Digital Financial Services and Entrepreneurial Expansion in Resource-Constrained Markets

Dr. Piyali Chandra Khan[1*], Dr. Sumanta Behera[2], Dr.Seema Thakur[3], Dr S Sathyakala[4], Mrs Lavita Dsouza[5], Prof(Dr) Raj Kumar Singh[6], Dr Poonam Wani[7]

[1*]Assistant Professor, Department of Commerce, University B.T and Evening College, Coochbehar, University of North Bengal, West Bengal, India, 736101, Email: piyali.chandra18@gmail.com, ORCID: 0000-0002-6497-1450

[2]Assistant Professor, Department of Commerce, S.K.C.G. Autonomous College, 761200,Email: sumanta063@gmail.com, ORCID: 0009-0001-2860-424X

[3]Professor, School of Finance and Commerce, Galgotias university, 203201, Email: seema.thakur@galgotiasuniversity.edu.in, ORCID: 0000-0001-8567-0166

[4]Associate professor , Sona College of Technology, 636005, Email: sathyakala@sonabusinessschool.com , ORCID: 0000-0002-2750-0553

[5]Assistant Professor, Department of Commerce , Sri Poornaprajna Evening College Udupi, 576102, Email: lavita1714@gmail.com, ORCID: 0009-0006-3963-7633

[6]Professor & HOD, Department of Management and Commerce , School of Management Sciences , Varanasi - 221005, UP, India, rksingh@smsvaranasi.com, ORCID: 0000-0003-1989-8714

[7]Assistant Professor, Department of Finance , Indira Global School of Business Pune, Maharashtra, 410506, Poonam.wani@indiraigsb.edu.in, ORCID: 0009-0007-9669-8966

HOW TO CITE:

Piyali Chandra Khan, Sumanta Behera, Seema Thakur, S. Sathyakala, Lavita Dsouza, Raj Kumar Singh, Poonam Wani (2026). Digital Financial Services and Entrepreneurial Expansion in Resource-Constrained Markets. International Journal of Special Education, 41(10s), 1059-1068

COPYRIGHT STATEMENT:

Copyright: © 2026 Authors.

ABSTRACT:

Financial services delivered digitally are increasingly being seen as tools to alleviate financial exclusion and promote entrepreneurship in less-endowed environments. Nonetheless, empirical support is still lacking regarding whether financial access and connectivity lead to entrepreneurship growth in developing countries. This study examines the effect of digital financial services on entrepreneurial expansion in resource-constrained markets, focusing on account ownership, financial institution account ownership, and internet usage. A quantitative panel-data approach was applied using secondary data from World Bank sources covering 52 low-income and lower-middle-income countries between 2011 and 2024. The final sample comprised 196 country-year observations. Entrepreneurial expansion was measured using log new business density. A country fixed-effects regression model with robust HC3 standard errors was estimated, controlling for GDP per capita and unemployment. The results indicate that account ownership had a positive and statistically significant effect on entrepreneurial expansion ($\beta = 0.4960$, $p = 0.0016$). Internet usage also showed a positive and significant effect ($\beta = 0.0040$, $p = 0.0011$). Financial institution account ownership, GDP per capita, and unemployment did not significantly explain entrepreneurial expansion after accounting for country-specific effects. These results indicate that the development of entrepreneurship in marketplaces with limited resources depends more on widespread ownership and digital connectivity rather than ownership based on institutions. It means that a

Open access publication underthe terms and conditions of the Creative CommonsAttribution (CC BY) license (http://creativecommons.org/licenses/by/4.0/).

combination of policies focusing on financial inclusion and technological infrastructure will have positive implications for formal entrepreneurship in developing economies.

Keywords: Digital financial services, entrepreneurial expansion, financial inclusion, account ownership, resource-constrained markets.

