

Determining the Inclusive Development Performances of the BRICS Countries and Turkey with MULTIMOORA¹

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BRICS Ülkeleri ve Türkiye'nin Kapsayıcı Kalkınma Performanslarının MULTIMOORA ile Belirlenmesi	Determining the Inclusive Development Performances of the BRICS Countries and Turkey with MULTIMOORA
<p>Öz</p> <p>Bu çalışmada yeni jeostratejik güç olarak tanımlanan ve gelecekte dünya ekonomisinde küresel güç olarak daha etkin bir konumda olması öngörülen BRICS ülkeleri ve Türkiye'nin kapsayıcı kalkınma performansları ölçülmeye çalışılmıştır. Bu amaçla Çok Kriterli Karar Verme (ÇKKV) yöntemlerinden Oransal Analize Dayalı Çok Amaçlı Optimizasyon Yöntemi (MOORA) kullanılmıştır. Bu bağlamda BRICS ülkelerinin, Kapsayıcı Kalkınma Endeksini (IDI) oluşturan değişkenlerden yararlanılmış, kriterler Entropi metodu ile ağırlıklandırılmıştır. Ulaşılan en güncel yıl olarak IDI 2018 verilerinin analiz edildiği çalışmada, Kapsayıcı Kalkınma Performansı sıralaması MULTIMOORA metoduna göre yapılmıştır. Sonuç olarak en iyi performansa sahip olan ülkelerin Türkiye, Rusya ve Brezilya olduğu tespit edilmiştir.</p>	<p>Abstract</p> <p>In this study, the inclusive development performances of the BRICS countries and Turkey, which are defined as the new geostrategic power and are expected to be more effective as a global power in the world economy in the future, have been tried to be measured. For this purpose, Multi Objective Optimization on the Basis of Ratio Analysis (MOORA) technique has been followed. In this context, the variables that make up the Inclusive Development Index (IDI) of the BRICS countries were used and the criteria were weighted with the Entropy method. In our study, the most recent IDI 2018 data have been analyzed and the Inclusive Development Performance ranking was made according to the MULTIMOORA method. As a result, it has been found that the countries having the best performances are Turkey, Russia and Brasil.</p>
<p>Anahtar Kelimeler: BRICS Ülkeleri, Türkiye, Kapsayıcı Kalkınma, Çok Kriterli Karar Verme (ÇKKV), MULTIMOORA</p>	<p>Keywords: BRICS Countries, Turkey, Inclusive Development, Multi-Criteria Decision Making (MCDM), MULTIMOORA</p>
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1. Introduction

When growth is mentioned, people generally think of economic growth, which is usually expressed as an increase in per capita income. Development, on the other hand, is a broader concept beyond the growth. Although economic growth is important, it is not sufficient to increase the welfare level of a society. The development approach prioritizes the equal benefit of all individuals, especially the weakest part of the society, in addition to growth and income increase (Van Gent, 2017: 8). We can say that not all forms of growth reduce poverty. Increasing income inequality besides the growth is an obstacle to decrease poverty level. In this case, economic growth will not increase the income level of the poor since it creates a situation in favor of the rich (Chatterjee, 2005: 22).

Development emerges as a concept used to express the efforts of countries that could not complete their industrialization especially in the post-World War II period to catch up with developed countries. As a matter of fact, the years when the concept was first used coincide with the 1940s. The perspective on development has improved depending on the change in needs in the historical process. For example, in the 1970s, the idea that development policy was not very successful became widespread. The 1980s was a period when developing countries struggled with debt crises. This has led to the neglect of social areas. In the 1990s, solutions were sought for problems such as increasing poverty, inequality, and environmental pollution. The foundations of Sustainable Development and the concept of Inclusive Development, which gives particular importance to the poor and excluded, were formed with this process (Sachs, 2004: 1-3; Gupta et al. 2015: 542).

However, although inclusive development has gradually found its place in the development discourse, it is still difficult to make a clear definition. In particular, it is confused with the concept of inclusive growth, which has a close meaning, and sometimes the two concepts can be used interchangeably (Van Gent, 2017: 2). According to Ali and Zhuang (2007), inclusive growth is a type of sustainable growth that can provide efficiency and good working conditions. It is also important to ensure equality of opportunity in the society. According to Sachs (2004), that kind of growth focuses on wealth and does not consider every part of employment. As a result, some individuals may be excluded. Inclusive development, on the other hand, prioritizes democracy rather than economic growth. It prioritizes the ability to benefit from services such as health, education, infrastructure, etc., regardless of age, gender, race or religion and highlights the rights of the poor and marginalized segments of society.

There are many studies on inclusive development in the literature (Al-Jafari, 2018; Anyanwu, 2014; Aslam et al. 2021, Meyer & Meyer, 2019, etc.). Gupta (2017), Pouw and Gupta (2017) and Gupta and Vegelin (2016) tried to define the concept of inclusive development in their studies. Additionally, Gupta and Vegelin (2016) has drawn attention to the importance of inclusive development for Sustainable Development Goals (SDG). Andersen and Andersen (2017), Paunov (2013) and Santiago (2014) have emphasized the importance of innovation for maintaining inclusiveness. There are also studies that address inclusive development in terms of equality (Ali 2007; Koralagama, Gupta and Pouw, 2017). Asongu, Roux and Biekpe (2017) and Asongu and Odhiambo (2018) evaluated carbon dioxide (CO₂) emissions in terms of inclusive development in their research and they concluded that emissions have a negative effect on the inclusive development. While Pouw and de Bruijne (2015) drew attention to the importance of governance for inclusive development in their studies, Gumede (2017) emphasized that social policies were important in realizing inclusive development especially in poorer parts of Africa.

Katyaini, van Wessel, and Sahoo (2021) evaluated the importance of development organizations in protecting vulnerable communities against disasters in India within the framework of inclusive development.

Although these studies are valuable in the literature, no study has been found which considers the BRICS and Turkey together at the same time and measures inclusive development performances of these countries. We think that this study will fill this gap in the literature. In this study we identify the inclusive development performance of the BRICS, a group of countries consisting of Brazil, Russia, India, China and South Africa, which has attracted attention with their economic performances in recent years. Additionally, we investigate Turkey, which is an emerging economy like the BRICS and which is likely to be a member of this group, compared to the countries of the group.

