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Institutional Quality and New Business Formation: The Role of Financial Inclusion in Emerging Markets

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ABSTRACT

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This study examines the relationship between financial inclusion and new business density, including the moderating role of institutional quality. Using a balanced panel of 38 countries from 2018 to 2024, the study employs country fixed-effects regression with year indicators and Driscoll–Kraay standard errors, supplemented by robustness checks using alternative governance indicators and lagged variables. The results show that institutional quality was positively and significantly associated with new business density, whereas financial inclusion was insignificant. The interaction between financial inclusion and institutional quality was also insignificant, providing no evidence of moderation. Among the control variables, GDP per capita and inflation show positive and significant associations with new business density. Robustness analyses show mixed results across governance measures: government effectiveness was significantly and negatively associated with new business density, while regulatory quality was statistically insignificant. Lagged estimates show no significant associations for financial inclusion or institutional quality. Overall, the findings suggest that institutional quality matters for formal business formation, but the principal estimates do not support an independent association of financial inclusion or its interaction with institutional quality. These results highlight the importance of examining institutional conditions alongside financial access when investigating formal entrepreneurship, while recognizing that the observational design supports conclusions about associations rather than causality.

Introduction

New business formation is an important measure of entrepreneurship and the economy's ability to build formal economic capacity. However, Business establishment depends not only on corporate motivation but also on access to finance and market entry conditions. Financial restrictions may limit investment, while regulatory uncertainty and administrative barriers may hinder business registration. The Financial Development Study highlighted the importance of financing for productive investments, while institutional theory explains how formal rules shape economic incentives and transaction costs (King & Levine, 1993; North, 1990).

Financial inclusion could facilitate business formation by improving access to savings, payments, and loans. However, access to financial services does not necessarily lead to business registration. Data from 43 countries show that financial system inclusion and the business environment were associated with both early-stage firms and established firms, with access to key financial products particularly relevant to creating new firms (Charfeddine & Zaouali, 2022). Financial inclusion also appears to mediate the relationship between contextual conditions and entrepreneurship in Africa, highlighting the importance of actual use of financial services rather than access alone (Elouaouri & Ibourk, 2024). These findings support financial inclusion

as a potential determinant of formal's business Formation, recognizing that its relationship with registered business may differ from its relationship with business intentions.

Institutional quality explains different cross-country differences in business formation. Effective public administration, predictable regulation, and reliable enforcement can reduce uncertainty and costs associated with setting up formal companies. Previous research has found that regulation of business entry was linked to formal enterprise activity (Djankov et al., 2002; Klapper et al., 2006). Recent research shows that institutional dimensions can affect various stages of entrepreneurship in different ways, with regulation of business creation particularly relevant to new entrepreneurship (Alvarez et al., 2025). 27 Muslim-majority countries also indicate that institutional quality, digital infrastructure, and economic conditions were relevant to new business (Munir, 2025). However, these relationships can vary across measures, countries, and institutions, which calls for further cross-country analysis.

Financial inclusion and institutional quality can also operate jointly. Where institutions are effective, entrepreneurs may be better able to use financial services to establish registered businesses. Conversely, weak institutions can hamper financial access by creating administrative burdens, uncertainty, or weak enforcement. The role of institutional quality in improving access to and use of formal financial services was evident in 73 developing countries (Zeqiraj et al., 2022). International evidence also identifies institutional quality as a key determinant of financial inclusion across countries (Vo, 2024). However, these findings do not show whether institutional quality strengthens the relationship between financial inclusion and formal business formation. That interaction requires direct testing.

Measuring entrepreneurship is another consideration. Entrepreneurial intentions, self-employment, early-stage activities, and formal business registrations represent different outcomes and should not be treated as interchangeable. Recent studies indicate that institutional influences vary between the stages of the entrepreneurial process (Alvarez et al., 2025). New business density provides a more specific measure of formal entry, capturing newly registered businesses relative to the working-age population (World Bank, 2026). Analyzing this outcome lets us focus on whether financial inclusion and institutional quality relate to establishing registered enterprises, rather than entrepreneurship in its broadest sense.

