)[1]

Finansal İçerme ve Finansal Eğitim- Yoksulluğun Azaltılmasında Etkili Bir Araç (Gürcistan Örneği)

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ABSTRACT

Poverty is one of the main challenges of the contemporary world. The Covid-19 pandemic has worsened the already slow pace of poverty reduction around the world. Some countries have managed to avoid the further growth of poverty, while others failed to overcome the problem. The troubles caused by the pandemic were also added to those caused by Russia-Ukraine war. If this trend continues, millions of people will still live in poverty in the future. The governments of almost all the countries, including Georgia, are actively taking various steps to reduce poverty, inter alia, largely by strengthening financial inclusion and financial education. Lack of financial inclusion is a challenge for low- and middle-income countries, which leaves millions without access to formal financial services. Another important barrier to overcoming poverty is the lack of financial education, one of the most important life skills for everyone. Without understanding basic financial concepts, it is quite difficult to make correct decision. Differences in financial education may affect wealth, inequality and poverty. The presented paper studies the impact of financial education and inclusion on poverty in Georgia based on the processing and analysis of secondary data, academic works, and reports of various international and local organizations.

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JEL Kodları: D63, G50, G53, I32, I38

ÖZ

Yoksulluk, günümüz dünyasının temel sorunlarından biridir. Bu bağlamda Covid-19 salgını, dünya çapında yoksulluğun azaltılmasında zaten yavaş olan ilerlemeyi daha da kötüleştirdi. Bazı ülkeler yoksulluğun daha da büyümesini önlemeyi başarırken, diğerleri sorunun üstesinden gelemedi. Bu süreçte pandeminin yol açtığı problemlere Rusya-Ukrayna savaşının meydana getirdiği meseleler de eklendi. Bu eğilimin devam etmesi, milyonlarca insanın gelecekte de yoksulluk içinde yaşamaya devam etmesine yol açabilir. Gürcistan da dahil olmak üzere neredeyse tüm ülkelerin hükümetleri büyük ölçüde finansal içermeyi ve finansal eğitimi güçlendirerek yoksulluğu azaltmak için aktif olarak çeşitli adımlar atmaktadır. Finansal içermenin eksikliği, düşük ve orta gelirli ülkeler için bir sorun teşkil etmekte ve milyonlarca kişiyi resmi finansal hizmetlere erişimden yoksun kılmaktadır. Yoksulluğun üstesinden gelmenin önündeki bir diğer önemli engel de herkes için en önemli yaşam becerilerinden biri olan finansal eğitimin eksikliğidir. Temel finansal kavramları anlamadan doğru karar vermek oldukça zordur. Finansal eğitimdeki farklılıklar refahı, eşitsizliği ve yoksulluğu etkileyebilir. Bu makalede; ikincil verilerin, akademik çalışmaların, çeşitli uluslararası ve yerel kuruluşların raporlarının işlenmesi ve analizine dayanarak Gürcistan'da finansal eğitim ve içermenin yoksulluk üzerindeki etkisi incelenmektedir.

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[1] This study was previously published as an abstract at II. International Congress of Social, Political and Financial Researches (USSMAK).

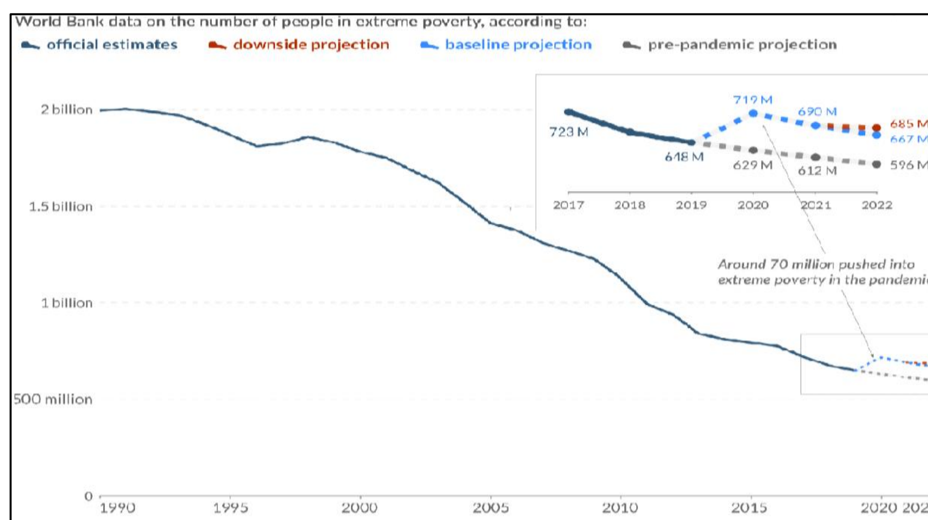
Introduction

The struggle for economic and political power between states, nations, classes, population groups and individuals is the driving force of world development. As a result of negotiation between the parties, some equilibrium is established in this struggle periodically, but this equilibrium is relative and unstable. The fight continues, but it is relatively peaceful. Usually, thanks to new technologies, scientific and technical discoveries and innovations, a certain party, class, or group gains an advantage in this struggle. At this time, the balance of available forces is disturbed unequally and the struggle for power takes the form of crisis, economic conflict, rebellion, revolution and even war. Power struggles, conflicts and crises have accompanied all stages of human development, but they have not always resulted in global problems. If the conflict is such that it is perceived by humanity as a challenge and can only be solved by the efforts of the entire world community, then we are dealing with a global challenge (Kasradze, 2013). Poverty belongs to such a global problem, which in 2015 was recognized by the United Nations as the number one goal among the Sustainable Development Goals, and together with the governments of the member states, efficient steps have been taken to end poverty around the world.