This group, which was formed as BRIC in 2003, became the BRICS with the joining of South Africa in 2011. The quartet group consisting of Brazil, Russia, India and China stands out as fast-growing economies. The inclusion of South Africa in the group shows that this group has a strong development strategy rather than purely commercial and economic interests (Vadra, 2017: 1229). The BRICS countries are referred to as "emerging powers". This expression is used because the group of countries has increased their share in the global economy and their political power is getting faster and faster than other countries. For this reason, they attract serious attention (Xing, 2019: 1). The group has deep common features in terms of innovation, development challenges and opportunities, and has a wide range of similarities in economic indicators (Daniels *et al.*, 2017: 513). The growth performance of especially the first four of the BRICS countries in recent years has had a global impact. The advantages they have within the context of their resources, population and geographical area have made them strong against the Asian Tigers (Taiwan, Singapore, Hong Kong and South Korea) or a single country growth model (Radulescu *et al.*, 2014: 609). The BRICS, which differs from the European Union in not having a political alliance or a legal trade union, is a strong economic bloc formed thanks to low production and labor costs. By 2050, it is estimated that India and China will be the world's leading suppliers of products and raw materials. Similarly, Brazil and Russia are expected to perform well as raw material suppliers. Today, it is an economic bloc that focuses on stability, reform, development and governance issues, which are among the problems of many countries (Singh, 2019).

The study consists of four parts. After the introduction, in the second part we introduce the concepts of inclusive development and IDI by giving the general economic outlook of the BRICS countries. In addition, we examine the performances of the BRICS and Turkey in terms of this index in this section. Then, we introduce the IDI data set used in the third section and interpret the empirical findings obtained as a result of the analysis. In the last section, we make a general evaluation of our case in the light of some important findings.

2. The BRICS Countries and Inclusive Development

2.1. Overview of the BRICS Countries

The abbreviation BRIC, which is used for Brazil, Russia, India and China, the countries that stands out as their growth performance at the beginning of the 21st century, was first used in 2001 by Jim O'Neill, the economist of Goldman Sachs. Then, two years after the summit held for the first time in 2009, South Africa joined them in 2011 and the BRICS became as a 5-member group (Lowe, 2016: 50). This group of countries is included in the emerging economy classification. Emerging economies are the countries with the largest share in the world. Since the beginning of the 21st century, they have decreased the population growth rate and increased their GDP per capita which bring them closer to the level of the developed countries. Thus, they achieved a dynamic growth performance and entered a radical change process (Radulescu *et al.*, 2014: 606). The BRICS are a group that came together against the hegemony of western countries that have a say in global politics, rather than a group united on an ideological basis. In other words, the BRICS are a bloc formed against Western powers such as the International Monetary Fund (IMF), the World Bank, and the United Nations (UN), which direct the global economy. However, there are different concerns within the countries inside the group. For instance, while China and Russia have more military concerns, Brazil, India and South Africa feel the need to protect themselves from western dominance in the global capitalist system (Bacik, 2013: 760).

They are in an effort to improve their economic systems by acting with a critical approach to get rid of the hegemony of the USA and to eliminate the existing inequalities (Istikbal *et al.*, 2019: 48). In addition, the 2008 crisis weakened the power of western countries in the world economy. After the crisis, the growth rates of developed countries decreased. Developing countries have started to take their place in terms of growth (Hasmath, 2015: 1). This has been effective in increasing the importance of the BRICS.

The BRICS, which made significant progress in their economies in the first decade of the twenty-first century, aims to create an alternative approach to the global financial system and to become less dependent on the developed and high-income countries. The community, which has come together every year since 2009 with the participation of the presidents of the states, established the New Development Bank in 2014, creating an alternative source to the World Bank and the IMF. Although it is difficult to say that the group has been fully institutionalized, they want to turn the loss of US hegemony into an opportunity (Dilek *et al.*, 2018: 8; Ademoğlu, 2019).

It is possible to list the basic elements that characterize the development of the BRICS as follows (Al-Jafari, 2018; Radulescu *et al.*, 2014; Santiago, 2020):

- This group of countries has an important share both in terms of geographical area and population (they make up about half of the world's population).
- They are rich in human and natural resources.
- They have a good and developed education system in order to create a qualified employment.
- Their economic performance is generally successful, due to a sustainable accumulation of talent and ongoing policy reforms adopted in line with economic and institutional transformations.

- While China has advantages such as low labor cost and resource prices and India low labor price; Russia and Brazil are rich in natural resources.
- The BRICS countries (except China) do not contribute much to science and technology as they are not very successful in innovation.
- The economic growth of Brazil, India and Russia is mostly based on domestic demand, mainly consumption driven. Consumption in Brazil accounts for 80% of GDP, while external demand is only around 2-3%. Again, due to high real interest rates, wages and investment costs, investment rates remain low compared to many emerging economies. Similar to Brazil, consumption in India accounts for 50% of GDP. Again, consumption in Russia is between 60-70% of GDP.
- The share of the private sector in the economy is almost 50% lower than the average of developed countries. Basically, the private sector is heavily connected with the primary sectors and they are heavily dependent on foreign markets.
- The fact that they make up a quarter of the world's GDP makes them strong economies. This gives them the power to compete with the EU and the USA. While developed countries struggled with deep recession problems after the 2008 crisis, especially China and India have performed well in terms of economic growth.

Table 1: Economic Growth in BRICS and Selected Countries

Countries	2009	2015	2019
Brazil	-0.1	-3.5	1.1
China	9.4	7	5.9
India	7.9	8	4.2
Russia	-7.8	-2	1.3
S. Africa	-1.5	1.2	0.2
Turkey	-4.8	6.1	0.9
USA	-2.5	2.9	2.2
Japan	-5.4	1.2	0.7
EU average	-4.3	2.3	1.6
EURO Zone	-4.5	2	1.3

Source: The table above has been prepared with the data obtained from the World Bank Database.

In Table 1, the performance of BRICS countries, especially China's growth by 9.4 percent and India's growth by 7,9 percent, is remarkable after the 2008 crisis. In the same year, the growth rate in the Euro Zone was by -4.5, while the USA, which is a developed country, grew by -2.5 and Japan by -5.4. The growth rate in Turkey, which is also a rising economy, was by -4.8. Although there has been a general recovery in the economies of the same countries over the years, India and China continued to be countries with high growth rates.

Table 2: Economic Outlook of Countries (2019)

Countries	Population %	GDP (million \$)	Export* %
Brazil	-0.1	-3.5	1.14
China	9.4	7	10.77
India	7.9	8	2.18
Russia	-7.8	-2	2.07
S. Africa	-1.5	1.2	0.45
Turkey	-4.8	6.1	0.98
USA	-2.5	2.9	10.25
Japan	-5.4	1.2	3.72

* 2018

Source: The figure above has been prepared with the data obtained from the global economy; Worldbank and worldometers database.

In Table 2, one can see the share of the population of the BRICS countries, Japan, the USA and Turkey in the world population and the share of their exports within the total of exports in the world as percentage and additionally their GDPs as million dollars. In terms of population ratio, China and India have the largest shares with 18.47% and 17.70% of the world. When the GDP amounts are examined, the USA is followed by China, Japan and India, respectively. It is observed that Turkey's GDP is at low levels.

