

INTELLECTUAL CAPITAL AND HUMAN DEVELOPMENT INDEX A COMPARATIVE ANALYSIS OF BRICS and TURKEY

ENTELEKTÜEL SERMAYE VE İNSANİ GELİŞİM ENDEKSİ BRICS ÜLKELERİ VE TÜRKİYE’NİN KIYASLAMALI ANALİZİ

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Abstract

In today’s knowledge-based world, intellectual capital has been the key factor for development for achieving sustainable competitive advantage, a paradigm change has occurred and as a result of this change, the importance of physical assets has decreased dramatically and another type of capital which is respectively new; intellectual capital has started to gain importance among both academicians and practitioners all over the world. Intellectual capital has three sub-dimensions including; human capital, structural capital and relational capital and these together directly effect the capacities of productivity, innovation and value creation. Human Development Index which is prepared by United Nations is one of the most important comprehensive resource for evaluating countries globally in terms of health, education and income. Additionally, the world has perhaps been going through a very sensitive period than ever seen in history. Due to wars, economic crises, threats of new pandemics and waves of migration, political balances are shifting; alliances are either breaking apart or being reformed, and Turkish Republic is at some kind of decision point. Due to the long lasting and inconclusive negotiations Turkey is moving away from European Union and approaching to other blocks such as BRICS. In this research Turkey has been compared with BRICS and top countries in terms of human development by the help of Human Development Index. At the end of the detailed comparisons it is seemed that BRICS countries and Turkey is not at the desired position, and necessary revisions should immediately made to be able to reach the desired level.

Keywords: Human Development Index, BRICS, Intellectual Capital, Human Capital

Özet

Günümüzün bilgi dünyasında entelektüel sermaye sürdürülebilir rekabet avantajı elde etmek için gelişmenin anahtar faktörü olarak görülmektedir, tarihsel süreçte bir paradigma değişikliği yaşanmış ve bu değişimin neticesinde fiziksel varlıkların önemi ciddi anlamda azalırken nispeten daha yeni bir kavram olan entelektüel sermaye dünya genelinde hem akademisyenler hem de uygulayıcıların arasında büyük önem kazanmaya başlamıştır.

Entelektüel sermaye üç alt boyut içermektedir, bunlar insan sermayesi, yapısal sermaye ve ilişkisel sermaye olarak sıralanabilir ve bu boyutlar hep birlikte üretkenlik, inovasyon ve değer yaratma kapasitelerini doğrudan etkilemektedir. Birleşmiş Milletler tarafından hazırlanan İnsani Gelişmişlik Endeksi, küresel anlamda ülkeleri sağlık, eğitim ve gelir gibi başlıklar altında değerlendiren en önemli ve kapsamlı endekslerden biridir. Ayrıca, günümüzde dünya, yaşanan savaşlar, ekonomik krizler, salgın tehditleri ve göç dalgaları nedeniyle belki hiç olmadığı kadar hassas bir dönemden geçmektedir ve netice dengeler değişmektedir. Tarihi süreçte yaşanan ve sonuç alınamayan görüşmelerin ardından Türkiye bir karar vermek adına bir nevi dönüm noktasına gelmiştir ve sonuçsuz kalan müzakereler neticesinde Avrupa Birliği'nden uzaklaşarak BRICS gibi bloklarla yakınlaşmaktadır. Bu çalışmada Türkiye İnsani Gelişmişlik Endeksi kullanılarak hem BRICS üyesi ülkelerle hem de bu endekse göre küresel olarak lider olan ülkelerle kıyaslanmıştır. Sonuç olarak hem Türkiye'nin hem de BRICS üyesi ülkelerin genel olarak istenen seviyede olmadığı bu konularda gerekli çalışmaların zaman kaybetmeden yapılması gerektiği neticesi ortaya çıkmıştır.

Anahtar Kelimeler: İnsani Gelişmişlik Endeksi, BRICS, Entelektüel Sermaye, İnsan Sermayesi

1. Introduction

Today, development level of a nation is not an issue solely related to economic data and numeric values, but it is widely accepted that, the base for cumulative development is human beings and vice versa also the results of these developments are observed on human beings. Because of this, a great deal of attention is paid to human beings. It is possible to say human capital and human development issues have been at the focus of academia and business world for a long time.

