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RELATIONSHIP BETWEEN COMPETITION AND FINANCIAL DEVELOPMENT: COMPARISON OF TURKEY-BRICS COUNTRIES


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Abstract

The purpose of this study is to examine the impact of competition on the financial development of countries. For this purpose, Turkey, and BRICS countries (Brazil, Russia, India, China, South Africa) were selected as sample countries for the study. A 17-year dataset was created with country data from 2005 to 2021 as the time period. The competitiveness factor is included in the analysis as an independent variable, using data from the Global Competitiveness Index published by the World Bank. The indices of the most traded stocks on the stock exchanges, which represent the financial performance of countries, were used as the dependent variable. The methods used in the study were the Westerlund cointegration test, Augmented Mean Group (AMG) estimation and Common Correlated Effects (CCE) estimation. The analyzes conducted showed that competition has a positive and significant impact on the financial performance of the sample countries.

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REKABET-FİNANSAL GELİŞMİŞLİK İLİŞKİSİ: TÜRKİYE-BRICS ÜLKELERİ KARŞILAŞTIRMASI

Öz

Bu çalışmanın amacı rekabetin ülkelerin finansal gelişmişlikleri üzerine etkisini araştırmaktır. Bu amaçla çalışmada örneklem ülkeler olarak Türkiye ve BRICS (Brezilya, Rusya, Hindistan, Çin, Güney Afrika) ülkeleri seçilmiştir. Dönem olarak 2005-2021 yılları arası ülke verileri ile 17 yıllık veri seti oluşturulmuştur. Rekabet faktörü, Dünya Bankası tarafından yayınlanan Küresel Rekabet Endeksi verileri kullanılarak analize bağımsız değişken olarak dahil edilmiştir. Bağımlı değişken olarak da ülkelerin finansal gelişmişliklerini temsilen borsalarındaki en fazla işlem gören payların yer aldığı endeksler kullanılmıştır. Çalışmada yöntem olarak Westerlund Eşbütünleşme testi, AMG ve CCE Ortalama Grup Tahmincileri kullanılmıştır. Uygulanan analizler sonucunda örneklem ülkelerinin finansal gelişmişlikleri üzerine rekabetin pozitif ve anlamlı bir etkisi olduğu tespit edilmiştir.

Anahtar Kelimeler: Rekabet, Finansal Gelişme, BRICS Ülkeleri ve Türkiye, Ortalama Grup Tahmincisi

1. INTRODUCTION

The fact that the world has become a larger market with globalization brings to the forefront the concept of competition in countries. With the increase of competitiveness, productivity, production and income will increase. In this way, the country will develop, the prosperity level of households will increase, and the foundation for a good and quality life will be laid. As prosperity increases, individuals/institutions will invest more in financial markets when valuing their savings. With the increase of demand in financial markets, the market value of enterprises will increase and develop. Increasing the market value of

enterprises, increasing efficiency, and extensive and effective competition in many sectors will provide end consumers with better products, more innovation, lower prices, and improved international competitiveness. (OECD, 2009;8).

There are certain indices that serve as a guide for determining the competitiveness of countries. This is because knowing the level of performance in global competition is important for determining economic relations with other countries. In addition, these indices allow countries to determine which factors can be improved by identifying which factors are good and which are weak, and thus determine how to improve their competitiveness as part of a strategic plan. The most basic index used in this context is the Global Competitiveness Index produced by the World Bank. The Global Competitiveness Index is an index calculated since 1979 by the World Economic Forum with the aim of monitoring the competitiveness of countries and the microeconomic and macroeconomic bases of national competitiveness. Three basic factors, consisting of 12 components, and complementary data are used to calculate the index. The factors that determine competitiveness in the index are divided into three main areas and are as follows (WEF Global Competitiveness Report (2020:9);

- I. Basic requirements: Institutional structure, infrastructure, macroeconomic stability, health, and basic education.
- II. Productivity-enhancing factors: Higher education and training, product market efficiency, labor market efficiency, financial market sophistication, technological infrastructure, and market size.
- III. Innovation and diversity factors: Level of enterprise development, innovation.

