



Financing Education: A Route to the Development of a Country

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Abstract

Everybody knows that education is the backbone of a nation. The countries which have realized that motto and invested a lot for a long time for sustainable development of the education sector of the country, they are now forerunner in innovation, world influence, employment, innovative thinking, world-class health care service, technology, ideological influence and even military advancement. They have diversified education investments which have had defused the progress in all sectors. On the contrary, there are many countries which are wealthier than many developed countries, but for creative ideas, educational advancement, climate change and even for major decisions, they rely on some specific advanced countries. These countries cannot ensure sustainable development of their own as they rely on others. Besides, some countries mostly depend on natural resources which are now facing constraint for plummeting of the price of those assets due to worldwide economic depression or the invention of alternative option. The countries which have the best education in the world, they have more researchers and diversified world-class education system and creativities to cope up with the changing world circumstances. Therefore, education financing opens up a variety of employment opportunities which leads to the reduction of the crime rate of a country—consequently, leads to the sustainable economic development of a nation.

INTRODUCTION

Education is not stagnant; it is diverse and ever-changing. Education changes the view of schooling and the concept of anything or any issue. Proper education and educating people with the updated edification are connected with the development of a society and obviously a country. Regarding the development of a country or society, Mercan and Sezer (2014) say that differences in education level are one of the main reasons for economic performance differences between developed and developing countries. To keep the education level up-to-date, educational financing is very important for a nation-state. Becker (1962) treated education financing as capital investment. Educational investment helps a society not only to educate its people but also to contribute to the overall progress of its citizens and social changes. Better-educated people are thought to form more accurate expectations and pursue their aspirations more efficiently than poorly educated people (Vila, 2005). Wha (2014) also talks in the same way; he says that Education is a fundamental driver of personal, national and global development. He also articulates that the educational expense of a country is interconnected with economic development. Countries with higher per capita income...invest more in children's education. The...efforts to promote more inclusive economic growth and improve education systems can raise enrollment among young people in developing countries and reduce disparities between genders and among social groups.

Therefore, in this article the researcher intends to clarify that education investment does not mean developing infrastructure, using updated technology, filling the university library with outdated and useless books, buying expensive devices just for good world ranking of the university, but planning sector-wise educational investment, launching time-oriented new courses for all levels of education, training teachers properly based on the quality of students and teaching environment, making availability of latest most important books in the library, and making government scholarships to highly qualified post-graduate student for studying

abroad with the assurance of their return to their native land.

Importance of education investment for a country

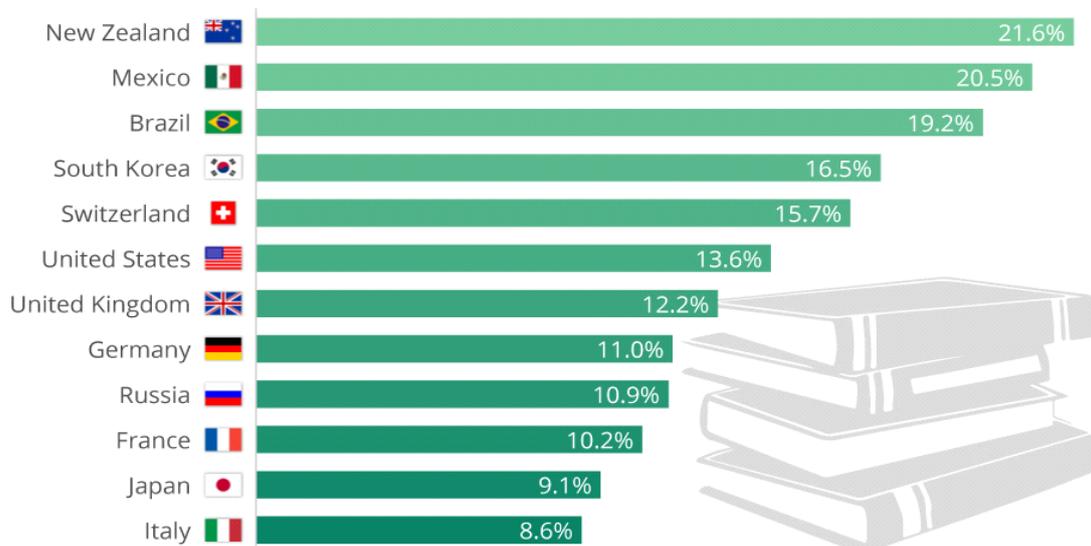
Education investment works as a catalyst for preparing next generation efficiently for the economic, social and cultural development of a country. Economists consider that the time and money invested in education pay returns and that these have a positive net effect on the possibilities of satisfying human needs (Vila, 2005). Developed countries finance more on education specifically on education research. Regarding education investment, Barshay in 2017 in a newspaper article wrote that "the world's developed nations are placing a big bet on education investments, wagering that highly educated populaces will be needed to fill tomorrow's jobs, drive healthy economies and generate enough tax receipts to support government services." All countries have increased their education financing remarkably recently. For instance, over ... 2010 to 2014 period, education spending, on average, rose 5 percent per student across the [35 countries in the OECD](#) (The Organization for Economic Cooperation and Development). In some countries, it rose at a much higher rate. For example, between 2008 and 2014, education spending rose 76 percent in Turkey, 36 percent in Israel, 32 percent in the United Kingdom and 27 percent in Portugal (ibid).

