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Financial Inclusion as a Key Driver for Economic Growth in Developing Countries

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ABSTRACT

Financial inclusion and ICT may affect economic growth in developing countries. Financial inclusion is a decisive and vital part of economic growth and has become a very strong problem in recent years. Inclusive finance is an element of financial progress. Considering the effects of financial inclusion and information communication and technology, we have investigated how financial access with modern technology influences the growth pattern of developing economies by using data from 2005 to 2020. The random effect results indicate that financial inclusion and information and communication technology are contributing positively towards economic growth in these economies. The study results also show that human capital seems to be affecting the growth of the nations. Moreover, the urban population also affects economic growth. It is recommended that there should be more provision of financial services for more growth. The government should give more free-of-cost education for higher and increased growth. More modern technology should be introduced to make the workers more efficient and increase productivity. Finally, government should give employment chances in the developing economies.

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INTRODUCTION

Financial inclusion indicates the accessibility to both persons and companies of pertinent and gainful financial commodities and services that gratify their wishes for purchases, expenditure, deposits, lending, and coverage that are offered sustainably and conscientiously (Yin et al., 2019). Financial inclusion assists in enlarging services that facilitate the growth of monetary competence. Financial inclusion points out an identical approach towards financial facilities agreed by culture to each and every adult member at reasonably priced expenses. Furthermore, in the highly developed phase of financial inclusion, individuals obtain financial risks with no any uncertainty due to the accessibility of insurance (Liu et al., 2022). Inclusive finance is an element of financial progress, and it has received extra attention in research when it comes to addressing the poverty problem and growth (Ali et al., 2022). The fundamental aim of financial inclusion signifies reduced poverty, inequality, and access remains jagged, chiefly in underserved areas, revealing the requirement for innovation in banking and financial systems, poverty elimination, reasonable income distribution, and financial stability (Ali et al., 2021; Farooq et al., 2019).

Latest strategies emphasize making certain necessary financial facilities like savings, dealings, and credit that assist in attaining the objective of escalating financial inclusion, enhancing savings, investment, and economic growth (Khan & Haq, 2025; Haq & Khan, 2024). Though it does not completely reveal economic inequalities, as income distribution remains uneven. Numerous economies prioritize financial inclusion to increase private sector growth, assemble savings, and manage investment risks. At the same time, as a robust financial system usually improves access to services, the connection between financial depth and inclusion changes across economies (Mbodja & Layeb, 2024). Financial inclusion has turned out to be a major strategy objective for numerous underdeveloped and developed economies, aiming to bring underserved populations into the proper financial structure. Governments are vigorously functioning to enlarge access to monetary commodities and services, with incredible development seen in economies like India, Rwanda, Kenya, and Peru (Ozili, 2021). The effect of financial inclusion on growth affects investment, manufacturing, and consumption, which enhance growth. Greater financial inclusion increases the deposit base, making able additional lending to productive sectors, thus increasing the overall output (Ozili, 2021). To increase access to financial services, institutions, and in Tech firms, add to financial inclusion, bringing more persons and businesses into the proper financial system.

The resultant increase in deposits enables superior lending to those requiring funds, motivating investment, production, and consumption. These processes eventually increase growth, making an obvious association between financial inclusion and growth (Basnayake et al., 2024). One more theory is the System Theory of financial inclusion, which recommends that financial inclusion is observed across a variety of components of the economic structure (Kayani et al., 2023). A steady finding across institutional and academic works is that information, communication, and technology act as both a direct and indirect supplier to growth. Straightforwardly, the information, communication, and technology sector (telecoms, internet services, software, and digital platforms) shapes a noteworthy and rising contributor to growth and employment. Indirectly, information communication and technology enable efficiency improvements across agriculture, finance, education, and trade throughout digital payments, market information, and platform-mediated facilities (World Bank, 2019).

Numerous studies have been done focusing on the factors affecting growth and development. Though we focus on the factors such as financial inclusion, financial development, human capital, etc., affecting growth in developing and developed countries.

