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## HUMAN DEVELOPMENT AND THE ROLE OF GOVERNMENT

### Abstract

Human development approach is a widely accepted all over world. The analysis in this paper is focused on the theoretical explanation of the role of the government in supporting the human development process. It is especially important to understand the areas where the Government has the key role for human development: the investment in the human capital through education, research and innovation, entrepreneurship, nutrition and health, etc. Although it is very difficult to measure the overall social usefulness and benefits of the human capital, it is generally accepted that the stock of human capital arising from investment in education create positive externalities of the economy. Government has important role in the creation and management of the human capital through the education system, healthcare system, also solving and dealing with the problems of brain drain and interception of the challenges of the modern living through entrepreneurship and R&D activities.

**Keywords:** human development, government, human capital, education, health, research and development, (R&D)

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## **Introduction**

The aim of this paper is to identify the role of the government in the human development, as one of the segments of the human development concept. The first part of the paper briefly explains the concept and refers to the role of the Government with achieving the Human Development goals. The main focus of the paper are the Government activities in the educational process that are necessary and must be taken in reaching Human Development. Also, activities in the educational system are mutually related with the activities of the healthcare system. They are especially important for the formation of the human capital of the economies that is the basis of human development approach. Furthermore, the paper refers to the Government support for the entrepreneurship and R&D. Conclusions derived from the analysis of the research were obtained on the basis of the theoretical analysis and case studies as a methodological framework.

### **1. HUMAN DEVELOPMENT CONCEPT**

The human development approach to development and growth as proposed by UNDP and in 1990 is widely accepted all over world. The concept is composed of three parts: human development, development for people and development of people.

1. *Human development* is directly linked to investment in human capital, in particular by investing in formal education, training, health care, and everything that directly or indirectly contributes to increasing the individual's production capacity and creativity.
2. *Development for people* is linked to the distribution of income and shows whether and how much economic development is distributed among individuals. Inequality in the distribution of economic growth ultimately means inequality in the distribution of quality of life among people.
3. *Human development of people* is an essential component of the concept of human development. It is directly related to the chance of people actively to participate in the creation of their development.

Human development has two sides: (1) the formation of human capabilities such as improved health, knowledge and skills and (2) the use of its acquired capabilities for productive purposes, leisure or for being active in cultural, social and political affairs. Government has very important role with the achievement of human development and especially with balancing the two

sides of human development. Development must, therefore, be more than just the expansion of income and wealth. Its focus must be on people.<sup>1</sup> The HDR<sup>2</sup> elaborates the concept of human development along the following lines: People must be at the centre of human development. Development has to be woven around people, not people around development. It has to be development of the people, by the people and for the people.

Human development process assume active role of the Government, through human capital, with particular importance of:

- Investments in education (formal education, training for acquiring relevant skills, re-qualification of employees whose profiles do not correspond to the demands of the labor market);
- Investments in health care (nutrition and health, adequate health care);
- Investments for research and development (encouraging research initiative);
- Investments for encouraging entrepreneurship (developing entrepreneurial spirit and innovation, innovations, patents and licenses).

In this paper the focus is on theoretical explanation of the significance of the activities that the government is obliged to undertake to achieve human development.

## **2. GOVERNMENT ROLE IN THE EDUCATIONAL PROCESS**

Endogenous growth models place special emphasis on the category of human capital as the main determinant of productivity. Benhabib and Spiegel<sup>3</sup> using the panel data and Cobb–Douglas aggregate production function, show that by introducing in their regressions the influence of human capital on the overall productivity of factors – especially taking into account the processes of innovation and the diffusion and catch-up processes technological - they get a positive influence of human capital on growth. The results shows that in the richest countries, the direct effect of education on innovation capacity influ-

<sup>1</sup> United Nations Development Program, Human Development Report 1990, Oxford University Press, New York, 1990, last access on 19.4.2018; <http://hdr.undp.org/en/reports/global/hdr1990>

<sup>2</sup> United Nations Development Program, Human Development Report 1991, Oxford University Press, New York, 1991, last access on 19.4.2018; <http://hdr.undp.org/en/reports/global/hdr1991>

<sup>3</sup> Benhabib J. & Spiegel, M., The Role of Human Capital in Economic Development: Evidence from Aggregate Cross-Country Data. *Journal of Monetary Economics*, 34, 143-173, 1994

ences growth, while in poorer countries, the effect of catching up is present. Therefore, the impact of education on growth varies according to the level of development of countries.