The interesting factor is that though the education budget within the mentioned time frame was squeezed in the USA, there per primary and secondary school allocation is higher than all countries. Barshay (2017) also talked about this issue in her newspaper column. She wrote that "even with the decline in spending, the United States still spends more per student than most countries. The United States spent \$11,319 per elementary school student in 2014, compared with the OECD average of \$8,733, and \$12,995 educating each high school student, compared with an average of \$10,106 per student across the OECD". In contrast, the opposite circumstance prevails in the Middle-East countries. According to Statista (MacCarthy, 2015), within the first twelve highly education

invested countries, there is no country from the Middle East, though there are some countries in this region which are among the richest countries in the world.

Which Countries Invest The Most In Education?

Expenditure on education as a % of total public expenditure in selected countries*



© StatistaCharts * latest available year Source: OECD

statista

Figure 1. Importance of education investment for a country

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

Middle-East countries mainly focus more on tertiary education than school education which is more important for giving students a solid basic education. This wrong step has a derogatory influence on the confidence, enthusiasm, encouragement and required knowledge on a subject to study at the university level, as they find a big difference between school education system and university education structure. According to the information on Education Performance Index (EPI) provided by Akkari (2004) that despite their financial resources, several countries in the Middle East have been unable ... to convert national wealth into extended opportunities for basic education ... Among the bad performers are Kuwait (54 places lower), Saudi Arabia (48 places lower), Qatar (38 places lower), and Oman (36 places lower).

History of education investment of some countries

Akkari (2004) says that during the second half of the twentieth century, education has been

taken very much as an investment in human capital, with long-term benefits both to the individual who is educated and to the public at large.

Primarily, it is seen in all countries that government financing is the main sound of the fund in educational development and expansion. During the time of the industrial revolution, 1750-1990, the leading manufacturing countries in the world were the United Kingdom, Germany, France, Russia, Italy, the United States, and Japan. Among the above-mentioned countries, funding of education relied on local, state and federal funding. After the industrial revolution during the years of 1950-70 in America, there was a substantial growth of educational expenditure (Roser and Ospina, n.d.). On the other hand, in case of France: education spending was initially low and mainly private, then in 1833 funding began growing with local resources after the introduction of a law liberating communes to raise more local taxes for schools, and finally in 1881 the national government took over most of the financial

responsibility after the introduction of a new law that abolished all fees and tuition charges in public elementary schools (Roser and Ospina, n.d.).

Apparently, it is thought that North American and European countries every fiscal year have a big budget than other countries. However, World Bank data (2010) reveals that European countries spend more on secondary and tertiary education rather than primary education; they invest more on pre-primary education to make the basis of students solid ([Education at a Glance, 2015](#)). Publicly funded pre-primary education tends to be more strongly developed in the European than the non-European countries of the OECD (ibid). It is also

experienced by teachers in Middle East countries that due to lack of quality education at the primary school level, students struggle to cope up with the education system at the tertiary level. If the basic education of the students is not ensured, it is quite difficult to expect a productive outcome from them at the tertiary level.

