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Comparison of non-market effects of human capital in Iran and other regions of the world

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A B S T R A C T

In addition to the market effects of human capital, non-market effects are also of special importance in economic growth and development. The main purpose of this article is to calculate the criteria and indicators of non-market effects of human capital from theoretical foundations and then compare these effects in Iran and other geographical and income regions of the world. Using library method, non-market criteria of human capital such as health, democracy, human rights, political stability, inequality and poverty, environment ،Crime, and finally quality of life were extracted and studied and compared over time as well as cross-sectional. The results showed that regardless of the indicators of human development and human capital and scientific in which Iran has a relatively good position but the product of these criteria and indicators is the non-market effects of human capital in very low political sphere, relatively low in social sphere, and if we consider the quality of life index as a combination of all indicators and criteria we are evaluated at a very bad and low level.

Keywords: *Geographical Regions, Human Capital, Income Regions, Index, Non-market Effects.*

Introduction

Many economists since the time of Adam Smith have paid attention to the positive effects of education and its result, human capital. What is certain is that human capital has economic effects (including the impact on economic growth and individual incomes) as well as social effects, external effects, or many non-market effects. In different countries, the economic effects of human capital have been measured by different methods, and in many of them, the positive effect of human capital on economic growth and individual incomes has been confirmed (Salehi, 2015, 2005).

It may be said that education and human capital is the only service that has many positive externalities and non-market effects. Some of these non-market or non-monetary effects of human capital include the production of quality household goods, reducing crime and delinquency in society, raising law-abiding and democratic citizens,

raising cultural indicators (cinema, theater, reading books, etc.), more protection of the environment, compliance with ethics and many other things

The University is certainly one of the environments that can create the above-mentioned things in the person himself and those around him. Based on this, we decided to measure these non-market effects of human capital in the country and evaluate whether higher education fulfills its mission regarding the non-market effects of human capital or not?

Therefore, the main issue in this article is what are the consequences and non-monetary effects of human capital in Iran and different regions of the world, and has higher education (alternative variables of human capital) been able to create these effects or not.

One of the basic topics in the economics of education is human capital. Human capital has different definitions, which may be considered the most concise and comprehensive of them as "institutionalized knowledge in humans" or "the quality of labor". According to many studies that have been done, human capital has many direct and indirect effects, but if we want to express these effects in a general division, human capital has a large effect, which is the same effect on economic growth and consequently on economic development. Shultz and Denison are the leaders in this field, and it has a micro-effect that measures the impact on individual incomes, which is Mincer's income function, the best model presented in this regard, these micro and macro works are all included in the economic or financial sphere of human capital. It includes economic or monetary human capital. However, one of the prominent works of human capital can be considered its non-market or non-monetary works, which are discussed in this article, and theoretically, these statistical works will be compared with international statistics in different regions of the world and Iran. Education affects four types of personal capital: human, social, cultural and identity (Feinstein et al, 2009). McMahon has categorized the wide range of educational benefits (McMahon, 2000) and lifelong learning (McMahon, 1998) into two different types: market and non-market benefits, each of which can be private or external.

The basic question of this article is whether human capital has been able to influence the axes and variables such as social, political, health, environmental and overall quality of life with its non-market effects. Based on this, two main goals are pursued in this article: first, to identify the non-market effects of human capital, and second, to compare these effects in Iran and other different geographical and income regions of the world.

Methodology

Based on the data provided by the World Bank under the title "World Development Index" (WDI) as well as other reliable international reports, we will compare indicators in different regions of the world that show the non-market effects of human capital. Therefore, the research method of this article is a comparative study.

It is necessary to explain that these statistics are extracted from the WDI of 2020, so some of them are only available until 2018. Another point is that in this division based on regions, some overlaps can be seen, for example, the member countries of the Organization for Economic Cooperation and Development (OECD) and the European Union definitely have common countries.

The comparison of the numbers for each region and the desired indicators will be done during the years 2010 to 2020, but to avoid drowning in numbers and figures, the comparison will be done only for the last year for which there is data, which is mainly 2018.

Findings

This article started with the aim of portraying the non-market effects of human capital and comparing Iran with different geographical and income areas of the world. Regarding the theoretical foundations of the non-market effects of human capital, the studies indicated that it is not necessarily the level of participation in education that is carried out for the macro-social benefits, through the promotion of social integration, but these institutional arrangements and it is a structure that is of interest. Based on this, geographical regions were divided into 9 regions and income regions into 5 regions. Then, based on the theoretical foundations and background of the research, 8 main criteria and their defining indicators were calculated, which can be generally categorized into cultural, social and political categories. In short, the results obtained from the comparison of the investigated indicators and criteria are as follows:

1- In the life expectancy index, Iran's trend was upward during the years 2010 to 2018, and in 2018, Iran was higher than all regions except the three advanced regions of North America, the European Union, and OECD countries, and in the income Classification, Iran it was higher than all regions except High income countries like USA, Germany, United Kingdom and etc..
2- In the democracy index, Iran has a rank of 152 out of 160 countries in 2020 and is included among authoritarian governments.

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3- In the human rights index in 2020, Iran's rank was 158 out of 162 countries and the score was 4.53 out of 10. Also, the trend of this index has been decreasing in recent years.
4- In the political stability index, we have seen an alternating trend and in recent years a decreasing trend for Iran. Iran's score in this index was -7.1 and it ranked 42 out of 48 Asian countries in 2019.
5- In the index of inequality and poverty, the trend of the Gini coefficient during the years 2011 to 2018 was decreasing, which means inequality increased. Also, in 2018, Iran ranked 75th among 144 countries with a Gini coefficient of 0.41.
6- In the share index of renewable energy consumption, the trend of Iran during the years 2010 to 2015 has been almost constant. In the last year when the data was available, i.e. 2015, this index had the lowest share compared to other regions of the world. Also, this year, this index for Iran is lower than all the income regions of the world.
7- In the index of suicide leading to death per hundred thousand population, the trend of Iran during the years 2010, 2015 and 2016 has been downward and the same as in the Middle East region and lower than all the regions of the world. In the income Classification of the world, this index has been lower for Iran than all regions. Also, this index is higher in high-income countries.
8- In the quality of life index, which is a combination of several important economic, social, cultural and environmental indicators, in 2020, Iran was ranked 82 out of 83 countries in the world with a score of 64.7 out of 100.

Discussion and Conclusion

Considering the three indicators of human development, science and human capital, which show the relatively good position of Iran among other countries, we find that the variables and components of these indicators are mainly health, income and education (quantitatively, the number of students, the number of articles and such components) in which Iran is also in a good position.

Although, while we are relatively good in these indicators, the non-market effects of these indicators (including human capital), as the research of the article showed, are very low in areas such as the political area, relatively low in social areas, and if the quality of life index If we consider a combination of all indicators and criteria, it indicated that the non-market effects of human capital had no effect on the quality of life at all and we were one of the worst countries in this index. The only criterion that was at a good level was the criterion of health and hygiene.

In the end, it should be noted that this article, apart from conventional statistical tests to confirm or reject the hypothesis, only provided information and data about the non-market effects of human capital and made a comparison with other geographical and income regions of the world.

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