

## ANALYSIS OF INTERNATIONAL EXPERIENCE IN FINANCING EDUCATION

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**Introduction.** Education does not stand still; it is varied and constantly changing. Education changes the way we look at learning and the concept of something or any problem. Correct education and upbringing of people with a new edification is associated with the development of society and, of course, the country. With regard to the development of a country or society, it is believed that differences in educational levels are one of the main reasons for differences in economic performance between developed and developing countries [Sezer & Mercan, 2014, 925-930]. Funding for education is very important for the nation state to maintain the level of education at the current level. Becker viewed education funding as a capital investment. Investing in education helps a society not only educate people, but also contribute to the overall progress of citizens and social change. Better educated people are believed to have more accurate expectations and pursue their aspirations more effectively than people with lower levels of education [Vila, 2005, 3-10].

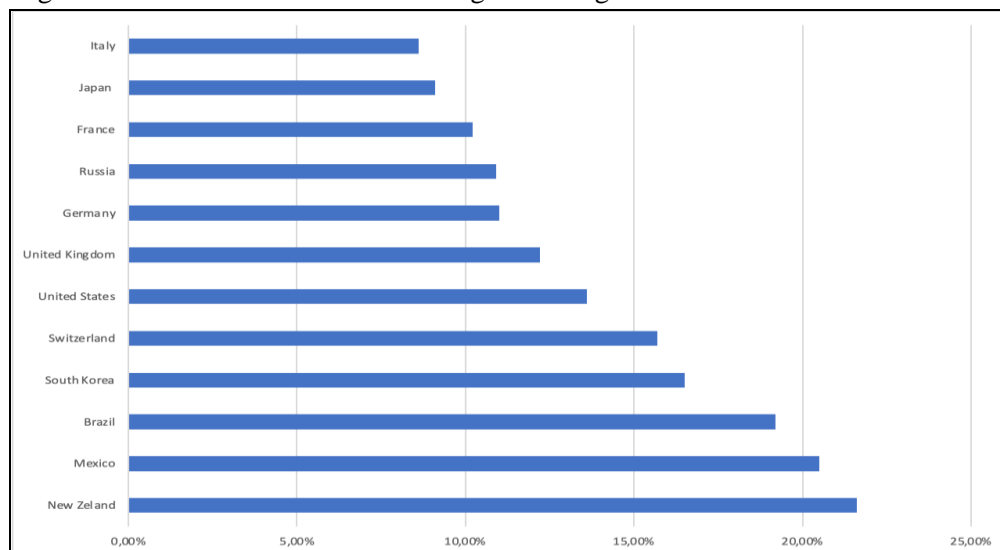
**Scientific novelty.** Our main hypothesis is based on an idea that education is the main driving force behind personal, national and global development, and education spending in a country is interrelated with economic development. Countries with higher per capita incomes invest more in children's education. Efforts to promote more inclusive economic growth and better education systems can expand the reach of young people in developing countries and reduce inequalities between genders and social groups.

Thus, in this work, we intend to explain that investing in education does not mean developing infrastructure, using updated technologies, filling the university library with outdated and useless books, buying expensive devices only for a good world ranking of universities, but sectoral planning, investing in education, launching new time-oriented courses for all levels of education, training teachers tailored to the level of students and the learning environment, ensuring the availability of the most recent and most important books in the library, and providing government scholarships to highly qualified graduates, providing students with home-return guaranteed study abroad, etc.

**Literature review.** Investment in education is a catalyst for effectively preparing the next generation for the country's economic, social and cultural development. Econo-

mists believe that the time and money invested in paying for education pays off and that they have a positive net effect on the ability to meet human needs [Wha, 2014]. Developed countries devote more funds to education, especially education research. In terms of investment in education, Barshai wrote in a 2017 newspaper article that “the world's developed countries are betting heavily on investment in education, betting that a highly educated population will be needed to fill tomorrow's jobs, develop a healthy economy, and generate sufficient tax revenues to support the government” [Barsay, 2017]. All countries have recently significantly increased their funding for education. For example, between 2010 and 2014, education spending increased by an average of 5 percent per student in 35 OECD (Organization for Economic Co-operation and Development) countries. In some countries, it grew at a much faster rate. For example, from 2008 to 2014, education spending increased 76 percent in Turkey, 36 percent in Israel, 32 percent in the UK and 27 percent in Portugal [MacCarthy, 2015].