It is also revealed in the writing of Roser and Ospina (n.d.) that "the percentage of total education expenditures contributed directly by households in 15 high-income countries and 15 low/middle-income countries". The chart below also proves that both the government and citizens of a country should take the responsibility of educational financing rather than fully relying on the public fund.

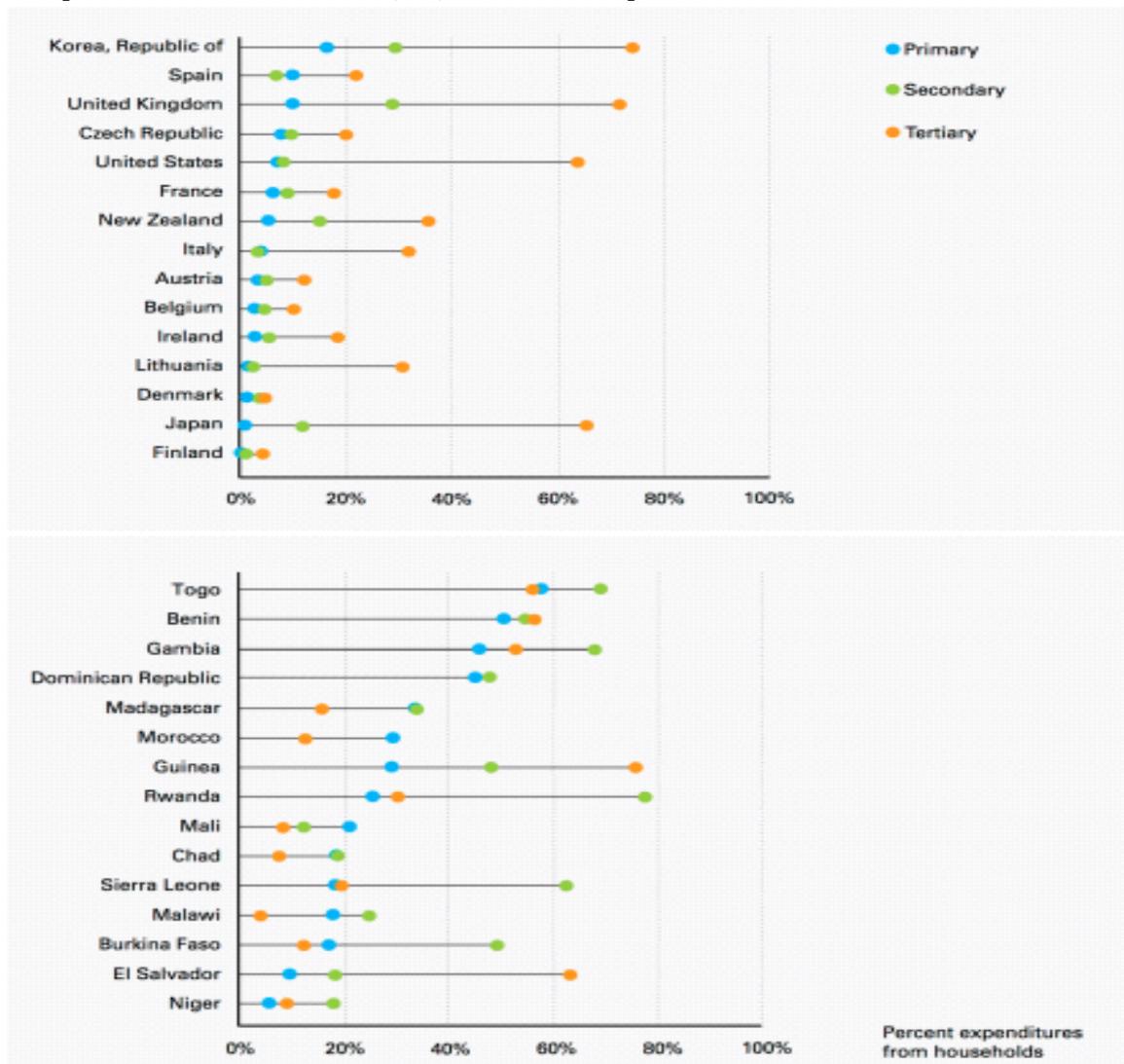


Figure 2. The Investment Case for Education and Equity (UNICEF - 2015)