The concept of financial development, which is one of the determinants of competition and productivity, is to ensure that the highest expected rate of return is achieved by meeting countries' resource needs with surplus funds and directing resources to effective and productive areas away from political concerns (King and Levine (1993)). One of the most important indicators of financial development is the presence of an effective financial system. The existence of an effective financial system is possible due to the efficiency and size of capital markets. In an efficient financial system, the performance and stability of benchmark stock indices in the market reflect the degree of financial development of countries.

The literature has examined the relationship between the degree of financial development and economic growth. In general, it is found that the relationship between the degree of financial development and economic growth is positive (Rajab and Zingales (1998), (Beck and Levine, 2002; (Levine, 2005), etc.). By saving time and resources, investments are made faster and economic growth is accelerated.

It is also argued that the effect of the concept of financial development on economic growth has negative effects on instability and crisis and contraction of the economy, or it has positive effects up to a certain level and then negatively (Minsky, 1977; Stockhammer, 2004; Cecchetti ve Kharroubi, 2012; Demetriades ve Rousseau, 2016). In the studies conducted with the level of competition, the relationship between economic growth and financial development has been investigated (Yurttaçıkırmaz, 2014; Özkaya, 2014; Aliber, 1993; Corden, 1994) and argued that economic growth accelerated as competition increased (Levine, 2005).

The main objective of this study is to determine the relationship between the competitiveness of countries and their level of financial development. In the study, the BRICS countries (Brazil, Russia, India, China, South Africa) and Turkey were used as the country selection. The fact that BRICS countries account for about 23.2% of the total value of all goods and services produced in the world in 2018 shows their importance in the world economy. Since Turkey has high foreign trade with BRICS countries, these countries were used as the sample for the study. The period between 2005 and 2021 have been chosen. This period is important in that it includes the 2008 and 2011 crises, the 2018 foreign exchange shocks, and the Covid 19 pandemic. The study uses the Global Competitiveness Index provided by the World Bank as the independent variable and the stock indices, one of the indicators of countries' financial development, as the dependent variable. The study first stakes out the theoretical framework for the relationship between financial development and competition among countries, and then determines whether there is a relationship between practice and the direction of the relationship.

In the next parts of the study, a detailed literature review will be given, and the information about the data used in the study will continue with the interpretation of the results obtained with the developed model and the applied analysis.

2. LITERATURE REVIEW

The literature shows that the relationship between economic growth is mainly investigated in financial development studies. As a result of the studies, it can be noted that many studies have found a positive and significant relationship between economic growth and financial development. Some study summaries in the literature are as follows;

Ahmed and Ensari (1998) examine the relationship between financial sector development and economic growth for three major South Asian economies, India, Pakistan, and Sri Lanka, using the Granger causality test. As a result of the study shows that financial sector development causes economic growth in the Granger sense. In their study, Zhang and Yao (2002) concluded that not only is there a significant relationship between financial depth and economic growth, but the two variables are also a Granger cause of each other, as shown by Chinese country data.

Following the findings of Murinde and Eng (1994) with data from Singapore as a sample, Luintel and Khan (1999) with data from ten countries, and Al-Yousif (2002) with data from 30 developing countries and both time and panel data econometrics, Dritsakis and Adamopoulos (2004) in their studies with data from Greece found that financial development and economic growth influence each other and concluded that there is a two-way causality.

There are not many studies in the literature on the relationship between financial development and competition.

