

Artificial Intelligence Readiness and Financial Inclusion as Drivers of Economic Growth in Emerging Economies: Evidence from India, Kenya, Brazil, Indonesia and South Africa

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Abstract:

This study investigates the relationships among artificial intelligence (AI) readiness, financial inclusion, and economic growth in five emerging economies, namely India, Kenya, Brazil, Indonesia, and South Africa, over the period 2017–2024. Using a balanced panel dataset consisting of 40 observations, the study employs pooled ordinary least squares and fixed-effects estimators to examine both the direct effect of AI readiness on economic growth and its indirect effect through financial inclusion.

The empirical findings indicate that financial inclusion and investment positively and significantly contribute to economic growth. Conversely, no statistically significant evidence is found regarding the direct effect of AI readiness on economic growth or its indirect effect through financial inclusion. These results suggest that the economic benefits of artificial intelligence may require stronger institutional capacities, more advanced digital infrastructures, and higher levels of human capital before becoming visible at the macroeconomic level.

The study contributes to the growing literature on artificial intelligence and development economics by providing new evidence from emerging economies and highlighting the continuing importance of financial inclusion and productive investment in the digital era.

Keywords : Artificial Intelligence Readiness; Financial Inclusion; Economic Growth; Emerging Economies; Digital Transformation.

JEL Classification : O33; O47; G20; C23.

I. Introduction:

Artificial intelligence (AI) has emerged as one of the most transformative technologies of the twenty-first century, profoundly reshaping production processes, business models, and public policies. Recent advances in machine learning, big data analytics, and digital technologies have generated unprecedented opportunities for improving productivity, fostering innovation, and accelerating economic development (Maslej et al., 2024). International organizations such as the International Monetary Fund (IMF), the World Bank, and the Organisation for Economic Co-operation and Development (OECD) increasingly recognize artificial intelligence as a strategic driver of future economic growth (IMF, 2024; OECD, 2024).

At the same time, financial inclusion has become a central component of sustainable development strategies, particularly in emerging economies. Access to formal financial services enables households and firms to save, invest, manage risks, and participate more actively in economic

activities. A growing body of empirical literature suggests that greater financial inclusion contributes to poverty reduction, income equality, and economic growth (Beck et al., 2007; Kim et al., 2018; Sharma, 2016). Consequently, understanding the factors that promote financial inclusion and their interaction with technological progress has become an important research issue.

Artificial intelligence and digital technologies have the potential to transform financial systems by reducing information asymmetries, lowering transaction costs, and facilitating access to financial services through digital platforms and financial technologies (FinTech). AI-driven applications such as credit scoring, digital payments and mobile banking may substantially enhance financial inclusion (Mhlanga, 2020; Kshetri, 2021), particularly in developing and emerging economies where traditional banking infrastructures remain limited.

Despite the rapid development of artificial intelligence technologies and the increasing importance of financial inclusion in development strategies, it remains unclear whether a country's preparedness for artificial intelligence effectively translates into higher economic growth and broader financial inclusion. This issue is particularly relevant for emerging economies, where digital transformation is progressing under heterogeneous institutional and economic conditions. Consequently, the following research question arises: *To what extent do AI readiness and financial inclusion contribute to economic growth in emerging economies, and can AI readiness indirectly influence growth through its effect on financial inclusion?*

The study seeks to answer the following research questions:

RQ1: Does AI readiness significantly affect economic growth in emerging economies?

RQ2: Does financial inclusion contribute to economic growth?

RQ3: Does AI readiness promote financial inclusion and, consequently, indirectly support economic growth?

This study aims to examine the relationships among AI readiness, financial inclusion, and economic growth in five emerging economies, namely India, Kenya, Brazil, Indonesia, and South Africa, over the period 2017–2024. Using panel data techniques, the paper evaluates both the direct effect of AI readiness on economic growth and its indirect effect through financial inclusion. The study contributes to the existing literature by providing new empirical evidence on the macroeconomic implications of artificial intelligence preparedness in emerging economies.