Percentage of total education expenditures contributed directly by households in 30 countries, grouped by country income – Figure 1 in [The Investment Case for Education and](#)

[Equity \(UNICEF - 2015\)](#) Source: [Roser](#) & Ospina (n.d)

Comparing wealth of countries with education research

According to the *Global Finance* magazine, in 2018, within the top 30 richest countries in the world, 11 countries were from Asia, 16 from Europe, two from North America and one from Australia. Within 11 Asian countries, six are from the Middle East region.

The first 30 richest countries which are mentioned in the *Global Finance* magazine, according to the statistics of UNESCO Institute of Statistics (n.d.), there is no data on Macao, 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 from Asia. The interesting factor is that except Singapore, all other richest countries from Asia spend less than 1% of their GDP for research and development (R&D) and there are less than 605 researchers per million inhabitants. In contrast, countries which are comprised within North America, Europe and Oceania regions, except Malta, other seventeen countries invest more than 1.3% of their annual GDP for R&D. Besides, among per million inhabitants of those seventeen countries, more than 4233 people are researchers.

It is explicit in the aforementioned data that regarding R&D, Asian countries are far behind the countries of other regions; even economically bailed out Greece has more investment in researcher, and the number of researchers is more than most of the Asian richest countries. That means Asian countries should focus on R&D for stable economic and educational advancement.

On the other hand, in the current globalized world, technology plays a big role in R&D for communication and availing information, so an efficient workforce is needed for utilizing technology. With reference to ameliorating updated technology and R&D, Vila (2005) says that "technology is generated through the investment in R&D activities, which, in turn, require intensive use of highly educated labour. Hence, higher education influences economic

growth not only directly, but also indirectly through the generation and assimilation of new technology".

Relationship between quality of education and economic growth

After the starting of the industrial revolution in 1750, it has been seen that the present leading developed countries like United Kingdom, USA, Japan, Germany, Russia, Italy, etc. invested a lot for the progress of education sector as this funding was connected with the efficiency of labors at that time.

In 1993, total expenditures on education institutions in the United States were 4.2 percent of the Gross Domestic Product (GDP) for the primary-secondary grade level, 2.5 percent for higher education, and 6.8 percent for all levels combined. While Canada and France spent a larger fraction for primary-secondary education, of the G-7 countries, only Canada spent a larger fraction than the United States for higher education and for all levels combined (International comparisons, 1997).

Currently, also the educational investment of developed countries is obviously higher than in other countries.

However, a huge amount of educational investment cannot assure quality education, for instance, despite Middle East countries having higher educational investment and education budget every year, for the worldwide advancement of the education sector, they have a little contribution. Here, a deliberate plan, focused educational expenses and effectiveness of prevalent educational system play decisive roles. Supporting this issue Mercan and Sezer (2014) points out that

The performance of a country in the development process is closely related to the effectiveness of the educational system. Besides its several positive contributions in social, cultural and political areas, an effective education system increases the competitiveness and contributes to the economic growth by training the qualified labour and productivity increase in economical aspects.

The most important advantage of developed countries is that they have the capacity for the well educated and qualified labor keeping

pace with the rapid changes in the manufacturing process and producing high technology. The improvements in educational level affect the economic growth positively by increasing both the labour productivity and the capacity of knowledge production.

