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Role of Finnacial Inclusion, Institutional Quality and Human Capital in Economic Growth: An Empirical Analysis from Selected Asian Countries

Dr. Muhammad Shakeel[1], Kifayatullah Khan[2], Dr. Arfan Latif[3]

Abstract
This research highlights the role of finnacila inclusion, institutional quality, industrialization and human capital in selected Asian economies. By using a panel data from theses Asian economies, we have taken GDP per capita as the dependent variable and, financial inclusion, institutional quality and human capital were usedas independent factors in this analysis. In this study, GMM results showed that financial inclusion, institutional quality, industrialization and human capital were the major factors which enhanced economic growth in these certain Asian states. The study results recommended for increased financial access and financial services for high targeted growth in the concerned economies. Governmet must emphasize on the improved quality of institutions for stable high economic growth. Finally, there should be much investment and production to achieve growth and development in these economies.
Keywords: financial inclusion, institutional quality, human capital, economic growth

1. Introduction

Financial inclusion makes available more financial services and empowers much of the population to make utilise of financial services like payments, loans, savings, and insurance offered by formal financial institutions. Afterward the subprime bank loan crisis, financial inclusion got much consideration. It was because that subsequently the world-wide economic crisis in 2008, financial exclusion has turn out to be more public among states because of regional differences, economic levels, and policy factors.

For the World Bank (2020), financial inclusion is an element of poverty decreasing and chances for growth, having availability of digital monetary facilities as perilous for connection the novel digital state. Financial inclusion processes approach and utilization of monetary facilities. It is an aspect of financial development and an imperative financial objective, as it permits additional economic complexity, corporal nearness of financial organisations, less charges for economic statments.

Financial inclusion may be well-defined as procedure certifying that persons, families and industries in a public availed sufficient approach to official monetary amenities and goods like dealings, credit cards, disbursements, savings and insurance, and that such are offered in a maintainable way (Singh et al., 2011; Shah & Ali, 2022).

Developed monetary structure may be well-defined as the development in size, efficacy and permanency of monetary marketplaces accompanied by augmented approach towards the financial markets that can have manifold compensations for the nation. For example, a strong economic marketplace allocates a country's saving to lucrative investments (Stiglitz and Weiss, 1983; Diamond, 1984), decrease facts price thus resulting improved capital distribution (Greenwood and Jovanovic, 1990; Ali & Rehman, 2015) and also decrease the price of business authority (Bencivenga and Smith, 1993).

In various economies, extraordinary and maintainable growth and decreasing inflationary issues are major goals of macroeconomic strategy. A extensively acknowledged idea in macroeconomics is that decreasing inflationary issues are significant for high growth. Though the discussion about the exact association of both leftovers exposed, the query of the survival and kind of such relationship has been the topic of substantial notice and discussion (Munir and Mansur, 2009; Shah & Ali, 2023).

Diverse institutions suggest for various proves on an association of inflationary issues and economic growth. For example, structuralists have faith in that inflation is essential for growth, however, as stated by monetarists' opinion, inflation is destructive to economic growth (Mallik and Chowdhury, 2001).

Our study reveals the role of financial inclusion, institutional quality, industrialzation and human capital in determining and enhancing growth of selected Asian economies. This research may provide policy for further developments.

1.1. Research Questions

i. How financial financial inclusion(numbr of commercial bank branches) affects economic growthof chosen Asian countries?
ii. How does number of ATM affect the growth of Asain countries?
iii. How does outstanding loans influences growth of Asian states?
iv. Does Intututional quality promotes growth in Asian countries?
v. How does human capital affect economic growth in selected Asian countries.
vi. What is the effect of industrialization on economic growth in Asian states.

[1] Assistant Professor Economics, Govt. Islamia Graduate college Civil lines Lahore, Pakistan, MuhammadShakeel2000@gmail.com
[2] MS Finance, Gomal University D. I. Khan, Pakistan, Kifayatullah.khattak5544@gmail.com
[3] Assistant Professor/ Head of Department of Sociology, University of Okara, Okara, Pakistan, arfanlatif9292@uo.edu.pk

1.2. Significance of the Study

Stusdies regarding inflation, investment, unemployment, , foreign direct investment and other variables affecting growth of underdeveloped and industrial economies has been reviewed. Though, current study focuses on how financial inclusion, with instituioal quality and human capital may affect growth of selected Asian economies .

1.3. Research Hypothesis

The major hypothesis of our study areas.
H1: Number of commercial bank branches are linked in a positive way with growth.
H 2: Number of ATM are positively associated with economic growth.
H 3: There is a positive link of outstanding loans and economic growth.
H 4: Institutional quality is positively associated with growth.
H5: Higher the human capital, higher the growth
H6: There is a positive link of industrialization and growth.