The remainder of the paper is organized as follows. Section 2 reviews the relevant literature and develops the research hypotheses. Section 3 presents the data and methodology. Section 4 discusses the empirical findings. Finally, Section 5 concludes and provides policy implications.

The present study makes three main contributions. First, it simultaneously examines the relationships among AI readiness, financial inclusion, and economic growth, whereas previous studies generally analyze these relationships separately. Second, it provides new empirical evidence from emerging economies characterized by heterogeneous levels of digital transformation. Third, it investigates the indirect channel through which AI readiness may affect economic growth via financial inclusion.

II. Literature review and research hypotheses:

2.1. Artificial intelligence readiness and economic growth:

A growing body of literature (Maslej et al., 2024; Gambacorta et al., 2025), has investigated the relationship between, artificial intelligence and economic growth. Several studies argue that AI improves productivity, enhances innovation, and increases economic efficiency, thereby stimulating long-run economic growth. International institutions (OECD, 2024; IMF, 2024). , including the

OECD and the IMF, emphasize the transformative role of artificial intelligence in shaping future economic performance.

Recent empirical studies provide mixed evidence regarding this relationship. Gambacorta et al. (2025) show that the growth benefits of artificial intelligence are substantially larger in advanced economies than in emerging economies because the latter generally exhibit lower levels of digital preparedness, weaker infrastructures, and lower technological capabilities.

Similarly, several studies on emerging economies argue that the economic gains associated with artificial intelligence depend on complementary factors such as institutional quality, human capital, and digital infrastructure. In countries with insufficient technological readiness, the macroeconomic effects of AI may remain limited in the short run.

Despite the increasing number of studies devoted to artificial intelligence and economic development, empirical evidence concerning the direct effect of AI readiness on economic growth in emerging economies remains scarce. Most previous studies focus on advanced economies or rely on conceptual analyses rather than panel-data investigations.

Therefore, an important gap remains regarding the extent to which AI readiness contributes to economic growth in emerging economies characterized by heterogeneous levels of digital transformation and institutional development.

H1: AI readiness positively affects economic growth in emerging economies.

2.2. Financial inclusion and economic growth

Financial inclusion has attracted considerable attention in the economic literature due to its potential contribution to sustainable development and economic growth. Financial inclusion generally refers to the access and use of affordable financial services by individuals and firms, including savings accounts, credit facilities, insurance products, and payment services.

The theoretical foundations of the relationship between financial inclusion and economic growth can be traced to the literature on financial development and economic growth. According to Levine (1997), well-developed financial systems facilitate capital accumulation, improve resource allocation, reduce transaction costs, and stimulate economic activity. Similarly, Beck, Demirgüç-Kunt and Levine (2007) argue that broader access to financial services contributes to poverty reduction and economic development by relaxing credit constraints and promoting investment opportunities.

Several empirical studies report a positive relationship between financial inclusion and economic growth. Sahay et al. (2015), using cross-country evidence, conclude that greater financial inclusion enhances economic performance and reduces income inequality. Sharma (2016) also finds that improvements in financial inclusion positively influence economic growth in developing countries by increasing access to financial resources and encouraging entrepreneurship.

Likewise, Kim, Yu and Hassan (2018) provide evidence that financial inclusion significantly contributes to economic growth, particularly in low- and middle-income economies. Their results suggest that expanding access to financial services promotes productive investment and facilitates the mobilization of domestic savings.

However, some studies report more nuanced findings. Certain authors argue that the impact of financial inclusion on economic growth depends on institutional quality, financial literacy, and the level of economic development. In countries characterized by weak institutions or underdeveloped financial systems, the effects of financial inclusion may be limited or materialize only in the long run.

Although a substantial body of literature confirms the positive role of financial inclusion in promoting economic growth, empirical evidence remains relatively scarce for emerging economies undergoing rapid digital transformation and increasing adoption of artificial intelligence technologies.

H2: Financial inclusion positively affects economic growth in emerging economies.