By using panel data from 1975 to 2000, Baldacci et al. (2004) focused on social spending, human capital, and growth. The study findings highlighted that education and health spending tended to increase economic growth and development. The study recommended improved governance and low taxes. Beck et al. (2007) emphasized on the role of financial inclusion on growth and development. Financial inclusion improves the assortment and ease of access of financial products and services, particularly for unbanked and financially excluded persons, to improve their living standards. The result showed that access to financial services resulted in the achievement of education and health reimbursement, which resultantly increased development. Anand and Chhikara (2013) highlighted the determinants and effects of financial inclusion on economic growth in India. The regression results showed that financial inclusion resulted in increased growth and development.

Sarma and Pais (2011) focused on inclusive finance, which recognizes economic development. The findings showed the significance of inclusive finance for high growth and development. They discussed the action mechanism of inclusive finance in the development process of the regional economy. Nanda and Kaur (2013) used data from 2004 to 2008 from 68 countries. The study has focused on the relationship between financial inclusion and human development. The study results showed that financial inclusion has increased human development. The study has recommended the elimination of the stumbling blocks of financial illiteracy and technological backwardness to extend financial services to the unbanked masses. Du and Pan (2014) focused on the association between human capital and regional economic growth to promote a mechanism. It was found that human capital affected economic growth, but not directly. However, it increased human development directly.

Zhou et al. (2018) examined the interaction among inclusive finance, human capital, and regional economic growth by using data from 2005 to 2015 in China. The fixed effect result showed that inclusive finance affected negatively the regional economic growth and human capital, which tended to increase regional economic growth. Chatterjee (2020) has checked the impact of ICT and financial inclusion on economic growth. The author has used the fixed effect method for this analysis. The result showed that ICT and financial inclusion resulted in increased economic growth. The finding suggested more investment in educating people about the usage of ICT in the banking sector. Thathsarani et al. (2021) used data from 2004 to 2018 in eight African economies. A financial inclusion index was developed. VAR was used by the author. Financial inclusion affected growth in the long run. Financial development also increased growth. The study suggested more provision of financial access and financial services in South Asian economies.

Khan et al. (2022) emphasized the impact of financial inclusion on financial sustainability, financial efficiency, gross domestic product, and human development in G20 nations. They used data from 2004 to 2017. The ARDL model was used in this analysis. Inclusive finance increased economic growth. Turaya and Murwiati (2025) also focused on the role of financial inclusion in sustainable economic development in ASEAN economies. They used data from 2015 to 2024. It was found that financial inclusion has increased expansion and growth. Ekwueme (2025) focused on the role of financial inclusion and ICT in driving economic growth in Nigeria's economy. Result showed that ICT and financial inclusion increased economic growth in Nigeria's economy. Nisar et al. (2025) found that how digital financial inclusion did affected economic growth, using secondary data. The regression result showed the moderate positive relationships between GDP and several financial inclusion variables.

Our study signifies the influence of financial inclusion, ICT, human capital, and urban population on the economic growth of developing countries. These factors may affect the growth and welfare of economies.

Research Questions

The important research questions are given as:

1. To what extent can financial inclusion affect economic growth?
2. How does information and communication technology contribute positively to economic growth?
3. What is the role of human capital in affecting the economic growth of developing economies?
4. What is the impact of the urban population on economic growth?

Research Objectives

The major objectives are given in the following:

1. To analyze the relationship between financial inclusion and economic growth.
2. To explore the link between information communication and technology and economic growth.
3. To highlight the association between human capital and economic growth.
4. To investigate that how does urban population play a positive role in determining the economic growth of the economies.

Significance of the Study

Numerous studies have been done to highlight the factors affecting growth and development in the developing and developed world. Though existing work points out the role of financial inclusion, information and communication technology, human capital, and urban population in developing countries.

Hypotheses of the Study

Important hypotheses are given as:

H1: Financial inclusion has a positive and significant impact on economic growth.

H2: Information, communication, and technology may affect economic growth positively.

H3: Higher the human capital, the higher the economic growth.

H4: There is a positive relationship between urban population and economic growth.

METHODOLOGY

It has been noted that financial inclusion, along with other factors, may affect economic growth in Asian countries. We have taken GDP per capita as dependent variable. Financial inclusion, information communication and technology and urban population were taken as independent variables. We have taken data from 2005 to 2020 in Asian countries. These countries are Bangladesh, Indonesia, India, Pakistan, Malaysia, Iran, Jordan, and Philippine. Such data have been taken from World Development Indicators. Here, we have used the random effect technique for the analysis.