An interesting factor is that although the budget for education in the United States was limited at the indicated time, the allocation for primary and secondary schools there is higher than in all countries. Barshai also spoke about this in his newspaper column. He wrote that “even with spending cuts, the United States still spends more per student than most countries. In 2014, the United States spent \$11,319 per primary school student, compared with the OECD average of \$ 8,733 and \$12,995 for each high school student, compared with the OECD-wide average of \$10,106 per student”. On the contrary, the opposite prevails in the countries of the Middle East. Among the top twelve countries with a high level of education, not a single country in the Middle East, although there are some countries in this region among the richest countries in the world.



**Figure 1.** The importance of investment in education for the country

Source: <https://www.statista.com/chart/3398/which-countries-invest-the-most-in-education/>

Countries in the Middle East tend to place more emphasis on tertiary education than schooling, which is more important for students to have a solid basic education. This wrong move negatively affects confidence, enthusiasm and the necessary knowledge of the subject for study at the university level, as they reveal a large difference between the school system and the structure of university education. According to the Education Performance Index, despite their financial resources, several countries in the Middle East have failed to convert national wealth into expanded opportunities for basic education. Kuwait (54 places lower - pl), Saudi Arabia (48 pl), Qatar (38 pl) and Oman (36 pl) perform poorly in this regard [Akkari, 2004, 144-153].

**Methodology.** In this research work, both general scientific methods of synthesis and induction, and qualitative methods related to the field of economic science are used. The work used the content analysis of documents related to the research topic. The main information base for this method was international sources and official data from the responsible government agencies of the respective countries. A statistical method of data analysis was used with the development of appropriate graphs for a more convenient presentation of information. The institutional method is also used, which allows us to consider the issue through the prism of understanding the entire system of public administration.

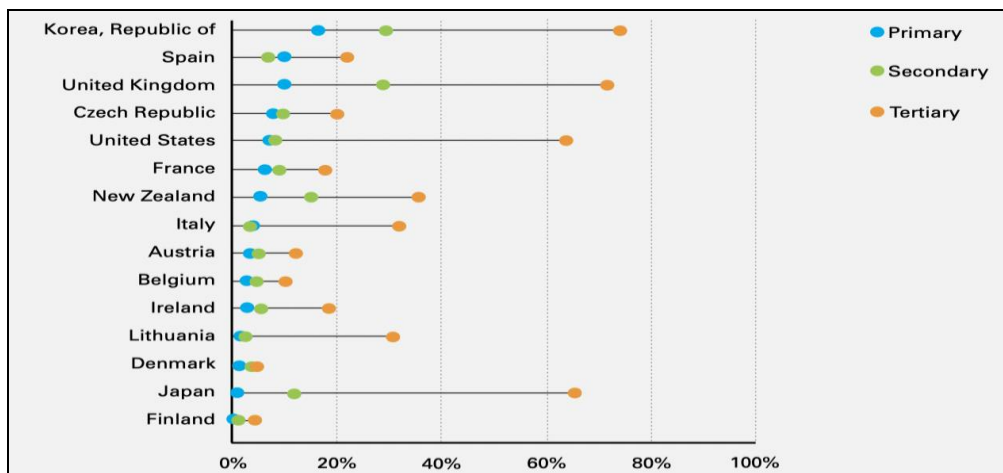
**Analysis.** In the second half of the twentieth century, education was perceived mainly as an investment in human capital with long-term benefits for both the educated person and society as a whole.