Ending poverty in all of its forms was the main global challenge that the 2030 Agenda for Sustainable Development and Sustainable Development Goal (SDG) 1 set out to address in 2015. In the middle of 2030, people's lives are still being hammered down in plenty of different ways at once. “Globally, an array of challenges impedes poverty reduction—widespread inequality, political instability and conflict, a climate emergency, COVID-19 pandemic recovery, and cost of living and other crises. There are both commonalities and specifics that cloud the way for each country” (Global Multidiensional Poverty Index, 2023).

Unfortunately, the Covid-19 pandemic has worsened the already slow pace of poverty reduction around the world. Some countries have managed to protect their population and avoid the further growth of poverty, while others failed to overcome the problem. In 2020, the number of people living in extreme poverty (living on less than $2.15 per person per day) increased to 724 million. In 2021, about 41% of low-income countries had higher poverty rates than the previous year, compared to only 13% of middle-income countries. The pandemic's problems were compounded by those brought on by the Russia-Ukraine war, which left nations grappling with several issues like growing costs, heightened inflation, higher borrowing rates, and elevated energy transport prices, among other things. According to the United Nations, “if this trend continues, 575 million people will still live in extreme poverty by 2030 and only 1/3 of the countries will be able to reduce the national poverty by half” (The World Bank, 2022).

Diagram 1: The Number of People Living in Extreme Poverty Globally



Source: (The World Bank, Poverty and Inequality Platform, https://pip.worldbank.org/country-profiles/GEO)

Increasing financial education and financial inclusion, among other action steps, is considered by the UN to be an effective means of overcoming poverty, as it has the transformative power to accelerate inclusive development. Given its multifaceted implications, UN member states have included financial inclusion as a primary formal goal of their development agendas (Sahay et al., 2015).

The concept of financial inclusion emerged from the microcredit movement of the 1970s and was widely used in the early 2000s. Today, it is an important part of the global development agenda, with a wide range of actors recognizing it as contributing to many of the UN's Sustainable Development Goals (SDGs). Financial inclusion

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seeks to unlock the potential for development and improve the lives of all, especially the poor, by expanding access to quality financial instruments. Affordable, efficient and secure financial services – savings, insurance, payments, credit and more – can play a transformative role in promoting equitable growth and advancing important development goals such as poverty reduction, job creation, gender parity and food saftey. Today, improving financial inclusion is a key objective of international standard-setting organizations and national governments, and it is seen as a tool to achieve policy goals beyond the financial sector. Financial education acts as a catalyst for expanding financial inclusion by addressing knowledge gaps, building financial capabilities, and fostering confidence in engaging with formal financial systems. Financial education plays a crucial role in promoting financial inclusion by addressing barriers to access and usage of financial services. Financial education refers to the process of imparting knowledge and skills related to financial management and literacy. It encompasses teaching individuals about various aspects of personal finance, such as budgeting, saving, investing, borrowing, and managing debt. The goal of financial education is to empower individuals to make informed financial decisions, navigate the complexities of the financial system, and achieve their financial goals effectively. It equips people with the tools and understanding they need to make sound financial choices throughout their lives, ultimately promoting financial stability and well-being (UNSGSA, n.d.).

“Financial inclusion implies equality of access to financial information and services. Every member of the public should have access to the financial information and services that the other part of the population enjoys” (Kasradze, 2020). “Yet, unfortunately, in today’s reality billions of poor people do not have access to numerous financial and non-financial products and services”. (Kasradze & Zarnadze 2023). Financial inclusion allows poor people to finance their businesses, save, contribute to the well-being of their own families, and protect themselves from daily risks. The readiness of the country's financial sector as a whole, as well as the responsible and social approach of specific financial institutions - microfinance institutions, insurance companies, banks and others - play a big role in increasing financial inclusion in general in conjunction with public policy. These institutions need to be well aware of their role in struggling against poverty by promoting financial inclusion (Kasradze, 2020). “Financial services help individuals escape poverty by making it easier to invest in business, education, and health through using of digital services, including payment cards, mobile money, and other FinTech applications” (Tsouli, 2022; Kasradze, 2021). “Despite impressive progress in financial access across several dimensions, Georgia remains one of the countries with the highest poverty rates in the region” (Babych, Grigolia & Keshelava, 2018). Detailed statistics in Diagram 3.