Competitiveness is the ability of countries to offer their products and services in international markets and succeed while seeking to increase real returns to their citizens under free and regulated market conditions (President's Commission on Industrial Competitiveness 1985, 3-7). One of the most basic definitions of the macro approach emphasizes that the main purpose of achieving competitiveness under free market conditions is to increase the real income and welfare of the country's citizens, to secure a certain level of living, and to make the rise in the country's standard of living sustainable (Waheeduzzaman and Ryans 1996, 7-17). In this sense, it is stated that the most important prerequisite for sustainable development is to improve the ability of

countries to design, produce, distribute, and market various products in international trade (Scoot and Lodge 1985, 3).

In his study, Suslu (2006) used a comparative analysis of financial development and competitiveness to try to determine whether the competitiveness of regions within a country is related to the degree of financial development. Interregional competitiveness can be defined by the relative price structure of regions, and this is consistent with the logic of domestic terms of trade. The study concludes that if there is a positive relationship between regional productivity and financial development, the domestic terms of trade or relative income will increase faster in that region than in other regions.

De Guevara and Maudos (2009), analyse the impact of regional financial development and bank competition on the growth of firms, using the Spanish provinces as a testing ground in their study. The findings from the study show that firms in industries that are more dependent on external financing grow faster in more financially developed regions. At the same time, it is stated in the study that bank competition can have a negative effect on the availability of finance for firms that are less transparent in terms of information.

Kester and Luehrman (1989), Prahalad and Doz (1987) studies have noted the importance of cash flow and investment and concluded that financial activities have a major impact on the competitiveness of companies.

Kaya and Kaygısız (2015), in their study on the 2008 crisis and the implemented financial policies, state that the reason for the decrease in access to credit and indirectly to competitive advantages, especially for small businesses, in the current financial system is the increased demand for new credit and loan instruments. In their study, they conclude that the economic crisis of 2008, which hit many countries hard at the international level, was the beginning of

developments that severely limited access to credit for companies and individuals, especially SMEs.

In their study, Gülençer and Türkoğlu (2020) compared Asian and European developing countries in terms of financial development. The study examined the financial development levels of 26 Asian and European countries between 2013 and 2017 using the Operational Competitive Rating Analysis (OCRA). The analysis showed that the financial development level of Asian developing countries is higher than that of European countries.

Şahin (2022), in his study examining the competitiveness of BRICS countries and Turkey, created the dataset with the data between 2006 and 2017. According to the results of the applied panel data analysis, he concluded that the increase of openness and foreign direct investment has a positive impact on the global competitiveness index.

Kuşat and Atlas Denli (2021) compared the competitiveness of BRICS countries and Turkey in their study. In the results, it was found that the only commodity group in which Turkey has a competitive advantage over BRICS countries is the commodity group "food and live animals".

As can be seen from the literature review, the lack of studies examining the relationship between financial development and competitive factors, and the fact that the impact of this relationship on BRICS and Turkey has not been examined, indicates the originality of the study. In this regard, it is expected to contribute to the literature.

3. DATA AND METHODOLOGY

The objective of the study is to examine the impact of competition on financial development in Türkiye and BRICS countries. For this purpose, the Global Competitiveness Index announced by the World Bank for the countries was used as an independent variable for the competitiveness index. The Global Competitiveness Index consists of 12 components, these are; institutions, appropriate infrastructure, stable macroeconomic framework, good health and primary education, higher education and training, efficient goods markets, efficient labor markets, developed financial markets, ability to harness existing technology, market size-both domestic and international, production of new and different goods using the most sophisticated production processes, innovation (World Economic Forum, 2022).

The indices of the most traded companies in the countries were used as dependent variables. The summary of the dependent and independent variables can be found in Table 1.

Table 1. Variables used in the study

Abbreviation	Variable	Source
Index	Global Competitiveness Index	The Global Competitiveness Report
Stock	Countries' Stock Exchanges	TR Investing
Brazil	Bovespa (BVSP)	
Russia	MOEX Russia (IMOEX)	
India	Nifty 50	
China	Shanghai Composite (SSEC)	
South Africa	South Africa Top 40 (JTOPI)	
Türkiye	BIST-100	

The period of the study was 2005-2021 and 17 years of data were used. Since stock indices differ numerically, logarithmic values are used by taking the logarithm of the stock market data. This period has been discussed because the

study has recently been affected by financial markets and includes the pandemic period.

