The Effect of Annual Independent Audit Reports on Stock Market Performance: Evidence from Turkey and Germany[1]

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Yıllık Bağımsız Denetim Raporlarının Borsa Performansına Etkisi: Türkiye ve Almanya'dan Ampirik Sonuçlar	**The Effect of Annual Independent Audit Reports on Stock Market Performance: Evidence from Turkey and Germany**

Öz

Günümüz dünyasında endüstri, teknoloji ve lojistik alanındaki yenilikler ülke sınırlarını yok etmekte ve küreselleşen dünyada ekonomik anlamda karar almak karmaşıklaşmakta ve zorlaşmaktadır. İşletmelerle ilgili bilgilerin doğruluğu ve güvenirliği bireysel ve kurumsal yatırımcılar için daha fazla önem arz eder hale gelmiştir. Bağımsız denetim kuruluşları işletmelerin hazırlamış olduğu finansal bilgilerin herhangi bir aksaklık, düzensizlik, hata ve hile içerip içermediğini önceden belirlenmiş kıstaslara göre değerlendirmekte ve neticesini paydaşların kullanımına sunmaktadır. Mevcut ve potansiyel yatırımcılar alacakları kararlarda denetim raporlarından yararlanmaktadırlar. Bu çalışmada, Türkiye ve Almanya borsasında denetim raporlarının finansal piyasalara ve yatırımcılara etkisi Vaka Analizi yöntemiyle araştırılmaktadır. Elde edilen sonuçlara göre her iki borsada da istatistiksel olarak anlamlı bir etkinin varlığı söz konusu olsa da, Almanya borsasında bu etkinin daha kısa sürdüğü bulgular arasındadır.

Anahtar Kelimeler: Bağımsız Denetim, Vaka Analizi, Finansal Piyasalar

Abstract

In today's world, innovations in the field of industry, technology and logistics are destroying the borders of countries and it is becoming more complicated and difficult to make an economic decision in globalized world. The accuracy and reliability of information related with companies have become more important for individual and institutional investors. The independent auditing firms evaluate the financial information of the enterprises whether they include any problems, irregularities, errors and frauds according to predetermined criteria, and presents the result to the use of the third parties. Existing and potential investors benefit from audit reports in their decisions. In this study, the impacts of audit reports on financial markets and investors in Turkey and German stock markets have been studied by Case Study Analysis. According to the findings, although there are statistically significant results in both markets, the effect lasts shorter in the German stock market than Turkey.

Keywords: Independent Auditing, Case Studies, Financial Markets

1. Introduction

The audit is a comparison of the existing situation with what should be, and determination of that whether a job is performed in accordance with its rules. Although auditing is a key concept in almost every area, there is a particular significance for financial markets within the economic system. In this area, auditing is the collection and examination of sufficient evidence in order to report the degree of conformity of the financial information of companies to the predetermined criteria (Arens et al., 2014: 4). According to the definition made by the American Accounting Association in 1973, the audit is a systematic process that determines

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the degree of conformity of the audited entity's economic transactions and events with re-spect to the predetermined criteria (Porter et al., 2003: 3).

When the historical development of audit is examined, it is seen that the concept of "audi-tor" first started to be used in England in 1289 and that the first audit organization was estab-lished in Venice in 1581. In 1845, auditing has become mandatory for railway companies in Scotland, which is considered as the beginning of modern accounting auditing (Gürbüz, 1995: 20). It is possible to talk about the necessity of auditing in every environment where financial transactions take place and economic decisions are taken. Since the end of the 18th century, the borders between countries have disappeared economically due to the rapid development of the industry, the increase of information resources, changes in the field of technology, and developments in logistics. This change, called as globalization, causes capital flows between countries and financial markets to get closer. The structures of companies are changing and it is getting complicated and difficult to make economic decisions in large-scale and multina-tional corporations. The financial transactions are becoming more complicated and the need for owners of the companies and financial participants to reliable information is rapidly in-creasing. For this reason, there is a need for an independent mechanism to monitor and con-firm the accuracy and reliability of the financial information to be used in economic environ-ments.

Accounting is an information system that records, classifies and reports the financial transactions of organizations in financial statements; therefore it allows inside and outside parties to communicate with organizations (Kimmel et al., 2011: 5). The purpose of account-ing is to organize the financial information that will be useful for both internal and external decision makers (Guredin, 1988: 13). Financial information should be true, fair, comparable and understandable to be useful to its users. According to the developments in the economy, complexity of transactions and the possibility of incorrect and fraudulent records in account-ing are also increasing. But there should not be trust problem between the business and the financial statement users especially shareholders and financiers (Durak ve Gurel, 2014: 96). In order to protect the interests of parties of organizations, reliability and truthfulness of finan-cial information are ensured by independent audit works. While the financial transactions are inputs of the accounting system, the financial statements which are the output of the ac-counting system generate the input of the audit works (Erdogan, 2004: 9). As a summary, we can say that "while accounting is an article writing activity, audit reflects editorial activity" (Guredin, 1988: 13).