China ranks first in the exports in the world with \$2.499 trillion. USA follows China with \$1.64 trillion. From 2010 to 2018, China's exports increased by 30% (Statista, 2019). As seen in Table 2, it is obvious that the most important shares in exports across the world belong to China with 10.77% and the USA with 10.25%. They are followed by Japan with 3.72%, India with 2.18% and Russia with 2.07%. Turkey's export rate is 0.98. However, in terms of per capita income, it is seen that the USA and Japan are at much higher levels than the countries in the table.

The BRICS covers more than 25% of the world in geographical area and approximately 40% of the population. The annual GDP of the first four of the BRICS (Brazil, Russia, India and China), which are also G20 countries, corresponds to \$1 trillion. They also have 40% of the total foreign exchange reserves. These countries, which form their political systems according to the rules of global capitalism, have strong commercial relations among themselves (Lowe, 2016:50).

It is possible to say that China and India are generally more successful in terms of economy among the BRICS countries. In the 2000s, China achieved 10% growth by showing success in attracting foreign capital to the country. This has increased its share in the global income. Additionally, while India and Turkey have shown successful results in GDP and exports, Russia and Brazil could not perform the same achievement in related areas (Eğilmez, 2018: 56-57).

The differences that these countries have among each other have an impact on their economic performance. For example, the regime changes that 5 countries have undergone in the historical process have had an impact on their economic structures. India declared its independence from Britain in 1947, and the communist party came to power in China in 1949. In other words, an autarkic administrative structure began to be adopted in these two countries in the 1940s. Democratic governments were established in Brazil in 1985, in Russia in 1991 and

in South Africa in 1994. Thanks to the new regimes adopted, economic policies have been created in a new way focusing on growth and equality. However, the results of economic policies have differed from country to country according to the initial growth strategies. For example, the economies of China and India are based on agriculture. In parallel with the soar in agricultural employment supply, there is also a drastic increase in the population. Both countries have managed to employ this surplus labor by developing industry compatibly with agriculture. Again, especially China, which is one of the sources of rapid economic growth, has increased the literacy rate and the average life expectancy. In the 1980s, in line with industrialization and trade liberalization, land ownership was privatized. In Brazil, Russia and South Africa, the delay in transitioning to a peaceful democratic form of government caused them to be not very successful in achieving strong and inclusive growth. For example, the transition to a democratic regime in Brazil took place in the middle of the economic crisis (Abraham, 2020: 4-5).

The BRICS member countries are struggling with social and economic problems similar to many developing countries. For example, Brazil has recently experienced a recession due to a significant political and social turmoil. Again, Russia has political problems with the west. These problems, on the other hand, negatively affect the BRICS' expectations for economic recovery. China has tended to shrink its economy within the scope of its economic restructuring target. The growth rate in GDP has fallen to its worst level in the last 25 years. Again, although the economic data of India are remarkable, they are not very reliable. The slowdowns in South Africa's economy create uncertainties for the country (BRICS, 2017). South Africa is far behind in terms of economical advancement compared to other countries (Deniz, 2019: 70). It can be said that its dominance over the African continent and its positive attitude towards cooperation and collaboration were influential in its inclusion in the group. As Besada *et al.* (2013) suggested, the group has become more inclusive by including South Africa in the BRIC and has also had the opportunity to access the African market.

By 2050, together with the BRICS countries, Turkey will be among the countries that will possibly have an important role in the world economy. Due to its economic performance in recent years, Turkey's inclusion in the BRICS, along with other countries such as South Korea, Mexico, Indonesia and Mexico, which stand out as emerging economies, has come to the fore (Sandalcılar, 2012: 164). In addition, the economies of the countries called E7 countries (China, India, Brazil, Russia, Indonesia, Mexico, Turkey), which are seen as the leading emerging economies, are expected to be more than 50% of the economies of G7 countries (USA, Japan, Germany, United Kingdom, France, Italy and Canada) in 2050 (Hawksworth and Cookson, 2010: 24). The BRICS countries agree that although they are few in number, credit ratings and international financial institutions such as the IMF and the World Bank have a great influence on the financial markets and they do not manage the global economy with a fair and equitable perspective, They have a common view with Turkey, especially on this issue (Dilek *et al.*, 2018: 17). Turkey, which aims to become a rising power and plays an active role in its region, will also have certain opportunities to benefit from the group by joining the BRICS both because of its economic diversity and also its being medium-sized regional power. In addition, the criticisms of Turkey and the BRICS on financial, economic and political problems are similar. The BRICS and Turkey will be able to benefit from the membership mutually, since acting as a group will also be more effective in this perspective. (Dilek *et al.*, 2018: 18-19).

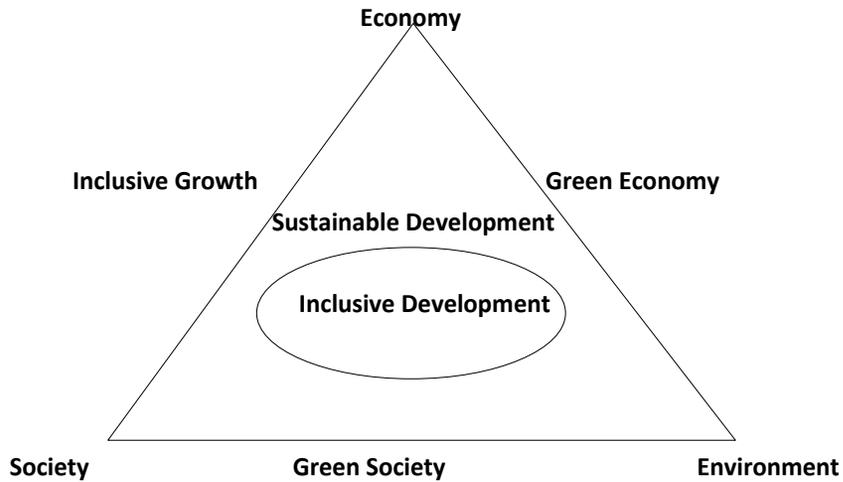
2.2. Inclusive Development as a New Development Paradigm and the Inclusive Development Index

The concept of development has been used in different meanings depending on social developments in the historical process. From time to time, development has been associated with concepts such as industrialization, modernization, progress, growth and structural change, which all have very similar meanings. This situation caused a slight change in the meaning of development. Today, it is not possible to say that the definition of development is very clear and understandable (Yavilioğlu, 2002: 60).