The situation that a shock occurring in one of the studied countries may affect other countries is called the problem of cross-sectional dependence between series (Koçbulut and Altıntaş, 2016: 152). For this reason, the existence of cross-sectional dependence between the variables is examined using the CD test. Then, the stationarity level of the variables was examined using the CADF unit root test developed by Pesaran.

Whether there is a long-term relationship between the variables was investigated using the Westerlund cointegration test. One of the basic assumptions of this method is that at least one of the variables is non-stationary. This test is a method that takes into account cross-sectional dependence and structural break (Hepaktan and Çınar, 2011:147). The cointegration model for the variables is as follows:

$$\text{STOCK}_{it} = \beta_0 + \beta_1 \text{INDEX}_{it} + \varepsilon_{it}$$

In the formula, STOCK refers to the stock markets of the countries that are the dependent variable of the study, INDEX refers to the global competitiveness index determined by the World Bank, which is the independent variable of the study, and ε refers to the error term of the model.

The presence of a cointegrated relationship between the variables in the long run indicates that the variables are influenced by each other in the long run. However, one of the tests for determining the direction and coefficient of this relationship is the method of coefficient estimation. If one examines the literature, one finds that there are many tests for coefficient estimators. Again, AMG and CCE estimator models are used and are among the most commonly

used estimator methods. The method for estimating the CCE coefficients was created using the estimation method developed by Pesaran (2006) based on the Common Associated Effects (CCE) model. This method is used in both cases, regardless of time and section size (Pesaran, 2006: 967; Pesaran and Yamagata, 2008: 50). The other estimation method used in the study, AMG (Augmented Mean Group Estimator), takes the first differences of the variables in the series and adds time dummies to the model. Then the classical least squares method is applied. In the next step, the determined coefficients of the dummy variables are added to the first created model and the prediction is made (Büberkökü, 2016: 188). The purpose of using both AMG and CCE estimation methods in the study is to consolidate the results. The model created for the coefficient estimators is as follows:

$$\text{STOCK}_{it} = \alpha_i 'dt + \beta_i ' \text{INDEX}_{it} + e_{it} \quad i = 1,2, \dots, N \quad t = 1,2, \dots, T$$

In the equation, dt is the $n \times 1$ -dimensional observable joint effect and INDEX_{it} is the $k \times 1$ -dimensional observed individual-specific regressor vector.

4. FINDINGS

In this part of the study, the results of the analysis of the variables are given and interpreted.

Table 2. Statistical Values of the Variables

Variable	Observation	Average	Std Deviation	Minimum	Maximum
Stock	84	3.789088	0.7129333	2.567738	5.007722
Index	84	62.67782	4.32951	42.5	73.9

As the logarithm of the stock market variable is taken, it varies between 2.5 and 5. The Global Competitiveness Index, on the other hand, varies between 42.5 and 73.9 for Türkiye and the BRICS countries. The closer the index is to 100, the more competitive the country is on world markets and the more resilient it is in competition.

The result of the cross-sectional dependence test applied to determine the problem of cross-sectional dependence between the variables is shown in Table 3.

Table 3. Cross-Section Dependency Test

	Panel	Stock	Index
CD-Test	8.349	8.17	3.70
Probability Value	0.0000	0.0000	0.0000

As can be seen in Table 3, a probability value of less than 5% for both the entire panel and the variables indicates that there is a problem with cross-sectional dependence between variables. For this reason, this study uses second-generation tests that account for the cross-sectional dependence problem.

