

AN ANALYSIS OF THE IMPACT OF FINANCIAL INCLUSION DETERMINANTS ON POVERTY ALLEVIATION IN SERBIA

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Abstract: In this paper, we examined how financial inclusion affects poverty reduction in the Republic of Serbia. We conducted an analysis based on data collected from the World Bank and IMF databases. Our goal was to examine the level of inclusion in the Republic of Serbia and how determining financial inclusion can support poverty reduction strategies in a developing country. The findings show that increasing the financial inclusion index can significantly contribute to poverty reduction in the Republic of Serbia, especially through mechanisms to improve access to financial services. The paper also presents a comparative perspective with other regions and countries, in order to assess the robustness of the findings and to see a broader picture of the functioning of financial inclusion mechanisms in the fight against poverty and inequality. We have determined that there is a greater need for digital financial channels, that is, it is necessary to force digital financial inclusion as one of the main generators of financial development in modern societies. The data we have processed unequivocally indicate that digital tools and financial products can play an important role in strengthening financial inclusion and the economic empowerment of marginalized groups and groups in rural areas. The findings in this paper are important for decision-making and for creating adequate measures and policies aimed at the financial empowerment of the most vulnerable segments of the population. The paper provides a significant basis for further research that could more precisely measure individual factors of financial inclusion and their contribution to poverty reduction.

Keywords: *inclusion, poverty, digitization, literacy, rural, growth.*

Field: Social Sciences and Humanities.

1. INTRODUCTION

Financial inclusion has become critical for global economic growth and poverty reduction. This notion encompasses a variety of services and seeks to empower individuals and communities by giving tools and opportunities to efficiently manage their finances, build their own resources, and invest in the future. In Serbia, a country with complicated economic and social characteristics, it is critical to find how financial inclusion can serve as a method of poverty alleviation. Although implemented economic reforms have resulted in some positive changes, poverty remains a major issue because a large number of citizens are practically excluded from the financial system, which reinforces all the negative effects caused by the spiral of poverty.

In Serbia, financial inclusion is hampered by a number of factors, including inadequate bank access, particularly in rural regions, low financial literacy, high transaction costs, and the informal economy. These factors exacerbate the poor's plight, making it impossible for them to improve their financial circumstances and break free from the poverty cycle. Numerous studies from other countries confirm the positive link between poverty alleviation and financial inclusion; when people have access to official financial services, they can build a credit history, obtain funding for entrepreneurial projects, and protect themselves from financial risks through insurance products. Thus, by encouraging savings and investments, it allows people to build up funds and protect themselves from economic shocks.

Given the global trend towards digital and technical solutions in the financial sector, it is critical to analyze how these innovations might be utilized in Serbia and their potential influence on boosting financial inclusion and poverty reduction. We must especially emphasize that digital financial inclusion is certainly one of the significant mechanisms that has proven to be extremely effective in contributing to poverty reduction. However, considerable improvement requires the development of comprehensive policies and efforts including the government, financial institutions, and other key actors. Financial development is acknowledged as a critical component in highlighting the importance of the fight against poverty and encouraging the development economy, especially in developing countries (Beck, Demirguc-Kunt, and Levine, 2007). The rise of digital financial services has increased prospects for financial inclusion (Jack & Suri, 2014), providing affordable and accessible ways that the financially vulnerable part of the population has access to the financial system and to realize cashless transactions. In relation to research that examined digital financial inclusion, it considerably contributes to poverty reduction, but the effects on

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users vary depending on their level of poverty (Lee, Lou, & Wang, 2023).

In this paper, we examined the channels of influence of financial inclusion factors on poverty reduction in the Republic of Serbia by reviewing the current situation, identifying key barriers, and evaluating existing policies and initiatives. The emphasis is on making evidence-based suggestions that will encourage higher levels of financial inclusion and lower levels of poverty in the country, resulting in a more equitable society for all inhabitants. By correctly observing these relationships and influences, we can arrive at a more precise definition of correct and effective policies.

2. MATERIALS AND METHODS

In this research paper, we examined the impact of financial inclusion factors on poverty alleviation in Serbia using both qualitative and quantitative methodologies. The goal was to obtain a better knowledge of the existing condition of financial inclusion, as well as to identify important impediments that excluded communities face in the country. The study will also evaluate the effectiveness of current laws and initiatives which are focused on strengthening access to various financial services.