In today's world, it is commonly accepted that a company's success does not only depend on the assets, equipment, buildings, etc., also the situation is very similar in the macro frame, in terms of countries actually. It is not possible for economies which depend on low or non-value added productions to reach the desired development level and cannot beat the middle income trap, which is an economics term and basically means an economy reaches some gross domestic product value and cannot go beyond that, that value becomes some kind of frontier and it would be difficult to pass, because naturel resources, agriculture, construction sectors can carry economies to a point but not beyond, for going beyond high technology and innovation are compulsory.

The geopolitical importance of Republic of Turkey is indisputable, there are many possible reasons for this, and its location -which is at the intersection of Asia and Europe, proximity to the energy resources, etc.- is one of them. As a powerful actor Turkey has joined and/or applied to the most important global unions, such as NATO, European Union, OECD, etc. For some of these applications, such as European Union, although years have passed, no significant progress has been observed, and this has led Turkey to look for new alternatives and BRICS is one of them.

This research has been prepared to be able to see the current situation of Turkey compared to BRICS countries, which is a union Turkey is some kind of a junction point, and about to make a decision about joining in or not. Also this paper aims to see both Turkey's and BRICS countries' positions in terms of human development against leading countries which rank best all over the world, such as Switzerland, Norway, Denmark, etc.

2. Literature Review

2.1. Intellectual Capital

As Becker mentions in his book Human Capital, in the past the word 'capital' has meant bank accounts, or shares of companies at stock exchange, plants, etc. But today we know that, there is also another type of capital (Becker, 2002). By the effects of globalization and change of the whole context around the world such as transition to knowledge economy, a crucial paradigm change has occurred in the literature and this paradigm change has switched the focus towards the intellectual capital rather than the tangible assets. The new dominant mindset accepted the intellectual capital as the most important asset which is more valuable than money, buildings, properties, equipment etc.

Intellectual capital topic has taken its place among the most popular topics of academia especially during the recent years, but the first person who used this term is Galbraith in 1969 (Bontis, 1998). After years, in 1991, Thomas Stewart has been the first person who used “intellectual capital” in the organization studies arena, in his article; which was published in Fortune Magazine with the title *Brainpower* (Stewart, 1991). Since that date many academicians and researchers have studied intellectual capital, books have been written, researches have been conducted, discussed in congress, etc. After this process, so many precious contributions have been made to the field and today it is commonly accepted that a company’s success does not solely depend on the assets, equipment, buildings, etc. These assets do not mean so much without intellectual capital including human capital, structural capital and relational capital. A company’s success is directly related with intellectual capital, combining the human, structural infrastructure and relations (Hussinki, 2015). Just like intellectual capital’s importance is accepted for companies, in the micro perspective, the situation is very similar in the macro perspective, in terms of countries actually. As it is mentioned in the introduction section, economies which depend on low or non-value added productions cannot reach the desired level and cannot beat the middle income trap. So, at the present time it is known that the main source of competitive advantage comes from the human beings and so the intellectual capital, and Stewart points out this in his article in 1994 and human capital has an important impact on innovation (Wang, et al 2011).

Although there is not a commonly accepted definition for intellectual capital, as it is mentioned in the OECD Intellectual Assets and Value Creation report (2008), there are some different accepted definitions for this term, and Stewart also mentions it in his article. In Cambridge dictionary the definition of intellectual capital is given as; “the value of all the knowledge and ideas of the people in an organization, a society, etc.”. Stewart defines intellectual capital as the cumulative knowledge of a company’s employees which helps getting competitive advantage (1991). Another definition is given by Brooking in 1996 as, all of the immaterial assets which contributes to the survival of the company (Brooking, 1996). In 1997 Leif Edvinsson the first professional intellectual capital manager defines intellectual capital as the knowledge which could be converted into a value (Karacaer, Aygün, 2009)

Leif Edvinsson underlines directly the importance of intellectual capital and states that intellectual capital is as important as at least financial capital for gaining sustainable advantage (1997; p366), also Wang et al underlines the similar point and mentions that the intangible assets are more important and determinant than tangible assets (Wang et al, 2011). When we check the literature we see 3 elements of intellectual capital; human capital, external or customer capital and structural capital.