2.3. Artificial Intelligence Readiness and Financial Inclusion:

The rapid expansion of artificial intelligence and digital technologies has profoundly transformed financial systems worldwide. Artificial intelligence applications, including machine learning algorithms, digital credit scoring, fraud detection systems, and intelligent payment platforms, have considerably improved the efficiency and accessibility of financial services. Consequently, AI has increasingly been viewed as a potential catalyst for financial inclusion, particularly in developing and emerging economies.

Several studies argue that artificial intelligence contributes to financial inclusion by reducing information asymmetries and lowering transaction costs. Through advanced data analytics and alternative credit assessment techniques, AI enables financial institutions to extend financial services to previously underserved populations that lack traditional banking histories. Moreover, digital platforms and mobile banking technologies facilitate access to financial services in geographically isolated regions.

Mhlanga (2020) emphasizes that artificial intelligence and FinTech innovations can significantly improve financial inclusion in developing countries by increasing the availability, affordability, and efficiency of financial services. Similarly, Kshetri (2021) argues that AI-driven technologies have the potential to democratize access to finance, especially for small businesses and low-income households that are often excluded from traditional financial systems.

However, other studies suggest that the relationship between artificial intelligence and financial inclusion is not automatic. The effectiveness of AI applications depends heavily on complementary factors such as digital infrastructure, internet penetration, financial literacy, regulatory quality, and institutional capacity. In many emerging economies, limited technological capabilities and insufficient digital ecosystems may reduce the contribution of artificial intelligence to financial inclusion.

Furthermore, the literature on AI readiness and financial inclusion remains relatively underdeveloped. Most empirical studies focus on the effects of digital finance and FinTech, while few investigations explicitly examine whether a country's preparedness for artificial intelligence contributes to greater financial inclusion.

Consequently, an important research gap remains concerning the extent to which AI readiness promotes financial inclusion in emerging economies characterized by heterogeneous levels of digital transformation and institutional development.

H3: AI readiness positively affects financial inclusion in emerging economies.

2.4. Investment and Economic Growth

Investment has long been recognized as one of the fundamental determinants of economic growth. According to classical and neoclassical growth theories, capital accumulation increases productive capacity, stimulates technological progress, and improves labour productivity. The Solow growth model identifies investment as a crucial mechanism through which economies accumulate physical capital and sustain economic expansion.

The endogenous growth literature further emphasizes the role of investment in generating long-run economic growth through knowledge spillovers, innovation, and technological diffusion. Romer (1990) and Barro (1991) argue that higher investment rates contribute not only to capital accumulation but also to improvements in productivity and technological capabilities.

Numerous empirical studies support the existence of a positive relationship between investment and economic growth. Levine and Renelt (1992) identify investment as one of the most robust determinants of economic growth across countries. Similarly, Khan and Senhadji (2001) find that higher investment rates significantly contribute to economic performance, particularly in developing and emerging economies.

In emerging economies, investment plays an even more critical role because these countries often face infrastructure deficits, technological gaps, and insufficient productive capacities. Increased investment can therefore accelerate industrialization, improve competitiveness, and support long-term economic development.

H4: Investment positively affects economic growth in emerging economies.

2.5. Education and Economic Growth

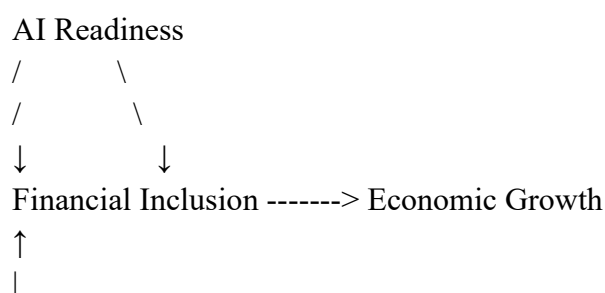
Education occupies a central position in modern theories of economic growth through its contribution to human capital formation. Human capital theory suggests that education enhances workers' skills, improves productivity, and increases the capacity of economies to innovate and adopt new technologies.