The policy of education, training programs, qualifications and retraining of workers, health programs are some of the ways of state policy for building human capital. The confirmation of the previous mentioned importance of human capital can be find in the recent case studies analysis.<sup>4</sup> However, determining the cost-benefit analysis of these programs, shows that it is very difficult to measure the overall social usefulness and therefore often the costs for these programs are greater than the measurable benefits. Producing the productivity growth through human capital is the basic idea in the implementation of these programs. The stock of human capital arising from investment in education by individuals, firms and corporations creates positive externalities. For example, an educated person can invent new ideas on how best to produce goods and services. If these ideas enter the knowledge society, so that everyone can use them, then they represent external benefits of education. Considering the externalities of the education as public good is also one of the reasons why the government should invest in human capital. The positive externalities of the investments in the human capital is the possibility for the educational system to eliminate the differences in the quality of life among people. With these investments in the educational system, everybody have benefits and no one can be excluded from using the benefits of the educational system. Government invest in the human capital considering the opportunity in this way to achieve greater equity in the distribution of income among people. One of the ways to cope with the great inequality in society is transfer of payments that control defects in unequal distribution of income in short-term. Through transfer payments from the budget, society apparently, handles with poverty and unequal distribution, in the short term. Through investments in human capital, the government is considering a long-term solution to the problem of inequality and a studious approach to fighting poverty in society. Larger investments in human capital lead to faster economic growth, and with the same opportunities for

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<sup>4</sup> European Commission, Investment in Human Capital Assessing the Efficiency of Public Spending on Education, Technical note prepared by European Commission staff for the Eurogroup, November 2017, Sushil Jumar Haldar, Girjasankar Mallik, Does Human Capital cause Economic Growth? A case study of India, International Journal of Economic Sciences and Applied Research 3(1)-7-25, 2010, Kais Saidi, Chebli Mongi, The effect of Education, R&D and ITC on Economic growth in Hight Income Countries, Economic Bulletin, Volume 38, issue 2, p. 810-825, 15 april 2018

quality education open to each individual, each individual can acquire adequate education that will provide competitive skills on a job market.

Establishing equal distribution of income through investments in human capital allows the government to solve another significant social problem - the problem of optimal allocation of the purchasing power of the population. „Namely, in cases where equality in the distribution of income is achieved, the market demand for human capital reflects the desired distribution of the purchasing power of the country. In the case where equality in the distribution of income is not achieved, the market demand for human capital reflects the inequality in the distribution of purchasing power in the country.”<sup>5</sup>

Marginal rate of return and the finance access are important factors for investment decisions making by individuals, firms and corporations and also for the government. The relevant answer to the question whether the government will decide to invest in human capital is: are the net-present values of the social benefits of investment in human capital greater than the net present values of social costs? The government investment decisions relies on the goals that want to be achieved and this is the main difference from the decisions of individuals, firms and corporations. Thus, the government has the advantage in making these decisions in the following domains:

- The government has better access to information and therefore significantly reduces uncertainty, which is not the case with individuals and firms. Government, due to the great financial power, easily is coping with the risk that is present in the investment in human capital and can better bear the losses from possible investment failures.
- If the labor is not paid for the value of its marginal product, the individual has no incentive to invest in human capital. The aim of government is an increase in the total production that needs to be distributed among people.
- The amount of the interest rate plays a special role in investment decisions for human capital. What is particularly important for the state's investments in human capital is to determine the interest rate at which the state takes over the investments. There are two different methods for determining this interest rate. The first is, determining the social rate of time preferences, and the second determining the opportunistic social costs.
- The main goal of the private sector is to maximize profits, while the state, through investments in human capital, intervenes in those industries

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<sup>5</sup> Eftimoski Dimitar, „Economic Growth, Basic Theoretical Concepts and Models”, University St. Kliment Ohridski - Bitola, Faculty of Administration and Management of Information Systems, 2009, p. 117

where the private sector is not interested in investing. In this way, the state creates a balance between the social needs and the wishes of private investors.

Much of the macroeconomic policies are aimed at raising the level of human capital. They are realized through a series of investments, both in education and in health care, adoption of legal regulations for compulsory education, mandatory systematic examinations of the population (children and especially workers), and certain developing countries provide direct financial incentives for poor families for their children to continue to be educated (scholarships, free textbooks, free transportation provided).