Development is a concept that started to be used in the 1940s after World War II. Since the 1950s, modernization theories regarding economic growth fueled by technology and capital transfer have been put forward by academics and organizations. By the 1970s, the idea that this development policy was not very successful began to prevail and policies such as increasing per capita income, creating employment, revitalizing areas in need of support in rural and urban environments began to be given priority. Again in the same period, as a result of the debt crises that started in developing countries, structural adjustment programs and fiscal discipline practices started in the 1980s. For this reason, social areas such as health, education and poverty reduction, which protect the needy, began to be ignored. The 1990s, on the other hand, appear as a period in which issues such as humanistic development and poverty reduction were focused on. In addition, the importance of tackling environmental problems was realized. These social, economic and environmental issues form the basis of "Sustainable Development". This process has been influential in the emergence of the concept of "Inclusive Development", which emphasizes the very poor and marginalized (Sachs, 2004: 1-3; Gupta *et al.*, 2015: 542). Inclusive development has become a very important concept in recent years in order to meet modern development needs and challenges (Van Gent, 2017: 2). The use of the concept of inclusive development, which was first mentioned in the academic literature in 1998, has become widespread since 2008. There is no clear definition of inclusive development (Gupta *et al.*, 2015: 36). We have various definitions, though. For instance, Johnson and Anderson (2012) defines inclusive development as a process of structural change that gives voice to the difficulties and concerns faced by the marginalized groups in society. According to Hickey (2013), inclusive development should be approached in two ways. Firstly, development is achieved through an economic process focused on equality and the citizenship rights of individuals living in society. Secondly, in addition to focusing on the poor, it is aimed at the whole of society and it refers to a development stage that is evaluated from a broader framework to ensure social justice. According to Gupta *et al.* (2015), in order to ensure welfare, social and environmental sustainability and empowerment it is a necessity to create a social, political and economic development for the weakest individuals, sectors and countries.

The concepts of inclusive development and inclusive growth are used interchangeably in many academic publications. However, they differ in terms of their structures and components (Gupta *et al.*, 2015: 36). According to Ali and Zhuang (2007), inclusive growth can be expressed as high and sustainable growth that can provide productivity and good working conditions. It is also important to have social inclusion that allows every individual in the society to benefit from opportunities equally. According to Sachs (2004), growth focuses on wealth and does not consider every part of employment. As a result, some individuals may be excluded. Inclusive development prioritizes democracy rather than focusing on economic growth. It means it is a system of health, education, infrastructure, etc. that everyone can benefit from.

Figure 1: Conceptualization of inclusive development



Source: Gupta et al., 2015, p.39.

In Figure 1, the differences of inclusive growth, sustainable development and inclusive development are explained through three dimensions which express inclusiveness; that's to say society, environment and economy. Sustainable development is at the center (Gupta *et al.*, 2015: 38-39). Sustainable development also has a close meaning to the concepts of inclusive growth and development, and its history dates back to earlier times. In the report of the Brundtland Commission in 1987, development has been defined as a progress that is achieved by meeting the needs of the present generation through carrying the needs of the next generation in mind. The same report underlined the importance of economic growth, equality and social inclusion in meeting basic human needs (United Nations, 1987).

While inclusive growth is an economy-oriented approach in a narrower context, inclusive development emphasizes well-being in a broader perspective. It includes an inclusive wealth and natural capital as well as ecosystem (Gupta *et al.*, 2015: 38-39).

2.3. The BRICS from the Inclusive Development Index (IDI) Framework and Development in Turkey

The growth in GDP is accepted as the most basic indicator in determining the economic performance of a country. Growth is an important tool in raising living standards, but it is not enough on its own. In recent years, both in developed and developing countries, the development in living standards has progressed very slowly, while increasing inequalities have negatively affected social cohesion. This situation has brought the need to create a more inclusive and sustainable model. In order to Shape the Future of Economic Progress, the World Economic Forum prepared the Inclusive Growth and Development Report for higher growth and social inclusion in 2017. The IDI mentioned in this report is seen as an alternative to GDP. This index is important for individuals living in society to make assessments about the economic progress of their own country (World Economic Forum, 2018).

Figure 2: Inclusive Development Performance Indicators



Source: World Economic Forum, 2018.

IDI is important for determining the inclusive development levels of countries in order to implement right policies. The main purpose of the index is to share information about the public economy with all relevant people and the public for the benefit of the country's economic development (World Economic Forum, 2017). As can be seen in Figure 2, the index has 4 socio-economic indicators and three basic elements (i. Development and Growth, ii. Inclusivity, iii. Intergenerational Equality and Sustainability). A total of 12 socio-economic indicators under the index directly address various aspects of social life (World Economic Forum, 2018). The IDI, which is used to evaluate the level of social and economic development of the country, gives quite comprehensive information about the condition of the national economic system and society in general. Widely accepted indicators such as GDP, which are used without measuring the economic performance of the country, do not provide complete information on development and are not sufficient for a government to implement its policies effectively (Chistik and Eliseev, 2019: 4).

Table 3: The BRICS and IDI in Turkey

Countries	IDI Value	Rank Overall	5 year Trend IDI Overall (%)
Brazil	3.93	37.	-3.26
China	4.09	26.	2.94
India	3.09	62.	2.29
Russia	4.20	19.	0.48
S.Africa	2.94	69.	2.49
Turkey	4.26	16.	2.48

Note: IDI scores range from 1 to 7, with 1=worst and 7=best. The 5-year change indicator shows the change trends between 2012 and 2016.

Source: World Economic Forum, 2018.

As can be seen from Table 3, the 5-year IDI performance in all countries, in The BRICS except Brazil and in Turkey is in a positive trend. Among the 74 emerging economies, Turkey is in the best position among the countries in terms of IDI value, with 16th place. It is followed by Russia with 19, China with 26, Brazil with 37, India with 62 and South Africa with 69.

South Africa, which can be said to be the most unsuccessful among the BRICS in terms of inclusive development performance, started to be governed in 1994 with the mission of

creating a new, democratic, inclusive and stable society. However, inequalities from the past, poverty resulting from a slow development, and deprivation – which negatively affected the welfare – have an adverse impact on the economy. It has created a middle class that is vulnerable to the inequalities and uncertainties behind economic growth. The country ranks first in the world in terms of unemployment and inequality. The high crime rate and the widespread prevalence of pandemics such as HIV/AIDS create obstacles to development (Ncube *et al.*, 2012:22-23). Gumede (2018) underlines that Africa is very weak on inclusive development and adds that it is due to reasons such as the inability to implement the necessary policies for economic development and excessive dependence on natural resources. The fact that there are many social problems (unnecessary civil wars, not giving enough importance to education, xenophobia, etc.) in the country are among the reasons that hinder development. In addition, political and institutional weaknesses cause weak administration and corruption. Imam Raza (2018) in his evaluation for India states that the country ignores social equality while acting with the goal of economic growth. This results in an increase in both wealth and income inequality. This issue is among the main problems of many emerging economies. Emirkadi (2019) emphasizes Turkey's success in the inclusive development index in his study. According to the findings in his study, Turkey is not able to show its success in growth in areas such as income inequality, especially wealth inequality and employment rate. In his study for China, Dai (2016) stated that it is important to use policies to increase total factor productivity and enhance employment in underdeveloped regions in order to ensure an inclusive and sustainable development in the country. Gu & Kitano (2018), on the other hand, points out that the issue of governance in emerging economies has received little attention, especially in countries such as South Africa, India, Indonesia and Eastern Europe. Indeed, institutional weakness can make small elite groups rich, and can create problems such as the use of resources in non-productive areas (PWC, 2015: 28). This is an important factor that leads to the problem of income inequality.