The seminal contributions of Schultz (1961), Becker (1964), and Lucas (1988) emphasize that investments in education constitute a major source of long-run economic growth. According to endogenous growth theory, education generates positive externalities by promoting knowledge accumulation, innovation, and technological diffusion.

Several empirical studies report a positive relationship between education and economic growth. Barro (1991) and Hanushek and Woessmann (2012) provide evidence that improvements in educational attainment and cognitive skills significantly enhance economic performance and productivity.

However, empirical findings are not always conclusive, particularly in developing and emerging economies. Some studies suggest that the impact of education depends on the quality of educational systems, labour market conditions, and the ability of economies to absorb skilled labour. Consequently, higher enrollment rates do not automatically translate into stronger economic growth. Furthermore, education plays a particularly important role in the context of artificial intelligence and digital transformation. The adoption and effective use of AI technologies require highly skilled human resources capable of developing, implementing, and managing advanced digital systems.

H5: Education positively affects economic growth in emerging economies.



Investment -----> Economic Growth

Education -----> Economic Growth

Figure 1. Proposed Conceptual Research Framework

Source: Developed by the authors based on the literature review.

III. Data and Methodology :

3.1. Data Description :

This study employs a balanced panel dataset covering five emerging economies, namely India, Kenya, Brazil, Indonesia, and South Africa, over the period 2017–2024. These countries were selected because they have experienced significant progress in digital transformation, financial inclusion, and technological development while exhibiting heterogeneous levels of artificial intelligence readiness.

The final dataset consists of 40 observations (5 countries $\times$ 8 years). To obtain a balanced panel, missing observations for financial inclusion and education were estimated using linear interpolation techniques between available observations. Such an approach is commonly employed in empirical studies when survey-based indicators are not collected annually.

3.2. Variables and Data Sources:

Variable	Symbol	Measurement	Source
Economic Growth	GDP	GDP growth (annual %)	World Bank
AI Readiness	AIR	Government AI Readiness Index	Oxford Insights
Financial Inclusion	FI	Account ownership (% age 15+)	Global Findex
Investment	INV	Gross fixed capital formation (% GDP)	World Bank
Education	EDU	School enrollment, tertiary (% gross)	World Bank

Table 1. Definition of Variables and Data Sources

Source: Authors' compilation using data from the World Development Indicators (World Bank), Global Findex Database (World Bank), and the Government AI Readiness Index (Oxford Insights).

3.3. Econometric Specification:

To examine the determinants of economic growth, the following model is estimated:

$$GDP_{it} = \alpha + \beta_1 AIR_{it} + \beta_2 FI_{it} + \beta_3 INV_{it} + \beta_4 EDU_{it} + \varepsilon_{it},$$

where:

$i=1, \dots, 5$ denotes countries,

$t=2017, \dots, 2024$ denotes time,

ε_{it} is the error term.

3.4. Model for Financial Inclusion :

To investigate whether AI readiness promotes financial inclusion, we estimate:

$$FI_{it} = \gamma + \delta_1 AIR_{it} + \delta_2 INV_{it} + \delta_3 EDU_{it} + u_{it}.$$

3.5. Estimation Strategy:

The empirical analysis proceeds in several stages. First, descriptive statistics and correlation analysis are performed to examine the characteristics of the data. Second, multicollinearity is assessed using the Variance Inflation Factor (VIF). Third, pooled ordinary least squares (Pooled OLS) and fixed-

effects panel estimators are employed. Finally, robust standard errors are computed to address potential heteroskedasticity issues.

3.6. Justification of the Econometric Approach:

The pooled OLS model provides an initial assessment of the average relationships among the variables, whereas the fixed-effects estimator controls for unobserved country-specific heterogeneity that may influence economic growth. Given the relatively small number of cross-sectional units, the random-effects specification was not retained in the final analysis.