The data used in this study is primarily secondary and was gathered from a variety of sources. We used primary data from the IMF, World Bank, and OECD databases. Additionally, reports from domestic organizations such as the National Bank of Serbia (NBS), the Republic Statistical Office, the Ministry of Finance, and other pertinent state entities were used.

Data analysis was carried out using a qualitative methodology, largely through thematic analysis, which allowed major themes and patterns to be identified. Thematic analysis was utilized to investigate issues such as inadequate banking infrastructure access, a lack of financial literacy, high transaction costs, and gender disparities in access to financial services. This approach enables researchers to investigate the complicated links between financial inclusion and socioeconomic indicators, providing insight into the unique issues that various population groups confront.

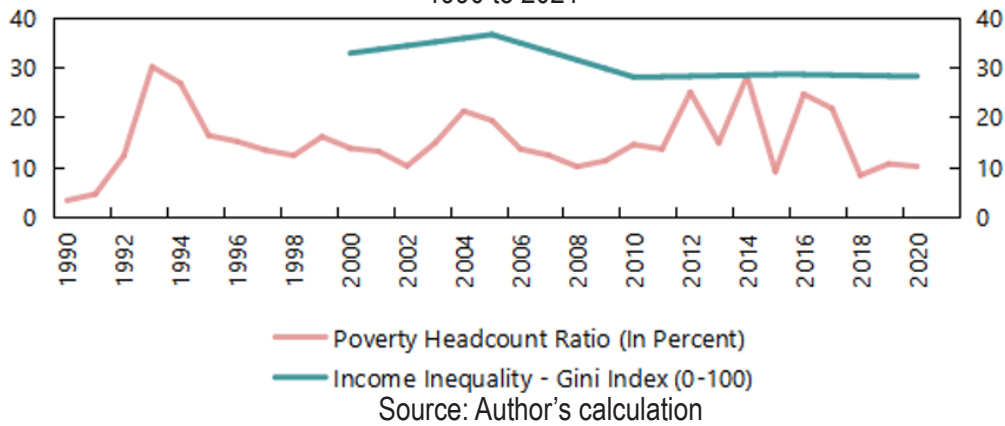
In addition to qualitative study, quantitative methodologies were employed to assess the impact of various factors on financial inclusion. For example, data on the poverty rate, poverty gap, and multidimensional poverty were gathered from statistical sources such as the Republic Institute of Statistics. To uncover trends and patterns associated to financial inclusion, these data were analysed using descriptive statistics, such as frequency distributions and measures of central tendency.

This thorough methodology approach allows for a more in-depth knowledge of the complexities of the relationship that occurs between the phenomenon of financial inclusion and the reduction of the poverty rate defined by the poverty line in Serbia, giving a foundation for developing effective policies and interventions.

3. RESULTS

This chapter covers major study findings about how financial inclusion can impact poverty reduction in Serbia. Through the examination of available data and information, the important determinants impacting opportunities to access financial services and their involvement in reducing poverty were determined. The study's findings demonstrate that there is a large disparity in opportunities to access financial services between urban and rural locations in Serbia. A key obstacle to expanding financial inclusion lies in the limited on-the-ground availability of banking services in remote regions. Recent analyses reveal that over 40% of individuals residing in rural areas within the country are not consistently able to open accounts, secure loans, or acquire insurance. This limitation has a negative impact on individuals' and communities' ability to engage in economic activities and invest in their own future. There should be a focus on developing financial literacy. Financial literacy programs are becoming increasingly important as a means of reducing poverty (Lusardi & Mitchell, 2011). Consumers can make informed choices regarding their finances, manage their assets effectively, and steer clear of debt traps if their financial literacy improves (Hastings, Madrian, & Skimmyhorn, 2013). The provision of sound financial education represents the cornerstone on which the rapid growth of financial inclusion is established.