First, in all countries, public funding is considered to be one of the main instruments in the development and expansion of education. During the Industrial Revolution of 1750–1990, the leading manufacturers in the world were the United Kingdom, Germany, France, Russia, Italy, the United States and Japan. In the aforementioned countries, funding for education depended on local, state and federal funding. After the industrial revolution of the 1950s and 70s, spending on education in America skyrocketed [Rosar, Ospina, 2016]. On the other hand, in the case of France, spending on education was initially low and mostly private, then in 1833 funding began to grow from local resources after the passage of a law exempting communes from raising local taxes for schools, and finally in 1881 the year the government took over most of the financial responsibility after the introduction of a new law abolishing all fees and tuition fees in public primary schools.

It is fair to say that the countries of North America and Europe have a larger budget for each fiscal year than other countries. However, data from the World Bank shows that European countries spend more on secondary and tertiary education than on primary. They choose to invest more in early childhood education to strengthen the foundation of their students [Education at a Glance, 2015]. Public preschool education in Europe is

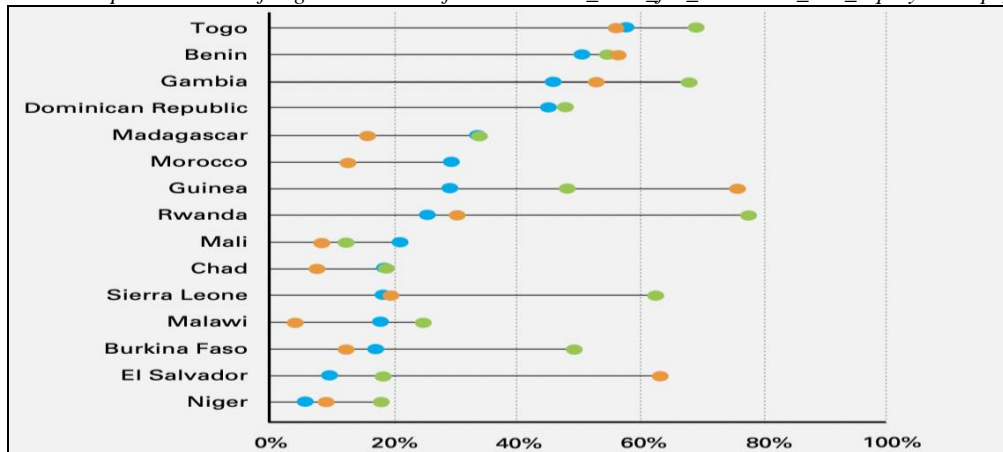
generally more developed than, for example, in non-European OECD countries. Teachers in the Middle East also know that the lack of quality education at the primary level makes it difficult for students to cope with the system at the tertiary level. If the basic education of students is not provided, it is difficult to expect productive results from them at the level of higher education.

The Roser and Ospina treatise states that a percentage of total education spending is contributed directly by households in 15 high-income countries and 15 low / middle-income countries [Roser, Ospina, 2016]. The charts below also show that both the government and the citizens of a country should take responsibility for funding education rather than relying entirely on government funds.



**Figure 2.** Total spending on education as a percentage contributed directly by households in developed countries

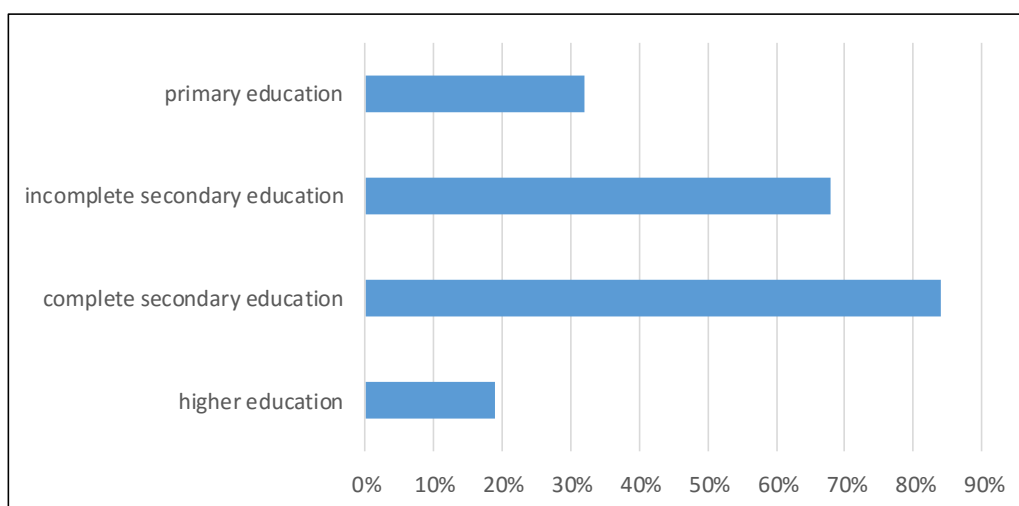
Source: [https://www.unicef.org/media/50936/file/Investment\\_Case\\_for\\_Education\\_and\\_Equity-ENG.pdf](https://www.unicef.org/media/50936/file/Investment_Case_for_Education_and_Equity-ENG.pdf)