Studies show that the low level of financial education is considered one of the main barriers to financial inclusion. Financial knowledge is considered "an enabling factor that unlocks other key dimensions of financial inclusion" (Gardeva & Rhyne, 2011).

Without financial education, it is impossible to achieve financial inclusion, which can be considered a pillar of inclusive growth. If the general public does not have sufficient financial education to take advantage of the available opportunities, then only a small part of society will be able to take advantage of these opportunities and financial inclusion and inclusive growth will remain unattainable goals (Tea Kasradze; Nino Zarnadze, 2022). Financial literacy in Georgia is considered by various stakeholders such as commercial banks, MFIs and the National Bank of Georgia as the key to improving the financial well-being of households. After several waves of lari depreciation in 2013-2016 affected borrowers, in order to protect consumers, the National Bank of Georgia actively initiated measures to improve the level of financial education of the population (Babych, Grigolia & Keshelava, 2018).

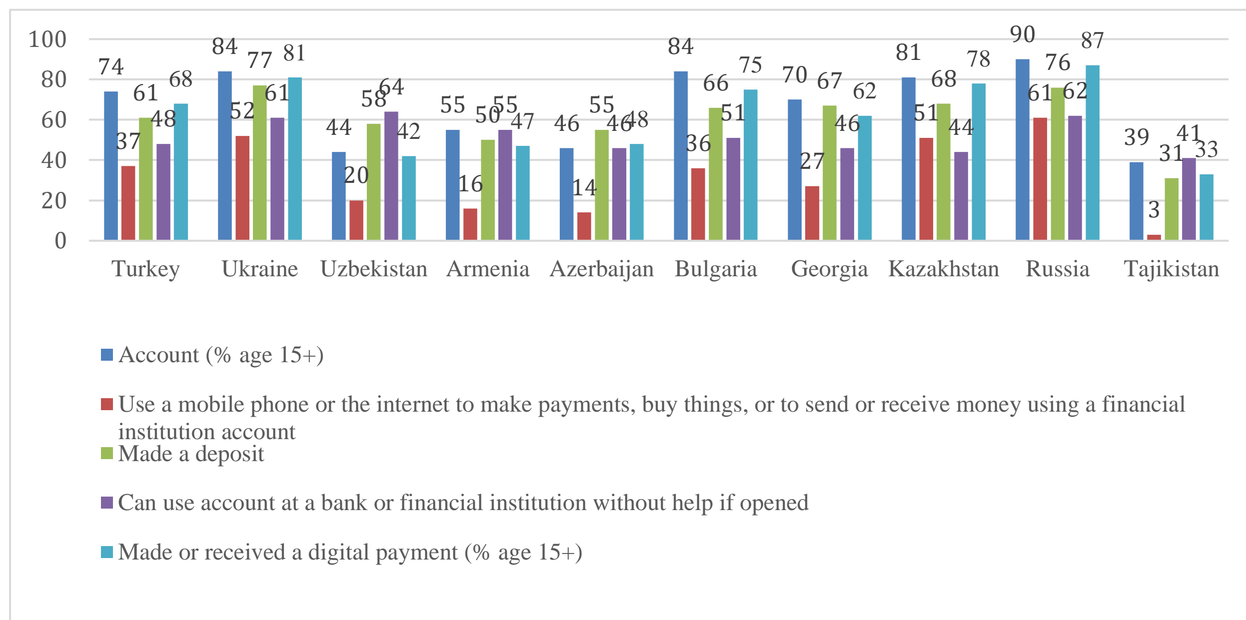
The first national financial education strategy was developed in 2016 by the National Bank of Georgia (NBG) with the support of the Savings Banks Foundation (SBFIC) and the involvement of the state, private sector and civil society. In 2023, the NBG developed a new national strategy for financial education within the framework of which a number of important steps were taken for increasing financial literacy in close cooperation with stakeholders including, financial education topics were integrated into the national curriculum of the secondary education and the relevant training of teachers was initiated; The first financial education web-portal - "Finedu" (www.finedu.gov.ge) and its supporting pages on social media were created; Annual awareness-raising events, competitions, webinars and trainings have become traditional; Financial education programs, online and printed educational materials were created, videos, games were developed for different target groups. During the COVID-19 pandemic, “FinEdu” became an important channel for the digital delivery of financial education, through which financial education activities were carried out online, such as: informational campaigns, competitions, webinars, lives etc (National Strategy for Financial Education of Georgia, 2023)

There are many studies by foreign scholars on the impact of financial inclusion and education on economic growth, financial stability, women's empowerment, poverty alleviation and income inequality. However, in Georgia, this issue has not been studied. No empirical studies are proving that financial inclusion reduces poverty

and income inequality in Georgia. By conducting an empirical investigation of the connection between financial inclusion, poverty, and income inequality in Georgia, the given research aims to close this gap.

