



## The Impact of Financial Inclusion and Income Inequality on Human Capital in Developing Countries

Nademi, Y.<sup>1</sup>; Dalvandi, M.<sup>2</sup> & Dalvandi, S.<sup>3</sup>

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### Abstract

Most of developing countries face low levels of human capital. Human capital through training and improving skills and knowledge can be considered as one of the key strategies in the development of developing countries. A well-functioning financial system is necessary to reduce the risks associated with loss of income and thus strengthen human capital, increase opportunities and income distribution mechanisms, and reduce poverty. Therefore, financial inclusion plays an important role in strengthening human capital. Financial inclusion is considered as a vital factor of human development and economic growth by facilitating the access and use of financial services for all people in an economy. In addition, access to and use of financial facilities may allow individuals to deal with risk factors by investing in education and reduce the burden of financial problems, thereby having a positive impact on human capital. Considering this issue, the present study examines the effect of financial inclusion and income inequality on human capital in 52 developing countries during the period of 2005-2021 and using the generalized panel moments method. The results show that the financial inclusion index has a U-shaped non-linear effect on human capital at the significance level of ten percent. In other words, at low levels of financial inclusion, this variable cannot lead to the strengthening of human capital, but at high levels and crossing the threshold of this variable, it can lead to the strengthening of human capital. Other results show that income inequality and transfer payments have a negative and significant effect, and economic growth and consumer purchasing power have a positive and significant effect on human capital.

**Keywords:** Financial inclusion, Income inequality, Human capital, Generalized moments method, Developing countries.

**JEL Classification:** E24, G2, D33.

1. Associate Professor of Economics, Faculty of humanities, Ayatollah Borujerdi University, Borujerd, Iran.

**Email:** [Younesnademi@abru.ac.ir](mailto:Younesnademi@abru.ac.ir)

2. PhD student in monetary economics, Faculty of Administrative Sciences and Economics, Isfahan University, Iran (Corresponding Author). **Email:** [mojtaba\\_almasi@yahoo.com](mailto:mojtaba_almasi@yahoo.com)

3. Master of Accounting, Faculty of Economics and Social Sciences, Chamran University of Ahvaz, Iran.

**Email:** [Sdalvandi11@gmail.com](mailto:Sdalvandi11@gmail.com)

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## 1. Extended Abstract

Most developing countries face low levels of human capital. Human capital through training and improving skills and knowledge can be considered as one of the key strategies in the development of developing countries. A well-functioning financial system is necessary to reduce the risks associated with loss of income and thus strengthen human capital, increase opportunities and income distribution mechanisms, and reduce poverty. Therefore, financial inclusion plays an important role in strengthening human capital. By facilitating the access and use of financial services for all people in an economy, financial inclusion is considered as a vital factor of human development and economic growth. In addition, access to and use of financial facilities may allow individuals to deal with risk factors by investing in education and reduce the burden of financial problems, thereby having a positive impact on human capital. Considering this issue, the present study investigates the effect of financial inclusion and income inequality on human capital in 52 developing countries during the period of 2005-2021 and using the generalized panel moments method.

The results show that the financial inclusion index has a non-linear U-shaped effect on human capital at the significance level of ten percent. In other words, at low levels of financial inclusion, this variable cannot lead to the strengthening of human capital, but at high levels and crossing the threshold of this variable, it can lead to the strengthening of human capital. At low levels of financial inclusion, financial inclusion leads to inefficient allocation of resources and increases the cost of capital and increases the burden of financial problems and will lead to a decrease in human capital development. On the other hand, all the mentioned things may depend on the level of economic development. Usually, in developing countries, due to the low level of development, access to financial services and financial resources is limited, and financial inclusion is carried out with very low quality.

These countries usually face extreme poverty, high unemployment and backwardness in economic and social development. In this situation, the lack of access to financial services can lead to the reduction of human capital and the lack of sustainable growth of the society with restrictions on education and health. While at high levels of financial inclusion, financial inclusion has strengthened human capital by facilitating the access and use of financial services for all people in an economy. The threshold level of the logarithm of financial inclusion is also 8.2, which is obtained by setting the derivative of human capital to zero.

At the same time, the negative relationship between income inequality and human capital development shows that in the presence of income inequality, people's livelihoods are disrupted due to less access to income opportunities and they cannot access the basic needs of a healthy lifestyle. In other words, the unequal distribution

of income reduces the literacy rate and increases unemployment, as a result of which human capital decreases. The negative effect of transfer payments on human capital shows that in developing countries, unfair transfer payments reduce job satisfaction and education and skills, as well as reducing the recruitment and retention of skilled labor can lead to the destruction of the country's human capital.

The effect of the logarithm of the consumer price index on human capital is also positive and can indicate that if the prices increase in a balanced way, the income of people will also increase and the improvement of their purchasing power will lead to economic mobility and economic growth. In addition, raising the general level of prices can increase the motivation to invest in education and improve human capital by improving skills and the possibility of using services and better opportunities for people. It is worth mentioning that it seems that the effect of the consumer price index on human capital depends on the economic and social conditions of each country.

Also, the positive effect of the logarithm of economic growth on human capital states that economic growth will have significant effects on the development of human capital by increasing educational opportunities, improving health and wellness, reducing poverty, increasing job opportunities, and advancing technology and innovation. Therefore, governments and policy makers should follow appropriate reforms and policies for the development of human capital. In this regard, in developing countries, improving educational and educational opportunities, facilitating access to innovations and efficient financial services, increasing the level of economic development and consequently increasing the quality of financial inclusion will lead to the development of human capital. In addition, due to the industrialization of countries in recent years, governments should provide educational facilities, sufficient job opportunities, financial facilities, as well as other social benefits for workers with less skills - who often migrated from rural areas to urban areas - and reduce income gaps.

## **2. Ethical Considerations**

### **2.1. Compliance with ethical guidelines**

The present study has followed the scientific principles of research.

### **2.2. Funding**

This paper it does not have the financial support of any organization.

### **2.3. Authors' Contribution**

The authors, while observing the ethics of publication, declare that they participated equally in this research.

#### **2.4. Conflict of Interest**

The authors declare that there is no conflict of interest in this research.

#### **2.5. Acknowledgments**

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