

HOW DOES FINANCIAL INCLUSION IMPACT ENTREPRENEURSHIP IN DEVELOPING COUNTRIES?

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Abstract

This paper aims to investigate the relationship between financial inclusion and entrepreneurship in a developing country such as Albania. Entrepreneurial activity is one of the key drivers of economic development, a catalyst of innovation and new job creation, especially in developing countries. On the other hand, financial inclusion has received a lot of attention in recent years, and it is included in every government's agenda, aiming to build inclusive financial systems. The financial system generally impacts the level of entrepreneurship; however, there is a gap in assessing the relationship between financial inclusion and entrepreneurship. This study employs a multiple regression analysis with secondary data for 14 years (2010 – 2023). The business growth rate is used as an indicator to express the entrepreneurial activity (dependent variable), and commercial bank branches (per 100,000 adults) are used as a proxy to express financial inclusion (independent variable). To increase the model's accuracy, several control variables have been included: regulatory quality, domestic financing, and GDP growth rate. The output of the regression analysis supports the positive relationship between financial inclusion and entrepreneurship growth in Albania. Meanwhile, regulatory quality and domestic financing negatively affect entrepreneurial activity, and GDP has no statistically significant effect.

Keywords: financial inclusion, entrepreneurship, developing country

1. INTRODUCTION

Entrepreneurial activity is one of the key drivers of economic development, a catalyst for innovation and new job creation, especially in developing countries (Wong, et al., 2005). Numerous studies have explored the various factors that influence the creation of new businesses, highlighting the multidimensionality of this process that varies across different sectors, countries, gender, levels of education, etc. The financial system is one of the factors that generally impacts the level of entrepreneurship; however, there is a gap in research in assessing the relationship between financial inclusion and entrepreneurship.

On the other hand, financial inclusion has received much attention in recent years and is included in every government's agenda, aiming to build inclusive financial systems. It aims to provide equal financial opportunities for all by ensuring access to financial services for all people and economic agents, including vulnerable groups, the poor and other disadvantaged segments of the population (Omar & Inaba, 2020; Jiang, et. al., 2019). Although terms such as access to finance, inclusive finance, etc. have been used interchangeably in literature to refer to the act of providing equal opportunities in formal financial services, such as making payments, saving, borrowing, investing, and managing risk, 'financial inclusion' is a more comprehensive and up-to-date term.

This paper aims to investigate the relationship between financial inclusion and entrepreneurship in a developing country such as Albania. It brings valuable research contributions for several reasons: First, limited access to finance is considered one of the key barriers to

businesses in the Western Balkans. This is particularly true for SMEs, which are more fragile to the lack of capital, leading to low levels of business growth and productivity (F4D, 2024; Moder & Bonifai, 2017). On the other hand, developing countries face difficulties in promoting an entrepreneurial culture, often more evident for women entrepreneurs (Ajide, 2020).

Second, Albania lacks current scientific evidence linking these two fields of study, although individual studies in each field may exist. Third, according to the latest Global Financial Index data (2021), only 44% of Albanians over 15 years old have an account in a financial institution or a mobile money account. Other non-EU countries in the region range from 58% (Kosovo) to 89% (Serbia). Apostu et.al. (2022) found that Balkan countries have different stages of financial inclusion depending on financial policies, internet usage by population and openness to innovative products. The average global index for developing countries is 71%, which shows that Albania has a very low level of this indicator. Therefore, it is important to understand how this level of financial inclusion affects entrepreneurial activity.

The paper is structured first to summarize the existing theories and evidence that directly relate to the focus of this research paper. Section "Methodology" gives details on the methods, data, sources of information and the econometric procedures followed to address the hypothesis of the study. Section "Results and discussion" highlights the discussion of the key findings. Conclusions and suggestions for future research are summarized in the last section.