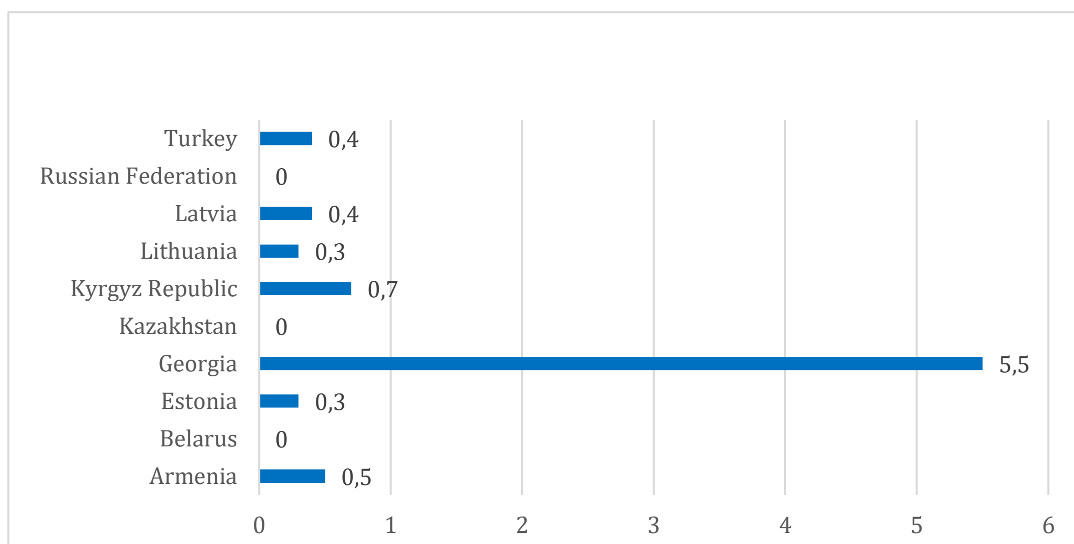
In the region and among the post-Soviet countries, Georgia is one of the leading countries in terms of access to finance and financial education, while also holding the leading position in terms of poverty level.

Diagram 2: Access to Finance by Countries 2021



Source: (The World Bank, 2021)

Diagram 3: Poverty Rate (% of population living less then $2.15 per day) Period 2020-2022



Source: (The World Bank, Poverty and Inequality Platform, https://pip.worldbank.org/country-profiles/GEO)

This is what led to the interest in the research and the following research questions arose from this:

1. Does financial inclusion reduce poverty and income inequality in Georgia?

2. Does financial education increase financial inclusion in Georgia?

3. Does financial education affect poverty in Georgia?

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1. Literature Review

"Financial inclusion is often considered as only the availability of financial resources for the general public and small and medium-sized businesses but it is a much broader concept and includes widespread access to quality financial products and services, including loans, deposit services, insurance, pensions and payment systems, as well as financial education and Mechanisms for the protection of consumer rights" (Kasradze & Zarnadze, 2023; Reyes, 2010).

Financial inclusion means that members of society have access to and can effectively use a range of financial services/resources they want and need. Financial inclusion starts directly with having a bank, deposit, or transaction account. Moreover, internet banking and mobile banking service providers can be used for making payments, saving, etc. Financial inclusion also includes access to funds from formal financial institutions that enable community members, especially young people, to invest in education and business activities, and to use insurance products. All of the above will create better living conditions for people (Demirgüç-Kunt, Klapper & Singer, 2017).

In many developing countries, a significant part of the population still is excluded from financial services. Financial exclusion is a multifaceted problem. It is a sign of market failure involving both supply and demand factors (Atkinson & Messy, 2013). Supply-side factors that reduce access to and use of formal financial products include regulatory constraints; the availability of competitive financial services with limited requirements for consumer financial protection; Prohibitive market factors; Geographical/physical barriers; and Infrastructure and connectivity barriers. All these delivery factors can affect the inclusiveness of citizens. In addition, several demand-side factors can cause or prolong exclusion, including financial vulnerability caused by personal circumstances.; Low levels of financial literacy; Reduced social and technological inclusion; Cultural and psychological barriers; Linguistic or educational barriers (OECD/INFE, 2015).

Studying the impact of financial inclusion on poverty and income inequality is the research interest of many scientists. Studies show that economies with higher financial inclusion significantly reduce poverty rates and income inequality in developing countries. However, the effectiveness of financial inclusion in reducing poverty and income inequality depends not only on inclusiveness but also on other factors such as the rule of law, access to education, inflation, etc. (Omar & Inaba, 2020).

According to research by Abdullah Omar and Kazuo Inaba financial inclusion is an important component of social inclusion, which is especially useful in fighting against poverty and income inequality. It removes the blocked possibility of advancement for the vulnerable segments of the population. They examined the impact of financial inclusion on reducing poverty and income inequality in 116 developing countries between 2004 and 2016. They introduced/developed a new financial inclusion index using a broad range of financial sector penetration indicators. Omar and Inaba discovered that "the degree of financial inclusion in developing nations is significantly affected by per capita income, the proportion of Internet users, the age dependency ratio, inflation, and income inequality. Research findings provide strong evidence that financial inclusion significantly reduces poverty rates and income inequality in developing countries" (Omar & Inaba, 2020).