1. Introduction

Entrepreneurship has been recognized as one of the important factors of economic transformation, especially in developing economies, where the private sector generates employment and innovations and promotes income generation. Entrepreneurship increases productive capacity and contributes to longterm economic growth in the form of new businesses (Ranjan, 2019). In addition to its contribution to the economy, entrepreneurial activity also plays a role in reducing poverty and promoting social inclusion, particularly for youth and women who are often underrepresented in formal employment opportunities (Nor, 2024). Furthermore, the findings from both developed and developing countries show a strong correlation between entrepreneurial dynamism and economic growth and competitiveness (Sergi et al., 2019).

The significance of entrepreneurship is particularly noticeable in a resource-constrained economy, where there are limited financial resources, weak infrastructure and institutional constraints that hinder the development of businesses (Liqun, 2025). It is a key policy question to find mechanisms that enable entrepreneurial expansion, as this is a real challenge faced by entrepreneurs in these contexts, especially with respect to access to finance and formal support systems.

Financial service delivery has been revolutionized and financial system access broadened by the fast pace at which digital technologies have grown and changed. Digital financial services empower individuals and businesses to access payments, savings, credit and other financial services via technology-enabled platforms, and minimize the need for traditional financial services infrastructure (Lyons & Kass-Hanna, 2022). This change has made financial services more accessible, reduced transaction costs and brought financial services to the unbanked, who were not hitherto part of the formal financial market.

Digital innovation plays a key role with regard to the access of low-income communities to finance. The mobile technologies and internet-based platforms have helped financial institutions to access the population that was previously hard to access (Wanof, 2023). Better access to financial services can help promote entrepreneurial activities, through ways of mobilizing resources, making business transactions and taking investment decisions. Digital skills and improved access to finance have proven to boost innovation and business performance of small and medium enterprises (Bindeeba et al., 2025) in resource-constrained settings.

The importance of financial inclusion in entrepreneurial development has been increasingly recognized in the existing literature. Formal financial services reduce liquidity constraints and increase the capacity of individuals to establish and expand business ventures (Ajide, 2020). This connection has been reinforced by the advent of DFI, allowing for wider access to economic opportunities through technology-enabled financial services. The evidence-based findings indicate that the growth of digital financial inclusion and the development of e-commerce positively impact entrepreneurial activity by easing the ease of market access and business establishment (Wei et al., 2025). In the case of female entrepreneurs, it has been found that the use of digital financial services has been linked to better business performance and satisfaction (Malaquias & Fernandes Malaquias, 2022).

Capital access is a prerequisite of entrepreneurship as new businesses need funding to start up, run and expand. Despite the efforts made to support entrepreneurship, the lack of access to traditional financing sources or the inability to secure it makes it difficult to develop entrepreneurship in many developing economies (Hussain, 2024). Formal financial accounts open an entry to the financial system by allowing for savings and transactions, and also the building of financial histories. Although the opening of an account is not an indicator of effective economic activity, there is greater financial inclusion, but many formal accounts are not used (Ozili, 2025).

The impact of digital financial services on entrepreneurship could also be through the elimination of information asymmetries, which can hinder economic transactions and access to resources in many cases (Bergh et al., 2019). Digital technologies can provide a more enabling environment for entrepreneurial activity and foster enhanced connectivity, information sharing and market transparency.

Although there has been increasing interest in the subject of the question, there are significant gaps in the literature. Existing evidence is largely country-based and/or financial product-based, or on broader development outcomes, but not on entrepreneurial expansion via formal business creation. Moreover, the literature to date has not looked at the interaction between the three dimensions (account ownership, financial institution participation, and digital connectivity) in resource-constrained economies and with more recent international data.

This study explores the link between DFS and entrepreneurial growth in resource-constrainedmarkets. The paper investigates whether financial account ownership, financial institution account ownership and financial connectivity to digital platforms help entrepreneurs expand using recent cross-country evidence from low-income and lower-middle-income economies, while controlling for macroeconomic conditions. The output will give inputs to policymakers for inclusive entrepreneurship and sustainable economic growth.