This study examines the relationships between financial inclusion, institutional quality, and new business density using a well-balanced panel of 38 countries for 2018–2024. The study focused on three questions: (1) Is inclusion connected to new business density financially? (2) Is institutional quality linked to new business density when macroeconomic conditions have been taken into account? (3) Does institutional quality facilitate the Relationship between financial inclusion and new business density? This analysis controls for per capita GDP growth, GDP, inflation, trade openness, foreign direct investment, and Internet use. The model includes country and year fixed effects and uses Driscoll-Kraay standard errors to address cross-sectional dependence and heteroskedasticity.

The study helps differentiate the direct association between financial inclusion and institutional quality from the potential moderating role of institutional quality in formal business formation. We also assessed robustness using alternative governance measures and delayed explanatory variables. The results show a positive association between institutional quality and new business density. However, the core specification does not include the non-statistical association between financial inclusion and new business density. The interactions between financial inclusion and institutional quality were also not statistically significant. These results indicate that institutional quality has a clearer independent association with formal business formation than a moderating role in this sample. Given the observational design and the seven years, the results were interpreted as conditional associations rather than causal effects.

Literature Review

Financial inclusion can support entrepreneurship by easing financial constraints that restrict business entry. Financial intermediaries reduce information and transaction costs and improve capital allocation, while smaller companies often face higher external financing barriers than incumbents (Beck et al., 2005; Levine, 2005). Financial inclusion broadens this perspective by focusing on access to and use of financial services, including accounts, savings, payments, and credit, which vary widely across countries and population groups (Demirguc-Kunt et al., 2018; Demirgüç-Kunt & Klapper, 2013). However, access to financial services does not necessarily lead to business formation, as outcomes depend on financing needs, available options, and the broader business environment (Charfeddine & Zaouali, 2022).

Empirical conclusions show that the relationship between inclusion and entrepreneurship finance varies by context. Research in the digital finance sector shows that inclusion combines increased access to financial resources with risk-taking and entrepreneurial activity (Konou, 2023; Wei et al., 2025). Data from developing and developed countries also show a non-linear relationship, indicating that the entrepreneurial benefits of financial inclusion may differ by inclusion level and country characteristics (Logogye et al., 2025). These findings caution against assuming uniform relationships across economies.

Additionally, studies on entrepreneurship, self-employment, and broader enterprise may not fully explain formal business registration. Financial inclusion warrants a direct examination of new business density.

Institutional quality offers additional explanations for differences in business formation. Institutional theory stresses that formal rules and their application shape economic incentives and opportunities (North, 1990; Scott, 2014). Institutions can promote productive entrepreneurship or incentivize resource diversion to less productive activities (Baumol, 1990). Cross-country evidence links business entry to standard requirements, legal protection, and firm-setup costs (Djankov et al., 2002; Klapper et al., 2006). Protecting investors and ensuring the observance of legitimate rights also affect financial market development by linking institutional conditions to the conditions under which entrepreneurs receive financing (Beck et al., 2003; La Porta et al., 1998).

Government performance, regulatory quality, and predictable enforcement may affect formal registration costs and the uncertainty of operating a business. Research shows that the benefits of financial development depend in part on institutional conditions (Demetriades & Hook Law, 2006; Law & Azman-Saini, 2012). Recent studies also link institutional and social conditions to entrepreneurship, though institutional dimensions and forms of entrepreneurship yield different outcomes. In addition to digital infrastructure and macro-economic conditions, research on new business formation in Muslim-majority countries examined institutional quality (Munir, 2025). Institutional quality should thus be viewed not only as a background context, but rather as a clear explanatory factor.