**Figure 3.** Total spending on education as a percentage contributed directly by households in undeveloped countries

Source: [https://www.unicef.org/media/50936/file/Investment\\_Case\\_for\\_Education\\_and\\_Equity-ENG.pdf](https://www.unicef.org/media/50936/file/Investment_Case_for_Education_and_Equity-ENG.pdf)

On the other hand, inadequate investment in education by the public sector results in households paying a significant portion of the cost of educating their children. On a country-weighted average, households in low-income countries account for 27 percent of all spending. Private contributions to education can offset the budgetary gap for public education. If the richest take on the costs, and public resources are mainly used to support poorer and less affluent children, this may even have elements of an equity-focused solution. Figure 4 shows an average household spending in 15 sub-Saharan countries for each level of education. The share of total household expenditures is higher for the second stage of secondary education compared to lower secondary education and for lower secondary education compared to the primary level. However, it is the lowest at the tertiary level at 19 percent of total spending, although tertiary students are generally among the wealthiest.



**Figure 4.** Share of government spending on current education contributed directly by households in 15 countries, 2004

Source: [https://www.unicef.org/media/50936/file/Investment\\_Case\\_for\\_Education\\_and\\_Equity-ENG.pdf](https://www.unicef.org/media/50936/file/Investment_Case_for_Education_and_Equity-ENG.pdf)

Parental contributions to education costs include hiring teachers to compensate for the absence of a government-funded teacher. In 2020, 28.5% of teachers in 11 sub-Saharan countries were parent-funded community teachers [Mingat, Jee-Peng. 1996]. Although several countries now publicly subsidize these teachers, many still receive funding from citizens. In low-and middle-income countries, the most common trend is that household contributions to tertiary education are among the most costly investments and where private income from education is highest: for example, 4 percent in Malawi, 7 percent in Chad, and 8 percent in Mali. In 7 out of 15 countries, households' contribution to tertiary education is lower than households' contribution to primary school, even though tertiary education is available almost exclusively to wealthier students. In some low-income countries where education is almost entirely subsidized by the government,

such as Chad, Madagascar, Malawi and Mali, the majority of primary education spending (18–34%) falls on households due to the lack of prioritization of public resources at this level. Malawi and Madagascar are among the top three countries with the highest concentration of resources for the top 10%. This distribution of private households' contributions to education is the result of highly regressive public funding for education [Leathes, Bonner, Das, Kalra, Wakeham, 2011].

According to Global Finance magazine, in 2018, the top 30 richest countries in the world included 11 countries from Asia, 16 from Europe, two from North America and one from Australia. Of the 11 Asian countries, six are in the Middle East region. Top 30 richest countries listed in Global Finance magazine, according to statistics from the UNESCO Institute for Statistics, there are no data available for Macau, Hong Kong and Taiwan as they are autonomous regions of China. Excluding them, Qatar, Singapore, Brunei Darussalam, United Arab Emirates, Kuwait, Saudi Arabia, Bahrain and Oman are Asian. An interesting fact is that, with the exception of Singapore, all the other richest countries in Asia spend less than 1% of their GDP on research and development (R&D), and there are fewer than 605 researchers per million inhabitants. Unlike countries that are part of the North America, Europe and Oceania regions, with the exception of Malta, the other seventeen countries invest more than 1.3% of their annual GDP in R&D. In addition, more than 4233 people are researchers per million inhabitants of these seventeen countries. From the above data, it becomes clear that Asian countries are far behind countries in other regions in terms of R&D; even economically unstable Greece is investing more in research, and the number of researchers is larger than in most of the richest Asian countries. This means that Asian countries must focus on R&D for sustainable economic and educational progress.