2. LITERATURE REVIEW

The primary impact of financial inclusion is the enabling of social inclusion, poverty reduction, income inequality avoidance, and improvement of the general well-being of the population. Numerous studies have demonstrated this impact, especially in developing countries (Omar & Inaba, 2020; Jiang, et. al., 2019; Park & Mercado, 2018). Among several categories of impact of financial inclusion, Mishra et. al (2024) put a special emphasis on entrepreneurship promotion and new job creation.

Fan & Zhang (2017) also found that one important aspect of financial inclusion is to foster the creation of new businesses, especially in sectors where entry barriers are low. In their early stages, new ventures often encounter significant financial challenges, which can lead to a high failure rate among them. In this regard, access to finance is a key element that affects the success or failure of businesses, particularly in the post-Covid-19 period, which further deepened the problems of business financing. This becomes even more difficult for social entrepreneurs and entrepreneurs from disadvantaged populations (OECD/European Union, 2022). On the other hand, young entrepreneurs often face financial exclusion because they feel discriminated against in obtaining a loan, creating partnerships, and benefiting from start-up financing schemes (OECD/EU, 2023).

Entrepreneurship is influenced by the level of banking sector openness, especially in countries with developed financial markets, high economic growth and stable business environment (Ghosh, 2022). Banking system is considered the main promoter of financial inclusion, along with increased access to information technology and improved mobile infrastructure (Mishra et. al, 2024). But when referring to new entrepreneurs, most of them prefer to be financed from internal sources of capital, avoiding the financial sector to borrow (ECB, 2025) due to bureaucracy, lack of collateral, lack of experience, and low reliability (OECD, 2025; Lassébie et al., 2019).

Therefore, bank financing is not the only relevant source of financing that start-ups and SMEs should consider. These businesses should also consider other

alternative and innovative types of financing, such as corporate bonds, mezzanine finance, etc. (Nemoto & Koreen, 2019). However, this requires increased awareness and information about financing methods, as well as how they can be used and evaluated by businesses. At the global level, 24% of the population still do not have a bank account according to The Global Findex Database 2021.

Recent studies on entrepreneurship and financial inclusion have put a special focus on gender context. According to the OECD/EU (2019) report, women entrepreneurs in the European Union are 25% less likely to be financed by banks compared with men. Even in cases of bank financing, they are disadvantaged in terms of interest rates, amount of financing, and payment terms (Lassébie et al., 2019; Thébaud & Sharkey, 2016). Goel and Madan (2019), Fareed et al. (2017) have shown that women are empowered and tend to create new businesses when their level of social inclusion increases. Also, Fareed et. al. (2017) concluded that financial inclusion is directly related to women entrepreneurship, especially in the informal sector.

The two main mechanisms that can reduce the gap between access to finance and entrepreneurship are fintech and financial literacy (OECD/EU, 2022; Nemoto & Koreen, 2019). Digitalization can also help in increasing the competitiveness of businesses (Bianchini & Sancho, 2025). At the same time, education can be a factor that simultaneously promotes entrepreneurship. Social inclusion without the necessary financial education is not effective (WB, 2017). Nowadays, it is not enough to improve financial education in the traditional sense of increasing the knowledge of the population, but the emphasis is placed on digital financial literacy. This also constitutes a new challenge, especially for developing countries, the rural population, older people and other groups for whom access to technology is even lower. Surprising results were achieved in the study Pham et. al. (2025), according to which high levels of human capital development reduce the positive effect that financial inclusion has on entrepreneurship.

3. METHODOLOGY

This study employs a multiple regression analysis using secondary data for 14 years (2010–2023) to examine the relationship between financial inclusion and entrepreneurship in Albania, a developing country with an upper-middle-income economy. Based on the literature review and the country's development characteristics, the following variables are used in the quantitative analysis: Dependent variable:

- Entrepreneurial activity (EA): The business growth rate is used as an indicator of entrepreneurial activity. This indicator reflects the dynamics of new business formation and is calculated as the rate of change in the total number of businesses (SMEs) from one year to the previous year. Data is obtained

from the database of the National Institute of Statistics in Albania, INSTAT.