Similar research was conducted by Driss Tsouli using the composite financial inclusion index (FII) created using principal component analysis (PCA) for examining the factors that influence financial inclusion on the one hand and its impact on the decrease of poverty and income inequality on other hand in 30 European countries between 2004 and 2019 and by Cyn-Young Park and Rogelio V. Mercado, Jr introducing a new index of financial inclusion for 151 economies using principal component analysis to compute weights for aggregating nine indicators of access, availability, and usage. According to the calculations, population density, GNI per capita, inflation, and internet users all positively and significantly affect financial inclusion in European countries. The rule of law has a positive effect on financial inclusion, while the age dependency ratio hurts financial inclusion. The findings also indicate that financial inclusion is significantly correlated with lower levels of poverty for the full sample (Park, Rogelio & Mercado, 2018; Tsouli, 2022). These findings were incorporated into the methodology, namely, FII is directly used as one of the independent variables for the main model, for the statistical analysis below.

It is also interesting to explore the studies based on the specific country's example. For instance, Turkish scholars Sefa Takmaz, Erkam Sarı and Sedat Alataş in their research - "Financial inclusion in Turkey: unpacking the provincial inequality and its determinants" – examined regional inequalities in Turkey between 2004 and 2020. The authors conclude that financial inclusion has a positive relationship with the population and income inequalities. However, unemployment is a huge obstacle to financial inclusion. Notably, the policies that are focused on digital financial services, improving financial literacy, and reducing unemployment, should significantly decrease regional disparities and improve financial inclusion (Takmaz, Sarı, & Alataş, 2022).

Additionally, researchers, Kemal Erkishi, from the University of Antalya Bilim in Turkey, and Semra Boga from the Final International University in Cyprus, in the article „Does Financial Inclusion Improve Income Equality? The Case of Turkey“, studied the influence of financial inclusion on income inequality in Turkey. They measured the variable of financial inclusion with the help of a 6-dimensional index, which includes financial institutions and financial markets with the subscales of depth, access and inclusion for the period from 1980 to 2021.

Overall, the results of their research are quite interesting. Regression analysis showed that inflation, per capita income, urbanization and financial inclusion have a negative impact on income equality, while education has a positive influence. Moreover, a 1% increase in financial inclusion is associated with a proportionate increase in income inequality, approximately 0.012%. In contrast to the main findings of other empirical studies, this paper shows that increasing financial inclusion in Turkey has a distorting effect on income equality. Even though the relationship between financial inclusion indicators and income inequality is not negative, researchers believe that increasing the income of low-income groups across all financial sectors is likely to improve income equality (Erkişi & Boğa, 2023).

In addition to individual researchers, various local and international institutions also study the effects of financial inclusion on poverty and inequality. Among them, the contribution of the International Monetary Fund and the World Bank should be specially mentioned. Since 2009, the International Monetary Fund (IMF) has been conducting a financial access survey, which measures the financial access index based on several indicators, such as the number of automatic teller machines (ATMs), the number of bank branches, the number of deposit accounts and the number of outstanding deposits or loans, etc (IMF, 2024).

Since 2011, the World Bank has been providing financial inclusion indicators through its Global Findex database, which includes information on the number of accounts and use of financial services, as well as education, income, gender, etc. The database is published every three years with funding from the Bill and Melinda Gates Foundation (The Global Financial Inclusion (Global Findex) Database, 2023).

2. Research Methodology

The given study employs the most recent and available statistical data on each variable from 2015 to 2022 taken from the World Bank, Geostat and National Bank of Georgia. This paper aims to determine the effects of financial inclusion, alongside the impact of financial education, on poverty, income inequality and overall well-being in Georgia. There are many important factors, other than financial inclusion, that have impacts on poverty, alongside having an essential influence on the main variable of the study (financial inclusion). Therefore, to attain trustworthy empirical findings, a relationship between all these variables with financial inclusion is determined. For example, there is another important factor, namely financial education, that affects poverty and has a significant impact on the main variable, thus, to define the exact effect of these variables and financial inclusion, both their effect on each other and on the dependent variable should be acquired. To reach the goal a covariance matrix was provided and comparative studies of the statistics throughout different years were employed.

POV= ɑ + ß1FII + ß2FE + ß3ROL + ß4GNI + ß5GDPGR + ß6INF + ß7GDPPC + ß8OMP + ß9POP + ß10IU + ß11SSE + ß12DCPSB + ß13GGE + ß14Trade + ß15ADR + ß16GDI