2.1.1 Human Capital

When we talk about the intellectual capital, human capital is the basic component. Among many other factors the importance of the human beings for an organization’s success is indisputable. When we look at the global trends in the organization area the awareness about the significance of human resources is increasing globally, so value given to human resources increasing, and human resource management notion is being more and more common and popular very in the business world. As Lange and Topel mention on their article, today majority of the growth theories place human capital on the focus of development (2006). Intellectual capital of a company directly depends on the quality of human capital, and to be able to develop intellectual capital, investing in human capital is compulsory.

Human capital is the cumulative of skills, capabilities, proficiencies, problem solving abilities, know-how levels, qualifications, creativity, leadership skills and accumulation of knowledge of all human resources of the whole organization (Khalique et al, 2011, Bontis, et al 2000).

And human capital is directly related to education, even the expenses of a qualified education is increasing day by day, at the the end the cumulative gain for human beings is also positive and increasing as Gary Becker states in Human Capital (Becker, 2002, p17).

The main argument underlying the human capital notion is benefiting from the human capital as efficient as possible for gaining competitive advantage and reaching to organizational goals.

2.1.2 Structural Capital

Structural capital is a key component of intellectual capital and it is related with human capital in a strong manner. Structural capital expresses all the things related to knowledge supporting the human capital and owned by the organization such as databases, processes and routines (Bontis et al, 2000). A very simple definition has been made by Roos, Dragonetti and Edvinsson, such that structural capital is what remains in the organization after employees go their homes after their shift (Bontis et al 2000). These entities help managers especially the top managers to construct their road maps such as strategies, plans, etc.

Structural capital plays a crucial role for organizations to reach their maximum intellectual capacity, which means if an organization cannot build and then use its structural capital properly it would not be possible to reach at maximum level of intellectual capacity. Also structural capital supports development of human capital and innovation creating levels and make these permanent for long times.

2.1.3 External or Relational Capital

External capital is also known as customer capital or relational capital in the literature. This type of capital is related to the relations and networks of an organization with customers, suppliers, rivals and all other environmental elements and relations within the organization (Toraman et al,2009). In short it is possible to say that it is a value which is born from the external relations of the companies. Another definition of external capital is it is the total of an organization's assets which arrange and manage the relations of the organization with all the actors of its environment; such as brand value, customer relations, customer loyalty and satisfaction, etc (Das et al, 2003), so to sum up it could be summarized as the capital which is the sum of relationships. Customer relations, beneficial relations with suppliers, loyalty of customers or a strong brand image of the company could be given as examples to external relations.

2.2 BRICS

BRICS term is an abbreviation for an international union which was formed by five countries including Brazil, Russia, India, China and South Africa. At the beginning, the term was BRIC not BRICS and firstly used in a report which was prepared by Goldman Sachs in 2001 and this union among the emerging economies has been seen as an important alternative to the famous unions and still occupying the world agenda both economically and politically (Brada, 2020). Brics is an effective and important group in terms of political, economic and military, such that it includes world's largest economies like China and India. Economies of the union members, especially the founders which are Brazil, Russia, India, China and South Africa has grown drastically. As it is mentioned in the United Nations' Brics Investment Report this group is so important for the world economy such that they constitute a quarter of the cumulative GDP of the world (2023).

When we analyze the largest economies globally according to the World Bank data, USA is the leader in the largest economies list in terms of annual gross domestic product with 27,4 trillion USD and China is the second largest economy following US, reaching about 17,8 trillion USD annual GDP value, and India is the fifth one in the list with 3,6 trillion USD GDP value, also these two members, China and India have the largest populations over the world. Total population of the members of the BRICS is about 3,6 billion, and it is about half of the total world population which is about 8 billion in year 2023.

