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Do Investors Care About Sustainability?

Yatırımcılar Sürdürülebilirliği Önemsiyor mu?

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Abstract

Purpose: This study seeks to investigate any significant changes in the stock returns of companies listed on the BIST Sustainability Index from 2014 to 2023. Within this framework, the research analyses the impact of inclusion in the index on investor behaviour, focusing on potential increases or decreases in stock returns to evaluate the market’s reception of sustainability-oriented indices.

Method: This study employs an event study methodology to assess the impact of a specific event—the inclusion of companies in an index—on stock returns. The analysis evaluates investor reactions by calculating abnormal returns during both pre- and post-event periods. To determine if there is a significant difference between the average abnormal returns in these periods, a paired sample t-test is utilized. This analysis will indicate whether inclusion in the index results in a change in stock performance.

Results: The analysis results indicate that the cumulative average abnormal returns (CAAR) of 18 companies exhibit a negative trend in the period from 10 to 5 days before and 10 to 5 days after their inclusion in the BIST sustainability index. The findings from the Paired Samples t-test reveal no significant change in stock returns when comparing the CARs values before and after the event.

Conclusion: This indicates that there is no noticeable change in stock returns following the inclusion of companies in the BIST Sustainability Index. This scenario may also imply that investors do not react to the inclusion of these companies or that they are unable to achieve abnormal returns from these stocks.

Keywords

Sustainability, Borsa Istanbul, Event study, Sustainability finance.

Öz

Amaç: Bu çalışma, 2014-2023 yılları arasında BIST Sürdürülebilirlik Endeksi'nde yer alan şirketlerin hisse senedi getirilerindeki önemli değişiklikleri araştırmayı amaçlamaktadır. Bu çerçevede araştırma, piyasanın sürdürülebilirlik odaklı endeksleri kabulünü değerlendirmek için hisse senedi getirilerindeki potansiyel artış veya azalışlara odaklanarak endekse dahil olmanın yatırımcı davranışları üzerindeki etkisini analiz etmektedir.

Yöntem: Bu çalışma, belirli bir olayın (şirketlerin bir endekse dahil edilmesi) hisse senedi getirileri üzerindeki etkisini değerlendirmek için bir olay çalışması metodolojisi kullanmaktadır. Analiz, hem olay öncesi hem de olay sonrası dönemlerde anormal getirileri hesaplayarak yatırımcı tepkilerini değerlendirmektedir. Bu dönemlerdeki ortalama anormal getiriler arasında istatistiksel olarak anlamlı bir fark olup olmadığını belirlemek için eşleştirilmiş örneklem t-testi kullanılır. Bu analiz, endekse dahil edilmenin hisse senedi performansında bir değişikliğe yol açıp açmadığını gösterecektir.

Bulgular: Analiz sonuçları, 18 işletmenin kümülatif ortalama anormal getirilerinin (CAR) BIST sürdürülebilirlik endeksine dahil edilmeden 10 ila 5 gün öncesi ve 10 ila 5 gün sonrası dönemde negatif bir eğilim sergilediğini göstermektedir. Paired Samples t-testinden elde edilen bulgular, olay öncesi ve sonrası CAR değerlerini karşılaştırırken hisse senedi getirilerinde önemli bir değişiklik olmadığını ortaya koymaktadır.

Sonuç: Bu durum, şirketlerin BIST Sürdürülebilirlik Endeksi'ne dahil edilmesinin ardından hisse senedi getirilerinde belirgin bir değişiklik olmadığını göstermektedir. Bu senaryo, yatırımcıların bu şirketlerin endekse dahil edilmesine tepki vermedikleri veya bu hisse senetlerinden anormal getiri elde edemedikleri anlamına da gelebilir.

Anahtar Kelimeler

Sürdürülebilirlik, Borsa İstanbul, Olay çalışması, Sürdürülebilir Finans

Introduction

Increasing demand and consumption due to industrialization leads to unlimited use of the world's resources, disrupting the ecological balance and causing environmental problems. Rapidly increasing industrialization and changing consumption habits cause global impacts and form the basis of events such as the climate crisis (Yılmaz-Ozekenci & Topaloğlu, 2025). This situation brings to the fore the need to change to an economic structure in which resources are protected, and the concept of sustainability is emphasized. In 1987, the World Commission on Environment and Development gave the first official definition of sustainability as *"meeting the needs of the present without compromising the ability of future generations to meet their own needs"*. According to Turner, Pearce, and Bateman (1993), sustainability is about maximizing economic development benefits. According to Hawken (1993), sustainability is interpreted as meeting economic needs without compromising the environmental capacity of future generations through the balanced use of resources. With the emergence of this concept, the Dow Jones Sustainability Index (DJSI) was launched by the New York Stock Exchange in 1999, the FTSE4Good Index in the UK in 2001, the JSE Sustainability Index in South Africa in 2004, the BIST Sustainability Index (SI) in Turkey in 2014, DAX 50 ESG Index in Germany in 2018 and the AEX ESG Index in the Netherlands in 2020. The BIST SI, which Borsa İstanbul started calculating on 4 November 2014, allows companies to effectively manage their business risks and opportunities, attract new capital, and develop new investment products to provide financing at favourable conditions (Borsa İstanbul, 2025). In the report published by the United Nations (2016), principles such as environmental, social, and corporate governance factors and the concept of sustainability come to the fore. This situation is leading companies to align their financial statements with sustainability principles. Companies have started to publish sustainability reports in which they can present their economic, environmental, and social performance to stakeholders reliably and transparently. These reports are essential for investors considering socioeconomic and environmental criteria and financial factors in their investment decisions. In this context, the answer to the question of how investments react to the inclusion of companies in the sustainability index, i.e., how it leads to a change in stock returns, becomes more important. A review of the literature shows a limited number

of studies on this topic, as it is a relatively new area of research. In addition, there are very few studies on this topic in Turkey. This study aims to determine whether investors react to the announcement of companies to be included in the BIST Sustainability Index (BIST SI). It is believed that this study will make an important contribution to the literature by analysing the reflection of the sustainability concept in the stock markets by considering the change in stock returns. Due to the limited research available on the impact of inclusion or exclusion from sustainability indices on investment returns, this study seeks to make a meaningful contribution to the existing body of literature. The structure of the study is organized as follows: it begins with a literature review, followed by three sections that outline the methodology and research questions. This is followed by four sections presenting the findings, and the study concludes with a final section summarizing the conclusions.