To begin with, introduce the model, the dependent variable of which is poverty, namely the share of the population under the absolute poverty line, more precisely people on less than $2.15 per day adjusted for the purchasing power parity as of 2017 (2017 PPP), in percent represented as POV in the tables. On the right side, there are 16 independent variables. The main explanatory variable is financial inclusion, which is represented by the Financial Inclusion Index (FII) driven form (Tsouli, 2022) depending on their empirical findings and calculations. Through the period 2015-2019, precise numbers given in the paper are taken and from 2020 to 2022 a prediction was made that data would be approximately the same, more likely it would have increased as there were a lot of incentivizing and stimulation. Another main variable is financial education, specifically, adults who are financially literate, which is equal to FE. The remaining provided explanatory variables are: 3) Rule of Law (ROL), which shows whether the legal system works properly or not, 4) Gini Index (GNI), representing the total income inequality in the country, 5) GDP Growth Rate (GDPGR), implying total economic growth in the country in percent, 6) Inflation (INF), measuring the increased price levels of goods and services (%), 7) GDP per capita (GDPPC) gross domestic product in USD, 8) Owning Mobile Phones (OMP), representing the share of people who own a mobile phone in percent, 9) Population (POP), number of citizens in the country, 10) Internet users (IU), provided as the share of people in the population who uses the internet in percent, 11) Secondary School Enrollment (SSE), measured as a percent of gross population ("Number of children of any age group who are enrolled in secondary education expressed as a percentage of the total population of the official secondary school age") (Gross enrolment ratio in secondary education, 2023) 12) Domestic credit to the private sector by banks (DCPSB) as a share of GDP, 13) General Government Expenses (GGE), representing money spent by government in billion GEL, 14) Trade as a total share exports and import of the country in GDP, 15) Age dependency ratio (ADR), represented

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as share of the working age population, 16) Gender Development Index (GDI), representing gender inequalities in three specific fields: health, education and economic resources management (Omar & Inaba, 2020).

3. Findings and Analyses

Almost all the variables needed for the financial inclusion index calculation are also included in this model to check their pure effect on the variable of interest. There are slight changes, for example, an irrelevant variable such as "income groups" was omitted and some proxy variables were used instead of the original variables given in the research (Tsouli, 2022), the population density was substituted by population, and gender – by gender development index. Additionally, other important and relevant variables, such as GDP Growth Rate, GDP per capita, Owning Mobile Phones, Domestic credit to the private sector by banks, General Government Expenses and Trade, were added, which might have a noteworthy impact on the poverty level adjustment. In the mentioned paper, while creating the financial inclusion index correlation matrix was provided, which represented the positive and negative, if any, relationships between all input variables. For the same reason, the correlation matrix is provided in this research to identify relationships between all variables of the model. This helps to detect any problem or bias effects due to the strong interaction, if there exist any, between specific variables. From the matrix provided below it is clear that there exists a strong relationship between the Financial Inclusion Index and Internet users, Age dependency ratio, alongside a strong negative relationship with the Rule of Law and Gini Index.

Figure 1: Correlation Matrix

Correlation Matrix	*POV*	*ROL*	*GNI*	*FII*	*GDPGR*	*INF*	*OMP*	*IU*	*SSE*	*DCPSB*	*GGE*	*Trade*	*ADR*	*GDI*	*FE*	*GDPPC*	*POP*
POV	1.00																
ROL	0.54	1.00															
GNI	0.83	0.54	1.00														
FII	-0.65	-0.85	-0.69	1.00													
GDPGR	-0.70	-0.09	-0.21	0.12	1.00												
INF	-0.83	-0.56	-0.71	0.55	0.55	1.00											
OMP	-0.78	-0.78	-0.94	0.96	0.13	0.74	1.00										
IU	-0.78	-0.82	-0.82	0.96	0.24	0.73	0.98	1.00									
SSE	0.39	-0.18	0.45	0.08	-0.28	-0.62	-0.38	-0.19	1.00								
DCPSB	-0.44	-0.75	-0.71	0.87	-0.22	0.41	0.79	0.83	0.04	1.00							
GGE	-0.84	-0.67	-0.89	0.78	0.32	0.89	0.88	0.92	-0.53	0.71	1.00						
Trade	-0.61	-0.45	-0.25	0.41	0.62	0.33	0.31	0.37	0.27	0.00	0.23	1.00					
ADR	-0.87	-0.83	-0.73	0.80	0.52	0.86	0.82	0.89	-0.23	0.65	0.89	0.47	1.00				
GDI	-0.60	-0.54	-0.92	0.69	-0.19	0.68	0.88	0.81	-0.30	0.91	0.95	-0.26	0.68	1.00			
FE	-0.79	-0.34	-0.53	0.40	0.78	0.74	0.36	0.59	-0.52	0.20	0.71	0.30	0.76	0.33	1.00		
GDPPC	-0.90	-0.58	-0.71	0.58	0.64	0.83	0.69	0.73	-0.43	0.28	0.80	0.65	0.80	0.47	0.76	1.00	
POP	0.57	0.38	0.60	-0.33	-0.21	-0.70	-0.64	-0.51	0.60	-0.16	-0.66	-0.34	-0.46	-0.36	-0.38	-0.81	1.00