To investigate the stationarity of the variables, the CADF unit root test was applied and the results of the analysis are as follows:

Table 4. CADF Unit Root Test Results

	t-bar	cv10	cv5	cv1	Z[t-bar]	Delay	Probability
Stock	-1.273	-2.220	-2.370	-2.660	0.982	1	0.837
Index	-1.957	-2.220	-2.370	-2.660	-0.554	1	0.290

	CIPS	%1	%5	%10
Panel	-1.504	-2.66	-2.37	-2.22

According to the results of the CADF unit root test, the fact that the statistical t-value for both variables is smaller than the cv values in absolute values indicates that both the stock and index variables are non-stationary at the level and have unit roots.

According to the results of the CIPS unit root test, the fact that the value of French fries is below the values of the 1%, 5%, and 10% significance levels for the absolute value across the entire panel indicates that the panel is non-stationary at the level.

The homogeneity of the slope coefficients of the variables was measured using the S-test developed by Swamy.

Table 5. Swamy S Homogeneity Test

	Chi-Square Value	Probability	Result
Model (Dep. Var: Stock)	2349.06	0.0000	The parameters are heterogeneous.

The fact that the probability value in the homogeneity test of Swamy S is below 5% shows that the effects of a change in the index variables on the stock variables can be different, i.e. the model is heterogeneous.

Table 6. Westerlund Cointegration Test Results

	Value	Z Value	Probability	Adj. Probability
G_t	-7.333	-15.180	0.000***	0.060
G_a	-15.709	-1.403	0.080*	0.340

P_t	-9.050	-4.513	0.000***	0.280
P_a	-11.420	-1.012	0.156	0.480

***, * means 1% and 10% significance level, respectively. In the test, the lag length was assumed to be 1 because the data were annual, and the bootstrap value was assumed to be 100.

A look at Table 6 shows that the probability values are less than 1%, indicating that in the long run there is a cointegrated relationship between the variables. In other words, in the long run, the country's stock market variables and the global competitiveness index influence each other. The results of the coefficient estimator test to determine the direction of this effect are shown in Table 7.

Table 7. Coefficient Estimator Results

Dependent Variable: Stock		AMG			CCE		
		Coefficient	Std Deviation	Probability	Coefficient	Std Deviation	Probability
Independent Variable: Index	Brazil	0.01298	0.01159	0.263	0.01795	0.01133	0.113
	Russia	-0.00209	0.00190	0.272	0.00423	0.00627	0.500
	India	0.00240	0.00538	0.655	-0.00809	0.00696	0.245
	China	-0.047492	0.01375	0.001***	-0.050842	0.01610	0.002 ***
	S. Africa	0.02093	0.01407	0.137	0.00568	0.02146	0.791
	Türkiye	0.01888	0.00688	0.006***	0.03227	0.01022	0.002 ***

*** 1% indicates significance levels.

Both the AMG and CCE coefficient estimator tests yield similar results. Comparing the BRICS countries and Türkiye using these results, it is found that only in China and Türkiye does the global competitiveness index have a strong impact on the countries' stock markets at the 1% significance level. However, this effect is opposite. So, one-unit increase in the global competitiveness index

leads to a 4% decline in the estimated AMG coefficient and a 5% decline in the estimated CCE coefficient for China's Shanghai Composite (SSEC) stock market.

Unlike China, the relationship is one-sided for Türkiye. A one-unit change in the global competitiveness index leads to a 1% increase in the estimated AMG coefficient and a 3% increase in the estimated CCE coefficient for the BIST100 index in Türkiye.

5. CONCLUSION AND RECOMMENDATIONS

The purpose of this study is to examine the impact of competition on the stock markets in Türkiye and BRICS countries. For this reason, the indices in which most of the stocks in the countries are traded are used as the dependent variable and the global competition index, according to the global acceptance, is used as the independent variable. The period of the study is 2007-2020 and it is important because there were some crises in this period. The study used Westerlund cointegration method and AMG and CCE coefficient estimators as the method.