Significant problem that countries are challenging is the brain drain. Many poor countries, with all the efforts the state makes to raise the level of human capital, are facing an inevitable problem with the emigration of a large number of workers with the highest education in the rich countries. After all the activities made by the individuals themselves, as well as the state's investment in better education, people who have acquired a certain level of human capital in their home country emigrate where they can enjoy a higher standard of living. If we previously talked about all the positive externalities of human capital, then brain drain depletes even more the country and at the same time leaves open dilemmas for the policy makers.

### **3. THE IMPORTANCE OF THE GOVERNMENT FOR THE HEALTH CARE SYSTEM**

Investments in human capital are not only related to education. Human capital and investments in it, also implies other kind of investment, such as investments in a healthier population. Healthy workers are more productive and therefore, with investments in the health of the population, each economy makes a step towards increasing productivity and improving living standards. The economist Robert Vogel consider that an important factor for achieving economic growth in the long run is the population health, and health is a result of, first of all, good nutrition.

This was supported by his long-term research and analysis of historical trends, focusing on the observation of the height of people and the connection with the rates of economic growth. „Low growth may be an indicator of malnutrition, especially during pregnancy and in the early years of life. Vogel discovered that, as countries are economically developing, people eat more

and the population is growing higher. From 1775 to 1975, average calorie intake in the UK increased by 26%, and the average person's height increased by 3.6 inches. Similarly, during the great economic growth in South Korea from 1962 to 1995, calorie intake increased by 44%, and the average human height increased by 2 inches. Of course, the height of a man is determined by the combination of genetic predispositions and the environment. But since the genetics of the population slowly changes, such increases in height are probably caused by changes in the environment - nutrition is the most obvious explanation."<sup>6</sup> His research also revealed a link between the height of workers and their productivity. Thus, according to the data analysed by Vogel, it is concluded that the higher workers earn more, and because wages reflect the productivity of the worker, accordingly, the workers who are higher are more productive. In 1993, Vogel received the Nobel Economics Prize for his contribution to economic science both in nutrition studies and in the studies he did on American slavery and the role of the railways in the development of the US economy. In his speech when he received the award, he noted that „better nutrition accounted for about 30% of the growth in per capita income in the UK between 1790 and 1980.” Today, developed countries like the United States, Britain and others do not have the problem of malnutrition. On the contrary, the greater problem in the developed economies is obesity. But for developing countries, insufficient and inadequate nutrition and poor and disturbed people's health are obstacles facing each state and their resolution is a step towards greater productivity and a better standard of living.

The health condition of people also depends on the health care system. Health care is a program that provides preventive protection of the health of the population and adequate medical care and care for the sick. Therefore, always in macroeconomic policies the state invests in improving the health care of the population. Investments in health include expenditure on the acquisition and maintenance of health, nutrition, clothing, housing, medical services, child-care, etc. When we talk about the individual's health condition, we usually think of the expected duration of its life. Any increase in this indicator of life expectancy is a benefit for both the individual and the society. The additional benefit for the individual from the growth of the expected duration of life is reflected in the increased income that can be earned. „In a fully specified model, life expectancy may influence life cycle savings and capital accumulation and the expected returns to and investment in education. Thus improvements in healthy

<sup>6</sup> Mankiw N. Gregory, Principles of Economics, Macedonian edition, Nampress, Skopje, 2009, p. 564

may increase output not only through labor productivity, but also through the accumulation of capital.”<sup>7</sup> Therefore, the additionally earned income of the individual is a benefit for the society, because it contributes to achieving greater total production in the economy for a longer period.

Human health care can be realized on three levels: individual (care for one’s own health), firms and corporations (during the working life of the employees) and state (health care and investments to improve the health care of the population). Health partly depends on the inherent characteristics of the individual, but individuals also take care of their own health by leading a healthy life, applying proper nutrition, playing sports, properly allocating their leisure time on a part for rest and recreation. Firms and corporations pay attention to the health of workers by providing good working conditions, systematic health control of workers, adequate rest hours during the working day and week, secured annual leave for the workers. Preventive health care measures such as educational and informational campaigns for health promotion, provision of primary health care, and assistance to ill and injured in health centres, as well as investments in research to find ways of dealing with diseases are only some of the types of health investments in the individuals made by the state. As a sum of all these activities, the health status of individuals is improving, which increases the level of human capital in the economy and is a prerequisite for achieving higher economic growth.