Literature Review

The importance of sustainability indices in financial markets has received growing attention in recent years, especially regarding investors' perceptions of the companies listed within these indices. Since 2005, the discussion surrounding the impact of a company's inclusion in sustainability indices on stock returns whether positive or negative has been examined from theoretical and empirical perspectives. Research has primarily concentrated on how investors respond to a company's addition to or removal from sustainability indices and the effects on stock prices. Curran and Moran (2007), who investigated the effect of inclusion and exclusion from the FTSE4Good Index on stock prices, concluded that this situation has insignificant effects on stock prices. Consolandi et al. (2009) investigated the effect of the inclusion and exclusion of European companies in the DJSSI on stock prices. Wai Kong Cheung (2011), on the other hand, aimed to determine the change in stock value of American enterprises in the Dow Jones Sustainability Index (DJSI) in case of inclusion and exclusion from the index. In the study, it was concluded that the inclusion of the enterprises in the index did not significantly affect the change in the stock. Ortas and Moneva (2011) obtained results supporting this situation in their study, Robinson et al. (2011) found that the stock value temporarily decreased in the first ten days after being removed from the index. Wai Kong Cheung and Roca (2013) find that inclusion and exclusion from the Dow Jones Sustainability World Index (DJSWI) lead to a decline in stock returns. In their study, Çıtak and Ersoy (2016) investigated the effect of inclusion in the BIST sustainability index on stock returns. They concluded that inclusion and exclusion from the index did not have a significant effect on stock returns. Stekelenburg et al. (2015) concluded that the inclusion and delisting announcements of European companies in the DJSI did not significantly affect stock returns. Gündüz (2018) investigated the effect of the inclusion of enterprises in the BIST Sustainability index on stock value. However, he concluded that the inclusion of enterprises in the index does not affect stock value. While Yılmaz et al. (2020) show in their study that there is no firm evidence of the effect of inclusion or exclusion in the BIST Sustainability Index on the stock returns of companies. Goyal and Soni (2024) obtained results showing that stock markets do not reward the inclusion of company in the sustainability index.

The reviewed studies generally suggest that inclusion in or exclusion from an index does not have a significant effect on returns. Nevertheless, some research indicates that such changes can influence returns. In this context, the present study seeks to examine whether inclusion in the BIST SI index has a positive or negative impact on the returns of the companies involved, thereby contributing to the existing body of literature.

Methodology and Research Questions

The study aims to analyse the stock returns of companies included in the BIST SI and reveal whether there was a change in their stock returns after they were included in the index. In this context, the research question formulated in the study within the scope of the studies in the literature is as follows.

Q1: *Does being included in or excluded from the BIST SI positively affect stock returns?*

Q2: *Does being included in or excluded from the BIST SI negatively affect stock returns?*

The study included 18 companies whose stocks were traded in the BIST SI in 2014, 2015, 2016, 2019, 2020, 2022, and 2023. These companies were created based on companies in BIST 30. The daily

return rates of the 18 companies included in the study were calculated. Daily return rates were used as closing prices. The daily return rates of the companies were divided into two different time periods. First, the 21-day return rates covering the 10 days before and 10 days after the companies were included in the BIST SI were calculated. Then, to examine the daily return rates in a shorter period, the 11-day return rates covering the 5 days before and 5 days after the companies were included in the BIST SI were calculated. Finally, both periods were compared. The data of the companies included in the study were obtained from the İş Yatırım website. The methods of the study are Event Study and Paired Samples t Test. Paired Samples t-test analyses were performed in the STATA program. The event study method allows for the examination of the effect of a certain event on companies' stocks. According to the method, the effect of the determined event on company stocks will be possible with an abnormal return. Therefore, the concept of abnormal return is the basic key to the method (Serra, 2004). In order to perform the t-test in the study, the cumulative average abnormal returns of the companies were calculated first. In the study, the cumulative average abnormal returns of the companies were calculated as given below with the Event Study method (Cowan and Sergeant, 1996; Chan - Lau, 2002; Duso, Gugler & Yurtoglu, 2010; Dilshad, 2013). The return rate and the market return rate were calculated using the two equations given below in the study.

$$R_{it} = (P_{it} - P_{it-1}) / P_{it-1} \quad (1)$$

$$R_{mt} = (I_t - I_{t-1}) / I_{t-1} \quad (2)$$

In the equation R_{it} rate of return, P_{it} closing price ve P_{it-1} the previous day's closing price, R_{mt} Return rate of BIST 100 index, I_t Closing price of BIST 100 index and I_{t-1} It shows the closing price of the BIST 100 index the previous day. The abnormal rate of return is calculated after calculating the rate of return and the market rate of return.

$$AR_{it} = R_{it} - R_{mt} \quad (3)$$

AR_{it} is the abnormal return rate of the stock. The calculated abnormal return rate is used to obtain the average abnormal return rate.

$$AAR_{it} = \sum_{i=1}^N (1/N) AR_{it} \quad (4)$$

AAR_{it} is the average abnormal rate of return.

Finally, the Cumulative Average Abnormal Returns (CAAR) is calculated.

$$CAR_{it} = \sum_{i=1}^N AAR_{it} \quad (5)$$

CAR_{it} is the cumulative average abnormal return.

The study used the Paired Samples t-test to determine whether there is a statistically significant difference between the cumulative average abnormal return rates covering the period before and after the companies were included in the BIST SI.