Institutional quality could also shape the relationship between financial inclusion and business development. Access to funds can be less effective if registration procedures are burdensome or if uncertainty remains about how to implement the contract. Conversely, predictable institutions may help entrepreneurs use financial services to establish and operate formal businesses. Evidence linking institutional quality to financial inclusion supports considering these factors together (Zeqiraj et al., 2022). Research also shows that the relationship between financial inclusion and entrepreneurship was dependent on additional circumstances, including human capital (Logogye et al., 2025). Current Sub-Saharan Africa research projects directly explore institutional quality as a moderator of the relationship between Digital Financial inclusion and entrepreneurship (Emekaraonye & Ifelunini, 2026). However, evidence of inclusion, entrepreneurial intentions, or self-employment in the digital economy cannot be automatically generalized to formal business Registration. Therefore, the relationship between financial inclusion and business formation, as mediated by institutional quality, remains empirical.

Therefore, the choice of business outcome matters. Entrepreneurial intentions, self-employment, early-stage activity, and registered business formation are different aspects of entrepreneurship and economic development (Acs et al., 2008). New business density specifically captures the registration of formal businesses relative to the working-age population and thus makes it appropriate to consider entry into the formal business sector (World Bank, 2025). Thus, findings from broader entrepreneurship measures may not apply directly to formal business formation.

Despite the increasing research work to investigate financial inclusion and institutional quality, their individual associations with formal business creation and the potential moderating role of institutional quality need further investigation. In particular, the findings on entrepreneurial activity do not clearly show how these factors relate to new business density. This study addresses this gap by examining the associations between financial inclusion, institutional quality, and new business density, testing their interaction, and evaluating robustness using alternative governance indicators and extended explanatory variables. This analysis uses a panel of 38 countries for 2018-2024.

Methodology

Research Design

The study examines the relationship between financial inclusion, institutional quality, and new business density in 38 countries for 2018-2024, using a quantitative panel data design. The balanced panel comprises 266 country-year observations. New business density was the dependent variable, while financial inclusion and institutional quality were the most important explanatory variables. The analysis also examines whether institutional quality moderates the relationship between financial inclusion and new business density. The country and year effects capture unobserved country-specific characteristics and common time-related influences.

Variable Measurements

New business density was measured as the number of registered new companies with limited liability per 1,000 persons aged 15 to 64. Financial inclusion and institutional quality were the most important explanatory variables. Control variables include GDP per capita, GDP growth, inflation, open trade, foreign direct investment, and Internet use. Government effectiveness and regulatory quality serve as alternative governance measures for the robustness analysis.

The data come from the World Bank World Development Indicators (WDI), the Worldwide Governance Indicators (WGI), and the International Monetary Fund Financial Access Survey (FAS). Table 1 contains all variables, operational definitions, and sources. The financial inclusion and institutional quality construction and measurement scales follow the original dataset documentation.

Table 1. Variables, measurements, and data sources

Variable	Role	Measurement/description	Source
New business density (NBD)	Dependent	Newly registered limited-liability companies per 1,000, aged 15–64	WDI
Financial inclusion (FI)	Explanatory	Financial inclusion measure used in the dataset	IMF
Institutional quality (IQ)	Explanatory/moderator	Institutional quality measure used in the dataset	WDI
GDP per capita (GDP_PC)	Control	GDP per capita	WDI
GDP growth (GDPG)	Control	Annual GDP growth	WDI
Inflation (INF)	Control	Inflation measure used in the dataset	WDI
Trade openness (TRADE)	Control	Trade measure used in the dataset	WDI
Foreign direct investment (FDI)	Control	FDI measure used in the dataset	WDI
Internet use (IU)	Control	Internet-use measure used in the dataset	WDI
Government effectiveness (GE)	Alternative governance measure	Government effectiveness indicator	WGI
Regulatory quality (RQ)	Alternative governance measure	Regulatory quality indicator	WGI

Empirical Model

The baseline model examines the associations between financial inclusion, institutional quality, and new business density while controlling for economic and technological characteristics. It was specified as:

$$NBD = \beta_0 + \beta_1 FI_{it} + \beta_2 IQ_{it} + \beta_3 GDP_PC_{it} + \beta_4 GDPG_{it} + \beta_5 INF_{it} + \beta_6 TRADE_{it} + \beta_7 FDI_{it} + \beta_8 IU_{it} + \alpha_i + \lambda_t + \varepsilon_{it}$$

where i denotes the country and t denotes the year. The country-specific effect was represented by α_i , the year effect by λ_t , and the error term by ε_{it} .