2. Methodology

2.1 Research Design

The research design of this study was a quantitative study to examine the relationship between digital financial services and the growth of entrepreneurship in resource-constrained markets. The cross-country and time-invariant nature of the data prompted the use of a panel-data approach in order to account for the economy and time dimension of the entrepreneurial activity and financial inclusion. A country fixed effects framework was used to account for country-level factors that do not vary systematically across years and might affect the variables of interest and wash out from the analysis.

2.2 Data Source

Secondary data from the World Bank (international sources) was used for the study. The World Bank's entrepreneurship statistics (World Bank, 2025a) and the Global Findex Database (World Bank, 2025b) were used to obtain data on entrepreneurial activity and indicators of financial inclusion, respectively. The macroeconomic variables were also obtained from the World Development Indicators (World Bank, 2025c), which were used as control variables. The merged dataset only included the low-income and lower-middle-income economies, and only from 2011 to 2024. After data cleaning, matching and handling missing observations, the final sample was composed of 196 country-year observations for 52 resource-constrained countries.

2.3 Sample Selection and Variable Measurement

The study, however, only included resource-constrained markets, which are countries that have been deemed to be in either a low-income or lower-middle-income economy. For entrepreneurial expansion, the indicator new business density (the number of newly registered limited liability companies divided by the number

of adults) was used. Because the distribution of the variable is skewed, a transformation of the variable (log(1+ new business density)) was performed before the variable was estimated. The key explanatory variables used were dimensions of financial inclusion. The percentages of adults with formal financial accounts and with accounts at regulated financial institutions were measured by account ownership and financial institution account ownership, respectively. The use of the internet was added to capture the digital connectivity of an economy. The analysis was adjusted for other economic factors (gross domestic product per capita and unemployment rate).

2.4 Model Specification

The following country fixed-effects model was estimated to investigate the effect of digital financial services on the expansion of entrepreneurs:

$$\begin{aligned}&\text{Entrepreneurial Expansion}_{it}\\&= \beta_0 + \beta_1 \text{Account Ownership}_{it}\\&+ \beta_2 \text{Financial Institution Account}_{it}\\&+ \beta_3 \text{GDP per Capita}_{it} + \beta_4 \text{Internet Users}_{it}\\&+ \beta_5 \text{Unemployment Rate}_{it} + \mu_i + \varepsilon_{it}\end{aligned}$$

where $i$denotes country, $t$denotes year, $\mu_i$represents country-specific fixed effects, and ε_{it}denotes the error term.

The fixed-effects estimator was chosen because it eliminates any country-specific features that could impact entrepreneurial activity, such as institutional frameworks, geographical characteristics, and historical factors. To ensure statistical inference was robust and to reduce the possibility of heteroskedasticity, robust HC3 standard errors were used.

2.5 Data Analysis Procedure

The empirical analysis was carried out in four stages. Descriptive statistics were produced to summarize the descriptions of the study variables and to see the distribution of the variables. Secondly, the Pearson correlation was carried out to determine the bivariate relationships between the variables. Third, variance inflation factor diagnostics were calculated in order to assess any possible multicollinearity. Last but not least, a country fixed-effects regression model with robust standard errors was estimated to see how digital financial services affect entrepreneurial growth and to account for country-specific heterogeneity and macro-economic conditions.

3. Results

3.1 Descriptive Statistics

The study employed a balanced sample of 196 country-year observations for 52 resource-constrained economies for the period 2011–2024. There are significant country differences in entrepreneurial expansion, financial inclusion and digital connectivity (Table 1). In particular, the average value of log new business density was 0.530, varying from 0.023 to 2.225, indicating significant differences in formal entrepreneurial activity between the sampled economies. The average for account ownership was 37.8%, and the average for financial institution account ownership was 31.0%. Use of the internet was highly variable, with under a 1% of the population using it, up to more than 92%. The distribution of entrepreneurial expansion with respect to the sampled economies of resource constraint is seen in Figure 1. Entrepreneurial expansion is relatively right-skewed, with most countries reporting relatively low rates of new business density, while a few countries have substantially higher rates of entrepreneurial activity. The changes in the dependent variable corrected the skewness in the data and made it more appropriate for regression analysis.

