International Journal of Early Childhood Special Education (INT-JECS)
DOI:10.9756/INTJECSE/V14I7.70 ISSN: 1308-5581 Vol 14, Issue 07 2022

Exploring the impacts of key factors affecting the economy of the developing countries

Dr Abhay Bedekar, IAS
Additional collector Indore

Abstract
The rate of economic growth varies widely from country to country. Over the years, several possible variables have been found; nonetheless, the identification of meaningful growth drivers has been a significant challenge for empirical inquiry. In this study, an effort has been made to investigate a range of macroeconomic factors that, between 1970 and 2021, have played a key part in boosting economic expansion. The econometric findings indicate that human capital, financial development, and industrial output are the elements that contribute positively to economic growth. On the other hand, the variable trade liberalization is shown to contribute negatively to economic growth in emerging nations. The government needs to formulate strategies to engage in human capital as well as fixed assets; doing so would result in more employment prospects for the populace as well as rapid economic expansion.

Keywords: Economic growth, Developing countries, exports, human capital, investment

Introduction

Economic growth variables have been the subject of several studies over the last few decades. Recognizing the significance of economic development, particularly for far less developed nations, has prompted the investigation of a wide range of explanatory factors via the use of a variety of conceptual and mathematical approaches. On the other hand, the findings are inconsistent and confusing. The Solow model of growth formed the basis for the neoliberal school of thinking, which emphasized the significance of investments. As time went on, Huang D. (2020) stressed the value of human capital and the ability to innovate. Both macroeconomic circumstances and economic policies may affect an economy's growth and development. High rates of GDP growth and, ultimately, economic growth have been observed to result from trade liberalization. The state of the economy is measured by macroeconomic indicators. The general direction of these macroeconomic indicators indicates the state of the economy right now. Policy and decision recommendations may be derived from an examination of economic factors, which is particularly useful for economically disadvantaged emerging nations. In 2019, the combined GDP of all Asian countries was 65.44 trillion US dollars; by 2021, that figure had fallen to 41.78 trillion US dollars. In 2019, this figure stood at 10257 USD, but by 2021 it had dropped to roughly 8914 USD. In 2018, international commerce accounted for 29.043% of GDP, and in 2019, it is projected to account for 30.438 % of GDP. Around 59.76% of the worldwide people reside in Asian nations, making up a total of 4,694,576,167 people. There are significant obstacles, but the economies of Asian nations are working toward a path of sustainable development and advancement. To that end, the present research endeavored to look at several macroeconomic factors that have been shown to boost development in economies of less-developed Asian nations (Lyu Y. 2019).

Economists have looked to both theory and empirical investigation for answers as to what drives economic development. The global economy is experiencing a period of modest growth now, with developed nations driving the expansion. Meanwhile, Asia's emerging nations have become some of the fastest-growing regions in the world. Furthermore, industrialized and developing nations have distinct

policies and technical preparedness for dealing with environmental and climate changes. Thus, both the degree of economic development and environmental conditions vary greatly between industrialized and developing nations (Zha X. 2019). In recent years, there has been a dearth of empirical research on the elements that drive development in emerging countries. Research-based on situations from hundreds of years ago may no longer be applicable due to the dynamic nature of development. Recent advances in technology have dramatically altered how nations grow economically. Further investigations and case studies of developing countries, through which developed nations might learn, will be encouraged by the findings of this study.

Research Questions

- What is meant by economic growth and how does it affect any country?
- What are the key factors impacting the economic growth of developing countries?
- How the economy of developing countries can be improved?

Research Objectives

- To explain the concept of economic growth and how it affects any country.
- To explain the key factors impacting the economic growth of developing countries.
- To present the ways that can be helpful for the improvement of any country.

Literature Review

For their research on the factors that have contributed to China's rapid economic development, Chetty R. (2016) compiled a large dataset. To meet the needs of its readers, the writers used an OLS model based on the principle of demand. According to the findings, a 10% increase in exports would have resulted in a 1% rise in GDP in the 1990s. From 1978-1989, (Madreimov T. 2019)gathered information from 29 Chinese provinces, independent areas, and municipalities. The report found that exports, universities, and private businesses all contributed significantly to China's rapid economic development. Many other critical issues are having a detrimental impact on the economy. These include things like fertility rates, inflation rates, and state enterprises. Cosculluela-Martínez C. (2018) looked at what makes certain economies expand quickly while others grow slowly. The author gathered information from 87 different nations between 1965 and 1995. Human capital, the rule of law, international openness, and favorable trade terms are all shown to be major determinants in the study's findings. A high fertility rate and a high proportion of public expenditures to GDP were both shown to be negative contributors to economic growth.