Findings

This study's objective is to analyse the stock returns of companies listed in the BIST SI. It encompasses 18 companies whose stocks were traded on the index during the years 2014, 2015, 2016, 2019, 2020, 2022, and 2023. Table 1 presents the list of companies included in the study.

Table 1. Companies List

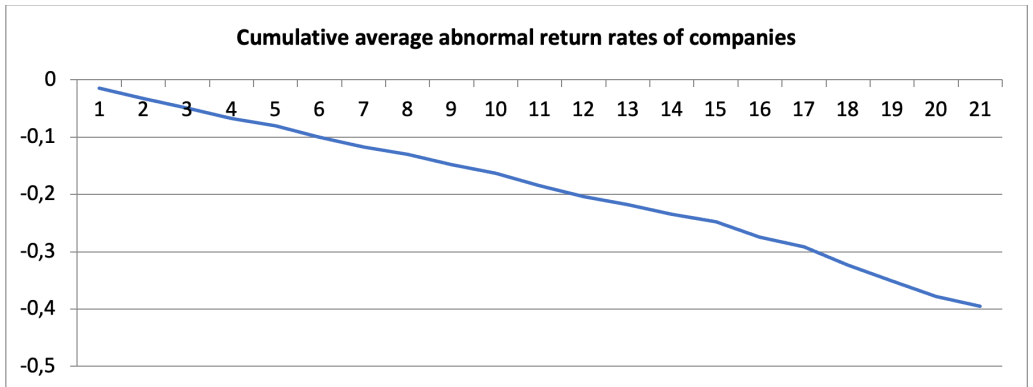
	Company Codes	Company	Index date
1	AKBNK	Akbank T.A.Ş.	04.11.2014
2	ASELS	Aselsan Elektronik Sanayi Ve Ticaret A.Ş.	04.11.2014
3	BIMAS	Bim Birleşik Mağazalar A.Ş.	03.01.2022
4	DOAS	Doğuş Otomotiv Servis Ve Ticaret A.Ş.	02.11.2015
5	ENKAI	Enka İnşaat Ve Sanayi A.Ş.	01.11.2019

Table 1. Continue

	Company Codes	Company	Index date
6	EREGL	Ereğli Demir Ve Çelik Fabrikaları T.A.Ş.	02.11.2015
7	FROTO	Ford Otomotiv Sanayi A.Ş.	02.11.2015
8	KCHOL	Koç Holding A.Ş.	04.11.2014
9	PETKM	Petkim Petrokimya Holding A.Ş.	02.10.2023
10	PGSUS	Pegasus Hava Taşımacılığı A.Ş.	01.12.2020
11	TOASO	Tofaş Türk Otomobil Fabrikası A.Ş.	04.11.2014
12	TCELL	Turkcell İletişim Hizmetleri A.Ş.	04.11.2014
13	TUPRS	Tüpraş-Türkiye Petrol Rafinerileri A.Ş.	04.11.2014
14	THYAO	Türk Hava Yolları A.O.	02.11.2015
15	GARAN	Türkiye Garanti Bankası A.Ş.	04.11.2014
16	ISCTR	Türkiye İş Bankası A.Ş.	02.11.2015
17	SISE	Türkiye Şişe Ve Cam Fabrikaları A.Ş.	01.11.2016
18	YKBNK	Yapı Ve Kredi Bankası A.Ş.	04.11.2014

The daily return rates of the 18 companies involved in the study were assessed. These rates were divided into two distinct periods. Initially, the 21-day return rates, which encompass the 10 days prior to and the 10 days following their inclusion in the BIST SI, were calculated. Figure 1 illustrates the CAAR rates of these companies over the 21-day period, highlighting both the 10 days preceding and the 10 days succeeding their inclusion.

In Figure 1, we observe that the CAAR of the 18 companies included in the study exhibited an unfavourable trend during the 10 days leading up to their inclusion in the BIST SI. Similarly, the CAAR of these companies remained negative during the 10 days following their inclusion. This indicates that the inclusion in the BIST SI did not result in any change in stock returns, suggesting that investors did not react positively to these companies being added to the index. Consequently, it can be concluded that investors were unable to achieve abnormal returns from the stocks in question.

**Figure 1.** Cumulative average abnormal return rates of companies

To further analyse daily return rates over a shorter timeframe, the study calculated 11-day return rates, which encompassed 5 days before and 5 days after the companies' inclusion in the BIST SI.

Figure 2 illustrates the 11-day cumulative average abnormal return rates for the companies during this period. Figure 2, it becomes clear that the CAAR were negative during the ten days surrounding the companies' inclusion in the BIST SI, specifically five days before and five days after. As a result, it was concluded that there was no significant change in the stock returns for the companies added to the BIST SI. The findings indicate that investors exhibited indifference towards these companies' inclusion in the index and did not realize any abnormal returns from the associated stocks. In this study, the

companies' daily return rates were analysed across two distinct periods for comparative purposes. A notable similarity was observed between the five days preceding and following the inclusion in the BIST SI and another period encompassing ten days before and after—this methodology aimed to evaluate stock return rates over a shorter duration. Ultimately, no significant change was detected in investors' initial reactions to events surrounding these companies within the defined timeframe of the study.