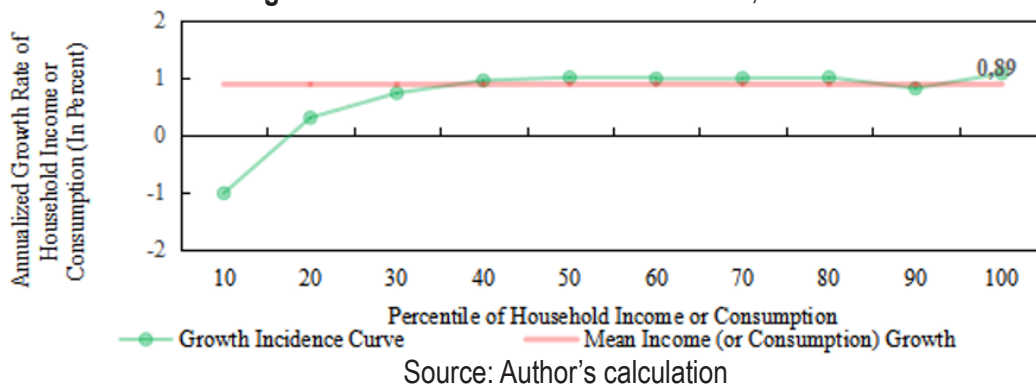
Figure 1: The Gini Index and the number of people living below the poverty level of \$6.85 from 1990 to 2021



The relationship between these two indicators reveals a complex economic ecosystem in Serbia. While poverty levels have varied, sometimes dramatically, underlying income inequality has largely remained unchanged. This may indicate that poverty reduction efforts have had a limited impact on changing the broader distribution of income or that the structural factors contributing to inequality have been resistant to change.

The above chart highlights the challenges of simultaneously solving the problems of poverty and income inequality. Although there have been improvements in poverty reduction, particularly in recent years, income inequality has remained relatively stable, highlighting the need for targeted policies that effectively address both issues. A study of 13 Latin American countries shows that financial inclusion and the embracing innovative tools, including mobile device usage, are powerful tools for reducing poverty and inequality (Gini Index), which highlights the need for policies that support the broadening reach of financial offerings and technological integration (Polloni-Silva, da Costa, Morales & Sacomano Neto, 2021).

Figure 2: Growth Incidence Curve in Serbia, 2002-2020

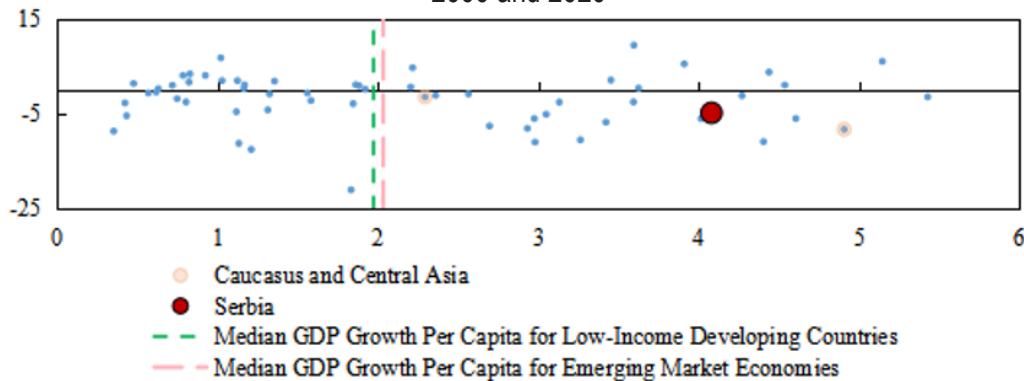


The growth incidence curve for Serbia between 2002 and 2020 shows that middle-income households generally had stronger income or consumption growth compared to the poorest and richest segments of the population. Negative growth at the bottom end indicates a worrying trend of economic stagnation or decline among the poorest, while slightly lower growth at the top indicates that income or consumption growth has been more moderate among the richest. This distribution of growth points to the need for targeted policies that would support the most vulnerable groups and ensure that economic growth more equitably benefits all segments of the population. Evidence indicates that higher levels of financial inclusion and depth in public sector banks are strongly associated with a decrease in poverty, whereas private banks show no comparable effect. This underscores the significance of strengthening public financial institutions within broader strategies for reducing poverty (Inoue, 2019).

The poverty gap is another major factor that highlights the difficulties that underprivileged groups endure. According to the data, the poverty gap of USD 6.85 per day (2017 PPP) has dropped from 10.6% in 2012 to 3.6% in 2020, suggesting a gradual reduction in the depth of poverty among the population. However, development has not been evenly spread across all groups, and the poorest regions continue

to face the most significant impediments to gain access to financial services.