In the following table the Gdp values and populations of BRICS members are given together to be able to see the numbers together and notice and underline the importance of the bloc (World Bank, 2024 <https://datacatalogfiles.worldbank.org/ddh-published/0038130/DR0046441/GDP.pdf?versionId=2024-07-01T12:42:23.8710032Z>).

Table1. GDP Values of Brics Members Source: World Bank

GDP Rank (Among the World Economies)	Brics Member	Gross Domestic Product values (2023) (million, USD)	Population 2023 (thousands)
2	China	17,794,782	1,410,700
5	India	3,549,919	1,439,000
9	Brazil	2,173,666	211,140
11	Russia	2,021,421	143,825
19	Saudi Arabia	1,067,583	33,265
29	United Arab Emirates	504,173	10,490
36	Iran	401,505	90,610
38	Egypt	395,926	114,535
40	South Africa	377,782	63,213
58	Ethiopia	163,698	128,692

2.3. Human Development Index

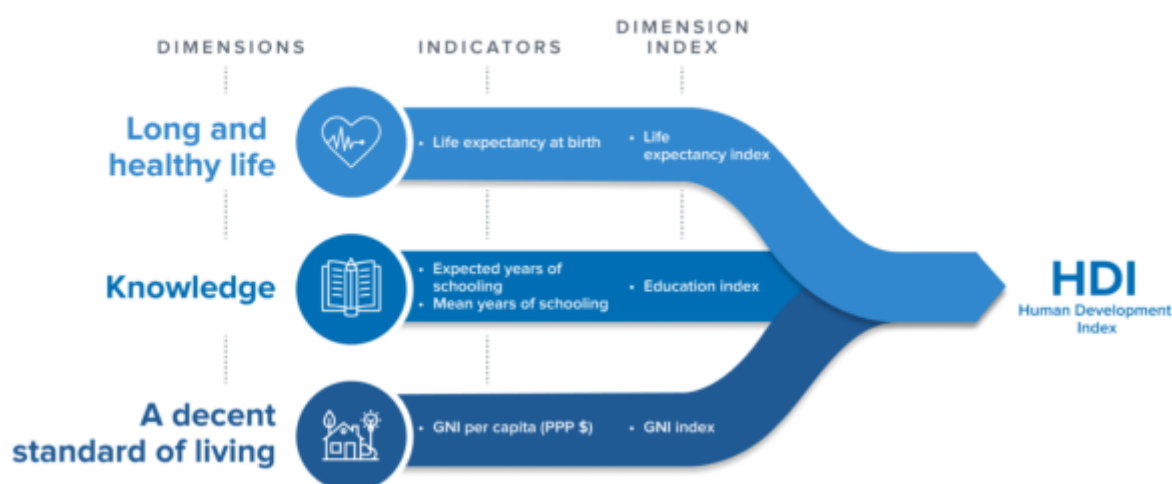
At the present time, human resources are counted as the masterpiece for the success and are accepted as the key of success and sustainable competitive advantage both in macro and micro perspectives. The intended meaning by macro perspective is country level, and the micro level means company level. Successful individuals lead to successful companies and these companies carry the countries to higher levels in the international arena.

As it is stated above, for today's professional arena the importance of human being is beyond doubt, and assessing and evaluating the situation across different countries, nations has been the concern for academy. For this purpose, there have been some reports and indexes aiming to assess and evaluate the development levels of human beings, at this point one of the mostly checked, known and most elaborate indicator of human capital is Human Development Index which is reported by United Nations annually. Human Development Index does not only focus on economic data of the countries, but also includes data about health, education and income basically. This report underlines that development is not a concept which is only understood from the economic data and statistics, they are certainly important but the main argument underlying the development is human beings and their capacities, because of this reason Human Development Index is very crucial. The index was firstly published in 1990, and at first glance the Human Development Index consists of three main headings; length of the life and healthiness, education level and life standards that is related with income levels of human beings in different parts of the world, and by combining these data collected from about 193 countries enables us to compare human capital and human well-being in just one index (UN, 2025).