Table 1. Descriptive Statistics of Study Variables (N = 196)

Maximum	Minimum	Std. Dev.	Mean	Variable
2.2253	0.0228	0.4306	0.5300	Log New Business Density
0.9846	0.0152	0.2145	0.3777	Account Ownership
0.9822	0.0152	0.1960	0.3104	Financial Institution Account
8.8174	5.5236	0.6915	7.4058	Log GDP per Capita
92.0286	0.9000	23.4453	29.0353	Internet Users
36.4720	0.1410	5.6845	6.1951	Unemployment Rate

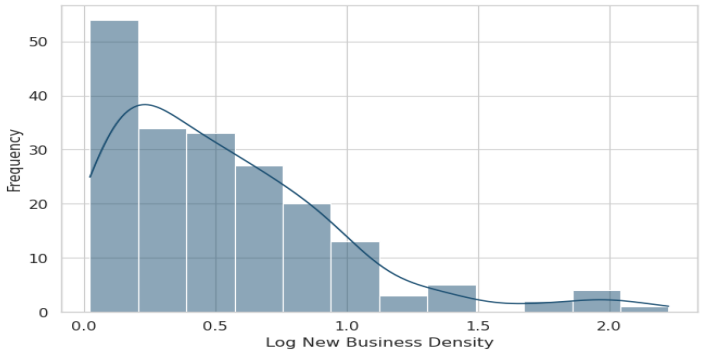

Figure 1. Distribution of Entrepreneurial Expansion

3.2 Correlation Analysis

The bivariate relationships between the study variables were examined by estimating the Pearson correlation coefficients (Table 2). The findings show that all the explanatory variables have positive correlations with entrepreneurial expansion, and the highest correlation coefficient is between entrepreneurial expansion and account ownership ($r = 0.619$, $p < 0.01$); the second highest correlation coefficient is the relationship between entrepreneurial expansion and financial institution account ownership ($r = 0.577$, $p < 0.01$); and the third highest is the relationship between entrepreneurial expansion and internet usage ($r = 0.507$, $p < 0.01$).

Table 2. Pearson Correlation Matrix

6	5	4	3	2	1	Variable
					1.000***	1. Log New Business Density
				1.000***	0.619***	2. Account Ownership
			1.000***	0.865***	0.577***	3. Financial Institution Account
		1.000***	0.574***	0.465***	0.443***	4. Log GDP per Capita
	1.000***	0.632***	0.486***	0.459***	0.507***	5. Internet Users
1.000***	0.247***	0.372***	0.094	0.092	0.291***	6. Unemployment Rate

*Notes: *** $p < 0.01$.*

The greatest relationship between the independent variables is between account ownership and financial institution account ownership ($r = 0.865$, $p < 0.01$). However, variance inflation factor diagnostics were still below the usual cut-off of 5, suggesting that multicollinearity is not likely to make the regression estimates unreliable. As shown in Figure 2A, the relationship between the ownership of an account and entrepreneurial

expansion. As shown in Figure 2B, there is a correlation between financial institution account ownership and entrepreneurial expansion.