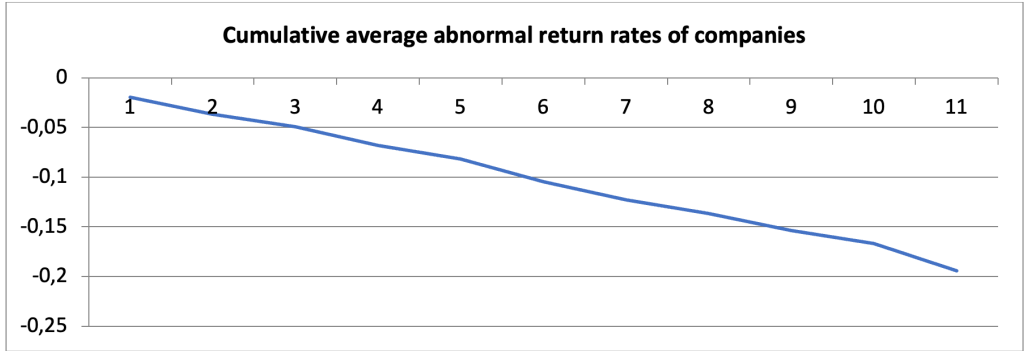


Figure 2. Cumulative average abnormal return rates of companies

The methodology utilized was the Paired Samples t-test, which calculated the daily return rates for the 18 companies under investigation. The return rates were divided into the two previously mentioned periods. Initially, the rates for the ten days before and after the inclusion in the BIST SI were computed. Table 2 below displays the results of the expected distribution test for the daily return rates during these ten days.

The analysis of Table 2 presents the findings from the expected distribution test. According to the standard distribution test (Shapiro-Wilk), the p-values for the pre-event and post-event CAR^{it} values (0.888 > 0.05 and 0.579 > 0.05) exceed 0.05, indicating that the data adheres to a normal distribution. With the normality of the data established, a Paired Samples t-test was performed.

Table 2. Normal Distribution Test Results

Normal Distribution Test (Shapiro-Wilk) Results			
	Observation	Statistics	p
10 days before CAR ^{it}	10	0.9697	0.888
10 days after CAR ^{it}	10	0.9423	0.579

The results of this t-test, which examined the daily return rates of the companies over the 10 days preceding and following the event. Table 3 presents an analysis of the results from the Paired Samples t-test. Upon reviewing the findings, it is clear that the p-value (0.0872), which exceeds the 0.05 threshold, indicates no statistically significant difference between the pre-event and post-event CAR^{it} values. Therefore, we conclude that the inclusion of the BIST SI did not change the stock returns of the companies involved in this study. This conclusion is further supported by the CAAR rates illustrated in Figure 1 above.

Table 3. Paired Samples t Test Results

Paired Samples t Test results					
	Observation	Mean	Standard Deviation	t	p
10 days before CAR ^{it}	10	-0.0904	0.0497	-3.239	0.0872
10 days after CAR ^{it}	10	-0.0291	0.0678		

Daily return rates for the five days leading up to and following the inclusion in the BIST SI were also calculated. The results of the expected distribution tests based on these daily return rates are presented in Table 4 below. Table 4 has been analysed to present the results of the expected distribution test. The findings from the standard distribution test (Shapiro-Wilk) show that the

p-values for the pre-event and post-event CAR^{it} values (0.955 > 0.05, 0.946 > 0.05) are both greater than 0.05. Consequently, it can be concluded that these values demonstrate a normal distribution. Following the establishment of normality in the study, a Paired Samples t-test was performed.

Table 4. Normal Distribution Test Results

Normal Distribution Test (Shapiro-Wilk) Results			
	Observation	Statistics	p
5 days before CAR ^{it}	5	0.9841	0.955
5 days after CAR ^{it}	5	0.9823	0.946

The results of this t-test, which were calculated using the daily return rates of the companies for the five days preceding and the five days following the event, are detailed in Table 5. Table 5 presents the results of the Paired Samples t-test. The analysis reveals a p-value of 0.0973, greater than the 0.05 significance level. This indicates no statistically significant difference between the pre-event and post-event CAR^{it} values. Consequently, there was no noticeable change in the stock returns of the companies analysed following the inclusion of the BIST SI. Furthermore, the CAAR rates illustrated in Figure 2 above corroborate these test results.

Table 5. Paired Samples t Test Results

Paired Samples t Test results					
	Observation	Mean	Standard Deviation	t	p
5 days before CAR ^{it}	5	-0.0510	0.0247	-4.431	0.0973
5 days after CAR ^{it}	5	-0.0154	0.0275		

Conclusion

The study aims to analyse the stock returns of companies included in the BIST SI and reveal whether there was a change in their stock returns after they were included in the index. The study included 18 companies whose stocks were traded in the BIST SI in 2014, 2015, 2016, 2019, 2020, 2022, and 2023. These companies were created based on companies in BIST 30. The daily return rates of the 18 companies included in the study were calculated. Daily return rates were used as closing prices. The daily return rates of the companies were divided into two different time periods. First, the 21-day return rates covering the 10 days before and 10 days after the companies were included in the BIST SI were calculated. Then, in order to examine the daily return rates in a shorter period, the 11-day return rates covering the 5 days before and 5 days after the companies were included in the BIST SI were calculated. Finally, both time periods were compared.

It is observed that the CAAR of the 18 companies included in the study in the period covering 10 days before the inclusion process in the BIST SI generally followed an unfavourable course. Similarly, it was determined that the CAAR of the companies in the period covering 10 days after the inclusion process in the BIST SI were negative. Thus, it was determined that there was no change in the stock returns with the inclusion of the companies in the BIST SI. Therefore, investors remained unresponsive to the inclusion of these companies in the BIST SI. As a result, it can be commented that investors could not obtain an abnormal return from the stocks in question.

It is observed that the CAAR are harmful in the period covering 5 days before and 5 days after the companies were included in the BIST SI. As a result, it was determined that there was no change in the stock returns after the companies were included in the BIST SI. Considering the results, it can be interpreted that investors remained unresponsive to including these companies in the BIST SI and could not obtain an abnormal return from the stocks in question. In the study, the daily return rates of the companies were divided into two different time periods, and the results were compared. Therefore, the similarity was determined between the period covering 5 days before and 5 days after the companies were included in the BIST SI and the period covering 10 days before and 10 days after, which was determined in order to observe the return rates of the stocks in a relatively shorter period.

As a result, it can be concluded that there was no change in the initial reactions of investors to the events related to the companies within the period determined within the scope of the study.