IV. Empirical Results and Discussion :

4.1. Descriptive Statistics :

Variable	Obs.	Mean	Std. Dev.	Min	Max
GDP	40	3.36	3.55	-6.20	9.70
Investment	40	21.98	6.84	13.00	32.00
AI Readiness	40	46.61	15.28	15.00	69.00
Financial Inclusion	40	75.42	12.68	49.00	90.00
Education	40	32.33	16.84	9.00	69.70

Table 2. Descriptive Statistics

Source: Authors' calculations using R software.

Table 2 presents the descriptive statistics of the variables employed in the analysis. The average GDP growth rate of the selected emerging economies is 3.36%, although substantial heterogeneity exists across countries, as evidenced by values ranging from -6.2% to 9.7%.

The average investment rate amounts to 21.98% of GDP, indicating considerable differences in capital accumulation among the selected economies. The mean value of AI readiness reaches 46.61 points, suggesting moderate preparedness for artificial intelligence adoption.

Financial inclusion exhibits a relatively high average level of 75.42%, with values varying between 49% and 90%. Finally, the average tertiary enrollment rate is 32.33%, revealing significant disparities in human capital development among the five countries.

4.2. Correlation Analysis

Variables	GDP	Investment	AI Readiness	Financial Inclusion	Education
GDP	1.000	0.414	-0.101	0.009	-0.096
Investment	0.414	1.000	0.009	-0.535	0.091
AI Readiness	-0.101	0.009	1.000	0.026	0.533
Financial Inclusion	0.009	-0.535	0.026	1.000	-0.216
Education	-0.096	0.091	0.533	-0.216	1.000

Table 3. Correlation Matrix

Source: Authors' calculations using R software.

Table 3 reports the pairwise correlations among the variables. GDP growth is positively associated with investment ($r = 0.414$), indicating that higher investment rates tend to accompany stronger economic performance.

The correlations between GDP growth and AI readiness ($r = -0.101$), financial inclusion ($r = 0.009$), and education ($r = -0.096$) remain relatively weak. A moderate positive relationship is observed

between AI readiness and education ($r = 0.533$), suggesting that countries with better human capital tend to exhibit greater preparedness for artificial intelligence.

Importantly, none of the correlation coefficients exceed the conventional threshold of 0.80, providing preliminary evidence that severe multicollinearity is unlikely to affect the estimations.

4.3. Multicollinearity Test :

Variable	VIF
AI Readiness	1.443
Financial Inclusion	1.505
Investment	1.406
Education	1.513

Table 4: Variance Inflation Factors (VIF)

Source: Authors' calculations using R software.

The Variance Inflation Factors range from 1.406 to 1.513, which are considerably below the conventional thresholds of 5 and 10. Therefore, multicollinearity does not constitute a concern, and the explanatory variables can be simultaneously included in the regression models.

4.4. Determinants of economic growth:

Variables	Coefficient	Std.Error	p-value
Constant	-8.884	5.333	0.105
AI Readiness	-0.023	0.041	0.569
Financial Inclusion	0.090	0.050	0.080
Investment	0.306	0.089	0.002
Education	-0.006	0.038	0.885
Model statistics:			
• Observations: 40 • $R^2 = 0.260$ • Adjusted $R^2 = 0.175$ • F-statistic = 3.069 • Prob(F) = 0.029			

Table 5. Pooled OLS and Fixed Effects Estimates

Source: Authors' estimations using R software.

The pooled OLS estimates indicate that financial inclusion and investment positively and significantly influence economic growth in the selected emerging economies. More specifically, a one-unit increase in financial inclusion increases GDP growth by approximately 0.09 percentage points, whereas investment exerts an even stronger positive effect.

In contrast, AI readiness and education do not appear to have statistically significant effects on economic growth.

The fixed-effects estimation provides a different picture. After controlling for unobserved country-specific heterogeneity, none of the explanatory variables remain statistically significant. This finding suggests that structural differences across countries may explain a substantial part of the observed variations in economic growth.

The absence of a significant effect of AI readiness should not be interpreted as evidence against the economic relevance of artificial intelligence. Rather, it may indicate that the macroeconomic benefits of AI require longer periods of technological diffusion and depend on complementary factors such as institutional quality, digital infrastructure, and human capital.