Thus, the main finding here is that when an increase in financial inclusion level is faced, it decreases the Gini index, meaning that income inequality scope reduces, which supports economic well-being. The high influence level is quite straightforward as these variables were used as inputs in the financial inclusion index calculation. It is also noteworthy that Owning Mobile Phones, Domestic credit to the private sector by banks, General Government Expenses and the Gender Development Index strongly correlate with FII positively, meaning that the above-mentioned variables move in a similar direction with the financial inclusion index. Additionally, given variables have different relationships with each other with different strengths. For example, GDI has the opposite direction compared to the Gini Index and a positive correlation with GGE. The most important factor that can be seen from here is the relationship between the main variable and poverty. The figure 1 also demonstrates the negative relationship between FII and poverty, which is reasonable as a high level of financial inclusion means stronger economy, implying better living conditions and economic prosperity.

```
. corr POV FII
(obs=8)

             |      POV      FII
-------------+------------------
         POV |   1.0000
         FII |  -0.6506   1.0000
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According to Tsouli (2022) as well, financial inclusion has a relationship with other variables given in this paper, proving the importance of stability, overall development and appropriate living conditions for poverty reduction. Another interesting question is whether there is a connection between financial inclusion and financial literacy. It is possible to answer this question by looking at the correlation matrix and identifying their relationship. Notably, the financial inclusion and financial literacy have positive relationship, which is logical, more inclusion available means more spread education and vice versa. Interestingly in Georgia, this relationship is not really strong, just 0.40, which is an attention-grabbing "anomaly". Georgia has a quite high level of inclusion, however, the scope of poverty is also very inflated here. One of the reasons can be the lack of financial education. In general, it should be the case that financial inclusion and financial education have a strong relationship, but in Georgia, it is not the case. Additionally, the strength of their effects on poverty is different, financial education has a more negative relationship (this connection is also understandable, as increased financial literacy would also strengthen the economy, hence reduce poverty) than financial inclusion, therefore its effect might be stronger. Due to the given high level of the correlation factors further explorations are impossible with this model without specific measures.

Conclusion

Financial inclusion, access to quality financial products and services, is a vital variable for the successful functioning and development of the economy. Research shows that economies with higher financial inclusion reduce poverty rates and income inequality in developing countries. However, the effectiveness of financial inclusion depends on other factors such as the rule of law, access to education, inflation, etc. The main finding to emphasize is that there exists a strong negative relationship between financial inclusion and absolute poverty in Georgia, as well as the Gini index, meaning that an increase in the inclusion level will reduce poverty and income inequality. The answer to our first research question (Does financial inclusion reduce poverty and income inequality in Georgia?) is inline with the other researchers' findings. For instance, (Omar & Inaba, 2020) also found that there exists a strong negative relationship between financial inclusion and absolute poverty.

Secondly, FII has a positive correlation with financial literacy, implying one variable supports and strengthens the other. Consequently, financial education also affects poverty negatively, and an increase in the former will reduce the latter. Hence, the given outcome explains the relationships mentioned in the second and third research questions (Does financial education increase financial inclusion in Georgia?; Does financial education affect poverty in Georgia?) the validity of which is also confirmed by (Erkişi & Boğa, 2023).

Finally, the paper provides a lot of different factors that affect financial inclusion and that even participate in FII variable creation, such as the rule of law, population, ADR and so on. Unfortunately, due to high correlation further exploration and regression conduction is impossible without additional measures. To better understand, assess and study this topic it would be more helpful to use a modified model with less correlated variables, or manage correlation. Interaction terms would provide interesting indirect effects of the independent variable on dependent variables. It would also be interesting to determine conditions under which financial inclusion can play a more efficient role, in order to know how to enhance its scope.

Thus, since the results of the study showed that financial education and financial inclusion have a positive impact on overcoming poverty, additional actions are needed to improve the financial literacy of the population (especially the low-income segment) and increase financial inclusion, in which both the state and private sectors (including bank system) in collaboration with NGOs should play a huge role in the design and delivery specially tailored financial education programs. These programs may include the conduction of workshops and seminars, the development of educational materials, online platforms and resources. To promote financial inclusion the Government can enact policies and regulations that mandate banks to offer basic, low-cost accounts, implement consumer protection laws, and facilitate easier access to credit for low-income and unemployed populations.