In general, markets are divided into two groups as real markets and financial markets. While, there are goods and services traded in real markets, any platform where fund suppliers and demanders come together in order to trade securities such as equities bonds, and deriva-tives called as financial markets (CBRT, 2015: 2). Despite the fact that, there are buyers and sellers in both markets, the nature of trading subject is different (Aydin, 2004: 3). But, the necessity of an effective and efficient environment is a common need in both markets in or-der to meet buyers and sellers (Duman, 2011: 95). In the financial markets, each new infor-mation is reflected by the investors to the prices of the financial instruments and every new information in the financial markets influences the individual and institutional investor's deci-sions. Audit reports are also considered as a new source of information for investors. Be-cause, the information provided by audit reports to the financial statements' users such as audit opinion, key audit subjects and sustainability of the company are taken into considera-

tion while making investment decisions. Thus, the reliability, fairness and understandability of the information prepared by the corporations are important for related parties to make the right decisions and behave rationally in the financial markets.

On the other hand, it is necessary to use existing resources effectively and efficiently in order to ensure economic development and stability in an economy. One of the fundamental functions of financial markets is to transfer funds to relatively more efficient investments. This is possible only when participants make the right decision by evaluating alternative investment opportunities. The ability of participants to make their decisions correctly depends on the elimination of the deficiencies and frictions such as asymmetric information problem, agency cost and adverse selection etc. in markets (Mishkin, 2001: 1). Therefore, audit has vital importance to create a trustable environment in the financial markets' efficiencies.

Financial statements audit tries to determine whether the financial statements of the business are complied with the Generally Accepted Auditing Standards (GAAS) and Generally Accepted Accounting Principles (GAAP) and whether those statements contain any significant errors or omissions (Arens et al., 2014: 14). A complete set of financial statements for an entity includes balance sheet, income statement, the statement of changes in equity, cash flow statement, footnotes and explanatory notes, and accounting policies (Gokcen et al., 2011: 104). Reducing the information asymmetry and protection of the interest groups' benefits by providing reasonable assurance are two important purposes of auditing (Cengiz et al., 2017: 172). So, audit activities must be done in accordance with some principles and standards in order to be beneficial to the related parties. The confidence levels of the audit reports depends on the degree of compliance with Generally Accepted Auditing Standards (GAAS) and International Standards of Auditing (ISAs).

The audit reports prepared at the end of the financial statements audit are classified as unqualified, qualified, and adverse and disclaimer report according to the auditor's opinion (Tahinakis et al., 2010: 87). If there are no deficiencies or mistakes in the audited financial statements, auditors declare "unqualified" opinion. If there are deficiencies, auditors issue "qualified" or "adverse" opinion according to the degree of these deficiencies and if there is no way to complete an accurate audit report, in that case, auditors issue "disclaimer" opinion in the report prepared at the end of the audit process (Aygoren and Uyar, 2007: 29).

When audit reports are accepted as new information, this information needs to be reflected in stock prices by investors. In this paper, the relation between financial markets and auditing, and the effect of the announcement of an audit report on stock prices and the perception of investors to audit reports in Germany and Turkey are the main focus of the study. For this purpose, the last five years' audit reports and stock price changes of businesses traded in stock markets are examined and whether there is any abnormal return before and after the announcement of audit reports were investigated. The article is organized as follows: In the next section, there is a literature review on this subject. In the third section, the data and methodology used in the analyses are explained. In the fourth section, the findings are reported and finally, the paper is completed with a conclusion.

2. Literature Review

There are a lot of papers on the audit in literature with different aspects. Especially after the accounting scandals in the 2000s, the quality of audit, audit standards, independence of

auditing, audit reports, the effect of audit on financial markets and investors, and the effect of audit reports on stock returns have been main topics in these studies.