4.5. AI Readiness and Financial Inclusion :

Variables	Coefficient	Std. Error	t-Statistic	p-value
Constant	96.082***	7.785	12.342	<0.001
AI Readiness	0.141	0.134	1.057	0.297
Investment	-0.951***	0.253	-3.756	<0.001
Education	-0.196	0.121	-1.615	0.115
Observations	40			
R ²	0.335			
Adjusted R ²	0.280			
F-statistic	6.056			
Prob(F-statistic)	0.0019			

Notes: *** p < 0.01, ** p < 0.05, * p < 0.10.

Table 6. Determinants of Financial Inclusion

Source: Authors' estimations using R software.

Table 6 reports the determinants of financial inclusion in the selected emerging economies. Although the coefficient associated with AI readiness is positive, it is not statistically significant, suggesting that greater preparedness for artificial intelligence does not automatically translate into broader financial inclusion.

The classical estimation indicates a negative and statistically significant effect of investment on financial inclusion. However, this result loses significance when robust standard errors are employed, suggesting that the finding should be interpreted with caution.

Overall, the empirical evidence indicates that financial inclusion in emerging economies depends on factors beyond technological preparedness alone, including institutional quality, regulatory frameworks, and financial sector policies.

4.6. Summary of Hypothesis Testing :

Hypothesis	Statement	Result
H1	AI readiness positively affects economic growth	Rejected
H2	Financial inclusion positively affects economic growth	Supported
H3	AI readiness positively affects financial inclusion	Rejected
H4	Investment positively affects economic growth	Supported
H5	Education positively affects economic growth	Rejected

Table 7: Summary of Hypothesis Testing

Source: Authors' synthesis.

V. Policy Implications

The empirical findings of this study provide several important policy implications for emerging economies. First, the positive and significant effect of financial inclusion on economic growth

suggests that policymakers should continue promoting broader access to financial services. Expanding banking penetration, supporting digital payment systems, and improving financial literacy may contribute to higher economic performance and more inclusive development.

Second, the positive contribution of investment to economic growth highlights the importance of policies aimed at stimulating productive investment. Governments should improve the business environment, reduce institutional barriers, and encourage both domestic and foreign investment, particularly in infrastructure and technology-intensive sectors.

Third, although AI readiness does not exert a statistically significant impact on economic growth in the present study, emerging economies should not neglect investments in artificial intelligence and digital transformation. The absence of a significant short-run effect may reflect the early stage of AI adoption and the existence of structural constraints that prevent countries from fully exploiting the economic benefits of artificial intelligence.

Consequently, policymakers should strengthen digital infrastructure, invest in human capital formation, improve internet accessibility, and develop appropriate regulatory frameworks capable of supporting the diffusion and effective use of artificial intelligence technologies.

Finally, the findings suggest that artificial intelligence alone is unlikely to generate economic growth unless it is accompanied by complementary reforms in education, financial systems, and institutional quality. Therefore, integrated development strategies combining digital transformation, financial inclusion, and human capital development appear essential for achieving sustainable and inclusive economic growth.

VI. Conclusion

This study examined the relationships among artificial intelligence readiness, financial inclusion, and economic growth in five emerging economies, namely India, Kenya, Brazil, Indonesia, and South Africa, over the period 2017–2024. Using a balanced panel dataset consisting of 40 observations, the study employed pooled ordinary least squares and fixed-effects estimators to investigate both the direct effect of AI readiness on economic growth and its indirect effect through financial inclusion.

The empirical results reveal that financial inclusion and investment positively and significantly contribute to economic growth. In contrast, no statistically significant evidence is found regarding the direct impact of AI readiness on economic growth or its indirect effect through financial inclusion. These findings suggest that the economic benefits of artificial intelligence may require more advanced digital ecosystems, stronger institutions, and better-developed human capital before becoming visible at the macroeconomic level in emerging economies.