Independent variables:

- Financial inclusion (FI): Commercial bank branches (per 100,000 adults) are used as a proxy to express financial inclusion. Annual data for the specified period is retrieved from the World Bank Development Indicators. Even though it is a widely used indicator in similar previous studies, it may not reflect the complete level of financial inclusion in the country. But due to data constraints in the case of Albania (lack of a financial inclusion index, lack of annual data on mobile financial transactions, etc.), it can be considered a relevant indicator.

Based on the previous literature, it is expected that financial inclusion positively impacts the development of entrepreneurship in Albania.

Control variables: Several control variables (institutional and economic) have been included in the analysis to increase the accuracy of the model:

- Regulatory quality (RQ): This variable estimates the perception of the government's ability to design, develop, and implement policies to support business development. Data is obtained from the Worldwide Governance Indicators. Each country is assigned a score ranging from -2.5 to 2.5. Numerous studies (Aparicio et al., 2024; Smallbone & Welter, 2001; Charles et al., 2018; Henrekson & Sanandaji, 2010) highlight the significant impact of the institutional framework on entrepreneurial activity. The theories explaining the relationship between these factors are complex, and the findings often lead to differing conclusions. While a country characterized by fragile institutions or frequent changes in laws, rules, and norms may be viewed as high-risk, potentially increasing business costs, these same challenges

can also create opportunities for entrepreneurs to enter the market more easily (Hu, et. al., 2025)

- Domestic financing (DF) – This indicator reflects the availability of financing from domestic financial institutions to the private sector, and it is expressed as a percentage of GDP. Data is retrieved from the World Bank Development Indicators. The more financing opportunities to businesses, the higher the business growth rate, so a positive relationship is expected between this control variable and the dependent variable.
- GDP growth rate (GDP) – This indicator expresses the economic development level of a country, which influences the business environment in almost all aspects. Developed countries offer more opportunities and facilities for new business formation; therefore, the GDP growth rate is expected to have a positive impact on entrepreneurial activity.

The regression model has been tested for linearity, homoscedasticity, multicollinearity, autocorrelation and normality of residuals.

4. RESULTS AND DISCUSSION

This study takes into consideration a set of indicators that may impact entrepreneurship in Albania, emphasizing the role of financial inclusion. First, descriptive statistics have been computed, followed by the execution of the regression analysis.

The average growth rate of businesses in Albania, which was used as an indicator of entrepreneurial activity, was 3.5% from 2010 to 2023. This activity has experienced several fluctuations, with the worst value noted during the pandemic period, when a significant number of businesses were closed and there were no incentives for creating new ones. Before the pandemic period, the average growth rate was 5.90%, experiencing its peak of 22.7% in 2015. Over the last two years, the landscape of business formation has seen significant improvement and is exhibiting a favorable trend.

The average number of commercial bank branches per 100,000 adults for the period was 20.5. Again, the situation before 2020 was better than the last years in the studied period, but it is significantly lower compared to the region or other developed countries. The difficult economic situation during the pandemic year is also reflected in the GDP growth, which achieved negative values (-3.3%). Nevertheless, the macroeconomic environment started to improve in the following years.

Financing from financial institutions varied between 32% and 41% of GDP, showing a downward trend since 2015, except for 2020 when it increased due to specific measures implemented to assist businesses in overcoming liquidity challenges. Regarding the perception of the regulatory quality for the reported period, it was almost neutral, neither weak nor strong (average value of the index: 0.22).