AUTHOR STATEMENT
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Ethics Committee Approval: This study does not require ethics committee approval since it does not include analyses that require ethics committee approval.

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References

Atkinson, A., and Messy, F. (2013). Promoting Financial Inclusion through Financial Education: OECD/INFE Evidence, Policies and Practice, OECD. doi: https://doi.org/10.1787/5k3xz6m88smp-en.

Babych, Y., Grigolia, M., and Keshelava, D. (2018). Financial inclusion, financial literacy and financial education in Georgia. *Asian Development Bank Institute*. Retrieved from https://www.econstor.eu/bitstream/10419/190270/1/adbi-wp849.pdf.

Demirgüç-Kunt, A., Klapper, L. and Singer, D. (2017). Financial Inclusion and Inclusive Growth, A Review of Recent Empirical Evidence. Policy Research Working Paper; No. 8040, pp. 1-18. World Bank. Retrieved from https://openknowledge.worldbank.org/entities/publication/b90d407a-b789-5cbd-9f43-6e6f5438b8da.

Erkişi, K., & Boğa, S. (2023). Does Financial Inclusion Improve Income Equality? The Case of Türkiye. 11. doi:https://doi.org/10.2478/eoik-2023-0049

Gardeva, A., and Rhyne, E. (2011). Opportunities and Obstacles to Financial Inclusion. Center for Financial Inclusion at Accion International. Retrieved from https://www.findevgateway.org/sites/default/files/publications/files/mfg-en-paper-opportunities-and-obstacles-to-financial-inclusion-survey-report-jul-2011.pdf.

Global Multidimensional Poverty Index. (2023). UNDP&OPHI. Retrieved from https://hdr.undp.org/system/files/documents/hdp-document/2023mpireportenpdf.pdf.

IMF. (2024). The Financial Access Survey. Retrieved from https://data.imf.org/?sk=e5dcab7e-a5ca-4892-a6ea-598b5463a34c&sid=1460043522778.

Kasradze, T. (2013). Poverty–A Global Socio-Economic Problem. Caucasus International University HERALD.

Kasradze, T. (2020). Challenges Facing Financial Inclusion Due to the COVID-19 Pandemic. *European Journal of Marketing and Economics*, 3(2), 50-63. doi: https://doi.org/10.26417/523jma34n.

Kasradze, T. (2021). Emergence of Non-Traditional Financial Service Providers in the Market- A Threat or An Opportunity for the Georgian Banking Industry. *European Journal of Marketing and Economics*, 4(2), 94-106. doi: https://doi.org/10.26417/264fri73f.

Kasradze, T. & Zarnadze, N. (2022). Challenges of Economic of Georgia: Good and Bad Economic Growth. *European Journal of Economics and Business Studies*, 8(2). doi: 10.26417/ejes.v5i1.p178-186.

Kasradze, T. & Zarnadze, N. (2023). Promoting Financial Inclusion through Financial Education - Global Trends and. The 2023 WEI International Academic Conference Proceedings (pp. 42-55). Boston: WEI. Retrieved from https://www.westeastinstitute.com/wp-content/uploads/2023/10/BUS-2023-Boston-Proceedings.pdf.

NBG. (2023). National Strategy for Financial Education of Georgia 2023. Retrieved from https://finedu.gov.ge/ge/finansuri-ganatlebis-strategia-1

OECD/INFE. (2015). National Strategies for Financial Education, OECD/INFE Policy Handbook. Paris: OECD. https://www.oecd.org/daf/fin/financial-education/National-Strategies-Financial-Education-Policy-Handbook.pdf.

Omar, M. A., and Inaba, K. (2020). Does financial inclusion reduce poverty and income inequality in developing countries? A panel data analysis. Journal of Economic Structures, 9(1), doi: https://doi.org/10.1186/s40008-020-00214-4.

Park, C. and Rogelio V. Mercado, J. (2018). Financial Inclusion: New Measurement and Cross-CountryImpact Assessment. *ADB Economics Working Paper Series(539).* Retrieved from https://www.researchgate.net/publication/326430033_Financial_Inclusion_New_Measurement_and_Cross-Country_Impact_Assessment.

Reyes, G. P. (2010). Financial Inclusion Indicators For Developing Countries: The Peruvian Case. Superintendency of Banking, *Insurance Companies and Private Pension Funds of Peru (SBS)*. Retrieved from https://docplayer.net/20698246-Financial-inclusion-indicators-for-developing-countries-the-peruvian-case.html.

Sahay, R., M. Cihak, P. N'Diaye, A. Barajas, S. Mitra, A. Kyobe, Y. Nian Mooi, and S. Reza Yousefi. 2015. "Financial Inclusion: Can It Meet Multiple Macroeconomic Goals?" IMF Staff Discussion Note 15/ 17, September, Retrieved from https://www.imf.org/external/pubs/ft/sdn/2015/sdn1517.pdf.

Takmaz, S., Sarı, E., & Alataş, S. (2022). Financial inclusion in Turkey: unpacking the provincial inequality and its determinants. Applied Economics Letters., 31(111), 1-9. doi:10.1080/13504851.2022.2141442.

The World Bank, Poverty and Inequality Platform, https://pip.worldbank.org/country-profiles/GEO.

The World Bank. (2021). The Global Findex database 2021, https://www.worldbank.org/en/publication/globalfindex.

The World Bank. (2022). Poverty and Shared Prosperity 2022: Correcting Course. Retrieved from https://openknowledge.worldbank.org/server/api/core/bitstreams/b96b361a-a806-5567-8e8a-b14392e11fa0/content.

The World Bank. (2023). The Global Financial Inclusion (Global Findex) Database. Retrieved from https://datacatalog.worldbank.org/search/dataset/0039935.

Tsouli, D. (2022). Financial Inclusion, Poverty, and Income Inequality: Evidence from European Countries. *Ekonomika*, 1(1). doi: https://doi.org/10.15388/Ekon.2022.101.1.3.

UNSGSA. (n.d.). Financial Inclusion. Retrieved June 03, 2024, from https://www.unsgsa.org/