Figure 3: Shifts in income disparity and GDP per capita across Serbia and its peer nations between 2000 and 2020



Source: Author's calculation

Positive GDP-per-capita growth, evidenced by a rightward shift on the vertical axis, signifies that Serbia experienced economic progress over the observed period. However, findings below the horizontal axis indicate that this advancement was also accompanied by widening income disparities. In other words, although the Serbian economy grew, the resulting benefits were evidently not distributed evenly, thereby exacerbating income gaps. A comprehensive study across 53 developing countries shows that broader availability of financial services exerts a beneficial effect on reducing both poverty and income inequality. In particular, an extensive banking network and simpler access to credit aid the most at-risk segments of the population in obtaining financial services, which in turn alleviates poverty and narrows the income divide. These outcomes highlight the importance of reinforcing institutional structures to foster a more pronounced and efficient impact on socio-economic progress (Ouechtati, 2020).

The study found considerable gender inequalities in access to financial services, especially in remote rural communities. Women, especially those living in rural communities, face greater barriers to accessing banking services and products compared to men. For example, data shows that only 25% of women in rural areas had a bank account compared to 35% of men. This difference further hinders women's economic empowerment and their access to financial resources necessary for entrepreneurial activities and other economic endeavors. This indicates the need for targeted policies that will provide more equal access to women and help reduce gender disparities. Research on sub-Saharan Africa has shown that a financial inclusion level exceeding 0.365 significantly reduces poverty, especially when supported by increased money supply and access to domestic credit for the private sector, indicating the need for policies that foster an enabling environment for accessible and affordable financial services (Nsiah, Yusif, Tweneboah, Agyei & Baidoo, 2021). A study in Ghana indicates that enhanced financial inclusion decreases a household's odds of living in poverty by 27%, as well as the risk of sliding into poverty by 28%, with a pronounced impact in female-headed households and rural communities experiencing greater reductions in poverty as well as vulnerability as a result of improved financial literacy, highlighting the need for policies that support the expansion of financial services and mobile money (Koomson, Villano & Hadley, 2020).

The COVID-19 pandemic underscored the urgency of advancing digital financial inclusion in Serbia, especially for individuals marginalized by the conventional financial system. Tools such as mobile banking, digital wallets, and online financing have demonstrated considerable effectiveness in expanding access to financial services. The survey discovered that the number of mobile financial service users has increased by 50% in the last two years, indicating a great opportunity for digital innovation to improve financial inclusion. However, a lack of digital literacy and internet access, particularly in rural regions, presents a barrier that necessitates the creation of additional digital inclusion methods.

An evaluation of current legislation and policy measures designed to enhance financial inclusion indicates that, although certain initiatives have contributed to improved access, significant gaps remain, necessitating further efforts to ensure broader and more equitable outreach. For example, a national financial inclusion strategy encompassing a diverse range of actors, such as the government, the corporate sector, and non-governmental groups, has the potential to generate major positive change. To guarantee inclusive access to financial services across all segments of the population, greater efforts must be directed toward raising awareness and educating citizens about current opportunities, lowering

transaction costs, and enhancing the regulatory framework. According to Mhlanga Dunga and Moloji's research, financial inclusion plays a pivotal role in alleviating poverty among smallholder farmers, underscoring the necessity for government-led policies that enhance access to financial institutions, lower transaction costs, and promote financial literacy—thereby fostering deeper farmer engagement within the formal financial system (Mhlanga Dunga & Moloji, 2020).

4. DISCUSSIONS

The study's findings show a large disparity in access to financial services between urban and rural areas, which is one of Serbia's most pressing barriers to poverty reduction. Limited physical access to banking infrastructure in rural areas, along with limited availability of services like as loans, insurance, and savings, results in the exclusion of a substantial segment of the population remains detached from the formal financial system. To address this discrepancy, economical along with innovative approaches, including mobile financial services and decentralized financial networks, must be integrated, allowing access to financial services even in remote places. This would entail lowering transaction costs and enhancing the regulatory framework to promote inclusivity.