#### **4. GOVERNMENT SUPPORT FOR ENTREPRENEURSHIP AND R&D**

Another segment important for the level of human capital is the form of entrepreneurial skills. People who possess special skills with entrepreneurial spirit who can develop a certain idea in a successful business or introduce a new product or service on the market, have special significance for economic growth. The government should recognize such special abilities (entrepreneurial skills) among individuals and enable them to successfully operate in the economy. It is therefore necessary to remove all visible barriers to entrepreneurial activity, such as barriers to market entry of new legal entities, excessive bureaucracy and the rigidity of the State. The government, through specific programs and ways, should motivate individuals with entrepreneurial skills to

<sup>7</sup> Bloom David E., Canning David, Sevilla Jaypee, *The effect of Health on Economic Growth: A Production Function Approach*, Elsevier, World Development Vol. 32 No. 1 pp. 1-13, 2004, p.11

use them productively. The programs that stimulate the entrepreneurial activity provide concrete advice and assistance in the establishment of firms, granting start-up capital to entrepreneurs, the possibility of devolving office and production space in state ownership with a privileged lease, as well as providing economic, legal and technical services.

The object of empirical studies is the determination of the R&D activities and statistically validation of their importance of human capital stock in the economy. Luintel and Khan<sup>8</sup> investigate the relationship between R&D and economic growth in emerging countries by using a panel of 31 emerging countries. The results indicate convincing evidence of scale effects which make government policies potent for long-run growth. Innovations show increasing returns to knowledge stock, implying that the diminishing returns assumed by some semi-endogenous growth models might not be generalized. International R&D spillovers raise the innovation bar. Econometric tests of scale effects reveal a statistically significant proportional relationship between the level of R&D inputs and the growth rates of per capita real, productivity and technology.

The state has a special role in fostering research and development activities. The existence of an independent initiative for firms and corporations to form separate research centres where special attention is paid to inventions and innovations and their practical application in production and the market, is a driving force for development. Each country encourages such activities, as mentioned earlier, with measures of the tax policy whereby the income allocated for these purposes is not taxed.

But apart from this, it is necessary for the state itself to implement and fund certain basic scientific researches. The benefits of scientific progress, as well as those from the development of human capital, are significant for the entire economy.

The patent system is another way through which the state stimulates the research. „When an individual or an enterprise invents a new product, such as a new remedy, the inventor can claim a patent. If the product is truly considered to be original, the government grants a patent to give the inventor exclusive right to produce it within a certain period of time. Essentially, the inventor’s patent entitles him to ownership of the invention, turning his new idea from public to private good. By allowing inventors to profit from their inventions, even if only

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<sup>8</sup> Luintel Kul B. Khan, Moschid, R&D, Scale Effects and Spillovers: New Insights from Emerging Countries, Cardiff Economics Working Paper E2016/4, 2016

temporarily, the patent system improves motivation of individuals and businesses to be engaged in research.”<sup>9</sup>

## **Conclusion**

Successful implementation of the human development assumes different activities to be proceeded by Government. Government has a special role in investment in education, health population, entrepreneurial activity, and research and development activities.

Education provides positive externalities in society. The modern state undertakes a series of activities through which the investments in education increase the quantity and the quality of human capital. The state’s decision to invest in education is based on social benefits and should be greater than social cost. The most important criteria are the goals that government wants to achieve. This is the main reason that distinguishes government investment in education from other individual investors. Despite the social benefits from the human capital, the brain drain is existing challenge that country should deal with.

Health population is another aspect of the human development. Investments in the health sector to preserve and improve the level of health services mean a healthier population that faces the challenges of modern life. In order to provide adequate health care and nutrition is necessary to take economic policies that lead to greater economic growth, which will naturally improve people’s health. Healthier population is necessary precondition for further economic growth.

Stimulating the entrepreneurial skills is very important component of the human capital. Therefore, the government should take specific measures and actions to support entrepreneurship. The programs that stimulate the entrepreneurial activity provide concrete advice and assistance in the establishment of firms, granting start-up capital to entrepreneurs, the possibility of devolving office and production space in state ownership with a privileged lease, as well as providing economic, legal and technical services.

Government investments targeted in the previous areas confirm its role as an important factor for stimulating the economic activity and human development. Achieving quality education, healthier population and stimulating entrepreneurial skills and R&D activities is only one step of reaching the human development concept.

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<sup>9</sup> Mankiw N. Gregory, *Principles of Economics* .....op.cit. p. 566

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