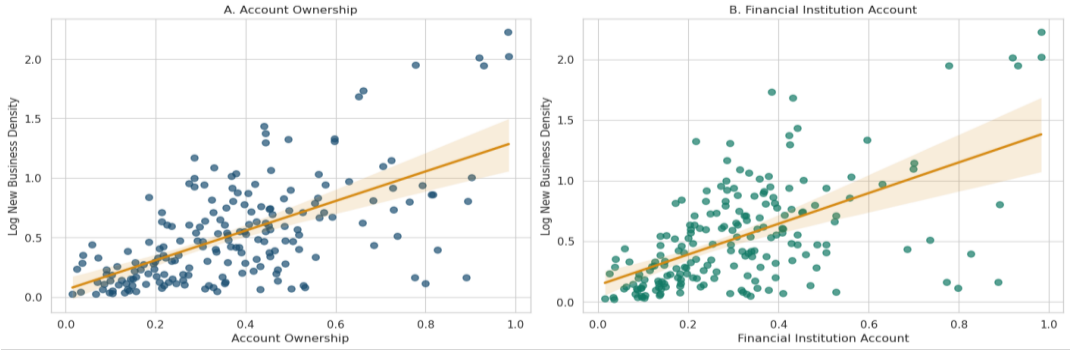

Figure 2. Digital Financial Services and Entrepreneurial Expansion(A) Account Ownership and Entrepreneurial Expansion (B) Financial Institution Account Ownership and Entrepreneurial Expansion

As seen in the scatterplots, there are positive associations between the two financial inclusion indicators and entrepreneurial expansion. Entrepreneurial activity seems to be positively associated with the level of account ownership. This positive relationship holds for financial institution account ownership, but it is not as strong as it is seen without the control of other explanatory factors.

3.3 Fixed Effects Regression Results

A country fixed-effects regression model with robust standard errors was estimated to assess the net impact of DFS on entrepreneurs' growth (Table 3). The model features macroeconomic factors such as GDP per capita, internet use, and unemployment, and it allows for unobserved country-specific differences. The regression results show that the effect of account ownership on entrepreneurial expansion is positive and statistically significant, with the value of β = 0.4960 and p = 0.0016. The result indicates that increased access to formal financial accounts increases new business formation in markets with few resources. Financial institution account ownership does not have a statistically significant effect (β = -0.2535, p = 0.2387); on the other hand, suggesting that having financial institution accounts alone does not seem to drive entrepreneurial activity net of the overall financial inclusion and country-level heterogeneity.

Table 3. Fixed Effects Regression Results for Entrepreneurial Expansion

p-value	t-value	Robust Std. Error	Coefficient	Variables
0.0016	3.1578	0.1571	0.4960***	Account Ownership
0.2387	-1.1783	0.2152	-0.2535	Financial Institution Account
0.6871	0.4028	0.0791	0.0319	Log GDP per Capita
0.0011	3.2678	0.0012	0.0040***	Internet Users
0.4033	0.8357	0.0090	0.0075	Unemployment Rate

*Notes: Dependent variable = Log New Business Density; country fixed effects included; robust HC3 standard errors reported; Observations = 196; Countries = 52; R^2 = 0.9514; Adjusted R^2 = 0.9318; *** p < 0.01, ** p < 0.05, * p < 0.10.*

Using the Internet becomes another important factor affecting entrepreneurial growth (β = 0.0040; p = 0.0011). This finding reinforces the need for digital connectivity for access to information, markets and opportunities for

entrepreneurs. In contrast, entrepreneurial growth does not have a significant impact within the fixed-effects framework; neither GDP per capita nor the unemployment rate has a significant impact. The coefficients and 95% confidence intervals of the controlled fixed-effects model are presented in Figure 3