The result of the cointegration test shows that there is a cointegrated relationship between the competition index and the stock market in the long run. This shows that competition has a positive/negative impact on the countries' stock markets and that they influence each other. The results of AMG and CCE coefficient estimators are similar and supportive. In this context, we can also say that the coefficient estimators are mutually supportive. According to both coefficient estimator models, a 1-unit change in China's competitiveness index causes the country's stock market to decline by 4% under the AMG coefficient estimator method and by 5% under the CCE coefficient estimator method. This means that the stock markets will be negatively affected if competition increases in China, which produces

technology, ranks first in the world, and mainly produces high value-added products. If competition increases, China will have to fear losing part of its market and production volume to other countries, which will affect the country's stock markets, which are one of the bases of its financial indicators.

According to both coefficient estimator models, a one-unit change in the competitiveness index in Türkiye leads to a 1% increase in the country's stock market under the AMG coefficient estimator method and a 3% increase under the CCE coefficient estimator method. This situation indicates that the increase in the level of competition in Türkiye, which has not yet reached the desired level in terms of production volume and competition, and which is a developing country that is more resilient to the markets and has more competitive policies, has a positive effect on the stock markets.

Contrasting results between China and Türkiye may be due to the development level of the countries. It will not be enough to explain this only with the level of development. China is one of the best countries in the world, especially in production. China, which produces high value-added and technological products, will not be affected by competition as much as other countries. Türkiye, on the other hand, aims to be a country that increases its production volume among developing countries. In other words, being more resistant to competition will positively affect their financial markets.

The results of the study are congruent with the studies discussed in the literature section (Süslü (2006), Kester and Luehrman (1989), Prahalad and Doz (1987), Kaya and Kaygısız (2015), Gülençer and Türkoğlu (2020), Şahin (2022)). Since the Global Competitiveness Index value for 2021 is not reported for the countries, the 2020 data is used as the current data. This situation can be called

the limitation of the study. The study can be further developed by expanding the group of countries and using other financial indicators.

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GENİŞLETİLMİŞ ÖZET

Giriş

Küreselleşme ile birlikte dünyanın daha büyük bir pazar haline gelmesi ülkelerde rekabet kavramını ön plana çıkarmaktadır. Rekabet gücünün artışı ile birlikte verimlilik, üretim ve gelir artışı meydana gelecektir. Bu sayede ülke kalkınarak hane halkının refah seviyesi artacak, iyi ve kaliteli bir yaşamın temeli atılmış olacaktır. Refah seviyesinin artması ile bireysel/kurumlar tasarruflarının değerlendirilmesinde finansal piyasalara daha fazla yatırım yapacaktır.

Ülkeler rekabet gücünün tespiti için kılavuz niteliğinde endekslerden faydalanılmaktadır. Bu kapsamda kullanılan en temel endeks Dünya Bankası tarafından servis edilen küresel rekabet endeksidir. Küresel rekabet endeksi ülkelerin rekabetçilik durumunu ulusal rekabetçiliğin mikro ve makroekonomik temellerini gözlemlemek amacı ile 1979 yılından itibaren Dünya Ekonomik Forumu tarafından hesaplanan bir endekstir. Endeksin hesaplanmasında 12 bileşenin ve birbirini tamamlayan verilerin oluşturduğu üç temel faktörden yararlanılmaktadır. Endekste rekabet gücünü belirleyen unsurlar 3 ana başlıkta yer almakta olup şunlardır (WEF Küresel Rekabetçilik Raporu (2020:9);

- I. Temel Gereksinimler: Kurumsal yapı, Altyapı, Makroekonomik İstikrar, Sağlık ve Temel Eğitim.
- II. Verimlilik Arttırıcı Faktörler: Yüksek Öğrenim ve Hizmet içi Eğitim, Ürün Piyasalarının Etkinliği, Emek Piyasalarının Etkinliği, Finansal Piyasaların Gelişmişliği, Teknolojik Altyapı ve Pazar Büyüklüğü.
- III. Yenilikçilik ve Çeşitlilik Faktörleri: İş Dünyasının Gelişmişlik Düzeyi, İnovasyon.