There are many policy proposals that can be implemented in this direction. For example, as Chatterjee (2005) states in his study, not all types of growth reduce poverty and are inclusive. In this respect, facilitating access to financial resources, land reform and investment in human capital are very important for the poorer sides of the community. The main theme of the Academic Forum held in Johannesburg in 2018 was "Imagining inclusive development with a socially responsive economy" (BRICS, 2018). The general topics covered in the Forum are listed as follows (Gladun, 2018: 154):

- Gender and inequality,
- Economic prosperity in the 21st century,
- Health area,
- An inclusive social security,
- Agriculture and food security,
- Governance, peace and security,
- Educational, scientific and productive sectors,
- Global south knowledge cooperation,
- Energy research

The BRICS countries reject the unilateral protective measures and they advocate creating an open and inclusive economy, benefiting from the opportunities of globalization, creating job opportunities, investing in people, establishing the commercial system in a transparent and non-discriminatory way and giving importance to gender equality in a prosperous, peaceful, mutual respect. It has been emphasized that it is necessary to act with a development goal that allows living in a world based on human health, to create a sustainable and environmentally friendly production structure, to support agriculture and small farmers and to take measures to combat infectious diseases by giving importance to the health sector (BRICS, 2018). Gumede (2018) also points out that social policies should be given importance to ensure inclusive development. More action should be taken to create a link between economic and social policies. Thompson and Wet (2018) state that BRICS aims more inclusive development through civil society mechanisms. The group of countries which have been together for about 10 years should focus on socio-economic inequalities in a collective cooperation and produce solution policies for the current problems.

For example, the success of Norway, which is the most inclusive economy according to the IDI, is explained by the importance it attaches to social security programs such as pensions, education and publicly supported housing opportunities (World Economic Forum, 2017).

3. Data Set and Methodology

IDI is an index calculated by the World Economic Forum (WEF) and aims to measure the inclusive growth of the countries. Designed as an alternative to GDP, this index takes into account the criteria used to evaluate the economic progress of countries. IDI 2018, which will be discussed in this study, has been calculated according to data acquired from 103 economies. With the help of the index, economies are evaluated in two groups, namely developed and emerging. IDI consists of three main components: growth and development, inclusion and intergenerational equity and sustainability. Each of these components includes 4 different variables. These variables are presented in Table 4 and their explanations are given in the following lines.

Table 4: Inclusive Growth and Development Key Performance Indicators

National Key Performance Indicators		
Growth and Development	Criteria Code	Cost/Benefit
GDP (per capita)	C1	max
Labor productivity	C2	max
Employment	C3	max
Healthy life expectancy	C4	max
Inclusion		
Income Gini	C5	min
Poverty rate	C6	min
Wealth Gini	C7	min
Median household income	C8	max
Intergenerational equity and Sustainability		
Adjusted net savings	C9	max
Carbon intensity of GDP	C10	min
Public debt	C11	min
Dependency ratio	C12	min

GDP (per capita): GDP per capita is the total GDP of a country divided by the population.

Labor productivity: It is the production obtained per labor input. It is obtained by dividing GDP per worker into the total employment in the economy.

Employment: It is the ratio of the working population aged 15 and over to the total population.

Healthy life expectancy: The total population average of the number of years a person can expect to live in full health (calculated by taking into account years of illness and/or injury).

Income Gini: Measures to what extent the net income distribution (i.e., after taxes, post-transfer) among individuals or households in an economy deviates from a perfectly even distribution. A Gini index of 0 represents perfect equality, while a Gini index of 1 represents perfect inequality.

Poverty rate: For advanced economies, relative income poverty is defined as less than half of the relevant median national income (adjusted for household size, after taxes and transfers). For developing economies, it is defined as the percentage of the population living on less than \$3.20 a day at 2011 international prices.

Wealth Gini: Measures inequalities in wealth distribution. A Wealth Gini coefficient of 1 indicates complete inequality, and a value of 0 indicates complete equality.

Median household income: It is the average of daily income / consumption expenditures (USD PPP) per capita. Data are collected from national representative household surveys conducted by national statistical offices or private entities under the supervision of

governmental or international organisations, governmental statistics offices and World Bank Group country departments.

Adjusted net savings: Net total national savings. It is expressed as a percentage of Gross National Income. It clarifies the real difference between production and consumption by measuring the total stocks and use of natural resources in a given ecosystem, taking depreciation of fixed capital, depletion of natural resources, and damage from pollution into account. Carbon damage is subtracted when calculating.

Carbon intensity of GDP: It is the carbon dioxide (CO₂) emission emitted as a result of production on a per GDP dollar basis. It is expressed as kilo-tonne CO₂/billion \$ (2005 US\$). International data on carbon dioxide emissions from energy consumption include emissions from oil, natural gas and coal consumption, as well as from natural gas flares.

Public debt: Total public debt includes all liabilities that require the debtor to pay interest and/or principal to the creditor. This includes debt obligations in the form of special drawing rights, currency and deposits, debt securities, loans, insurance, pensions, standardized guarantee plans and other payable accounts. It is expressed as a ratio of GDP.

Dependency ratio: The ratio of dependents per 100 people of working age aged 15-64 to the population.

3.1. Entropy Method

In MCDM approaches, weights of criteria reflect the relative importance in decision making process. As a consequence, the procedure of weighting the attributes is highly critical and important. The weighting methods have reported in three categories: subjective methods, objective methods and combined methods. In the subjective methods, weights are determined solely according to the preferences or judgments of decision makers. The objective methods determine weights by analysing mathematical models based on the initial data analysis without any consideration of the decision makers' preferences and expertise. On the other hand, the combined methods have been gradually performed in the evaluation and comparison of complex systems like energy projects (Wang and Lee, 2009: 8981; Wang *et al.*, 2009: 2271-2273; Murat, 2020: 92).