The methods of the study are Event Study and Paired Samples t Test. When the Paired Samples t Test and expected distribution test results calculated using the daily return rates of the companies covering 10 days before and 10 days after were examined, it was determined that the pre-event and post-event CAR^{it} values showed normal distribution according to the standard distribution test (Shapiro-Wilk) result. On the other hand, when the Paired Samples t Test results are examined, it can be said that there is no statistically significant difference between the pre-event and post-event CAR^{it} values. Therefore, it was determined that there was no change in the stock returns of the companies included in the scope of the BIST SI.

When the Paired Samples t Test and expected distribution test results are calculated using the daily return rates of the companies covering 5 days before and 5 days after being examined, it is determined that the pre-event and post-event CAR^{it} values are normally distributed according to the standard distribution test (Shapiro-Wilk) result. On the other hand, when the Paired Samples t Test results are examined, it can be said that there is no statistically significant difference between the pre-event and post-event CAR^{it} values. Therefore, it was determined that there was no change in the stock returns of the companies included in the scope of the BIST SI.

Recent observations indicate that inclusion in the BIST SI does not significantly affect companies' market capitalization or stock returns. This result is consistent with findings from previous studies by Curran and Moran (2007), Wai Kong Cheung (2011), Ortas and Moneva (2011), Çitak and Ersoy (2016), Yılmaz et al. (2020), and Goyal and Soni (2024). This suggests that investors may not fully acknowledge the relevance of sustainability-based indices and have limited awareness. Many investors lack comprehensive information about the influence of these indices on company performance and typically do not prioritize sustainability-focused investments. To address this gap, it would be beneficial for capital market institutions and Borsa Istanbul to collaborate on information campaigns—such as investor training programs and disseminating sustainability performance scores. Additionally, implementing policy initiatives, including tax incentives, could further support government sustainability efforts. Such policy measures would enhance the effectiveness of sustainability indices as both investment and evaluation tools within capital markets, while also contributing to the alignment of market mechanisms with sustainable development goals. An effective framework for sustainability indices can mitigate information asymmetry, enabling investors to assess environmental, social, and governance (ESG) performance more transparently. As a result, this increase in investor interest is crucial for generating both short-term financial returns and long-term corporate value creation.

From a theoretical perspective, this process can be understood through various corporate sustainability theories, particularly stakeholder theory, legitimacy theory, and signalling theory. Stakeholder theory suggests that visibility in sustainability indices enhances a company's accountability to both financial and social stakeholders. Legitimacy theory posits that inclusion in such indices reinforces a company's legitimacy in response to societal expectations and regulatory requirements. Meanwhile, signalling theory argues that showcasing strong sustainability performance conveys a credible signal of long-term stability and responsible management to the market, thereby boosting investor confidence. Thus, the implementation of these policy measures indicates that sustainability indices are not merely measurement tools but also strategic instruments capable of directing capital flows toward responsible, long-term, and sustainable investments. Future research could explore various sector groups using a range of methodologies. This approach may allow for comparative analyses based on the findings of these studies. By investigating different sector groups through diverse methods, subsequent research can enable valuable comparisons across sectors according to the results obtained.

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Özet

Sanayileşmeye beraber artan talep ve tüketim dünyadaki kaynakların sınırsızca kullanılmasına dolayısıyla ekolojik dengenin bozulmasına ve çevresel sorunların oluşmasına neden olmaktadır. Hızla artan endüstrileşme ve değişen tüketim alışkanlıkları küresel boyutta etkilere sebep olmakta ve iklim krizi gibi olayların temelini oluşturmaktadır. Bu durum ise, kaynakların korunması gerektiği bir ekonomik yapıya dönüşümü ve sürdürülebilirlik kavramını ön planla çıkarmaktadır. 1987 yılında Dünya Çevre ve Gelişim Komisyonu ilk olarak sürdürülebilirliğin resmi tanımını "gelecek nesillerin ihtiyaçlarını karşılayacak kaynakları tehlikeye atmadan günümüz ihtiyaçlarını karşılamak" yapmıştır. Bu kavramın ortaya çıkmasıyla beraber 1999 yılında New York Borsası tarafından Dow Jones Sürdürülebilirlik Endeksi (DJSI), 2001 yılında Birleşik Krallık'ta FTSE4Good Endeksi, 2004 yılında Güney Afrika'da JSE Sürdürülebilirlik Endeksi, 2014 yılında Türkiye'de BIST Sürdürülebilirlik Endeksi, 2018 yılında Almanya'da DAX 50 ESG Endeksi ve 2020 yılında Hollanda'da AEX ESG Endeksi hesaplanmaya başlanmıştır. Birleşmiş miller (2016) tarafından yayınlanan raporda çevresel, sosyal ve kurumsal yönetim faktörlerini içeren ilkeler ve sürdürülebilirlik kavramı ön plana çıkarmaktadır. Bu durum ise işletmelerin mali tablolarını sürdürülebilirlik ilkelerine uyumlu hale getirmesinde öncü olmaktadır. İşletmeler ekonomik, çevresel ve sosyal performanslarını paydaşlara güvenilir ve şeffaf bir şekilde sunabileceği sürdürülebilirlik raporları yayınlamaya başlamıştır. Bu raporlar ise yatırım yaparken finansal faktörlerin yanı sıra sosyo-ekonomik ve ekolojik kriterleri dikkate alan yatırımcılar için oldukça önemlidir. Bu bağlamda yatırımların işletmelerin sürdürülebilirlik endeksinde yer almasına göstereceği tepkiyi diğer bir ifadeyle hisse senedi getirisinde nasıl değişime yol açacağı sorusunun cevabını önem kazanmaktadır. Yapılan literatür taramasında, bu konunun görece olarak yeni sayılabilecek bir araştırma alanı olması nedeniyle sınırlı sayıda çalışma olduğu gözlenmektedir. Ayrıca konuyla ilgili Türkiye'de yapılmış çok az çalışma mevcuttur. Bu çalışmanın amacı, BIST Sürdürülebilirlik Endeksi'nde yer alacak firmaların açıklanmasına yatırımcıların tepki gösterip göstermediğini tespit etmektedir. Bu çalışmada, sürdürülebilirlik kavramın borsalara yansımının hisse senedi getirisindeki değişimi göz önünde bulundurarak incelemesinin literatüre önemli bir katkı sağlayacağı düşünülmektedir. Çalışmada BIST Sürdürülebilirlik Endeksinde yer alan 18 işletme araştırılmıştır. İşletmelerinin sürdürülebilirlik endeksinde dahil olmasının hisse senedi getirisinde nasıl bir değişime sebep olduğu Event Study ve Bağımlı Örneklem t Testi (Paired Samples t Test) yöntemleri ile araştırılmıştır. 18 işletmenin BIST sürdürülebilirlik endeksi dahil edilmesi sürecinin 10 gün öncesini kapsayan dönemde kümülatif ortalama anormal getirilerinin genel olarak negatif bir seyir izlediği görülmektedir. Aynı şekilde şirketlerin BIST sürdürülebilirlik endeksi kapsamına alınması sürecinin 10 gün sonrasını kapsayan dönemde kümülatif ortalama anormal getirilerinin negatif olduğu tespit edilmiştir. Ayrıca işletmelerin BIST sürdürülebilirlik endeksi kapsamına alınması sürecinin 5 gün öncesi ve 5 gün sonrasını kapsayan dönemde içinde aynıdır. Bu durum, işletmelerin BIST sürdürülebilirlik endeksi kapsamına alınmasıyla birlikte hisse senetleri getirilerinde değişim olmadığı göstermektedir. Dolayısıyla yatırımcıların bu şirketlerin BIST sürdürülebilirlik endeksi kapsamına alınmasına tepkisiz kaldıkları söylenebilir. Sonuç olarak yatırımcıların söz konusu hisse senetlerinden anormal bir getiri elde edemedikleri yorumu yapılabilir. İşletmelerin 10 gün öncesi-10 gün sonrasını ve 5 gün öncesi-5 gün sonrasını kapsayan günlük getiri oranları kullanılarak hesaplanan Bağımlı Örneklem t testi ve normal dağılım test sonuçları incelendiğinde ise, normal dağılım test (Shapiro-Wilk) sonucuna göre olay öncesi ve olay sonrası CAR^{it} değerlerinin normal dağılım gösterdiği belirlenmiştir. Diğer yandan Bağımlı Örneklem t testi sonuçlarına bakıldığında, olay öncesi ve olay sonrası CAR^{it} değerleri