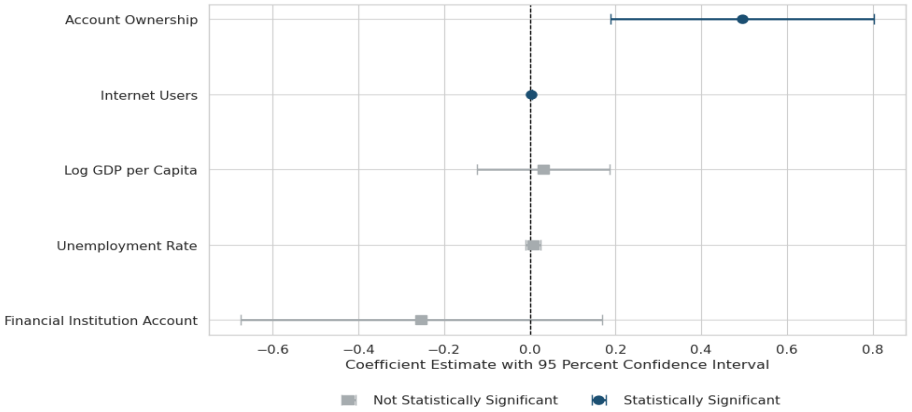

Figure 3. Controlled Fixed Effects Coefficients

The coefficient plot is reflective of the fact that the only variables whose coefficient intervals do not cross the zero-effect line are those that are statistically significantly and positively related to entrepreneurial expansion – namely, account ownership and Internet use. All other variables have confidence intervals that cross zero, suggesting that the effects of these variables are not statistically significant given the country-specific effects and macro-economic framework.

4. Discussion

The results suggest that account ownership is an important factor in entrepreneurial growth in resource-scarce markets. This indicates that increased access to formal financial accounts will give a solid basis for business initiation, allowing people to invest, receive payments, transact and be more involved in formal economic systems. Where financial inclusion may be constrained by limited access to capital and weak financial infrastructure, account ownership seems to serve as a simple yet significant pathway that can facilitate financial inclusion and entrepreneurial activity. The usage of the Internet also positively and significantly affected the entrepreneur's expansion. The finding suggests that the digital connection is complementary to the role it plays in supporting new business formation. Access to the Internet can enhance access to market information, lower search costs, help engage customers and be a component of digital platforms. Digital connectivity can help entrepreneurs deal with informational and market access constraints in resource-constrained economies in which physical infrastructure and institutional support are less developed. Broad account ownership, internet usage, macroeconomic factors and country fixed effects did not result in a statistically significant effect when it came to financial institution account ownership. The finding indicates that having an account at a financial institution is not enough to foster entrepreneurial growth if it is not linked to a range of accessible financial services, digital tools and credit opportunities, as well as business-related transactions. The small impacts of GDP per capita and the unemployment rate further suggest that the overall macroeconomic context plays a relatively small role in entrepreneurial growth in the countries sampled, while access-related and connectivity-related mechanisms play a more significant role.

The positive impact of account ownership is in line with the concept of inclusive entrepreneurship and financial inclusion as a tool for increasing financial access to microfinance and other sources of finance (Zogning 2023). The discovery is also supported by data from the growth of African economies, which suggests that more inclusive financial technology can enhance entrepreneurial participation when financial systems are more accessible for smaller

and less-well-served firms (Rambe, 2025). The impact of internet use is highly significant, which further backs the argument of the importance of digital infrastructure in the context of entrepreneurship in constrained environments. Digital startups at the base of the pyramid provide evidence of the ability of digital tools to support firms to innovate in the face of severe resource constraints (Michelini et al., 2020). The same arguments can be found in studies on SMEs in developing economies, where sustainable technological development is related to digital readiness and the ability to thrive in a resource-constrained environment (Lahon & Chimpi, 2024). The lack of significance of the financial institution account ownership is also significant in comparison with the recent literature. The impact of institutional voids and resource constraints has been documented in emerging markets, as these can constrain the capacity of firms to scale even if there are formal pathways to access (Afolabi, 2025). This may help account for the fact that account ownership at financial institutions does not necessarily lead to higher business formation rates on its own, but rather with additional enablers provided by institutions and markets. In addition to access, the effectiveness of financial services is heavily reliant on collaborations with the providers and their design and on the usability of the services themselves (Iheanachor & Umukoro, 2022). The findings also align with studies examining the digitally empowered SMEs and show that, besides market penetration, it is also necessary to translate digital and financial resources into a strategic capability to gain a competitive advantage (Bakashaba & Bindeeba, 2025). Similarly, African retail banking suggests that the significance of dynamic capabilities that rely on data in making digital access a worthwhile financial and business outcome (Anning-Dorson et al., 2025). The trivial macroeconomic conditions are also in line with the arguments that suggest that the innovation and firm performance in emerging markets are likely to be limited by the lack of complementary resources rather than only a single macroeconomic indicator (Bose & Sengupta, 2025). The results also align with the notion of 'bricolage' that in the face of uncertainty and limited resources, entrepreneurs have the ability to creatively recombine what resources they have to respond to a demand (Xu et al., 2024).