Bu çalışmanın temel amacı ülkelerin rekabet güçleri ile finansal gelişmişlik düzeyleri arasındaki ilişkinin tespit edilmesidir. Çalışmada ülke örneklemleri olarak BRICS (Brezilya, Rusya, Hindistan, Çin, Güney Afrika) ülkeleri ve Türkiye alınmıştır. BRICS ülkelerinin dünya genelinde 2018 yılı itibari ile üretilen tüm mal ve hizmetlerin değer toplamının yaklaşık %23,2'sini oluşturması dünya ekonomisi için önemini ifade etmektedir. Türkiye'nin de BRICS ülkeleri ile dış ticaretinin yüksek olması nedeniyle çalışmada örneklem olarak bu ülkeler ele alınmıştır. Dönem olarak 2005-2021 yılları arası seçilmiştir. Bu dönemin 2008, 2011 krizlerini, 2018 döviz şoklarını ve Covid-19 pandemi dönemini kapsamı açısından önemlidir. Çalışmada bağımsız değişken olarak Dünya Bankası tarafından servis edilen Küresel Rekabet Endeksi, bağımlı değişken olarak da ülkelerin Finansal gelişmişlik göstergelerinden Borsa Endeksleri kullanılmıştır. Çalışmada ilk olarak Finansal gelişmişlik ve ülkeler arası rekabet arasındaki

ilişkinin teorik çerçevesi çizilecek daha sonra uygulama ile arasındaki ilişki olup olmadığı ve ilişkinin yönü tespit edilecektir.

Literatür

Literatürde finansal gelişme ile ilgili yapılan çalışmalarda en çok ekonomik büyüme arasındaki ilişkinin incelendiği görülmektedir. Çalışmaların neticesinde ise birçok çalışmada ekonomik büyüme ile finansal gelişme arasında pozitif yönlü anlamlı ilişki tespit edildiği görülmektedir. Literatürde yer alan bazı çalışma özetleri şöyledir;

Kaya ve Kaygısız (2015) 2008 krizi ve uygulanan maliye politikaları ile ilgili yaptıkları çalışmada, mevcut finansal sistem içerisinde özellikle küçük çaplı teşebbüslerin kredilere erişiminin ve dolaylı yoldan rekabet avantajlarının azalmasının sebebinin yeni borçlanma ve borç verme araçlarına olan taleplerin artmasına dayandırmaktadırlar. Çalışmalarında, uluslararası ölçekte birçok ülkeyi derinden etkileyen 2008 ekonomik krizi, başta KOBİ'ler olmak üzere şirketlerin ve bireylerin krediye ulaşım imkanlarını büyük ölçüde kısıtlayan gelişmelerin başlangıcı olduğu sonucuna ulaşmışlardır.

Gülençer ve Türkoğlu (2020) çalışmalarında finansal gelişmişlik bakımından gelişmekte olan Asya ve Avrupa ülkelerini karşılaştırmışlardır. Çalışmada 26 Asya ve Avrupa ülkesinin 2013 ile 2017 yılları arası dönemdeki finansal gelişmişlik seviyesi operasyonel rekabet değerlendirme (OCRA) analizi ile test edilmiştir. Finansal gelişmişlik göstergeleri olarak; geniş para arzının gayri safi yurtiçi hasılaya (GSYİH) oranı, banka mevduatlarının GSYİH'ya oranı, özel sektöre verilen yurtiçi kredilerin GSYİH'ya oranı ve likit yükümlülüklerinin GSYİH'ya oranı kriterleri kullanılmıştır. Analizden elde edilen bulgular sonucunda gelişmekte olan Asya ülkelerinin finansal gelişmişlik seviyesinin Avrupa ülkelerine göre daha yüksek olduğu tespit edilmiştir.