When the HDI report is analyzed in depth, it is seen that Human Development Index aims to see the quality of people's lives in terms of duration of life span, literacy and education levels, schooling year averages and equalities and inequalities between genders, gross domestic product per capita, gross national income per capita, purchase power of their currencies, gender inequalities, so it is easy to say that it is a really comprehensive index including data about both the human being in terms of education, health situation, life span and economic data such as gross national income, and these data is depicted in the website of HDI as following in figure 1.

Figure 1. Human Development Index and its dimensions and indicators. Source UNDP Website

HDI Dimensions and Indicators



Top 20 countries of Human Development Index with a little modification including the populations is given below in table 2.

Table2. Top 20 of HDI

HDI Rank	Country	Population
1	Switzerland	8,900,000
2	Norway	5,500,000
3	Iceland	393,000
4	Hong Kong	7,536,000
5	Denmark	6,000,000
6	Sweden	10,536,000
7	Germany	83,280,000
8	Ireland	5,307,000
9	Singapore	5,917,000
10	Australia	26,658,000

HDI Rank	Country	Population
11	Netherlands	17,877,000
12	Belgium	11,787,000
13	Finland	5,583,000
14	Liechtenstein	39,850
15	United Kingdom	68,350,000
16	New Zealand	5,223,000
17	United Arab Emirates	10,483,000
18	Canada	40,097,000
19	Korea	51,712,000
20	Luxemburg	666,000

Source: Prepared by Ölmeztoprak based on UNDP and World Bank data (2025)

The focus of this paper is comparing Turkey with BRICS members in terms of human development and when we examine the list, it is clearly seen that members of BRICS fail to rank high on the list, except for United Arab Emirates which exists at the 17th position, the other closest BRICS member is Saudi Arabia following UAE at 40th place, others could find places at the bottom levels of the list. To be able to make a comparison the full list of BRICS members with HDI rankings and populations is given below in Table 3.

Table 3. HDI rankings and populations of BRICS countries

HDI Ranking	BRICS Member	Population (2023)
17	United Arab Emirates	10,483,700
40	Saudi Arabia	33,265,000
56	Russia	143,826,000
75	China	1,410,710,000
78	Iran	90,608,000
89	Brazil	211,140,000
105	Egypt	114,535,000
110	South Africa	63,212,000
134	India	1,438,069,000
176	Ethiopia	128,691,000

According to the rankings seen in the table 3, it is possible to say that BRICS countries are not at the desired positions on Human Development Index, only United Arab Emirates can be called as an exception, because it is in the top 20 list. There may be many possible causes for these results, for example populations of the top countries are so smaller with respect to the big economies such as United States, China and this may effect the human capital of the countries given that the number one of the list is Switzerland with population of about 8,9 million, then Norway is at the second position with 5,5 million and at the third place we see Iceland with a population less than 400,000. On the other hand, the sum of populations of two BRICS members which are India and China equals 2,9 billion and it is about one third of the total world population which is 8 billion in 2023 according to the World Bank data, and they are at the 134th and 75th place in Human Development Index. Providing healthy life conditions, education opportunities, employment facilities may become harder and harder as the populations of the countries increase (World Bank, 2025). Certainly, population density cannot be the only reason for determining the places of countries by the means of top or bottom of the HDI list, but it may have important effect on the case. As it is mentioned before in the previous sections, the quantity is not everything but quality is as important as quantity, and one of the most possible and suitable way of evaluating it is Human Development Index.

Then at this point it would be beneficial to analyze the situation of Turkey. First of all, Turkey is ranked at 45th place –and it was 48th in 2021- in the Human Development Index list and this means Turkey outperforms all but two Brics members which are United Arab Emirates at 17 and Saudi Arabia at 40th place. When we compare Turkey with the top 20 performers of the HDI list, it is seen that the life expectancy of birth for Turkey is 78,5 years and this number is lower than all top 20, for example this data for number one of the list Switzerland is 84,3 and 83,4 for Norway. On the other hand, estimated schooling years for Turkey is 19,7 years and this statistic is higher than all top 20, only Australia's expected years of schooling is higher than Turkey with 21,1 years. But the situation is not same for average years of schooling, at this comparison the average of schooling for Turkey is smaller than the top performers, such that average for Turkey is 8,8 years but all top 20 countries are above 11,9 years (HDI, 2023).