Digital financial inclusion has proven to be a vital instrument for broadening access to financial services, particularly during the COVID-19 epidemic, which has increased the growing significance of digital innovations within the financial sector. The adoption of digital tools, including mobile banking and digital wallets, can help to transcend geographical and physical boundaries. However, to guarantee the effective implementation of digital inclusion, there must be a focus on developing digital literacy, particularly among the elderly and rural communities. Gender disparities in access to financial services pose an added obstacle to advancing financial inclusion in Serbia. Studies indicate that women—particularly those living in rural regions—face more restricted access to banking products and credit facilities than their male counterparts. These differences are often due to socio-cultural barriers and a lack in the domain of financial literacy among women. In order to improve gender equality in the financial sector, it is recommended to develop specific programs that target women and provide them with education and support for using financial services. Furthermore, it is critical to encourage women's entrepreneurship through microfinance programs and guarantee that financial institutions produce goods and offerings specifically designed to address women's financial needs.

Although existing laws and programs promoting financial inclusion in Serbia have the potential to help reduce poverty, more steps must be made to ensure their efficacy. A national financial inclusion strategy involving all key stakeholders (government, private sector, and non-governmental organizations) can serve as a powerful instrument for achieving inclusive economic growth. However, greater focus is needed on policy implementation at the local level, especially in marginalized communities. This may include increasing awareness of existing opportunities, adapting products to the needs of users, as well as providing support through educational and advisory services.

Based on the results of the research, several concrete measures are recommended that can play a key role in enhancing financial inclusion and alleviating poverty in Serbia:

1. Development and promotion of digital financial solutions that are accessible and useful to all citizens, including marginalized groups;
2. Educational initiatives focused on financial and digital literacy, especially for women, the elderly population, and residents of rural areas;
3. Encourage gender equal treatment and female entrepreneurship through policies and programs;
4. Improve regulatory framework to reduce transaction costs and encourage small and medium-sized enterprises to engage with and benefit from the formal financial system;
5. Strengthen public-private partnerships to create environmentally accessible and inclusive financial services designed to serve all segments of society.

5. CONCLUSIONS

This study examining the impact of financial inclusion on poverty reduction in Serbia have shown that improved access to financial services significantly enhances economic stability and living conditions, especially for marginalized and underserved segments of the population. The main findings indicate that restricted physical access to banking facilities, inadequate financial literacy, high transaction costs, and gender inequities are the primary hurdles to increased financial inclusion in the country. These difficulties necessitate a comprehensive approach and collaborative efforts from all key actors, including the government, financial institutions, non-governmental groups, and local communities.

One of the key takeaways of this paper is that digital financial inclusion serves as a crucial mechanism for overcoming geographic and physical barriers to accessing financial services, especially in rural and underserved areas. The growing adoption of mobile financial services and digital wallets marks a significant advancement toward building a more inclusive and accessible financial ecosystem. However, in order to fully realize the benefits of digital inclusion, efforts must be made to increase digital and financial literacy, particularly among the elderly and rural communities. As a result, it is critical to create focused training programs and campaigns to help citizens better understand and use digital financial goods and services.

Equal treatment of women in having access to banking services is an important part of Serbian financial inclusion. Research has demonstrated that women, particularly those in rural areas, face more limited access to financial resources than men. In order to reduce these differences, it is necessary to implement targeted policies and programs that promote equality and enable women to access the necessary financial services. These initiatives should also include support for women's entrepreneurship through microfinance programs and educational programs that will empower women to make informed financial decisions.

Existing policies and initiatives for financial inclusion in Serbia provide a good foundation, but additional improvements are needed to ensure their effectiveness and sustainability. A national financial inclusion strategy that involves the state, the commercial sector, and civil society can be a significant force for change. The idea is to concentrate on implementation at the local level, where hurdles are typically most visible. More work is needed to lower transaction costs, raise knowledge of existing opportunities, and create financial products that cater to the requirements of underprivileged people.

Ultimately, financial inclusion stands as a vital pillar of Serbia's strategy for poverty alleviation and sustainable economic development. To attain this goal, it is vital to build integrated and coordinated plans that engage all parts of society and ensure equitable and long-term access to financial services. The proposed actions and efforts from this research can serve as recommendations for ongoing policy and practice development, ensuring a future that is more inclusive and socially equitable for all Serbian residents.

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