Connection between the quality of education with world rankings of countries

Education quality of a country has a significant reflection on the overall ranking of a country. Both of them are almost close. For example, according to the information of *U.S. News & World Report* 2018 on education ranking, among the top 30 countries, there are 22 countries from Europe, two from North America, two from Oceania and four from Asian regions. It is almost reflected in other sectors. The following table indicates this:

Table 1. Information of U.S. News & World Report 2018 on education ranking

Name of the country	Education Ranking	Overall Ranking	International Influence	Forward Thinking
United Kingdom	1	5	4	9
United States	2	8	1	3
Canada	3	3	10	8
Germany	4	4	5	6
France	5	10	6	18
Australia	6	7	17	11
Switzerland	7	1	16	7
Sweden	8	6	22	10
Japan	9	8	7	1
Netherlands	10	11	21	13
Denmark	11	10	29	14
Norway	12	14	25	12
New Zealand	13	12	31	19
Belgium	14	Not ranked	19	20
Finland	15	16	35	17
Italy	16	15	9	23
Ireland	17	16	30	27
Spain	18	20	11	26
Luxembourg	19	19	36	25
Singapore	20	16	28	2
South Korea	21	22	13	4
Russia	22	26	2	21
Israel	23	30	8	22
Portugal	24	24	24	32
China	25	20	3	5
Poland	26	27	38	30
Greece	27	29	18	54
Hungary	28	38	48	49
Czech Republic	29	26	46	56
Argentina	30	40	39	41

Source: <https://www.usnews.com/news/best-countries/best-education>

Among the top 30 educationally ranked countries in the world, 93.33% (29 countries; excluding Belgium) of these countries are within the top 30 overall ranked countries. In addition, 76.67% (23 countries) of the above-mentioned countries are the top 30 most influential countries in the world. Furthermore, 83.33% (25 countries) of these countries are also top 30 forward

thinking countries. It is clear from the above table that the countries which have the best education in the world, they are advanced in thinking, influence and overall ranking also. Therefore, education investment is the best way for the advancement of a country. Education has an impact on social, cultural, innovation and even quality of life also. If a generation is educated properly with proper education financing, it has a positive effect on the next generations also. Vila (2015) says that evidence of the effects of parents' education on children's health; cognitive development and social behaviour can be found.

Positive side of more education investment

If we observe the developed countries in the world which have more money flow in the education sector; they have less crime rate comparatively, at least, people lead a decent life. More schooling means more possibility to get a job which leads to less criminal activity. About this Vila (2015) states that greater education investment is related to a greater stability of social structures. School helps children to understand societal values and encourages them to behave in socially acceptable ways, so educated individuals are expected to be more civilized and tolerant to others. Educated communities are generally more stable and less likely to experience violent social conflicts than societies with a less educated population.

This atmosphere prevails in countries like Finland, Canada, Norway, Denmark, Switzerland, Sweden, etc. If we look at the rating of unemployment of the countries which are mentioned in *U.S. News & World Report 2018*, it will be understandable.

Tabel 2. Positive side of more education investment

Name of the country	Unemployment rate with ranking (%)
United Kingdom	4.4 (155)
United States	4.4 (154)
Canada	6.5 (125)
Germany	3.8 (172)
France	9.5 (85)
Australia	5.6 (137)
Switzerland	3 (181)
Sweden	6.6 (123)

Japan	2.9 (183)
Nederlands	5.1 (146)
Denmark	5.8 (136)
Norway	4 (170)
New Zealand	4.9 (149)
Belgium	7.5 (111)
Finland	8.7 (97)
Italy	11.4 (71)
Ireland	6.4 (129)
Spain	17.1 (41)
Luxembourg	5.9 (134)
Singapore	2.2 (198)
South Korea	3.8 (171)
Russia	5.5 (139)
Israel	4.3 (158)
Portugal	9.7 (83)
China	4 (167)
Poland	4.8 (151)
Greece	22.3 (30)
Hungary	4.4 (157)
Czech Republic	2.8 (184)
Argentina	8.1 (106)

Source:

https://www.theglobaleconomy.com/rankings/Unemployment_rate/

The aforementioned table demonstrates that among the top education ranked countries in the world, only two countries (6.67%) are below 50 most unemployed countries in the world. Another two countries (6.67%) are within 51-99 groups. Most significantly, 86.67% of countries are ranked 106 and above. It illustrates that if the education sector of a country has sufficient funding for a long period of time and the quality of education can be assured, it impulses positive impact on other areas also. If the unemployment rate of a country declines, the crime rate will also be reduced. If the crime rate is controlled then obviously the law and order situation of a country will be stable. The outcome of all positive sides will be extradited to the expansion of the economy of the country.