The structure of current study is given as. Section II indicates literature review. Section III indicatess ata and methodology. Section IV highlights the results and discussion. Section V finds out conclusion.

2. Literature Review

Much of the studies concerning major macroeconomic variables like financial development, remittances, trade oppeness and population growth have been conducted in many countries. However, our research highlights the role of financial inclusion, institutional quality, industrialization, and human capital on growth of selected Asian states.

Nabende et al., (2003) highlited the role of foreign direct investment on economic growth in Asian countries. They used VAR model in order to find this link of both factors. Result revealed that such investment had enhanced growth in the concerned economies.

Recently in 1980 and 2006, Leitao (2010) examined that financial development enhanced growth for 27 European Union nations and five BRICS nations.

However, Estrada et al. (2010) focused on how economic structures, banks, and equity markets affected growth of 125 underdeveloped economies. It was found that monetary structure's outreach postulated a substantial influence on growth.

Isiksal (2016) analysed that how agriculture, industry and services sector affected growth in Nigeria. Findings indicated that agriculture, industry and services have increased growth in Nigeria.

In twenty Asian economies, Le et al. (2019) also focused on financial inclusion and growth links. By collecting data durin the time span of 2011 to 2016. The random effect result showed that growth was increased because of financial inclusion.

Neamie and Gasset (2018) used data from 2000 to 1015 and GMM method to find out an association of financial inclusion, poverty and disparity in 8 MENA countries. Result highlighted that financial inclusion has increased growth and made lessen disparity . However, population size and inflation aled to decrease growth.

In another work, Kim et al. (2017) highlighted that high growth was much result of financial inclusion. An association of financial inclusion and growth was highlighted by Malinda and Maya (2018). The authos found a long-run relationship of both the factors.

Likewise, Makina and Walle (2019) found that how financial inclusion enhanced economic growth in forty-two African states 2004 to 2014. GMM results showed that financial inclusion indicated by use of number of commercial bank branches per 100,000 adults caused for high growth.

By using data from 2010 to 205, Van and Linh (2019) found a positive relationship of numbers of bank branches, ATMs, domestic credit in the private sector and economic growth and develoepemnt in twenty three Asian countries.

Chatterjee(2020) focused on the role of financial inclusion and information and communication technology on growth in forty-one developing nations. Fixed effect result shoawed that financial inclusion separately and whwn joined with mobile and internet has found better growth.

By collecting data of seventeen years, Ul-Ain and Sabir (2020) focused on role of infrastructure in determining growth. The ARDL results showed that However, usage of electricity and energy consumption, life expectancy and secondary education enrolment have boosted up growth.

In a study of EU twenty seven states, Similarly, Huang et al. (2021) analysed an association of financial inclusion and economic development by using data from 1995 and 2015. The ARDL model findings indicated that financial inclusion increased economic growth.

Nakoa and Song (2020) found that how institutional quality influenced financial inclusion and growth in 51 African states. GMM results shaowed that institutional quality has enhanced financial inclusion as with penetration, accessibility, and usage of financial facilities.

Similarly, Ali et al.,(2022) also found a positive association of institutional quality, financial inclusion and financial development in forty-five OIC countries.

In India, Lenka (2022) estimated the unidirectional link of financial inclusion and financial development which showed that financial inclusion was important factor for financial sector development.
Using data from 1984 to 2018, Pal and Bandyopadhvay (2022) found that high population share in each nation must be result of financial inclusion to get high growth.

3. Data and Methodology

By using data of the major foctors from time span of 2012 to 2018, this research makes an effort to reveal the role of institutional quality, financial inclusion, industrialization and human capital in determing growth of the selected 8 Asian states like Bangladesh, India, Indonesia, Iran, Jordan, Malaysia, Pakistan and Phillipines. The emtire required data for significant factors ha sbeen obtained from World Development Indicators. In our study, GDP per capita ($ US) is taken as dependent variable and independent variables financial inclusion (Number of commercial bank branches per 100,000 adult, Number of ATM machines per 100,000 adults and Outstanding loans), Institutional quality index (voice and accountability, political stability and absence of violence, Government effectiveness, controle of corruption, rule of law and regulatory quality), Human capital(secondary school enrolement % of GDP) and Industrialization (manufacturing vaue added growth) to check the relationship between variables.
In our research, we have used panel data, to examine how finnacia inclusion with instiurional quality ad human capital affects growth of eselected Asian states. The GMM technique has been applied to avoid the endogeneity problem.
The econometric model being used is given as
The equation is:
$GDPPC = \beta_0 + \beta_1 NCMBit + \beta_2 NATMit + \beta_3 OUSLit \beta_4 INSTQit + \beta 5HMCit + \beta_6 INDUSit + uit$
GDPPC= Economic growth (GDP per capita)
NCMB= Number of commercial bank branches per 100,00 adults
NATM=Number of ATM machines per 100,00 adults
OUST= Outstanding loans from commercial bnks
INSTQ= Institutional quality index
HMC= Human capital(secondary school enrollement)
INDUS= Industrialization
$_{it}$ = (time trend)
ui_t= (error term)

