

Monetary Policy, Health Expenditure and Human Development: Empirical Evidence from Asian Countries

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ABSTRACT

It has been observed that monetary variables and health expenditure enhance human development. We have tried to show the effect of money supply, interest rate, and health expenditures and exports on human development of Asian countries. Data has been used from 2000 to 2024 to check this dependent and independent variables relationship. Human development index was used as dependent variable. On the other hand, money supply, interest rate, health expenditure and exports were taken as independent variables. We have also used OLS regression in this research. The study finding showed that money supply has increased human development. However, interest rate seems to be affecting negatively the human development. Foreign direct investment also has enhanced human development. Finally, exports also contribute positively towards human development. It is suggested that focus should be made more on financial stability of Asian countries. Government should emphasize on the stability of money supply and interest rate to have more development. There is a dire need to allocate more finances towards health in these economies. More incentives should be given to improve more exports and human development.

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INTRODUCTION

Human development contributes essentially the growth of real GRDP per capita, as an extremely expert and knowledgeable population drives productivity and creativity, thus escalating earnings levels. The existence of competitive human resources considerably makes reduction unemployment and poverty. In addition, the stable boost in life expectancy favored government spending on health care per capita demonstrates that suitable speculation in healthcare influence positively the comfort. An effectual institutional and regulatory structure is also necessary for intensification local human resource ability, predominantly in research and development, technology, infrastructure, and creative industries, which are major outputs of an active and innovative economy (Dempere et al., 2023). Developing economies have been observed foreign direct investment as a resource of economic development, transformation, financial growth, earnings, and so poverty lessening. It is actually indicated by their presently practicing financial strategies, which is openly proposed to progress situations to be a magnet for FDI and to make the most of the remunerations of the occurrence of FDI in their conjugal financial system. More than the precedent two decades, these nations have realized extensive financial reforms, together with the liberalization of their far-off deal and venture governments and home markets and privatization of state corporations, which has affected the flow and nature of foreign investment.

Traditionally, monetary policy may affect communal wellbeing (Romer & Romer, 1999). It's consequently essential for intellectuals to recognize the means from side to side which the monetary policy desires of the central bank spread on human development, as calculated by HDI. The monetary policy broadcast to the HDI aim is a huge subject of apprehension, as this composite index add in ethical deliberations in the evaluation of comfort and the dimension of economic development. It considers national income the gross enrollment rate and life expectancy at birth (Romer & Romer, 1999). The Tobin Q theory proposes that the objective of investments is to make the most of value of the industry and thus assist shareholders; businessmen and perhaps providers or clients obtain high profits (Ungar et al., 2005). Trade at all times need most favorable profits to assist shareholders and businessmen obtain advantages like increased dividends, share prices, and other reimbursements. Additionally, investments

search for branch out markets, with foreign markets, particularly for increasing their market size. In line with institutional theory, economies with constructive business surroundings frequently have advantages in attracting global investment flows (Suddaby, 2013). Ogunmuyiwa and Ekone (2010) showed the effect of money supply on economic growth by using data from 1980 to 2006. The regression results showed that money supply tended to increase economic growth of Nigerian economy.

De Grauwe and Costa Storti (2004) checked influences of monetary policies on production. It was found that in countries with high inflation, the output influences of monetary policies were decreased. Irdam (2012) focused on the effects of remittances on human development. The regression result showed that remittances led to increase human development level in countries with medium income. The study concluded the positive influences of boosting human development in the nations where the state perceives migration as an effective labor export strategy. Cull et al. (2014) asserted that saving helped to reduce household vulnerability and enabled them to fulfill much of the expenses. It also planned their spending with time and built up capital for earning actions. Saving also enhanced household food expenditure for their well-being. Srithilat et al. (2017) analyzed influence of monetary policy on the economic development on the basis of data from 1989 to 2016. The co integration result showed that money supply, interest rate and inflation rate increased real growth in the long run.

Ogege (2019) analyzed the effect of inflation, interest and exchange rate on economic development by using data from 1981 to 2017. Result showed that interest rate tended to decrease human development in Nigeria. Doorasamy and Wilfred (2020) checked the effect of monetary policy on human capital development in South Africa. They implied VAR and used data from 1980 to 2016. It was found that productivity responded more to human capital than its response to money supply in the model. It was also found that productivity decreased speedily in result of a lethargic monetary policy. Ekomané (2021) identified the monetary policy transmission channels to human development index. The study result indicated that inflation decreased the human development index. Iddrisu et al. (2022) analyzed the impact of monetary policy effectiveness on human development in Africa. Regression result showed that effective monetary policy translated to high banks' loan and deposit prices. It was also found that high banks' pricing was the result of effective monetary policy that tended to increase human development. Ahmad et al. (2022) checked the impact of exports on human development. Findings indicated the positive effect of exports on human development.

While several studies empirically find the relationship between exports diversification and economic growth, little is known about the relationship between export diversification and human development. This study empirically examines the relationship between export diversification and human development by using Panel data for the period of 1995 to 2020 in South Asia countries likely, Pakistan, Bangladesh, India, Nepal and Sri Lanka. According to the current outward policies in developed countries, the international development institutions stress on the policy of export diversification in South Asia to keep the current pace of economic growth in future. To avoid external shocks and to have the sustained and inclusive growth, the concentration of exports with limited scope of productivity growth and quality of export must be focused in the low income countries. The continuous structural transformation and lower concentration of products and market are key elements to development. This study contributes to the existing literature by exploring the export diversification as one of the determinants of human development in South Asia. The findings from panel Corrected Standard error model in the study confirms positive and significant impact of export diversification on human development in the region. Therefore, the distributional policies may get important role to improve income distribution as well as human development. Keywords: Export Diversification, Human Development, South Asia

Orebiyi et al. (2025) analyzed the effect of monetary policy on human development by using data from 1980 to 2023. The regression result showed that money supply increased human development. The study suggested that Central Bank of Nigeria adopted strategies to increase money supply in a controlled manner. Magida et al. (2025) investigated the impact of public health expenditure on human capital development in South Africa. The VECM result showed that public health expenditure enhanced human development. The study suggested for increased health expenditure. Ajibo et al. (2025) examined the monetary policy and human capital development in 30 selected Sub-Saharan African nations by using data from 1986 to 2022. The ARDL result showed that expansion of human capital was not affected by the lending and exchange rates. In contrast, both variables affected positively short-term effects on human capital development. The study suggested for human capital development.