Disseminate Educational Investment

Education investment should be diversified for balancing educational development because it has impact on sector-wise steady economic growth. It should cover junior, secondary and tertiary education, as well as medical science,

technological, mechanical, scientific and social education. All of them should be connected with overall social, environmental and cultural development. Besides, all these progresses are to be updated time to time with the global needs.

Diversified educational investment will also cover domestic and international market needs. It can be patronized by government and non-government organizations which are connected with the economic and education goals of a country. The result of the educational financing may be reflected within few years or decades. Regarding this point, Emily Hu talks about educational investment to ensure quality education in USA. He says that “the well-established standards and respected education quality evaluation systems in the United States being the key to its world leading position in the K-12 education industry and its capacity to utilize diversified investments in the sector” (China, 2016)

Diversified educational investment and inter-disciplinary education will also reduce the economic risk. China has taken initiatives to produce multi-disciplinary talents. According to Mr. Tan, developing excellent inter-disciplinary talents is the top priority [of china] and the key to allow the widest range of quality social resources to flow into the education field and to promote education innovation (China, 2016).

Recommendations

Since the quality of education, development and influence of the country works simultaneously, following steps should be followed before thinking about education investment:

Quality of education does not mean the flow of money; if it could be, the countries which are blessed with natural resources, they would have the best schools, universities, research institutes and researchers. Following points should be well thought-out before financing: enthusiasm, research environment, research fund, transparency, investment of money ascertaining loopholes of the education system, profound knowledge of the current world circumstance, the efficacy of using latest technology rather than buying them just for show-off, development strategy and long term vision of the country

should be kept in mind before financing education sector.

Basically, the advantage of education investment finally reaches to the students. So, a hardworking, connoisseur, curious and talented generation should be created to get the optimistic end result of this backing.

The policy makers of a country should consider that it is a long term investment; it may take few decades to get see the outcome of this funding. Here Singapore is a good instance.

In the 1980s, Singapore's economy started to prosper, and the focus of Singapore's education system shifted from quantity to quality. More differentiation for pupils with different academic abilities were implemented, such as revamping [vocational education](#) under the new [Institute of Technology](#) and splitting of the Normal [stream](#) in secondary schools into Normal (Academic) and Normal (Technical) streams. The [Gifted Education Programme](#) was also set up to cater to more academically inclined students. In 1997, the Singapore education system started to change into an ability-driven one after then Prime Minister [Goh Chok Tong](#) outlined his "Thinking Schools, Learning Nations" vision. Under this policy, more emphasis was given to national education, creative thinking, collaborative learning as well as [ICT](#) literacy (“Education in Singapore,” n. d.).

Expand educational outlay depending on the current need and long term demand on the country. It is to be bridged with the efficacy of the manpower, future policy of the country and economic goals.

CONCLUSION

In conclusion, it can be said that multi-disciplinary education finances and transformation of education drives simultaneously and never-ending. In the current digital world, it is happening rapidly. After ever five years concerned the authority of the government should review the school and university education system; books and course outlines should be reviewed for updating. Therefore, constant investment is mandatory here. If students graduate with updated and time-oriented courses, it will create an efficient work-

force to keep long term contribution to the economy of the country. If the economics of the country is flourished, the job market will be broadened and ultimately the unemployment problem will be reduced. Regarding this Vila (2015) says,

Most economic analyses on the value of education have focused on the contribution of formal schooling to increased earning capacity in the labour market. Longer schooling improves the chances of employment (Rivera-Batiz, 1992; Iyigun & Owen, 1999), reduces the duration of unemployment (Kiefer, 1985; Kettunen, 1997) and positively influences income through higher labour market earnings (in Vila, 2005).

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