The study contributes to the growing literature on artificial intelligence and economic development by providing new empirical evidence from emerging economies. It also highlights the importance of financial inclusion and productive investment as fundamental drivers of economic performance during periods of digital transformation.

Nevertheless, several limitations should be acknowledged. The sample is restricted to five emerging economies, and certain observations were estimated through interpolation techniques in order to construct a balanced panel dataset. Future research could extend the analysis by considering a larger sample of countries, alternative measures of artificial intelligence adoption, and additional institutional and technological variables.

The findings should be interpreted in light of several limitations. The sample is restricted to five emerging economies and some observations were estimated through interpolation techniques in order

to obtain a balanced panel dataset. Furthermore, the Government AI Readiness Index measures preparedness rather than the actual use or adoption of artificial intelligence technologies.

Future research could extend the analysis by considering a larger sample of countries, employing alternative indicators of artificial intelligence adoption, and incorporating additional institutional and digital variables such as internet penetration, governance quality, and research and development expenditures.

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Appendix A. Data Sources and Variable Definitions

Source: Authors' compilation based on World Development Indicators, Global Index Database, and Oxford Insights.

Variable	Symbol	Definition	Source
Economic growth	GDP	GDP growth, annual %	World Bank
AI readiness	AIR	Government AI Readiness Index	Oxford Insights
Financial inclusion	FI	Account ownership, % age 15+	Global Index
Investment	INV	Gross fixed capital formation, % of GDP	World Bank
Education	EDU	School enrollment, tertiary, % gross	World Bank

Appendix B. List of Countries and Study Period

Source: Authors' selection.

Country	Period	Observations
India	2017–2024	8
Kenya	2017–2024	8
Brazil	2017–2024	8
Indonesia	2017–2024	8
South Africa	2017–2024	8
Total	2017–2024	40

Appendix C. Interpolated Observations

Source: Authors' calculations using linear interpolation based on available data from Global Index and World Development Indicators.

Country	Year	Variable	Method
India	2018	Financial Inclusion	Linear interpolation
India	2019	Financial Inclusion	Linear interpolation
India	2020	Financial Inclusion	Linear interpolation
India	2022	Financial Inclusion	Linear interpolation
India	2023	Financial Inclusion	Linear interpolation

Appendix D. Correlation Matrix

Source: Authors' calculations using R software.

Variables	GDP	Investment	AI Readiness	Financial Inclusion	Education
GDP	1.000	0.414	-0.101	0.009	-0.096
Investment	0.414	1.000	0.009	-0.535	0.091
AI Readiness	-0.101	0.009	1.000	0.026	0.533
Financial Inclusion	0.009	-0.535	0.026	1.000	-0.216
Education	-0.096	0.091	0.533	-0.216	1.000

Appendix E. Robustness Checks

Source: Authors' estimations using R software.

Hlavac, Marek (2022). stargazer: Well-Formatted Regression and Summary Statistics Tables. R package version 5.2.3. <https://CRAN.R-project.org/package=stargazer>

Appendix E.1: Pooled OLS and Fixed Effects Estimates

	Pooled OLS	Fixed Effects
(Intercept)	-8.884	
	(5.333)	
AIReadiness	-0.023	0.000
	(0.041)	(0.046)
financialinclusion	0.090+	0.032
	(0.050)	(0.154)
Investement	0.306**	0.566
	(0.089)	(0.480)
Education	-0.006	0.149
	(0.038)	(0.198)
Num.Obs.	40	40
R2	0.260	0.085
R2 Adj.	0.175	-0.151
AIC	213.8	207.9
BIC	223.9	216.3

RMSE	3.01	2.87
• $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ •		

Appendix E.2: Financial Inclusion Model

	Financial Inclusion Model
(Intercept)	96.082***
	(7.785)
AIReadiness	0.141
	(0.133)
Investement	-0.951***
	(0.253)
Education	-0.196
	(0.121)
Num.Obs.	40
R2	0.335
R2 Adj.	0.280
AIC	309.3
BIC	317.8
RMSE	10.20
• $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$	