In 2004, Andaman investigated what factors led to growth in Brunei Darussalam's economy. The author used data gathered through multiple regression methods to examine the standard neoclassical model version. Gross domestic product in real terms was the DV. The research finds that exports and modest government size are beneficial to economic development over the long term. By analyzing data from many countries, Clootens (2017) were able to classify variables into distinct groups. The authors argue that elements such as ethnic fragmentation, economic institutions, geographical differences, climate, culture, law, and politics all play crucial roles. Data panelists and bridge data were gathered by Zha X. (2019) from 74 areas of Russia between 1996 and 2005. The research found that exports, starting circumstances, and domestic investment all play crucial roles in Russia's economic development. Growth figures in Russia are not significantly bolstered by the country's natural or energy resources.

Tetzlaff F. (2020) attempted to shed some light on Bangladesh's economic performance by extending the work of Solow. The authors have compiled time series information and have concluded that the founding principle constitutes the most significant Variable, although, to promote the rate, it is required to lower government spending to GDP and the rates of inflation by 15 percent. Both the M2/GDP ratio and the Export/GDP ratio were shown to be favorably impactful, warranting a 20% boost. Panel data was obtained Herzer D. (2015) from 33 African economies that were primarily driven by poverty from 1974 to 2009. The statistical results indicate that private sector investment, trade openness, and government

expenditure may all play important roles in helping low-income African nations achieve high growth rates.

Throughout the 35 years from 1960 to 2010, Sede I.P. (2015) gathered data from a variety of countries. The research shows that demographics, commerce, education, and investment are key factors in fostering economic expansion. Bushnik T. (2020) gathered information on Ghana from 1975 to 2014. Human capital and foreign assistance were shown to have a favorable influence on economic growth, whereas labor, debt service, and financial development were found to have a negative effect. Spending by the government and contributions from other countries have a crucial and significant role in the near term. In addition, there are not many positive variables in supporting growth in Ghana, such as labor, financial development, or inflation. To do this, Cheng Q. (2019) collected information from economies in the Eurozone. Human capital, investment, and trade openness are shown to have a long-run correlation with GDP growth. The ARDL method was used for econometric research by Clootens (2017), who gathered data from 1972 to 2016 to investigate the crucial determinants for higher growth rates in Bangladesh. The research found that the inflation rate, exports, and industrial value-added were all significant. However, the value contributed by industries and the export market might help growth rates improve. Nevertheless, inflation has a depressing influence on GDP growth rates. The future of the economy depends on the success of policies that promote export and fight inflation.

Methodology

The secondary research approach has been adopted for this study where the data has been taken from the world development indicators. The data has been occasionally taken from the past years from 1970-2021. The growth rate has been taken as the dependent variable while the others like human capital, financial development, and industrial output are taken as independent variables. To find out the long-run co-integration between the variables the bound test of co-integration has been conducted. ARDL has been used to find out the long-run parameters of the variables. Some important terminologies which are being used for the analysis are given as:

- GDPGR= Gross domestic product growth rate
- LFPR= Labor force participation rate
- GFCF= Gross fixed capital formation
- HC= Human capital
- FDV= Financial development
- INF= rate of Inflation
- TOP= Trade openness
- IDP= Industrial production
- ui= error term

Data Analysis

The data taken from the world development indicators has been analyzed and various tests have been conducted.

Econometric Analysis

Table 1. Descriptive Analysis (1970-2021)

Variables	GDP	LFPR	GFCF	HC	FDV	INF	TOP	IDP
Mean	4.965	47.874	15.984	2.746	23.778	8.764	31.376	20.764
Median	4.987	49.984	16.387	2.764	24.223	7.873	32.709	20.873
Maximum	11.763	52.837	19.736	3.736	29.873	26.038	38.873	22.873
Minimum	0.837	28.873	11.837	1.536	15.367	2.736	15.736	17.364

Std.Dev.	2.736	6.764	1.847	0.834	3.784	5.184	4.884	1.824
Skewness	0.847	-2.044	-0.485	-0.283	-0.493	1.595	-1.204	-0.339
Kurtosis	3.203	5.259	2.859	2.849	2.854	5.509	4.894	2.395
J-B	1.095	44.885	2.859	1.969	2.666	34.099	21.294	2.095
Prob.	0.595	0.049	0.859	0.595	0.260	0.002	0.003	0.395