arasında istatistiksel olarak anlamlı bir farkın olmadığı söylenebilir. Dolayısıyla çalışma kapsamına dahil edilen işletmelerin BIST sürdürülebilirlik endeksi kapsamına alınmasıyla birlikte hisse senetleri getirilerinde değişim olmadığı tespit edilmiştir. Ayrıca çalışmada şirketlerin günlük getiri oranları iki farklı zaman dilimine ayrılmıştır ve sonuçlar kıyaslanmak istenmiştir. Dolayısıyla hisse senetlerinin getiri oranlarını nispeten daha kısa bir süreç içerisinde gözlem yapmak amacıyla belirlenen, şirketlerin BIST sürdürülebilirlik endeksi kapsamına alınması sürecinin 5 gün öncesi ve 5 gün sonrasını kapsayan dönem ile 10 gün öncesi ve 10 gün sonrasını kapsayan dönem arasında benzerlik tespit edilmiştir. Sonuç olarak yatırımcıların şirketlerle ilgili olaylara verdikleri ilk tepkilerinin çalışma kapsamında belirlenen süreç içerisinde değişmediği sonucuna varılabilir.

Appendix

Appendix 1. Average Abnormal Return and Cumulative Average Abnormal Return								
Day	AR _{it} AKBNK	AR _{it} ASELS	AR _{it} BIMAS	AR _{it} DOAS	AR _{it} ENKAI	AR _{it} EREGL	AAR _{it}	CAR _{it}
t-10	-0,0293	-0,0294	-0,0060	-0,0204	-0,0083	-0,0093	-0,0146	-0,0146
t-9	-0,0094	-0,0129	-0,0008	-0,0001	-0,0258	-0,0135	-0,0184	-0,0331
t-8	-0,0061	-0,0091	-0,0163	-0,0173	-0,0164	-0,0141	-0,0163	-0,0494
t-7	-0,0223	-0,0048	-0,0352	-0,0154	-0,0214	-0,0218	-0,0182	-0,0677
t-6	-0,0072	-0,0085	-0,0183	-0,0036	-0,0279	-0,0001	-0,0129	-0,0806
t-5	-0,0159	-0,0260	-0,0090	-0,0256	-0,0073	-0,0045	-0,0196	-0,1002
t-4	-0,0114	-0,0037	-0,0335	-0,0225	-0,0386	-0,0358	-0,0170	-0,1173
t-3	-0,0188	-0,0055	-0,0284	-0,0110	-0,0180	-0,0110	-0,0124	-0,1297
t-2	-0,0165	-0,0107	-0,0194	-0,0050	-0,0430	-0,0155	-0,0187	-0,1485
t-1	-0,0015	-0,0140	-0,0350	-0,0013	-0,0088	-0,0098	-0,0142	-0,1627
t=0	-0,0421	-0,0173	-0,0235	-0,0221	-0,0233	-0,0276	-0,0226	-0,1853
t+1	-0,0011	-0,0189	-0,0046	-0,0025	-0,0382	-0,0390	-0,0181	-0,2034
t+2	-0,0019	-0,0013	-0,0253	-0,0127	-0,0028	-0,00083	-0,0139	-0,2174
t+3	-0,0075	-0,0037	-0,0113	-0,0096	-0,0080	-0,0179	-0,0172	-0,2346
t+4	-0,0013	-0,0126	-0,0152	-0,0001	-0,0096	-0,0185	-0,0127	-0,2473
t+5	-0,0154	-0,0151	-0,0261	-0,0261	-0,0134	-0,0215	-0,0275	-0,2748
t+6	-0,0112	-0,0083	-0,0020	-0,0023	-0,0032	-0,0217	-0,0169	-0,2918
t+7	-0,0236	-0,0091	-0,0052	-0,0241	-0,0139	-0,0158	-0,0319	-0,3238
t+8	-0,0201	-0,012	-0,0333	-0,0227	-0,0370	-0,0084	-0,0273	-0,3511
t+9	-0,0033	-0,0717	-0,0136	-0,0335	-0,0427	-0,0424	-0,0268	-0,3779
t+10	-0,0045	-0,0076	-0,0124	-0,0001	-0,0005	-0,0011	-0,0167	-0,3946