These results have significant policy implications for financial institutions, development agencies and policymakers. Future policies to encourage entrepreneurship in resource-constrained markets need to focus on enhancing meaningful account ownership, rather than simply increasing the number of formal financial institutions. The financial inclusion strategies have to take into account the usability of the account, its affordability, being available on a digital platform, and its connection with business services. The boost that the internet has given entrepreneurship argues for not considering digital infrastructure as an issue distinct from financial inclusion and policy. An enabling environment for entrepreneurial expansion can be achieved through expanding Internet access, building digital literacy and enhancing digital payment ecosystems. Financial institutions and fintech companies can also promote entrepreneurship by building account-based services that integrate savings and payments, with credit history and business activities, in an accessible manner for early-stage entrepreneurs.

There are some caveats to note. Microdata on the use of digital financial services at the individual and firm level are not included in the study, and differences in entrepreneurs' use of these services may not be reflected at the country level. Formal new business density is a measure of entrepreneurial expansion and does not necessarily capture informal entrepreneurship, which is prevalent in resource-constrained markets. Additionally, the analysis is constrained by available indicators, as more comprehensive indicators of digital payments, transactions made via mobile and the use of fintech were not fully incorporated.

The analysis can be expanded in future research based on firm-level or household-level data to explore the actual use of DFS in business formation by entrepreneurs. Other research

might also explore the difference between formal and informal entrepreneurship, or the impact of digital finance in nations with a higher regulatory quality, fintech industry or digital literacy.

5. Conclusion

Digital financial services are important for entrepreneurial growth in resource-constrained markets, not only by increasing financial access, but also by their role in shaping financial connectivity in the form of digital services. The data confirms that the presence of formal financial accounts is a positive and significant influence on new business density, suggesting that access to formal financial accounts can positively affect the conditions that can foster business creation. The role of the Internet also becomes important, pointing to a role that is likely to facilitate opportunities for information, markets, and transactions in restricted settings. The relatively small impact that having an account at a financial institution has on entrepreneurial expansion indicates that if formal access to financial institutions is not accompanied by financial services that are usable, affordable, and related to entrepreneurial functions, the impact on entrepreneurial expansion will be limited. In the same way, when controlling for country effects and financial inclusion variables, GDP per capita and unemployment are not significant factors in the entrepreneurial expansion. The results highlight the importance of policies combining financial inclusion and digital infrastructure. More inclusive entrepreneurial development in lower-income and lower-middle-income economies can be enabled through an expansion of meaningful account ownership, enhanced access to the internet and the development of digital financial ecosystems. Future research should focus on firm-level and informal entrepreneurship to get insights into the way entrepreneurs actually utilize digital financial services in practice.

References

Afolabi, O. V. (2025). *Resource Constraints, Institutional Voids and Institutional Intermediaries: Why Scaling Up Is Easier Said Than Done in Emerging Markets* (Doctoral dissertation, Hult International Business School (Boston)).

Ajide, F. M. (2020). Financial inclusion in Africa: does it promote entrepreneurship?. *Journal of Financial Economic Policy*, *12*(4), 687-706.

Anning-Dorson, T., Baba, F., Zulu, M., & Acheampong, G. (2025). Data-driven dynamic capabilities in emerging markets: A grounded theory approach to digital transformation in african retail banking. *International Journal of Information Management*, *84*, 102914.

Bakashaba, R., & Bindeeba, D. S. (2025). Beyond market penetration: leveraging brand capital for competitive advantage in digitally driven SMES in resource-constrained settings. *Future Business Journal*, *11*(1), 240.

Bergh, D. D., Ketchen Jr, D. J., Orlandi, I., Heugens, P. P., & Boyd, B. K. (2019). Information asymmetry in management research: Past accomplishments and future opportunities. *Journal of management*, *45*(1), 122-158.