The entropy method is an objective method and the evaluation results of weights of criteria calculated with the entropy method are more reliable and accurate than those determined by subjective methods (Bai *et al.*, 2018: 5). Therefore, we have conducted entropy method as weighting method in this article. The Shannon's entropy method is well suited for measuring the uncertainty in the data devised with the probability theory. It has been applied widely in the areas including thermodynamics, statistical mechanics, quantum mechanics, information theory, spectral analysis, language modeling, engineering, management, and economics (Segal, 1960: 623; Wang and Lee, 2009: 8981). The Entropy weight is defined as a parameter presenting how much different alternatives approach each other. The smaller the value of the entropy indicates the greater the entropy weights, which means, if the specific criterion provides more information that criterion is more important in decision making process. The steps of entropy method can be expressed as follows (Bai *et al.*, 2018: 5-6; Wu *et al.*, 2011: 5163; Wang and Lee, 2009: 8982; Depren and Kalkan, 2018: 358, Murat, 2020: 9-94):

Step 1: Assume there are m alternatives A_i ($i = 1, 2, 3, \dots, m$) to be evaluated against n selection criteria C_j ($j = 1, 2, 3, \dots, n$), thus the decision making matrix can be defined as follows:

$$D = \begin{bmatrix} x_{11} & x_{12} & \dots & x_{1n} \\ x_{21} & x_{22} & \dots & x_{2n} \\ \dots & \dots & \dots & \dots \\ x_{m1} & x_{m2} & \dots & x_{mn} \end{bmatrix} \tag{1}$$

Firstly, we define the closeness between x_{ij} and its ideal value as d_{ij} , and $d_{ij} \in [0,1]$

$$d_{ij} = \begin{cases} \frac{x_{ij} - \min_i \{x_{ij}\}}{\max_i \{x_{ij}\} - \min_i \{x_{ij}\}}, & \text{benefit indicators} \\ \frac{\max_i \{x_{ij}\} - x_{ij}}{\max_i \{x_{ij}\} - \min_i \{x_{ij}\}}, & \text{cost indicators} \end{cases} \tag{2}$$

Step 2: After the definitions in Step 1, we can define the entropy of the i th criterion as follows:

$$e(d_i) = -k \sum_{j=1}^n f_{ij} \ln f_{ij} \tag{3}$$

where $f_{ij} = d_{ij} / \sum_{i=1}^n d_{ij}$, $k = 1 / \ln n$.

If f_{ij} ($i=1,2,3,\dots,n$) are all the same, the entropy of the i th criterion is the maximum, i.e., $e(d_i) = 1$. And if we assume $f_{ij} = 0$, then $f_{ij} \ln f_{ij} = 0$.

$$w_j = \frac{1 - e_i}{n - \sum_{j=1}^n e_i} \tag{4}$$

3.2. MULTIMOORA Method

The MOORA method, which is defined as the Multi Objective Optimization on the basis of Ratio Analysis method, was introduced in 2006 by Brauers and Zavadskas. The authors defined the method as a new approach developed for multi-objective optimization with discrete alternatives (Brauers and Zavadskas, 2006: 445). It is an effective methodology used to determine the best alternative in MCDM problems and to rank the decision options.

This method is observed to be simple and computationally easy which helps the decision makers to eliminate the unsuitable alternatives, while selecting the most appropriate one (Gadakh, 2011: 743). On the other hand, the main advantage of the MOORA method can be said that unlike the other MCDM methods it uses distinctive mathematical models to benefit the non-benefit and creates highly satisfactory graphical qualitative criteria of the decision matrix. Because of that advantage, in the MOORA method, the possibility of losing information looks very small (Mandal and Sarkar, 2012: 309). Moreover, the MOORA method can consider all the attributes along with their relative importance, and eventually, it can provide a more accurate evaluation of the alternatives. This method is computationally simple to apply, easily

comprehensible, and robust as well; and this suggests a more objective and logical approach (Chakraborty, 2011: 1165).

Farag (2002) and Torrez (2007) compared the performance of COPRAS, EVAMIX, TOPSIS, VIKOR and AHP, MOORA, SAW, ELECTRE methods in terms of calculation/computation time, simplicity, transparency, possibility of graphical interpretation and type of information. Consequently it's understood that the MOORA method has less calculation time and it is simple. It is also reported that the method has a good transparency and a very high flexibility (Mandal and Sarkar, 2012: 308). Additionally, Chakraborty (2011) compared some of the most widely used MCDM methods including AHP, TOPSIS, ELECTRE, VIKOR, PROMETHEE, GRA related to their computational time, simplicity, mathematical calculation ability, stability and type of the information. In the end, it is obvious that the MOORA method clearly overtakes the other MCDM methods and it clearly shows its applicability and flexibility as an effective MCDM tool in handling complex decision-making processes (Chakraborty, 2011: 1164). Considering all these advantages, we have decided to use the MOORA method in our research.

We can say that the MOORA method, introduced in 2006, is conducted in wide range of fields. For instance, Brauers and Zavadskas (2006), who introduced the method, illustrated the application of the method on privatization in a transition economy with an example. Brauers *et al.* (2008) used the MOORA method to determine ranking contractor in their article. Kalibatas and Turskis (2008) researched the field of the analysis of inner climate and selected the method of MOORA as the best alternative among other available options. Brauers *et al.* (2010) ranked Lithuania's counties via the MOORA method to interpret regional development. Chakraborty (2011) discussed the application of the MOORA method to solve different decision-making problems as frequently encountered in the real-time manufacturing environment. Gadakh (2011) investigated implementation of the MOORA method for solving multiple criteria optimization problems in milling process. Mandal and Sarkar (2012) explored the applicability and capability of the MOORA method in intelligent manufacturing system selection through their research. Özbek (2015) evaluated the efficiency of foreign-capital banks in Turkey by the OCRA, MOORA and SAW method. Ömürbek and Özcan (2016) interpreted performances of companies which operate in insurance sector in BIST using MULTIMOORA method. Depren and Kalkan (2018) ranked the OECD countries by using Better Life Index data via MULTIMOORA method. Özbek (2020) implemented MULTIMOORA method for the assessment of the websites of the companies. Boyacı and Tüzemen (2020) conducted MULTIMOORA method to select suitable materials for the fuselage of the airplanes.

The MOORA method basically consists of two parts, which are ratio system and reference point approach (Brauers *et al.*, 2010: 616). In these approaches, it is assumed that the criteria have the same important value, while the Significance Coefficient approach is applied when the criteria do not have the same important value. In addition, the Full-Multiplicative Form Method is another derivative of the MOORA method used in analysis.

MULTIMOORA, on the other hand, was introduced by Brauers and Zavadskas in 2010 and consists of Ratio System, Reference Point and Full-Multiplicative Form Method (Brauers and Zavadskas, 2012: 10). In this method, it is aimed to reach a single ranking by evaluating the results obtained from the three approaches according to the Theory of Ordinal Dominance. The ratio system as a part of MOORA can be explained by the following steps (Brauers *et al.*, 2008: 248-249; Brauers and Zavadskas, 2012: 8-13; Brauers and Zavadskas, 2013: 70-72; Vujičić *et al.*, 2017: 423; Depren and Kalkan, 2018: 359-360; Özbek, 2020: 482-483):

Step 1: The method starts with designing decision making matrix as in equation 1.

Step 2: After designing decision matrix in Step 1, it is normalized using following formula:

$$x_{ij}^* = \frac{x_{ij}}{\sqrt{\sum_{i=1}^m x_{ij}^2}} \tag{5}$$

Step 3: The decision alternatives's performances are calculated as follows:

$$y_i^* = \sum_{j=1}^g w_j x_{ij}^* - \sum_{j=g+1}^n w_j x_{ij}^* \tag{6}$$

with $i = 1, 2, 3, \dots, g$ as the criteria to be maximized; $j = g + 1, g + 2, g + 3, \dots, n$ as the criteria to be minimized; y_i^* = the normalized value of alternative i with respect to all criteria. When the criteria have not equally importance, y_i^* will be calculated from multiply x_{ij}^* by weight of the criteria.