Source:Author'sCalculations

Table 2. Correlation Matrix (1970-2021)

Correlation	GDP	LFPR	GFCF	HC	FDV	INF	TOP	IDP
GDP	1.000							
LFPR	0.013	1.000						
GFCF	0.221	0.376	1.000					
HC	0.160	0.580	0.305	1.000				
FDV	0.170	-0.230	0.450	-0.147	1.000			
INF	-0.130	-0.340	-0.18	-0.190	0.050	1.000		
TOP	0.040	0.790	0.550	0.459	0.159	0.359	1.000	
IDP	0.050	-0.240	0.380	0.050	0.459	0.350	0.559	1.000

Source:Author'sCalculations

Unit Root Test

Table 3 provides a means of determining the degree to which the analyzed variables are stationary. Given the mixed sequence of integration, the autoregressive distributed lag model (ARDL) seems like a good tool for estimating parameters over the big scheme of things.

Table 3. Unit Root Analysis (1970-2021)

Level					1st Difference				
Variables Trend	Intercept		Interceptand		Intercept		Interceptand Trend		Outcomes
	t-stat.	Prob.	t-stat.	Prob.	t-stat.	Prob.	t-stat.	Prob.	
GDP	-6.376	0.000	--	--	--	--	--	--	I(0)
LFPR	-3.339	0.033	--	--	--	--	--	--	I(0)
GFCF	--	--	--	--	-5.250	0.000	--	--	I(1)
HC	-3.170	0.030	--	--	--	--	--	--	I(0)
FDV	--	--	--	--	-6.120	0.000			I(1)
INF	-3.407	0.020	--	--	--	--	--	--	I(0)
TOP	-3.330	0.020	--	--	--	--	--	--	I(0)

IDP	--	--	--	--	-8.030	0.000	--	--	I(1)

Source:Author'sCalculations

Bound Test

Table 5 demonstrates the significance of F-statistics in the current investigation.

Table 5. Bound Test Analysis (1970-2021)

NullHypothesis:Nolong-runTestStatistic	**relationshipsexist Value**	**K**
F-statistic	11.8998	7
CriticalValueBoundsSignificance	**I0 Bound**	**I1Bound**
10percent	2.05	3.34
5percent	2.45	3.43

Source:Author'sCalculations

Discussion and ARDL Long-run Analysis

Long-term ARDL estimations of economic growth drivers for emerging Asian nations are shown in Table 6. The results suggest that characteristics like inflationary rate and trade openness have a negative link with economic growth, whereas others like human capital, financial development, and industrial output are crucial for economic growth. According to the magnitude of the variable's correlation, economic growth contributes an additional 0.2426 units to an increase in workforce participation of 1 unit.

There is a positive and statistically significant (at the 5% level) connection between GDP growth and the variables gross fixed investment creation. The variable's coefficient value indicates that for every one unit rise in gross capital formation, the economy grows by 0.9773 units. Growth in the government's gross fixed capital creation results in a rise in the stock of tangible assets. Large-scale industrialization and technological progress are bolstered by capital creation (Chetty, 2016). Capital development also causes resources to be used effectively and new sectors to be built, which boosts people's incomes and provides an indicator of the economy's health. Human capital is statistically determined to have a positive and substantial effect. The Variable's coefficient value shows that for every one point in the human capital direction, the economy grows by 6.3184 points. Increased economic output may be achieved by training and specialization of the workforce; an efficient educational system raises the economic growth of the country and aids in its economic development. Statistics show that the variable economic growth is statistically meaningful at the 5% level in both positive ways and terms of money. Increased investment occurs when a country's financial infrastructure is developed, which boosts the efficiency of infrastructure investments and decreases the cost. Trade openness is negatively associated with economic growth, however, this link is statistically significant at the 5% level(Reynolds, 2018). This demonstrates how little interest there is in a country's gross domestic product as opposed to its imports. Growing trade deficits dampen economic development in emerging nations, which rely heavily on imports to fuel their economies. Similar results may be seen when looking at. We find a positive and statistically significant (at the 1% level) link between industrial output and economic expansion. The variable's coefficient value indicates that for every unit of industrial output growth in the economy causes, the value of the variable rises by 1.7998 units. The variance inflation factor (VIF) is used to evaluate a model's multicollinearity. Results from VIF indicate that multicollinearity is not present in models if all variables have values less than 10.