Bindeeba, D. S., Tukamushaba, E. K., & Bakashaba, R. (2025). How digital capabilities and credit access influence green innovation performance in small and medium enterprises in resource constrained settings. *Discover Sustainability*, *6*(1), 955.

Bose, U., & Sengupta, A. (2025). Impact of innovation effort on exports from emerging market firms: limitations arising from complementary resource constraints. *Multinational Business Review*, *33*(3), 462-494.

Hussain, M. A. (2024). A critical study of startup financing dynamics and emerging approach to attracting capital resources. *Journal of Corporate Finance Management and Banking System*, *44*, 1-14.

Iheanachor, N., & Umukoro, I. (2022). Partnerships in digital financial services: An exploratory study of providers in an emerging market. *Journal of Business Research*, *152*, 425-435.

Lahon, S., & Chimpi, K. (2024). Fostering sustainable technological development in SMEs from developing nations within the framework of the digital economy and resource-constrained environments. *Global Perspectives in Management*, *2*(4), 15-25.

Liqun, Z. (2025). Resource-Constrained Economy. In *Dictionary of Contemporary Chinese Economics* (pp. 340-342). Singapore: Springer Nature Singapore.

Lyons, A. C., & Kass-Hanna, J. (2022). *24 the evolution of financial services in the digital age* (Vol. 405, pp. 405-430). Berlin, Germany: De Gruyter.

Malaquias, F. F. D. O., & Fernandes Malaquias, R. (2022). The use of digital financial services and business performance satisfaction in the context of female entrepreneurship. *Journal of technology management & innovation*, *17*(3), 3-11.

MICHELINI, L., PISONI, A., & MARTIGNONI, G. (2020). Resource-constrained innovation at the BoP: evidences from a digital startup. *Grand challenges: companies and universities working for a better society*, 465.

Nor, A. I. (2024). Entrepreneurship development as a tool for employment creation, income generation, and poverty reduction for the youth and women. *Journal of the Knowledge Economy*, *15*(4), 19387-19410.

Ozili, P. K. (2025). Formal account inactivity: a global overview, causes, consequences and effect on financial inclusion. *Journal of Electronic Business & Digital Economics*.

Rambe, P. (2025). Building blocks for inclusive and innovative financial technology: Evidence from entrepreneurial firms in Emerging African Economies. In *FinTech and Financial Inclusion* (pp. 100-119). Routledge.

Ranjan, A. (2019). The role of entrepreneurship in economic development. *American Journal of Management Science and Engineering*, *4*(6), 87-90.

Sergi, B. S., Popkova, E. G., Bogoviz, A. V., & Ragulina, J. V. (2019). Entrepreneurship and economic growth: the experience of developed and developing countries.

Wanof, M. I. (2023). Digital technology innovation in improving financial access for low-income communities. *Technology and Society Perspectives (TACIT)*, *1*(1), 26-34.

Wei, F., Xie, B., & Chen, M. (2025). Digital financial inclusion, e-commerce development and entrepreneurial activity. *International Review of Financial Analysis*, *97*, 103806.

World Bank. (2025a). Entrepreneurship Database. World Bank Group. https://www.worldbank.org/en/programs/entrepreneurship

World Bank. (2025b). *Global Findex Database 2025* [Data set]. World Bank Group. https://www.worldbank.org/en/publication/globalfindex/download-data

World Bank. (2025c). World Development Indicators. World Bank Group. https://databank.worldbank.org/source/world-development-indicators

Xu, S., He, J., Morrison, A. M., Su, X., & Zhu, R. (2024). The role of bricolage in countering resource constraints and uncertainty in start-up business model innovation. *European Journal of Innovation Management*, *27*(8), 2862-2885.

Zogning, F. (2023). Financial inclusion, inclusive entrepreneurship, and alternative financing options. *Journal of Small Business & Entrepreneurship*, *35*(1), 8-13.