Step 4: A ranking in a descending order of the y_i^* depicts the best alternative.

According to reference point approach, in case of maximization, maximum value of alternatives are selected as the reference points. Minimum value of alternatives is considered for minimization. Min–Max Metric of Tchebycheff is calculated for ranking alternatives by the following formula:

$$\min_i \left\{ \max_j \left| w_j r_j - w_j x_{ij}^* \right| \right\} \tag{7}$$

with r_j =reference point of j the criterion; x_{ij}^* =normalized decision matrix by equation 5. The best alternative is determined by an ascending ranking of the values which are represented in equation 7.

In full multiplicative form of one part of MULTIMOORA method, alternatives are evaluated according to utility value calculated via equation 8:

$$U_i' = \frac{A_i}{B_i} \tag{8}$$

with: $A_i = \prod_{j=1}^g x_{gj}$ and $B_i = \prod_{k=g+1}^n x_{ki}$

with $i = 1, 2, 3, \dots, g$ as the criteria to be maximized; $j = g + 1, g + 2, g + 3, \dots, n$ as the criteria to be minimized. A ranking in a descending order of the U_i' depicts the optimal alternative.

The MULTIMOORA method consists of three parts as mentioned above: the ratio system, the reference point method and the full multiplicative form. The final ranking has been achieved as a result of the evaluation obtained from these approaches according to the Theory of Ordinal Dominance. The Theory of Ordinal Dominance focuses on four different circumstances: Dominance, being Dominated, Transitivity and Equability. Dominance can be

defined as the dominance of one decision alternative over another. It occurs in two different ways, absolute dominance and general dominance.

Absolute dominance: It states that an alternative is overruling in ranking all other alternatives which are all being dominated. It implies that the decision alternative obtains same rank according to all three approaches. This absolute dominance depicts as rankings for MULTIMOORA: (1-1-1).

General dominance: If the rank of preference of the decision alternatives is a, b, c, d, respectively and if the alternative gets same rank in two of three approaches, the general dominance can be expressed as below:

(d-a-a) is generally dominating (c-b-b).

(a-d-a) is generally dominating (b-c-b).

(a-a-d) is generally dominating (b-b-c).

Transitivity: If a dominates b and b dominates c then automatically a will dominate c.

Equability: Absolute and Partial Equability is conducted in two different ways. Absolute Equability has the same form of (e-e-e) for two alternatives. Partial Equability of two on three exists as in the examples (5-e-7) and (6-e-3).

4. Empirical Findings

In our study, IDI 2018 data were analyzed with the MULTIMOORA method in order to evaluate the development performances of the BRICS countries and Turkey. For this purpose, we have evaluated the data collected from the IDI reports prepared by the WEF. While GDP (per capita), labor productivity, employment and healthy life expectancy is included in the basic growth and development component of the index; income gini, poverty rate, wealth gini, median household income and intergenerational equity is included in the inclusion component. The sustainability component includes adjusted net savings, carbon intensity of GDP, public debt, and dependency ratio. In that perspective the data set includes a total of 12 variables. In the research, data on the BRICS countries consisting of Brasil, Russia, India, China, South Africa and Turkey have been compiled. The Decision matrix used in the analysis has been created as in Table 5.

Table 5: Decision matrix

Count./Criter.	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
Brasil	10826	30230	65.5	59.3	44.9	9.3	83.2	11.2	9.5	57	78.3	43.6
Russia	11099	45832	63.4	59.7	43.9	0.3	82.6	17.1	9.3	213.5	17	45.1
India	1861	16528	59.6	51.9	47.9	60.4	83	2.9	19.8	162.9	69.5	51.5
China	6894	25369	68.5	67.5	51	12.1	78.9	7.7	23.3	201.1	46.2	38.5
S. Africa	7504	44197	54.4	39.5	57.7	35.9	86.7	4.7	1.9	180.3	50.5	52.4
Turkey	14071	57438	66.2	45.1	39.8	2.4	81.8	13.1	8.4	57.5	29.1	49.8

When the IDI 2018 data in Table 5 is analyzed in terms of GDP, it is seen that the country with the highest value is Turkey, while the country with the lowest value is India. The country in the best situation related to the labor productivity is again Turkey, and the country in the worst situation is India. The country with the lowest poverty rate is Russia, followed by Turkey, and the highest country is India. In addition, there are deep differences between countries in terms of this variable. Russia has the highest, Turkey the second highest and India the lowest Median household income. According to Table 5, China has the highest and South Africa the lowest adjusted net savings. While the highest carbon intensity of GDP is Russia, it is observed that China is very close to this value, and the lowest values are recorded for Turkey and Brasil. While Brazil is the country with the highest public debt and Russia is the least, Turkey is in a good position after Russia in this respect.

In the study, criterion weights for MOORA were determined using the Entropy weighting method. The applied Entropy results are shared in Table 6.

Table 6: Entropy method findings

Country /Criterio	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
Brasil	-0.326	-0.273	-0.304	-0.311	-0.291	-0.198	-0.299	-0.320	-0.267	-0.178	-0.353	-0.289
Russia	-0.329	-0.327	-0.300	-0.312	-0.288	-0.015	-0.298	-0.362	-0.264	-0.344	-0.166	-0.294
India	-0.119	-0.195	-0.291	-0.294	-0.300	-0.346	-0.299	-0.152	-0.355	-0.313	-0.342	-0.311
China	-0.267	-0.249	-0.310	-0.327	-0.308	-0.231	-0.292	-0.271	-0.365	-0.338	-0.292	-0.272
S. Africa	-0.279	-0.323	-0.279	-0.257	-0.323	-0.361	-0.305	-0.206	-0.096	-0.326	-0.304	-0.313
Turkey	-0.353	-0.351	-0.305	-0.275	-0.275	-0.078	-0.297	-0.339	-0.250	-0.179	-0.230	-0.307
e_j	0,934	0.959	0.998	0.991	0.996	0.686	1.000	0.921	0.891	0.937	0.942	0.997
d_j	0.066	0.041	0.002	0.009	0.004	0.314	0.000	0.079	0.109	0.063	0.058	0.003
w_j	0.088	0.055	0.002	0.012	0.005	0.420	0.000	0.106	0.146	0.084	0.077	0.004

In Table 6, e_j and d_j values have been calculated via equation 3 and w_j value has been calculated via eq. 4. w_j depicts the weight of the criteria in eq. 4. From the results in Table 6, it is observed that the most important criteria are poverty rate, adjusted net savings, and median household income, respectively. These criteria were followed by GDP (per capita), carbon intensity, public debt, labor productivity, employment, income income, dependency ratio, healthy life expectancy, and wealth gini, respectively. Therefore, while the most important criterion was poverty rate, the least important one was wealth.