Table 5. ARDL Long-Run Estimates (1970-2021)

The independent variable is taken for the Growth rate in developing countries

Variable	Coefficient	Std. Error	t-Statistic	Prob.	VIF
LFPR	0.2426	0.1278	1.8998	0.1557	4.5999
GFCF	0.9773	0.3854	2.5748	0.0310	8.4965
HC	6.3184	1.0157	6.0676	0.0100	4.4966
FDV	0.2967	0.0296	2.6123	0.0347	6.4987
INF	-0.1714	0.1478	-1.3577	0.3435	5.8678
TOP	-0.7991	0.3367	-2.3456	0.0234	9.9873
IDP	1.7998	0.1123	3.5309	0.0049	9.5763
C	-8.6001	8.6537	-0.9878	0.4573	---

Source:Author'sCalculations

Table 6. Autocorrelation Test (1970-2021)

The autocorrelation results are shown in the table below. Measured R2 (0.5763) and F-statistic (0.7127) values for a model.

SerialCorrelationLMTestfordeveloping countries			
F-statistic	0.7127	Prob.F(2,12)	0.3974
Obs*R-squared	0.5763	Prob.Chi-Square(2)	0.7638

Source:Author'sCalculations

Conclusion and Policy Implications

The goal of this research is to examine the factors that affect economic development in underdeveloped nations. Long-run co-integration of variables may be tested using a bound test of co-integration, and long-run parameter estimates can be obtained by application of the Auto-Regressive Distributed-Lag (ARDL) model. Analysis of correlations across variables shows that the GDP growth rate is favorably connected with the labor force participation rate, gross fixed capital creation, human capital, financial development, trade openness, and industrial output, and inversely correlated with the inflation rate. Long-run co-integration of variables is verified by the use of a bound test. Based on ARDL's long-run projections, we know that factors like the workforce participation rate, gross fixed capital formation, human capital, economic deepening, and industrial output are all positive contributors to GDP growth, but trade openness is a drag. Investment in the capital is proposed as a means to increase both the supply and demand for commodities and the availability of jobs for the general populace. Health and educational infrastructure must be guaranteed if human capital is to grow. It will boost worker productivity, leading to higher GDP growth. Increased economic growth rates may be attained if resources are allocated to development spending. Spending on development should prioritize programs that improve people's health and well-being, such as schools, colleges, universities, and hospitals. The development of employment possibilities for families is another crucial recommendation that has the potential to raise the real GDP of the nation.

References

Bushnik T., T. M., Martel (2020). "Socioeconomic disparities in life and health expectancy among the household population in Canada."Health Rep: 3–14.

Cheng Q., L. M., Li F., Tang H (2019). "Response of Global Air Pollutant Emissions to Climate Change and Its Potential Effects on Human Life Expectancy Loss."Sustainability: 3670.

Chetty R., S. M., Abraham S., Lin S., Scuderi B., Turner N., Bergeron A., Cutler D (2016). "The Association between Income and Life Expectancy in the United States." 1750–1766.

Clootens (2017). "Public Debt, Life Expectancy, and the Environment."Environ. Model. Assess.: 267–278.

Cosculluela-Martínez C., I.-A. R., Hewings G.J.D (2018). "Life Expectancy Index: Age Structure of Population and Environment Evolution."Soc. Indic. Res: 507–522.

Herzer D., N. P. (2015). "Income Inequality and Health: Evidence from Developed and Developing Countries."Economics.

Huang D., Y. S., Liu T (2020). "Life Expectancy in Chinese Cities: Spatially Varied Role of Socioeconomic Development, Population Structure, and Natural Conditions." Int. J. Environ. Res. Public Health: 6597.

Lyu Y., Z. C. (2019). "Slowing Economic Growth around the World in the 21st Century."Open J. Bus. Manag: 1926–1935.

Madreimov T., L. L. (2019). "Natural-resource dependence and life expectancy: A nonlinear relationship." Sustain. Dev: 681–691.

Reynolds M.M., A. M. (2018). "Social Policy Expenditures and Life Expectancy in High-Income Countries."Am. J. Prev. Med: 72–79.

Sede I.P., O. W. (2015). "Socio-economic determinants of life expectancy in Nigeria "Health Econ. Rev: 1–11.

Tetzlaff F., E. J., Sperlich S., Tetzlaff J (2020). "Widening income inequalities in life expectancy? Analysing time trends based on German health insurance data."J. Epidemiol. Community Health: 592–597.

Zha X., T. Y., Gao X., Wang W., Yu C (2019). "Quantitatively evaluate the environmental impact factors of the life expectancy in Tibet, China."Environ. Geochem. Health: 1507–1520.