Şahin (2022) BRICS ülkeleri ile Türkiye'nin rekabet gücünü araştırdığı çalışmasında 2006 ile 2017 yılları arasındaki veriler ile veri setini oluşturmuştur. Uygulanan panel veri analizinden elde edilen bulgulara göre dışa açıklıkta ve doğrudan yabancı yatırımlarda meydana gelen artışların küresel rekabet gücü endeksi üzerinde pozitif etkisi olduğu sonucuna ulaşmışlardır.

Kuşat ve Atlas Denli (2021) çalışmalarında, BRICS ülkeleri ile Türkiye'nin rekabet güçleri karşılaştırmıştır. Sonuçlarda Türkiye'nin BRICS ülkelerine karşı rekabet avantajı yakaladığı tek mal grubunun 'Gıda ve Canlı Hayvanlar Mal Grubu' olduğu tespit edilmiştir.

Literatür taramasında görüldüğü üzere gerek finansal gelişme ve rekabet faktörleri arasındaki ilişkiyi inceleyen pek çalışma bulunmaması gerekse bu ilişkinin BRICS ve Türkiye üzerine etkisinin araştırılmamış olması çalışmanın özgünlüğünü ortaya çıkarmaktadır. Bu yönüyle alanyazına katkı sağlaması beklenmektedir.

Data ve Metodoloji

Çalışmanın amacı Türkiye ile BRICS (Brezilya, Rusya, Hindistan, ülkelerinde rekabetin finansal gelişmişlik üzerine etkisi araştırmaktır. Bu amaçla rekabet endeksi için Dünya Bankası tarafından ülkeler için açıklanan Global Competitiveness Index (Küresel Rekabet Endeksi) bağımsız değişken olarak kullanılmıştır. Global Competitiveness Index 12 bileşenden meydana gelmektedir (World Economic Forum, 2022).

Sonuç ve Öneriler

Eşbütünlük testi sonucunda uzun vadede rekabet endeksi ile borsa arasında eşbütünlük ilişki olduğu görülmektedir. Bu da rekabetin ülkelerin borsalarını olumlu/olumsuz etkilediğini, birbirlerinden etkilendiğini göstermektedir. AMG ve CCE Katsayı tahminci sonuçları ise birbirine benzer ve destekler niteliktedir. Bu bağlamda katsayı tahmincileri birbirinin sağlaması olarak da nitelendirilebilir. Her iki katsayı tahminci modeline göre de Çin’de rekabet endeksinde meydana gelebilecek 1 birimlik değişim ülke borsasında AMG katsayı tahminci yöntemine göre %4, CCE katsayı tahminci yöntemine göre %5 azalışa neden olmaktadır. Bu durum teknoloji üreten, dünyada üretim açısından ilk sıralarda yer alan ve özellikle katma değeri yüksek ürünler üreten Çin’de rekabet arttıkça borsalarının olumsuz etkileneceği anlamına gelmektedir. Rekabet arttıkça Çin bazı pazar ve üretim hacmini diğer ülkelere kaptırma korkusu yaşayacak, bu durum da finansal göstergelerinin temellerinden biri olan borsalarını düşürecektir.

Her iki katsayı tahminci modeline göre de Türkiye’de rekabet endeksinde meydana gelebilecek 1 birimlik değişim ülke borsasında AMG katsayı tahminci yöntemine göre %1, CCE katsayı tahminci yöntemine göre %3 artışa neden olmaktadır. Bu durum üretim hacmi ve rekabet açısından henüz istenilen düzeyde olmayan, gelişmekte olan bir ülke olan Türkiye’nin rekabet düzeyinin artmasının, piyasalara karşı daha dirençli olmasının, daha rekabet edilebilir politikalar izlemesinin borsalarını olumlu etkileyeceği sonucunu doğurmaktadır.