To assess whether institutional quality moderates the relationship between financial inclusion and new business density, an interaction term between FI and IQ was introduced:

$$NBD = \beta_0 + \beta_1 FI_{it} + \beta_2 IQ_{it} + \beta_3 (FI_{it} \times IQ_{it}) + \sum_{k=4}^9 \beta_k X_{kit} + \alpha_i + \lambda_t + \varepsilon_{it}$$

X_{kit} represents the control variables. The interaction coefficient, β_3 , indicates whether the association between financial inclusion and new business density varies with institutional quality. A statistically significant coefficient would provide evidence of moderation; its sign would indicate the direction of that relationship.

Estimation Strategy

The analysis begins with descriptive statistics, pairwise correlations, and variance inflation factors (VIFs) to examine variable distributions, provisional associations, and potential multicollinearity. We used pooled ordinary least squares (OLS), fixed-effects, and random-effects models. Country effect testing supports country-specific effects, but the Hausman test was inconsistent due to a Rank Warning. Consequently, we used country fixed effects to account for time-invariant country characteristics, including annual indicators capturing common time-related influences.

Diagnostic tests detect cross-sectional dependence and groupwise heteroskedasticity. Driscoll-Kraay standard errors were used to address these issues in the error structure (Hoechle, 2007). The moderation hypothesis was tested through the interaction between inclusive finance and institutional quality. Given the observational design and the seven-year study period, we interpreted estimates as conditional relationships rather than causal effects.

Robustness Analysis

Robustness checks assess whether the main findings were sensitive to the alternative institutional quality measures and the timing of explanatory variables. We introduced government effectiveness and quality regulatory frameworks separately as

alternative governance indicators because they capture related but distinct dimensions of institutional quality. A further specification uses one-year-lagged financial inclusion and institutional quality to examine whether the results persist when the explanatory variables precede the outcome. Because the first year of data for each country was lost, the lagged model contains fewer observations. All robustness specifications retain the country-specific fixed-effects framework, annual indicators, and Driscoll–Kraay standard errors. These additional estimates provide further evidence, particularly given the panel's limited time dimension.

Results

Table 2 provides descriptive statistics for the variables studied. New business density has a mean of 1.907 and a standard deviation of 2.829, indicating variation in formal business formation across country-year observations. Financial inclusion has a mean of -0.056, and institutional quality has a mean of 0.139. The control variables also vary considerably, especially GDP per capita and trade openness. These statistics provide an overview of the sample before regression analysis.

Table 2. Summary statistics

Variable	Mean	Std. dev.	Minimum	Maximum
NBD	1.907	2.829	0.017	15.226
FI	-0.056	0.845	-1.286	3.437
IQ	0.139	1.031	-2.531	2.767
GDP_PC	33,627.170	14,618.480	3,535.650	60,504.400
GDPG	1.320	3.856	-13.790	10.703
INF	7.000	7.038	-1.813	38.107
TRADE	79.575	47.149	22.248	320.939
FDI	2.282	4.038	-17.292	29.209
IU	72.982	16.036	42.580	99.000
GE	0.235	0.906	-2.090	2.190
RQ	0.161	0.885	-1.540	2.020

Table 3 indicates pairwise correlations between new business density, the main explanatory variables, and control variables. New business density correlates positively with institutional quality, GDP per capita, trade openness, FDI, and Internet usage. The correlations between financial inclusion and new business density were small and statistically insignificant. These bivariate associations provide preliminary evidence but do not account for unobserved country characteristics or identify the connections investigated in the panel regressions.