Table 1: Descriptive statistics

| | EA | FI | DF | GDP | RQ |
|--------------------|----------|----------|----------|----------|----------|
| Mean | 0.035409 | 20.5147 | 36.79743 | 2.877387 | 0.223549 |
| Standard Error | 0.016893 | 0.718132 | 0.80137 | 0.708966 | 0.011561 |
| Median | 0.024059 | 21.04981 | 36.87487 | 2.930193 | 0.227625 |
| Standard Deviation | 0.063207 | 2.687005 | 2.998451 | 2.652709 | 0.043258 |
| Sample Variance | 0.003995 | 7.219994 | 8.990707 | 7.036863 | 0.001871 |
| Range | 0.258109 | 7.363535 | 8.764245 | 12.28327 | 0.124619 |
| Minimum | -0.03127 | 16.39847 | 32.38944 | -3.31372 | 0.159354 |
| Maximum | 0.226838 | 23.76201 | 41.15369 | 8.969553 | 0.283973 |

Source: Authors' calculations

The output of the regression analysis supports the positive relationship between financial inclusion and entrepreneurship growth, which aligns with the findings of

previous studies in other countries, as identified in the literature review section. The result is significant in the case of Albania, which faces low levels of financial

inclusion, because it serves as a signal for policymakers and all involved stakeholders to design and develop policies that improve financial infrastructure, system, and all components for ensuring inclusive finance. This is also important considering the need for compliance with

the Sustainable Development Goals, which are a governmental, economic, and social priority.

The results of the regression analysis are summarized in Table 2.

Table 2: Multiple regression output

| Dependent Variable: EA | | | | |
|------------------------|-------------|-----------------------|-------------|---------|
| Method: Least Squares | | | | |
| Sample: 2010 2023 | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| FI | 0.016461 | 0.005799 | 2.838660 | 0.0194* |
| RQ | -1.333636 | 0.406324 | -3.282196 | 0.0095* |
| DF | -0.026519 | 0.011584 | -2.289208 | 0.0478* |
| GDP | 0.008075 | 0.029166 | 0.276848 | 0.7881 |
| C | -0.008280 | 0.086626 | -0.095583 | 0.9259 |
| R-squared | 0.723352 | Mean dependent var | 0.035409 | |
| Adjusted R-squared | 0.600397 | S.D. dependent var | 0.063207 | |
| S.E. of regression | 0.039956 | Akaike info criterion | -3.329621 | |
| F-statistic | 5.883080 | Durbin-Watson stat | 1.911366 | |
| Prob(F-statistic) | 0.013109 | | | |

Note: * $p < 0.05$

Source: Author's calculation in Eviews

As can be seen in the Table 2, for the other variables included in the study, there are mixed findings. Regulatory quality negatively impacts entrepreneurial activity in Albania. Even though literature suggests a controversial relationship between the two variables, it seems that the enforcement of the regulatory framework may bring bureaucracy and demotivation for new business creation. This finding is not surprising in the case of Albania because of the high level of informality and corruption. On the other hand, the impact of domestic financing is surprising, because it is generally expected that the higher the access to funds, the more businesses develop. However, the negative relationship may be related to the fact that financing from the banking sector is oriented toward large businesses, while SMEs are more disadvantaged in obtaining funds due to higher perceived risk, lack of collateral, etc. This means that even though the total lending to the private sector increases, the creation of new businesses is difficult, as this financing is oriented towards investments or projects of large businesses. It should be emphasized that our study considers only SMEs and excludes large businesses. Moreover, the impact of GDP growth on new business formation resulted to be statistically insignificant. In

5. CONCLUSION

This study highlights a series of issues that policymakers can address regarding the need to enhance the financial inclusion framework and overcome the challenges associated with fostering entrepreneurship. The study

nearly all prior studies, the stage of economic development has a direct impact on entrepreneurial activity. In the case of Albania, this suggests that entrepreneurs are not motivated to start businesses by the prevailing economic conditions. Instead, other factors may play a more influential role in their decision-making.

The regression model is followed by a series of diagnostic tests, which confirm the appropriateness of the analysis. More specifically, the results of the tests confirm that:

- The linear hypothesis of the regression model is appropriate (Ramsey Reset Test);
- The model is homoscedastic (Breusch-Pagan-Godfrey Test);
- The model does not suffer from multicollinearity (Variance Inflation Factors);
- The residuals have normal distributions (Jarque-Bera Test)
- There is no serial correlation in the errors of the regression model (Breusch-Godfrey Serial Correlation LM Test).