4. Results and Empirical Analysis

In this section, we are showing summary statistics of the major factors which seems very imperative to be used here.
In table 1, it has been shown that on average log GDP per capita is 3.4499 percent in selected Asian states. Dta a shows that in term of institutional quality index, the sample having countries have index from the range of -1.904 per cent to 0.4883 per cent. On average, NCMB across selected Asian countries is 14.1811 percent during 2012 to 2018. On average outstanding loans from commercial banks are 48.4464 percent. Moreover, number of ATM are 31.5633 percent in theses economies. On average,3.0616 percent in selected Asian states.

Table 1: Descriptive statistics of significant varibles

Variables	Observations	Mean	Standard deviation	Minimum	Maximum
LGDPPC	56	3.4499	0.3471	2.9374	4.0831
NCMB	56	14.1911	6.9547	7.9336	32.3071
NATM	56	31.5633	21.6851	4.040	88.6476
OUSL	56	48.4464	29.7449	15	114
INSTQ	56	-0.5995	0.5935	-1.9041	0.4883
HMC	56	73.0616	15.6155	34.9049	88.9102
INDUS	56	5.3430	3.8211	-5.2512	13.4021

Table 2 appears to highlights the GMM results.
The study results using GMM method are revealed in table 2. The result shows that one percent increase in previous year gdp per capita may lead to increase the growth by 0.1824 percent in selected Asian economies.
Finnacial inclusion contributes too much towards economic growth in Asian economies. Increasing financial access may provide much chances of investment which results in high growth. Result show that one percent increase in number of commercial bank branches lead to increase growth ny 0.0018 percent.. Our result is consistent with finding by Makina and Walle (2019).

Number of ATM may also improves economic growth. Use and access of such kind of financial services may resolve the finnacila issues in time and people are involved in investmentment and earning activities. This result in much growth in the economies. It is found that one percent increase in number of ATM results in increased growth by 0.0027 percent. Our result is supported by findings of Le et al.,(2019).

Table 2: GMM Results, Dependent Variable is Log GDP per capita

Variables	Coefficients, Standard Errors and Z-values
L1 GDPPC	0.1824***
	0.0871
	(2.09)
L2GDPPC	0.0024
	0.0058
	(0.41)
NCMB	0.0018*
	0.0005
	(3.47)
NATM	0.0027*
	0.0007
	(3.84)
OUST	0.0006**
	0.0002
	(2.70)
INSTQ	0.8079*
	0.6768
	(11.94)
HMC	0.0021*
	0.0005
	(4.43)
INDUS	0.0019*
	0.0005
	(3.60)
AR1	0.07
AR2	0.45
Hanson test	0.51

t-values are in parentheses ** p<0.05, * p<0.1 and*** p< 0.01

Outstanding loans from commercial banks also increase economic growth as it is indicated by positive coefficient. The finding is supported by Le et al.,(2019).

Role of institutions seems to be very imprssive in fostering economic growth in Asian countries. With the help of improved institutional quality, it is possible to have much financial services access for high growth. The study reslt points out that increase in institutional quality index fosters economic growth by 0.8079 percent. The study results is favoured by result of Nakoa and Song(2020).

Human capital plays a noteworthy role in economic growth. Educated and skilled people may easily have acces and to financial services and use them for much production and growth. Result reveals that one percent increase in secondary school enrolment may leads to increased growth by 0.0021 percent. Findings are supported by Ul-Ain and Sabir(2020).

Industrialtion also promotes economic growth in selected Asian economies. Educated and urban population may utilize financial serices in a better way and enhances economic growth. It is found that one unit increased industrialization results in increase in growth by 0.0019 percent.Our result is supported by Isiksal (2016).

5. Conclusion

The existing research have shown that how financial inclusuion with institutional quality and human capital fosters economic growth in selected Asain countries. The study has used the data from 201 2 to 2018 and checked the relationshiop between depenedent and independent variable in 8 Asian economies. By employing a GMM technique, it is indicated that financial inclusion indicated by number of commercial bank branches and number of ATM have determined and promoted economic growth in thses selected Asian economies. Result also seems to show that role of institutional quality is also significant for high growth. Moreover, human capital also well played in promoting economic growth in these states. Finally, industrialization remains also helpful for achieving high economic growth in such slected Asian eonomies. It is recommended that there should be more fincail access and opportunities should be provided to general public. For this, banking sector must play a positive role. Role f

institutions must be influential in all states. Government must focus on improved human capital for high growth. Government must also focus on industrial sector to improve economic growth in the concerned economies.

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