Although the estimated years of schooling for a person according to this data is approximately 20 years in Turkey, and education is one of the basic parameters for human capital, but the results of the Pisa Test which is prepared and published by OECD are not so pleasant for Turkey. The Pisa Test is prepared and published by Organization for Economic Co-operation and Development, since 2000 for every 3 years and since that date more than 3,7 million students have participated in Pisa tests. Basically Pisa aims to evaluate the skill and knowledge of 15 years old student from 81 countries. In mathematics test Turkey ranks 39 out 81, in science section Turkey takes 34th place and lastly in reading skills takes 36th place (OECD, 2023).

In the following table the basic scores of Human Development Index for the BRICS countries is given including longevity, education and expected and average schooling years.

Table 4. Sub-dimensions of HDI list for BRICS members.

HDI Ranking	BRICS Member	Life expectancy at birth	Estimated Schooling years	Average years of schooling
17	United Arab Emirates	79.2	17.2	12.8
40	Saudi Arabia	77.9	15.2	11.3
56	Russia	70.1	15.7	12.4
75	China	78.6	15.2	8.1
78	Iran	74.6	14.1	10.7
89	Brazil	73.4	15.6	8.3
105	Egypt	70.2	12.9	9.8
110	South Africa	61.5	14.3	11.6
134	India	67.7	12.6	6.6
176	Ethiopia	65.6	9.9	2.4

Table 5. HDI scores of Turkey

HDI Rank	Country	Life expectancy at birth	Estimated Schooling years	Average years of schooling
45	Turkey	78.5	19.7	8.8

Comparing the values in table 4 and table 5 enable us to see the positions of BRICS countries and Turkey clearly. Life expectancy at birth value for Turkey is 78,2 years and this amount is higher than eight of the BRICS members, but only UAE and China performs a little better than Turkey, estimated schooling years for Turkey is higher than all BRICS members, but the situation is not the same when we talk about average years of schooling, Turkey's position is below UAE, Saudi Arabia, Russia, Iran, Egypt and South Africa; and above only China, Brazil, Ethiopia and India (HDI, 2023)

Another important title analyzed by HDI is gender inequalities, there are many subtitles of gender inequalities, but in this research one of the most crucial one representations of women in the parliament is studied. The situation of Turkey is tried to be understood in depth by making comparisons with top performers of the list and with BRICS countries. The following tables shows the percentages of women parliamentarians among the parliament in BRICS countries and top 10 performers of HDI list. It is easily seen in the table 4 that, share of women representatives in Turkish parliament is so far from the top 10 performers of the HDI list, unfortunately Turkey's position about the women representatives in the parliament among BRICS countries is not so different, such that, the percentage of women parliamentarians is only higher than Iran and India among BRICS countries. On the other hand in table 4 there is a stunning difference that grabs our attention, which is about United Arab Emirates. United Arab Emirates performs better than the HDI leaders including Switzerland, Norway, Iceland and Denmark which have 39.0, 45.0, 47.6, and 43.6 respectively. Turkey (HDI, 2023)

Even though the year is 2025, still inequalities among genders is being experienced in some parts of the world. One of the sub-indexes of HDI is about gender inequalities and analyzes these inequalities in terms of education differences between male and female, and representations of women in the parliament by comparing the seats belong to women and men representatives.

Table 6 and table 7 are given below focus on this gender inequality index and enable us to compare Turkey and others.

Table 6. Comparison of Percentages of Women in Parliaments in BRICS countries, TOP 10 of HDI ranking list and Turkish Republic. Source: HDI, 2023.