A summary of the diagnostic tests is part of Appendix A.1.

reveals that financial inclusion enables and facilitates entrepreneurship. Therefore, creating effective policies for financial inclusion and establishing an enabling environment, along with offering equal opportunities for

young people, women, the unemployed, and marginalized individuals to start and develop their businesses, can lead to inclusive entrepreneurship.

Developing countries are generally characterized by the fragile development of SMEs, which face a lack of capital, leading to low levels of business growth and productivity. Although efforts have been made to improve the business environment, there remain several challenges and difficulties for new businesses. Albania currently faces low levels of financial inclusion, which may affect entrepreneurship in the country. In addition, the study reveals that special attention should be paid to other aspects that influence entrepreneurial activity, such as regulatory quality or lending from financial institutions.

Studies related to financial inclusion in Albania are limited, indicating that this is a new field that needs to be further explored to generate valid conclusions. Some proposals for future research are:

Establishing a financial inclusion index that is comprehensive and continuous, i.e. taking into account more country-specific factors, as current indices tend to be more general and apply the same factors for different countries.

Identifying the barriers to financial inclusion at the regional level, since financial dynamics generally affect a wider market, such as the Balkan region.

Conducting studies based on primary data using questionnaires or interviews with businesses, providing a more direct view of the effect that financial inclusion has on concrete business development, etc.

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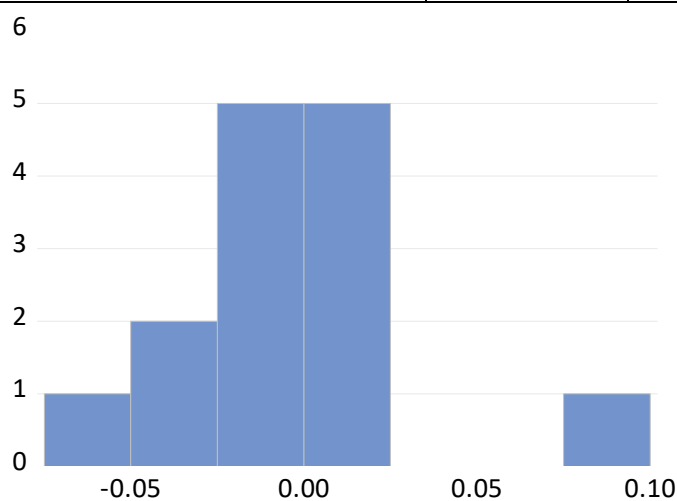
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APPENDIX A.1.

| Ramsey RESET Test | Value | df | Probability |
|-------------------|----------|--------|-------------|
| t-statistic | 2.193861 | 8 | 0.0596 |
| F-statistic | 4.813025 | (1, 8) | 0.0596 |
| Likelihood ratio | 6.594290 | 1 | 0.0102 |

| Variance Inflation Factors | Coefficient | Uncentered | Centered |
|----------------------------|-------------|------------|----------|
| Variable | Variance | VIF | VIF |
| FI | 3.36E-05 | 126.0767 | 1.976936 |
| RQ | 0.165100 | 74.86798 | 2.515637 |
| DF | 0.000134 | 1.171958 | 1.150254 |
| GDP | 0.000851 | 2.032739 | 2.000554 |
| C | 0.007504 | 65.80501 | NA |



| Breusch-Godfrey Serial Correlation LM Test: | | | |
|--|----------|------------------------|--------|
| F-statistic | 0.891204 | Prob. F(2,7) | 0.4521 |
| Obs*R-squared | 2.841328 | Prob. Chi-Square(2) | 0.2416 |

| Heteroskedasticity Test: Breusch-Pagan-Godfrey | | |
|---|--------------------|---------------------|
| F-statistic | 2.765087 0.0945 | Prob. F(4,9) |
| Obs*R-squared | 7.718953 0.1024 | Prob. Chi-Square(4) |
| Scaled explained SS | 5.551636 0.2352 | Prob. Chi-Square(4) |