Day	AR _{it} FROTO	AR _{it} KCHOL	AR _{it} PETKM	AR _{it} PGSUS	AR _{it} TOASO	AR _{it} TCELL	AAR _{it}	CAR _{it}
t-10	-0,0246	-0,0001	-0,0287	-0,0043	-0,0151	-0,0181	-0,0146	-0,0146
t-9	-0,0302	-0,0128	-0,0257	-0,0185	-0,0411	-0,0041	-0,0184	-0,0331
t-8	-0,0137	-0,0519	-0,0023	-0,0120	-0,0546	-0,0005	-0,0163	-0,0494
t-7	-0,0108	-0,0140	-0,0002	-0,0354	-0,0364	-0,0086	-0,0182	-0,0677
t-6	-0,0187	-0,0131	-0,0160	-0,0289	-0,0060	-0,0093	-0,0129	-0,0806
t-5	-0,0407	-0,0006	-0,0110	-0,0394	-0,0402	-0,0180	-0,0196	-0,1002
t-4	-0,0096	-0,0259	-0,0046	-0,0165	-0,0055	-0,0096	-0,0170	-0,1173

t-3	-0,0022	-0,0013	-0,0318	-0,0110	-0,0053	-0,0110	-0,0124	-0,1297
t-2	-0,0024	-0,0341	-0,0277	-0,0204	-0,0123	-0,0043	-0,0187	-0,1485
t-1	-0,0021	-0,0353	-0,0146	-0,0160	-0,0148	-0,0206	-0,0142	-0,1627
t=0	-0,0052	-0,0381	-0,0398	-0,0255	-0,0101	-0,0186	-0,0226	-0,1853
t+1	-0,0082	-0,0378	-0,0299	-0,0484	-0,0130	-0,0155	-0,0181	-0,2034
t+2	-0,0066	-0,0459	-0,0211	-0,0386	-0,0215	-0,0025	-0,0139	-0,2174
t+3	-0,0265	-0,0385	-0,0186	-0,0197	-0,0062	-0,0033	-0,0172	-0,2346
t+4	-0,0104	-0,0054	-0,0126	-0,0271	-0,0001	-0,0079	-0,0127	-0,2473
t+5	-0,0484	-0,0241	-0,0517	-0,0241	-0,0073	-0,0169	-0,0275	-0,2748
t+6	-0,0009	-0,0178	-0,0252	-0,0243	-0,0260	-0,0057	-0,0169	-0,2918
t+7	-0,0303	-0,0311	-0,075	-0,0369	-0,0317	-0,0265	-0,0319	-0,3238
t+8	-0,0277	-0,0338	-0,0329	-0,0628	-0,0979	-0,0207	-0,0273	-0,3511
t+9	-0,0314	-0,0019	-0,0412	-0,0611	-0,0265	-0,0087	-0,0268	-0,3779
t+10	-0,0485	-0,0095	-0,0600	-0,0196	-0,0257	-0,0057	-0,0167	-0,3946

Day	AR _{it} TUPRS	AR _{it} THYAO	AR _{it} GARAN	AR _{it} ISCTR	AR _{it} SISE	AR _{it} YKBNK	AAR _{it}	CAR _{it}
t-10	-0,0189	-0,0034	-0,00878	-0,0154	-0,0136	-0,0089	-0,0146	-0,0146
t-9	-0,0379	-0,0221	-0,0169	-0,0184	-0,0042	-0,0373	-0,0184	-0,0331
t-8	-0,0100	-0,0101	-0,0141	-0,0075	-0,0120	-0,0256	-0,0163	-0,0494
t-7	-0,0176	-0,0200	-0,0173	-0,0078	-0,0188	-0,02	-0,0182	-0,0677
t-6	-0,0055	-0,0237	-0,0179	-0,0003	-0,0022	-0,0255	-0,0129	-0,0806
t-5	-0,0371	-0,0302	-0,0025	-0,0040	-0,0257	-0,0142	-0,0196	-0,1002
t-4	-0,0141	-0,0171	-0,0047	-0,0173	-0,0112	-0,0245	-0,0170	-0,1173
t-3	-0,0121	-0,0135	-0,0067	-0,0144	-0,0023	-0,0188	-0,0124	-0,1297
t-2	-0,0266	-0,0267	-0,0142	-0,0059	-0,0111	-0,0407	-0,0187	-0,1485
t-1	-0,0111	-0,0314	-0,0075	-0,0021	-0,0144	-0,0144	-0,0142	-0,1627
t=0	-0,0362	-0,0520	-0,0041	-0,0013	-0,0030	-0,0163	-0,0226	-0,1853
t+1	-0,0117	-0,0131	-0,0234	-0,0091	-0,0095	-0,0019	-0,0181	-0,2034
t+2	-0,0041	-0,0130	-0,0006	-0,0057	-0,0167	-0,0299	-0,0139	-0,2174
t+3	-0,0156	-0,0492	-0,0260	-0,0004	-0,0234	-0,0241	-0,0172	-0,2346
t+4	-0,0273	-0,0070	-0,0125	-0,0252	-0,0073	-0,0278	-0,0127	-0,2473
t+5	-0,0049	-0,1091	-0,0134	-0,0249	-0,0125	-0,0396	-0,0275	-0,2748
t+6	-0,0213	-0,0374	-0,0124	-0,0098	-0,0076	-0,0670	-0,0169	-0,2918
t+7	-0,0269	-0,0953	-0,0244	-0,0084	-0,0327	-0,0643	-0,0319	-0,3238
t+8	-0,0326	-0,0018	-0,0063	-0,0148	-0,0230	-0,0028	-0,0273	-0,3511
t+9	-0,0095	-0,0456	-0,0056	-0,0012	-0,0057	-0,0362	-0,0268	-0,3779
t+10	-0,0228	-0,0308	-0,0087	-0,0016	-0,0109	-0,0299	-0,0167	-0,3946