Table 3. Pairwise correlation matrix

Variable	NBD	FI	IQ	GDP_PC	GDPG	INF	TRADE	FDI
FI	0.028	1.000						
IQ	0.207**	0.027	1.000					
GDP_PC	0.197**	-0.029	-0.035	1.000				
GDPG	-0.081	0.003	0.096	-0.060	1.000			
INF	-0.013	0.026	-0.317**	0.164**	-0.103	1.000		
TRADE	0.175**	0.138**	0.078	0.114	0.110	-0.197**	1.000	
FDI	0.157*	-0.007	0.151**	-0.042	0.095	-0.140**	0.249**	1.000
IU	0.227*	0.016	-0.164**	0.025	-0.122	0.042	-0.043	-0.185**

Note: ** and * denote statistical significance at the 1% and 5% levels, respectively.

Table 4 presents pooled OLS estimates and two fixed-effects specifications with standard Driscoll–Kraay errors. Pooled OLS results suggest positive, significant associations for institutional quality, GDP per capita, trade openness, FDI, Internet usage, and new business density. However, these estimates do not account for time-invariant country characteristics.

In the basic fixed-effects model, institutional quality was positively and significantly associated with new business density. GDP per capita and inflation also have positive and significant associations, while financial inclusion was statistically insignificant.

The interaction specification shows a negative but statistically insignificant relationship between FI-IQ and new business density. Therefore, the findings do not demonstrate that institutional quality moderates the relationship between financial inclusion and new business density. Institutional quality remains positive and significantly associated with new business density in a specific specification.

Table 4. Financial inclusion, institutional quality, and new business density

Variables	(1) Pooled OLS	(2) Fixed effects	(3) Fixed effects with interaction
FI	0.0116 (0.1887)	-0.0028 (0.0305)	-0.0024 (0.0321)
IQ	0.6973** (0.1639)	1.0107* (0.3048)	1.0121* (0.3037)
GDP_PC	0.0000339** (0.0000111)	0.0000845** (0.0000164)	0.0000847** (0.0000154)
GDPG	-0.0609 (0.0416)	0.0301 (0.0165)	0.0301 (0.0163)
INF	0.0267 (0.0245)	0.0709* (0.0217)	0.0709* (0.0220)
TRADE	0.0077** (0.0036)	-0.0029 (0.0032)	-0.0029 (0.0031)
FDI	0.1151** (0.0413)	0.0067 (0.0159)	0.0066 (0.0160)
IU	0.0506** (0.0101)	-0.0171 (0.0428)	-0.0173 (0.0435)
FI × IQ	—	—	-0.0038 (0.0263)
Constant	-4.0081** (0.9061)	-0.2626 (3.1759)	-0.2612 (3.1903)
Observations	266	266	266
R Squared	0.2066	0.1102	0.1102
Model F-statistic	8.37**	16.30**	14.21**

Note: Standard errors are reported in parentheses. Fixed-effects models include year indicators and use Driscoll–Kraay standard errors (maximum lag = 2). ** and * denote significance at the 1% and 5% levels, respectively.

Table 5 reports robustness estimates using alternative governance indicators and lagged explanatory variables. When government replaces institutional quality as a proxy for effectiveness, it shows a negative and statistically significant association with new business density. By contrast, regulatory quality has a positive but statistically negligible association, indicating that results vary across governance measures.

In the lagged specification, neither financial inclusion nor institutional quality was statistically significant. GDP per capita and inflation remain positive and closely linked to new business density. Overall, the lagged estimates provide no evidence of significant associations between previous-year financial inclusion or institutional quality and current new business density.