The econometric model is shown as:

GDPPC= β_0 + β_1FINCLUit + β_2 ICTINDXit+β_3 EDUINDXit + β_4URBNPOP it+uit

GDPPC= Gross domestic product per capita

FINCLU= Financial inclusion index (Number of commercial bank branches per 100,000 adults + Number of ATMs per 1000, 000 adults)

ICTINDX= Fixed telephone subscriptions per 100 people and Mobile cellular subscriptions per 100 people

EDUINDX= Educational index (Primary school enrolment & Secondary school enrolment)

URBNPOP= Urban population % of total population

$_{it}$ = (time trend)

ui_t= (error term)

RESULTS AND DISCUSSION

In this section, we are showing summary statistics in Table 1. Table 2 indicates random effect results.

Table 1: Descriptive statistics

Factors	Observations	Mean	Standard deviation	Minimum	Maximum
GDP	128	3668.471	3010.28	617.5427	12109.49
FINCLU	128	38.1919	25.5719	7.2718	119.7394
ICTINDX	128	0.3380	0.8343	-1.4632	2.2436
EDUINDX	128	171.5357	24.0009	106.9143	200.102
URBNPOP	128	53.51919	20.0333	26.809	90.979

It has been observed that on average, GDP per capita is 3668.471 percent of Asian economies. The result also shows that financial inclusion is 38.1919 percent. However, the range of FINCLU starts from 7.2718 to 119.7394 percent. Data also indicates that ICTINDX is 0.3380 pretention these economies. 0.7360 percent of these economies. It has also been noticed that on average, EDUINDX is 171.5357 percent. And its range is from 106.9143 to 200.102 percent. In addition, the urban population is 53.51919 percent.

Table 2: OLS Results

Variables	Coefficients, Standard Errors and t-values
FINCLU	-0.0007*
	0.0004
	(-1.83)
ICTINDX	0.0275*
	0.0091
	(2.99)
EDUINDX	0.0036*
	0.0004
	(8.80)
URBNPOP	0.0106*
	0.0014
	(7.55)
C	2.2626
	0.1091
	(20.73)
Wald chi2	391.59
Probability	0.0000
R2 Within	0.76
R2 between	0.79
R2 Overall	0.79

z-values are in parentheses; * $p<0.1$

Financial inclusion has been observed as a significant factor in affecting the growth of the Asian economies. People most of times avail and use finance for production and investment purposes. The result has shown that a one percent increase in financial inclusion resulted in decreased growth of the economies. The result is favored by Turaya and Murwiati (2025).

The role of information and communication technology cannot be ignored in determining and enhancing economic growth in these nations. More usage of ICT results in more production, more investment, and more growth.

Information, communication, and technology has been increased the growth potential of developing economies. It has been noted that a one percent increase in information communication and technology has caused more growth by 0.0275 percent in Asian countries. The result is supported by Ekwueme (2025).

Human capital also enhances economic growth. More educated, skilled, and trained workers may prove better for the work efficiency, production and growth. They can earn more and can be very contributive in growth and development. More school enrolment has caused for more involvement of highly educated human capital in the production processes and growth. The result is high growth. The result points out that a one percent increase in the education index will result in increased growth by 0.0036 percent. The result is supported by Zhou et al. (2018).

Urban population is also an important factor in enhancing the economic growth of the developing nations of the world. More people in urban areas are educated and engaged in work or employment activities. This thing increases economic growth. Finding has indicated that one percent increase in urban population results in increased growth by 0.0106 percent in economies.

CONCLUSIONS

In this research, we have tried to focus on the role of financial inclusion, education, information communication, and technology in determining and enhancing economic growth by using data from 2005 to 2020 in Asian economies. We have used the random effect technique for this analysis. We have taken GDP per capita as the dependent variable. Though independent variables were information, communication and technology, education, financial inclusion, and urban population. The study results showed that financial inclusion has increased the economic growth of economies. In addition to financial inclusion, education and information, communication, and technology have also resulted in increased economic growth. The result also points out that the urban population has also caused more growth in Asian economies. The study has concluded that all these factors are affecting the growth and development positively. On the basis of results, the study has recommended more access and availability of financial services for more growth. There should be more educational opportunities on free of cost basis to increase growth. More information, communication, and technology should be provided to enhance economic growth. Finally, government should provide more facilities in urban areas to increase employment chances in the economy.

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