On the other hand, in today's globalized world, technology plays a rather large role in research and development in the field of communication and information use, therefore an efficient workforce is required to use technology. With regard to the improvement of modern technology and R&D, it can be said that technologies are generated through investment in R&D, which, in turn, requires the intensive use of a highly educated and intelligent workforce. Consequently, higher education affects economic growth not only directly, but also indirectly - through the creation and development of new technologies [Vila, 2005, 3-10]. After the start of the industrial revolution in 1750, it became apparent that the leading developed countries such as the UK, USA, Japan, Germany, Russia, Italy and others invested extensively in the development of the education sector, since at that time this funding was related to labor productivity.

In 1993, total spending on educational institutions in the United States was 4.2 percent of gross domestic product (GDP) for primary and secondary grades, 2.5 percent for tertiary education, 6.8 percent for all levels combined. Whereas Canada and France

spent more from all G-7 countries on primary and secondary education. Canada alone spent more than the United States on higher education and all levels together [International comparisons of expenditures for education, 1997]. It is also now clear that investment in education in developed countries is higher than in other countries.

**Conclusion.** However, colossal investments in education cannot accurately guarantee quality education, for example, despite the fact that the countries of the Middle East annually invest quite significant funds in higher education and have a decent budget for education, they still make a small contribution to the development of the education sector in the world. level. A well-thought-out plan, targeted education spending and the efficiency of the existing education system play a decisive role here. Supporting this problem, it can be noted that the indicators of a country in the development process are closely related to the effectiveness of the education system [Sezer, Mercan, 2014, 925-930]. In addition to several positive contributions to the social, cultural and political spheres, an effective education system increases competitiveness and fosters economic growth by training a skilled workforce and increasing economic productivity.

The most important advantage of developed countries is that they have the potential for a well-educated and skilled workforce that keeps pace with rapid changes in manufacturing and high-tech productivity. Raising the level of education has a positive effect on economic growth, increasing both labor productivity and the ability to acquire new knowledge. The quality of education in a country significantly affects the overall ranking of a country. We may conclude that the country's rating derived from indicators of the quality of education is made up of the following factors:

- investment attractiveness;
- economic growth;
- per capita income;
- the level of poverty;
- positive balance of migration flows;
- low level of the shadow economy
- etc.

For example, according to the US News & World Report 2018 education ranking, the top 30 countries include 22 countries from Europe, two from North America, two from Oceania, and four from Asian regions. This is practically reflected in other industries. Among the top 30 countries in the world in terms of education, 93.33% (29 countries excluding Belgium) are among the top 30 countries in the overall ranking. In addition, 76.67% (23 countries) of the aforementioned countries are among the 30 most influential countries in the world. Also 83.33% (25 countries) of these countries are among the 30 most progressive-minded countries.

In developed countries of the world with more funding in education the crime rate is lower and people have more decent lifestyle. Also, more education means more job opportunities, which leads to less crime. In addition, it can be argued that large investments in education are associated with greater stability of social structures [Vila, 2005, 3-10]. School helps children understand social values and encourages them to behave in a socially acceptable way, so educated people are expected to be more civilized and tolerant of others. Educated communities tend to be more stable and less prone to violent social conflict than societies with less educated populations. This atmosphere prevails in countries such as Finland, Canada, Norway, Denmark, Switzerland, Sweden, etc.