Appendix 2. Average Abnormal Return and Cumulative Average Abnormal Return

Day	AR _{it} AKBNK	AR _{it} ASELS	AR _{it} BIMAS	AR _{it} DOAS	AR _{it} ENKAI	AR _{it} EREGL	AAR _{it}	CAR _{it}
t-5	-0,0159	-0,0260	-0,0090	-0,0256	-0,0073	-0,0045	-0,0196	-0,0196
t-4	-0,0114	-0,0037	-0,0335	-0,0225	-0,0386	-0,0358	-0,0170	-0,0366
t-3	-0,0188	-0,0055	-0,0284	-0,0110	-0,0180	-0,0110	-0,0124	-0,0490
t-2	-0,0165	-0,0107	-0,0194	-0,0050	-0,0430	-0,0155	-0,0187	-0,0678
t-1	-0,0015	-0,0140	-0,0350	-0,0013	-0,0088	-0,0098	-0,0142	-0,0820
t=0	-0,0421	-0,0173	-0,0235	-0,0221	-0,0233	-0,0276	-0,0226	-0,1046
t+1	-0,0011	-0,0189	-0,0046	-0,0025	-0,0382	-0,0390	-0,0181	-0,1227
t+2	-0,0019	-0,0013	-0,0253	-0,0127	-0,0028	-0,0008	-0,0139	-0,1367
t+3	-0,0075	-0,0037	-0,0113	-0,0096	-0,0080	-0,0179	-0,0172	-0,1539
t+4	-0,0013	-0,0126	-0,0152	-0,0001	-0,0096	-0,0185	-0,0127	-0,1667
t+5	-0,0154	-0,0151	-0,0261	-0,0261	-0,0134	-0,0215	-0,0275	-0,1942

Day	AR _{it} FROTO	AR _{it} KCHOL	AR _{it} PETKM	AR _{it} PGSUS	AR _{it} TOASO	AR _{it} TCELL	AAR _{it}	CAR _{it}
t-5	-0,0407	-0,0006	-0,0110	-0,0394	-0,0402	-0,0180	-0,0196	-0,0196
t-4	-0,0096	-0,0259	-0,0046	-0,0165	-0,0055	-0,0096	-0,0170	-0,0366
t-3	-0,0022	-0,0013	-0,0318	-0,0110	-0,0053	-0,0110	-0,0124	-0,0490
t-2	-0,0024	-0,0341	-0,0277	-0,0204	-0,0123	-0,0043	-0,0187	-0,0678
t-1	-0,0021	-0,0353	-0,0146	-0,0160	-0,0148	-0,0206	-0,0142	-0,0820
t=0	-0,0052	-0,0381	-0,0398	-0,0255	-0,0101	-0,0186	-0,0226	-0,1046
t+1	-0,0082	-0,0378	-0,0299	-0,0484	-0,0130	-0,0155	-0,0181	-0,1227
t+2	-0,0066	-0,0459	-0,0211	-0,0386	-0,0215	-0,0025	-0,0139	-0,1367
t+3	-0,0265	-0,0385	-0,0186	-0,0197	-0,0062	-0,0033	-0,0172	-0,1539
t+4	-0,0104	-0,0054	-0,0126	-0,0271	-0,0001	-0,0079	-0,0127	-0,1667
t+5	-0,0484	-0,0241	-0,0517	-0,0241	-0,0073	-0,0169	-0,0275	-0,1942

Day	AR _{it} TUPRS	AR _{it} THYAO	AR _{it} GARAN	AR _{it} ISCTR	AR _{it} SISE	AR _{it} YKBNK	AAR _{it}	CAR _{it}
t-5	-0,0371	-0,0302	-0,0025	-0,0040	-0,0257	-0,0142	-0,0196	-0,0196
t-4	-0,0141	-0,0171	-0,0047	-0,0173	-0,0112	-0,0245	-0,0170	-0,0366
t-3	-0,0121	-0,0135	-0,0067	-0,0144	-0,0023	-0,0188	-0,0124	-0,0490
t-2	-0,0266	-0,0267	-0,0142	-0,0059	-0,0111	-0,0407	-0,0187	-0,0678
t-1	-0,0111	-0,0314	-0,0075	-0,0021	-0,0144	-0,0144	-0,0142	-0,0820
t=0	-0,0362	-0,0520	-0,0041	-0,0013	-0,0030	-0,0163	-0,0226	-0,1046
t+1	-0,0117	-0,0131	-0,0234	-0,0091	-0,0095	-0,0019	-0,0181	-0,1227
t+2	-0,0041	-0,0130	-0,0003	-0,0051	-0,0163	-0,0299	-0,0139	-0,1367
t+3	-0,0156	-0,0492	-0,0260	-0,0004	-0,0234	-0,0241	-0,0172	-0,1539
t+4	-0,0273	-0,0070	-0,0125	-0,0252	-0,0073	-0,0278	-0,0127	-0,1667
t+5	-0,0049	-0,1091	-0,0134	-0,0249	-0,0125	-0,0396	-0,0275	-0,1942