Table 5. Robustness tests: alternative governance measures and lagged variables

Variables	(1) Government effectiveness	(2) Regulatory quality	(3) One-year lags
FI	0.0034 (0.0318)	-0.0047 (0.0346)	—
GE	-0.7049** (0.1391)	—	—
RQ	—	0.5702 (0.3017)	—
GDP_PC	0.0000579* (0.0000175)	0.0000736** (0.0000166)	0.0002707** (0.0000748)
GDPG	0.0302 (0.0192)	0.0316 (0.0176)	0.0321 (0.0178)

INF	0.0688* (0.0236)	0.0609* (0.0243)	0.0665* (0.0255)
TRADE	-0.0063 (0.0035)	-0.0053 (0.0035)	-0.0045 (0.0040)
FDI	0.0110 (0.0146)	0.0106 (0.0161)	-0.0102 (0.0153)
IU	-0.0201 (0.0490)	-0.0308 (0.0489)	-0.0084 (0.0547)
FI, $t - 1$	—	—	0.0365 (0.0610)
IQ, $t - 1$	—	—	0.4924 (0.2902)
Constant	1.3862 (3.6345)	1.3461 (3.5398)	-7.0005 (3.0271)
Observations	266	266	228
R squared	0.1020	0.0982	0.0987
Model F-statistic	34.70**	47.34**	81.82**

Note: All models include country fixed effects, year indicators, and Driscoll–Kraay standard errors. Government effectiveness and regulatory quality replace institutional quality in separate models. The lagged model uses one-year lags. ** and * denote significance at the 1% and 5% levels, respectively.

Discussion

The results confirm that institutional quality was more consistently associated with the creation of formal businesses than financial variables were in the 38 countries assessed between 2018 and 2024. In the main fixed-effects model, with Driscoll–Kraay standard errors, institutional quality has a positive and statistically significant coefficient, whereas financial inclusion was insignificant. This suggests that broader access to financial services does not necessarily translate into a higher density of newly registered businesses once we account for country-specific characteristics, time effects, and other economic factors. The result aligns with the view that entrepreneurship depends not only on available financial resources but also on the institutional conditions under which businesses are established and operated (Demirguc-Kunt et al., 2006; Klapper et al., 2006).

The unimportant financial inclusion coefficient contrasts with evidence that access to basic financial products can support business creation in the early stages. For instance, Charfeddine and Zaouali (2022) reported positive environmental effects of financial inclusion and business on entrepreneurship in 43 countries. However, differences in indicators, estimation strategies, and entrepreneurial outcomes may explain the contrast. This study measures entrepreneurship using new business density, which covers formal new-business registrations rather than business intentions, and includes formal company activity and self-employment. Financial access may help individuals manage payments and household finances without necessarily providing the credit, capital, or business support needed to register a new company. Details on the impact of financial inclusion on the application dimension of the proposal and on other contextual conditions show that access alone may not be enough to stimulate entrepreneurial activity (Elouaourti & Ibourk, 2024; Wei et al., 2025).

The positive association between institutional quality and new business density supports the argument that institutions create incentives and practical conditions for forming a formal company. Predictable rules, effective contract administration, and a credible legal environment can reduce uncertainty about business entry and operations. Early cross-country data also suggested that firms were more likely to adopt formal corporate structures where legal systems were effective, financial sectors were growing, and regulatory pressures were decreasing (Demirguc-Kunt et al., 2006). The costs of regulation of entry also refer to a reduction in the number of new companies with limited liability, indicating that institutional conditions may affect whether entrepreneurs register as formal businesses (Klapper et al., 2006). Therefore, the findings suggest that strengthening institutional conditions may be relevant for the development of formal business, even though the estimated federation does not have a causal effect.

Moderation analysis can lead to a more qualified conclusion. The interaction between financial inclusion and institutional quality was statistically insignificant, suggesting that the analysis provides no evidence that institutional quality systematically strengthens or weakens the association between financial inclusion and new business density. This outcome should not be regarded as proof that institutions were irrelevant to the effectiveness of financial services. Instead, institutional quality in formal entrepreneurship can influence this relationship through channels not captured by the interaction term, including entry procedures, regulatory predictability, and protection of business rights. Previous studies have shown the importance of the broader institutional entrepreneurship environment and that the interaction between institutional conditions and

entrepreneurship may depend on how these factors were measured and modeled (Chambers & Munemo, 2019; Levie & Autio, 2011)s. The evidence therefore supports an independent association between institutional quality and new business density but does not identify an additional effect of institutional quality on financial inclusion.