HDI Ranking	BRICS Members	Percentage of Women in Parliament	TOP 10 of HDI List	Percentage of Women in Parliament
17	United Arab Emirates	50.0	Switzerland	39.0
40	Saudi Arabia	19.9	Norway	45.0
56	Russia	17.8	Iceland	47.6
75	China	24.9	Hong Kong	-
78	Iran	5.6	Denmark	43.6
89	Brazil	17.5	Sweden	46.4
105	Egypt	22.8	Germany	34.8
110	South Africa	45.4	Ireland	27.4
134	India	14.6	Singapore	29.1
176	Ethiopia	38.9	Australia	44.5
45	TURKEY			17.4

If we interpret the table 6, the representation of women in the parliament in Turkey stays below all of the top 10 countries and also all of the BRICS members scores are higher than Turkey, only India and Iran scores worse than Turkey with 14,6 and 5,6 respectively.

Another important subtitle for gender inequalities is about education which analyzes the secondary education ratios for both women and men to be able to see the gap between genders in terms of secondary education, in table 7 the results are given.

Table 7. Percentage of men and women with at any secondary education. Source HDI, 2023.

HDI Ranking	BRICS Members	Men with any secondary education (%)	Women with any secondary education (%)	TOP 10 of HDI List	Female with any secondary education (%)	Male with any secondary education (%)
17	United Arab Emirates	86.1	82	Switzerland	96.9	97.5
40	Saudi Arabia	71.3	80.9	Norway	99.1	99.3
56	Russia	98.3	98.9	Iceland	99.8	99.7
75	China	79.7	86.4	Hong Kong	77.9	84.1
78	Iran	73.1	77.3	Denmark	95.1	95.2
89	Brazil	67.4	65	Sweden	92.4	92.7
105	Egypt	85.9	78.7	Germany	95.4	95.9
110	South Africa	83	84.9	Ireland	88.6	86.4
134	India	41	58.7	Singapore	80.5	85.9
176	Ethiopia	7.5	13.1	Australia	94.6	94.4
45	TURKEY	59.1	78.1			

EVALUATION AND CONCLUSION

The focus of this research has been two important topics; the intellectual capital and human development, research shows that, it is explicitly seen that intellectual capital, especially human capital has a positive effect on human development. Human development index is one of the most appropriate tool for evaluating human development, this index achieves this by using data on three important areas; health, education and income levels.

This research shows the current human development situations of BRICS countries and Turkey by making comparisons and they were also compared with leaders of human development index list, which ranks in the first 20 of the index. Results show that, in general, both BRICS countries and Turkey are so far beyond the world leaders in terms of human development, such that while Switzerland, Norway, Iceland, Hong Kong and Denmark occupies the top 5 positions of human development index, Turkey shares 45th place with Slovakia. The situation for BRICS countries is not also very brilliant, only United Arab Emirates have a respectively better position at 17th place, and interestingly Saudi Arabia's position at 40th place is higher than Turkey. As it is seen in table 4, and 5 all other BRICS members are at lower places in the index.

To conclude, countries should not make only economy investments but also they should pay attention to human beings and make human capital investments. Education and health policies should be revised and strengthened for Turkey and BRICS countries. If we talk specially about Turkey, average years of education for an adult is given as 8,8 years and this is not enough, when it is compared to the other developed countries, so firstly the years a person spend for education should be longer, and certainly the only point is not quantity, also the quality of the education should be increased and catch the requirements of the age, such as starting giving coding skills in the preschool level, also preschool institutions needs to become more widespread. Another issue takes place in HDI is health. Healthcare system of Turkey should be strengthened and the workload of the doctors could be lowered by appointing new and more doctors, and access to healthcare facilities could be eased. Fighting against chronic diseases is another important topic for a longer and healthier life, so the awareness levels of the public could be increased by giving them education, or making public advertisements, etc. Last sub-dimension of HDI is about economy, for Turkey, who is suffering from middle income trap for long years, the only way of getting out the middle income trap is making innovation investments, and again this directly related to this research, the human capital of the country should gain more importance and investments (Ölmeztoprak, 2022).

To sum up as it is mentioned in the introduction section, due to her geopolitical position, young population, human resources and historical background, Turkey is a crucial country, so it is possible to say if Turkey utilizes these very important opportunities and resources, in the future Turkey can find much better places for herself in terms of GDP ranks, HDI ranks, etc.

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