In the study, 4 different approaches were used, namely the MOORA techniques, Ratio System, Reference Point (criteria same important), Reference Point (Entropy based) and Full-Multiplicative Form Methods. At the last stage, the final ranking was determined by the MULTIMOORA method. While the Ratio System criteria are assumed to have the same importance, the MOORA-Reference Point method is also applied for the case where the criteria are weighted with Entropy, in addition to the assumption that the criteria have the same importance value. The results obtained regarding these different methods applied are given in Table 7.

Table 7: The Findings of three Approaches of MULTIMOORA and MULTIMOORA

Countries	Ratio Sys.		Ref. Point (same imp.)		Ref. Point (Entropy)		Full-Multipl. F.		MULTI MOORA
	Y_i	Rank	Y_i	Rank	Y_i	Rank	Y_i	Rank	Rank
Brasil	0.153	3	0,473	4	0.058	1	20006.4	3	3
Russia	0.331	2	0,407	2	0.059	2	1719516	1	2
India	-1.766	6	0.835	6	0.351	6	39	6	6
China	-0.237	4	0.37	1	0.069	4	8330.4	4	4
S. Africa	-1.524	5	0.621	5	0.208	5	74.3	5	5
Turkey	0.985	1	0.433	3	0.063	3	407822.9	2	1

The findings of three approaches of MULTIMOORA are presented in Table 7. Y_i value belongs to the MOORA-Ratio System (Ratio Sys.) which has been calculated via equation 6. Y_i value has been calculated using equation 7 for both the MOORA-Reference Point (same important) (Ref. Point same imp.) and the Entropy based method. Finally, Y_i value located in the last column has been computed by means of equation 8 for the MOORA-Full-Multiplicative Form Method (Full-Multipl. F.). When the values in Table 7 are examined, it is seen that the countries with the best development performance in terms of the MOORA-Ratio System are Turkey, Russia and Brasil, respectively. Based on the MOORA-Reference Point (same important) results applied with the assumption that the criteria have the same importance, the best performing countries are listed as China, Russia and Turkey. When the Entropy based results of the same technique are examined, it is observed that the performance order is ranked as Brasil, Russia and Turkey, starting from the best. In the MOORA-Full-Multiplicative Form Method, it is seen that the top three countries with the highest score in terms of development performance are Russia, Turkey and Brasil, respectively. According to the final ranking made applying the MULTIMOORA method, the country with the best development performance is Turkey, Russia is in the second place and Brasil is in the third place.

Table 8: MULTIMOORA and IDI ranking

Contries	MULTIMOORA		IDI	
	Rank	Index	Rank	Index
Brasil	3	3.93	4	3.93
Russia	2	4.20	2	4.20
India	6	3.09	5	3.09
China	4	4.09	3	4.09
S. Africa	5	2.94	6	2.94
Turkey	1	4.26	1	4.26
Spearman rho	0.886	P_Value	0.019	

The ranking made with the MULTIMOORA technique and the IDI 2018 index ranking are given in Table 8. In addition, the results of Spearman's rank correlation analysis performed for these two rankings are also given in the table. When the results in Table 8 are examined, it is striking that the rankings show parallelism with each other. Furthermore, Spearman's rank correlation coefficient, which was calculated as 0.886 and found statistically significant, shows that there is a strong positive correlation between the ranking made with the MULTIMOORA technique and the IDI ranking.

5. Results and Discussion

After the changes in the approach on development from a global perspective, issues such as equality and inclusiveness have come to the fore much more than before. As a matter of fact, it is also accepted that countries' economic growth is not sufficient to solve problems such as poverty and income inequality. The BRICS are a group formed against the western powers that have a say in global politics. The most important aim of the countries, which have a very important share in terms of both geographical area and population, is to eliminate existing inequalities and to get rid of pressure by getting stronger. At the same time, these countries, which are among the emerging economies, attracted attention with the rapid economic growth trend in the recession period caused by the 2008 crisis. Turkey, which is likely to become a member of the BRICS, is also included in the analysis as an emerging economy.

In this study, IDI 2018 data for the BRICS member countries and Turkey have been analyzed with the MULTIMOORA technique. The Entropy method was used to weight the criteria. According to the entropy method, it has been determined that the most important criteria are poverty rate, adjusted net savings, and median household income, respectively. When we consider the ranking obtained as a result of the analysis, we see that the top three countries with the best inclusive performance are Turkey, Russia and Brasil. In addition, it is seen that the three countries with the lowest performance are India, South Africa and China. It is found that the first three criteria that are most effective in this ranking are GDP (per capita), labor productivity and healthy life expectancy. It is naturally an expected result that the countries with the best performance are also the ones in the best situation in terms of these criteria. The significant and high rank correlation coefficient, which was calculated as 0.886 in the last stage of the study, also showed that there is a positive and strong correlation between the MULTIMOORA rank and the IDI rank. Therefore, it has been understood that the ranking made as a result of the analysis is statistically reliable.

As a result of the literature review, it is understood that there are very few studies on this subject, but the existing studies (eg: Dai, 2016; Emirkadi; 2019; Gumede 2018; Imam Raza, 2018; Ncube et al. 2012) are also in line with the results accomplished after our study. The failure of China, one of the most important economic powers in the world today, in terms of inequality also manifests itself in the carbon intensity (World Economic Forum, 2018). These shortcomings are the main reason of its failure to show its success at growth level in the area of inclusive development. India is a country that has problems about poverty and inequality deeply, and it also has the problem of carbon intensity as a country where foreign production is highly oriented due to low production costs. South Africa is a country with low employment and health conditions and adverse situations in both wealth and income inequality (World Economic Forum, 2018). As Ncube et al. (2012) and Gumede (2018) stated in their studies, South Africa has many social and economic problems, and accordingly, it cannot implement the necessary policies for development. Again, Imam Raza (2018) states that India, like many

emerging economies, ignores social equality while acting with the country's economic growth target. Emirkadı (2019) concluded that Turkey could not show its success in growth in areas such as income inequality, especially wealth inequality and employment rate. On the other hand, Dai (2016) saw the inadequacy of an inclusive and sustainable development in China in the lacking of total factor productivity and employment, especially in underdeveloped regions.

It is not possible to say that the BRICS are very successful in terms of inclusive development performance in general. This situation constitutes an example that being successful in some economic performance indicators is not sufficient for the inclusiveness of economic development. Considering that the most important problems for emerging and developing countries are income inequality, poverty, gender inequality, carbon emissions, agriculture and food security, inadequacies in health and education and also internal and external conflicts; it can be said that policies to be implemented in these areas should be arranged in a way to include the weakest segment and ensuring sustainability should be the main target. Increasing investments in human capital, giving importance to science and technology, and strengthening governance in order to ensure that resources are used effectively will also have an impact on more inclusive policies.

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