The robustness results further strengthen the need to interpret institutional quality as multidimensional. When government effectiveness replaces the principal institutional quality, the coefficients are negative and statistically significant; when applying the quality, they are positive but not statistically significant. These differences show that the results were sensitive to the specific dimension of governance. They do not justify the conclusion that government effectiveness entrepreneurship reduces. Instead, indicators can capture several aspects of governance, and their links to formal business entry may vary across countries and time periods. This interpretation aligns with research indicating that institutional dimensions can have various relationships with economic and financial outcomes (Vo, 2024; Zeqiraj et al., 2022). Further studies using disaggregated governance measures and more detailed indicators of business entry conditions would better identify the relevant institutional mechanisms.

The control variables provide several useful insights. GDP per capita remains positively associated with new business density in the principal model and alternative specifications, suggesting that higher-income institutions may offer better conditions for registering formal businesses. Inflation was also positive and statistically significant in the principal model, although it should not be interpreted as supporting entrepreneurship inflation. Its association with registration could reflect broader economic circumstances in a given country that the model does not fully capture. By contrast, economic growth, open trade, foreign direct investment, and Internet use were not statistically significant in the main specification. The estimated effects should be interpreted cautiously and should not be taken to show that these factors were economically irrelevant.

Finally, the lagged specification finds no statistically significant effects of either lagged financial inclusion or lagged institutional quality. It provides no clear evidence of delayed associations within the available sample, but the short seven-year observation period limits the strength of this conclusion. Significant cross-sectional dependence, as shown by the diagnostic system, and groupwise heteroskedasticity support Driscoll-Kraay standard errors. Still, the limited number of time periods makes interpreting statistical significance cautious. Overall, the findings show that institutional quality was the appropriate input for establishing formal businesses, whereas current estimates still do not support the independent and moderating roles of financial inclusion. These conclusions reflect associations rather than causal effects, and they emphasize the value of distinguishing between access to finance and the institutional conditions that constitute formal entrepreneurship.

Conclusion

The study examined the relationship between financial inclusion, institutional quality, and new business density from 2018 to 2024 across 38 countries. The results show that institutional quality positively predicts new business density after controlling for key fixed effects. In contrast, financial inclusion and its interaction with institutional quality were statistically insignificant. Alternative governance actions yield mixed results, suggesting the relationship may depend on the institutional dimension under study. Overall, the findings highlight the importance of institutional conditions for formal business creation but provide no robust evidence of an independent or complementary impact of financial inclusion. In a causal sense, such associations should not be interpreted as causal.

Theoretical and Practical Implications

Theoretically, the institutional quality findings distinguish their role from financial inclusion in explaining the creation of formal businesses. Access to financial services alone may not be enough to facilitate new business registration, and the analysis does not prove that stronger institutions reinforce the association between financial inclusion and entrepreneurship.

Beyond the institutional conditions for business registration and operation, policymakers should also consider practical financial access. Simplifying access procedures, improving regulatory predictability, and increasing institutional confidence can help create a more favorable environment for developing formal enterprises. Financial inclusion initiatives should also be assessed by whether they provide resources relevant to starting and registering businesses, rather than relying solely on access indicators.

Limitations and Future Research

This study has several limitations. First, the Panel 2018–2024 offers a relatively short observation period, which limits longer-term assessment of relationships. Second, the observational design identifies associations rather than causal effects, and unobserved time-varying factors may affect the estimates. Third, results may depend on how financial inclusion, institutional

quality, and formal entrepreneurship were measured. Finally, the limited number of time periods warrants caution when interpreting the Driscoll–Kraay estimates.

Future studies could use longer panels, alternative financial indicators, and disaggregated institutional indicators to identify the most relevant aspects of formal business development. Country-specific analyses and research designs that address endogeneity could further clarify whether improvements in financial access and institutional conditions contribute to higher rates of new business registration.

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