Taking into consideration the importance of some factors, we have examined the effect of money supply, interest rate, health expenditures and exports on human development of Asian countries. Our study will provide us suggestions for improved human development in Asian economies.

Objectives of the Study

The major aims are given as in the following.

1. To estimate the effect of money supply on human development.

2. To examine the impact of real interest rate on human development.
3. To find out the influence of health expenditure on human development.
4. To check that how does exports affect human development.

Problem Statement

A tremendous work has been done to check the influence of some fiscal and monetary variables on human development of countries. But our work highlights the contribution of money supply, interest rate, health expenditure and exports towards human development of Asian economies.

Hypothesis

The main hypotheses are considered as:

- H₁: Money supply results in increased human development.
- H₂: High interest rate tends to reduce human development.
- H₃: Higher the domestic general government health expenditure, higher the human development.
- H₄: Exports and human development are positively related.

METHODOLOGY

We have tried to analyze the factors affecting human development in Asian economies. For this, human development was used as dependent variable. Money supply, real interest rate, domestic general government health expenditure and exports have been taken as independent variables. We have used data from 2000 to 2024. We have also utilized OLS regression for the sake of analysis. Data of all the variables were taken from WDI.

The model is explained as:

$$HDINDX_{it} = \beta_0 + \beta_1 RINTRSR_{it} + \beta_2 MONYSP_{it} + \beta_3 DGGHEXP_{it} + \beta_4 EXPORTS_{it} + \mu_{it} \tag{1}$$

Where:

HDINDX_{it} = Human development Index (life expectancy at birth, literacy rate and standard of living calculated by GNI per capita)

MONYSP = Money supply (% of GDP)

REALINTRT = Real interest rate

EXPORTS = Exports of goods and services % of GDP

DGGHEXP = Domestic general government expenditure (% of gdp)

μ_{it} = Error term

RESULTS AND DISCUSSION

This section points out the summary statistics of the factors affecting human development in Asian countries.

Table 1: Summary statistics

Variables	Mean	St.deviation	Minimum	Maximum
HDINDX	0.6403	0.0100	0.449	0.804
RINTRSR	3.6898	3.2979	-13.6421	12.3224
MONYSP	88.6148	47.6186	28.6895	227.4977
DGGHEXP	1.2722	0.7062	0.4246	2.9421
EXPORTS	35.0505	26.4245	8.2216	119.8097

It is observed that on average, HDINDX is 0.6403 percent in Asian countries. The high mean value than standard deviation shows stability and normality of the data. However, the mean value of RINTRSR is seen as 3.6898 percent. The variations have been observed from -13.6421 percent to 12.3224 percent. On average, money supply is 88.6148 percent in the analysis. Finally, EXPORTS have been observed as 35.0505 percent in these countries.

Table 2: Regression Results

Variables	Coefficients, Standard Errors and Z-values
RINTRSR	-0.0022* ** 0.0013 (-1.74)
MONYSP	0.0001 0.0001 (0.96)
DGGHEXP	0.0597* 0.0096 (6.25)
EXPORTS	0.0013 * 0.0002 (7.17)
C	0.5065 0.0118 (42.91)
F-Statistics	86.64
Probability	0.000
R Square	0.73
Adjusted R-Square	0.72

** p<0.05, * p<0.1

The OLS results are shown in Table 2. Human development is also affected by real interest rate. It has affected the development negatively. The result showed that one unit increased interest rate caused for reduction in human development by 0.0022 percent. The reason may be that more interest rate has caused for less income, investment and production which results in low human development. Result is consistent with the study by Ogege (2019).

Money supply may also influence human development. Findings showed that one percent increased money supply may result in increased human development by 0.0010 percent. The reason may be that people spend more money on education and for more consumption. This has increased human development of people of Asian economies. The result is supported by Orebiyi et al. (2025).

Domestic general government health expenditure influences human development. More health expenditures result in increased good health, efficiency, per capita income, saving and investment of the people. And it has boosted up the development of the people which is indicated by positive coefficient.

Finally, role of exports on human development cannot be ignored. The study findings highlighted that one percent increase in exports has enhanced human development by 0.0013 percent in Asian countries. The reason may be that more exports results in more earnings, investment and development. Result is supported by finding of Ahmad et al. (2022).

CONCLUSIONS

In this study, we have examined the factors affecting human development in Asian countries by using data from 2000 to 2024. We have investigated that how monetary policy and health expenditure affects human development of people of Asian economies. The dependent variable is human development index. However, interest rate, money supply, domestic government health expenditure and exports were used as explanatory variables. We have used OLS regression technique for making a relationship between dependent and independent variables. The study result showed that money supply has increased human development. It is also found that real interest rate tended to decrease human development. Furthermore, government health expenditure seems to be affecting human

development in these Asian nations. Finally, exports have increased human development. Considering the results, it is suggested to make stable the interest rate for the financial stability of nations. Government should have more control on money supply and interest rate. There is a need to allocate more budget towards health. Finally, focus should be made more on exports of the goods and services and on free trade for having more development.

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