Diversification is a guarantee of a confident future, as the main tool for minimizing risks. Investment in education must be diversified to balance education development as it impacts sustainable economic growth across sectors. It should cover incomplete, secondary and higher education, as well as medical, technological, mechanical, scientific and social education. All of them must be linked to general social, environmental and cultural development. In addition, all of these advances need to be updated from time to time to meet global needs. Diversified investment in education will also cover the needs of the domestic and international market. It can be patronized by governmental and non-governmental organizations that are associated with the economic and educational goals of the country. The result of funding education can be reflected over several years or decades. In this regard, Emily Hu talks about investing in education to provide quality education in the United States. She believes that "well-established standards and authoritative systems for assessing the quality of education in the United States are key to their global leadership in the education of children under 12 and their ability to attract diversified investment in this and other sectors" [China's K-12 Schools embrace a diversified capital investment era, 2016]. Diversified investment in education and interdisciplinary education also reduces economic risk. China has taken initiatives to develop multidisciplinary talent as a top priority and key to allowing the broadest range of high quality social resources to flow into education, to foster innovation in education.

Since the quality of education, development and country influence are parallel processes, the following steps should be taken before thinking about investing in education.

The quality of education does not mean an influx of money; if it were possible, resource-rich countries would have the best schools, universities, research institutes and researchers. The following points should be carefully considered before funding:

- enthusiasm,
- research environment,
- research fund,
- transparency,
- investment of money,



- search for loopholes in the education system,
- in-depth knowledge of current world circumstances,
- the efficiency of using the latest technology and not just buying them.

To be successful, the development strategy and long-term vision of the country must be kept in mind before funding the education sector. In fact, the benefit of investing in education is finally reaching the students. So, we need to create a hardworking, knowledgeable, curious and talented generation to get the optimistic end result of this support. Policymakers should consider that this is a long-term investment; it may take several decades to see the results of this funding. Singapore is a good example here.

In the 1980s, Singapore's economy began to flourish and the emphasis in Singapore's education system shifted from quantity to quality. A lot of differentiation was made for students with different academic abilities, for example, the modernization of vocational education within the framework of the new Institute of Technology and the division of the general stream in secondary schools into academic and technical streams. The Gifted Education Program is also designed for more academically inclined students. In 1997, Singapore's education system began to transform into a capacity-based education system after then Prime Minister Goh Chok Tong outlined his vision of "schools of thought, learning nations." This policy put more emphasis on national education, creative thinking, collaborative learning, and ICT literacy.

We may conclude that interdisciplinary education is funded, and the transformation of education, based on this and human nature, is endless. In today's digital world, this is happening rapidly. After five years, the government authorities should revise the school and university education system; books and course plans should be reviewed for updates. Therefore, constant investment is required here. If students graduate from updated and time-based courses, it will create an efficient workforce that will make a lasting contribution to the country's economy. If the country's economy thrives, the labor market will expand, and eventually, the problem of unemployment will be reduced. Economic analyzes aimed at examining the value of education focus on the contribution of formal schooling to improving the ability to earn money in the labor market. Longer schooling increases your chances of finding a job [Sezer, Mercan, 2014, 925-930], reduces the duration of unemployment and positively affects incomes due to higher earnings in the labor market [Vila, 2005, 3-10].

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#### Analysis of international experience in financing education

*Key words: education, budget, economic development, universities*

Everyone knows that education is the foundation of a nation. Countries that have implemented this motto and have long invested heavily in the sustainable development of the country's education sector are now leaders in innovation, global influence, employment, innovative thinking, world-class healthcare, technology, ideological influence and even in the military. They diversified investment in education, which spurred progress across all sectors. On the contrary, there are many countries that rely on some specific advanced countries for creativity, education and even making important decisions. These countries cannot support their own sustainable development because they rely on others. In addition, some countries are highly dependent on natural resources, which currently face constraints due to the sharp fall in the prices of these assets due to the global economic depression or the invention of alternatives. The world's best educated countries have more researchers, a diversified world-class education system, and the creativity to cope with changing global circumstances. Thus, funding for education opens up many employment opportunities, which leads to a decrease in the crime rate in the country and, as a result, leads to the sustainable economic development of the nation.