Impact of accounting and auditing standards and audit reports on financial markets, stock returns, and cost of capitals and the investor's perception of audit reports have been analyzed by many researchers in different markets. Semba (2003), compares the International Accounting Standards with Chinese-GAAP in determining the stock prices in Shanghai Stock Exchange and as a result, concludes that the financial information prepared by Chinese-GAAP is more related to stock prices. Aygoren and Uyar (2007) analyze the impact of audit opinions on stock returns and the reaction of the market to the audit opinions in Istanbul Stock Exchange (ISE) with case study analysis. For this purpose, they investigate randomly selected 101 listed companies' 2004 and 2005 audit reports. According to their findings, they state that unqualified and qualified audit opinions provide different information to investors and they also conclude that the ISE cannot be classified as a semi-strong form efficient market.

Ittonen (2009), investigates the abnormal returns volatility of stocks and changes in systematic risk at the announcement dates of audit reports. Within the scope of the study, author analyzes the relationship between the information presented in the audit reports and asymmetric information, agency cost, and conflict of interest. As a result of the empirical study conducted on the enterprises in the Russell 3000 index, it was stated that there was an increase in volatility and systematic risk after the announcement of audit reports, and this increase in volatility and changes in systematic risk have influenced the abnormal returns. Ma et al. (2009), investigates the effect of merger an acquisition announcement on the share return of the acquirer, in emerging markets of China, India, Hong Kong, Indonesia, Malaysia, Philippines, Singapore, South Korea, Taiwan and Thailand. They used case study analysis and there were three different event windows as (0 + 1), (-1 + 1), (-2 + 2) and statistically significant, positive cumulative abnormal returns were determined.

Sakarya (2011), investigates the relation between rating score announcement of the companies and stocks returns. For this purpose, 11 companies listed in ISE were analyzed. He determined that there is a positive correlation between the announcement of a favorable corporate governance rating score and the stock returns. As a result, he also states that ISE cannot be classified as efficient market, even a semi-strong form. Ianniello and Galloppo (2015), examined investor reactions to audit opinions containing qualifications and an emphasis of matter paragraph related to going concern uncertainty or financial distress with case study analysis. In order to determine whether there is a quick reaction or not to the audit report announcement, according to the efficient markets hypothesis, abnormal returns are analyzed around audit report dates. According to the results of the analysis, they conclude that the audit reports which contain any qualification have a negative effect on stock prices. However, an unqualified opinion with a paragraph regarding going concern uncertainty or financial distress have a positive effect on stock prices in the Italian context.

Kara (2015) investigates the effect of audit opinions on the stock returns of 88 non-financial companies listed on ISE between the 2009-2014 period. Regression method was used in the analyses and he emphasizes that ISE cannot be classified as efficient market even a semi-strong form. Houqe et al. (2017) analyzed a 7,303 firm-year observations sample to expose the effect of audit quality on earnings management and cost of equity. According to their results, the companies employing a high-quality auditor have a lower degree of earnings management and lower cost of equity in India. Again, Houqe (2018) stated that "the imple-

mentation of IFRS has been successful in reducing information asymmetry, improving the quality of information for users, enhancing transparency and comparability, and positively influencing capital markets" in his study.

3. Data and Methodology

In financial markets, every announcement of companies to the public is important for investors because investors re-arrange their portfolios by pricing every new information that comes to the market. Therefore, the disclosed financial statements' reliability of a certain level confirmed by an independent body makes audit reports important for investors. In this study, we tried to demonstrate that how audit reports effect the stock returns in Germany and Turkey stock markets by using case study analysis. Within the scope of study, the stocks listed in XU100 and DAX30 were analyzed over the last five years. The auditor's opinions in the audit reports, the announcement dates of the audit reports, the daily stock prices and the daily closing prices of XU100 and DAX30 are used. The market data, audit reports and announcement dates for the stocks listed in XU100 were gathered from Public Disclosure Platform (KAP) and the audit reports and announcement dates for the stocks listed in DAX30 were gathered from websites of each businesses. The daily market data for the stocks and the index were obtained from Bloomberg Data Terminal.

The Case Study Analysis, which has a long history, has been developed to determine whether an event or an announcement related to the business causes an "abnormal behavior" in the share price of the entity (Aygoren and Uyar, 2007: 36). It was first used by Dolley in 1933 to determine the effects of stock splits on stock prices (Basdas and Oran, 2014: 197). The "abnormal behavior" is measured by calculating the difference between actual return and expected return of stock "i" on day "t" and expressed as "Abnormal Return" (AR). The total effect of an event in a time period (between *t* and *k*) is determined by the Cumulative Abnormal Return (CAR), which is calculated by accumulating the ARs through the given period.

There are three time windows in a Case Study Analysis. These are the estimation window, the event window and the post event window respectively, and the "estimation window" should contain at least 126 observations in order to make a good prediction of the model determining the relationship between the markets return and stock "i" (Benninga, 2014: 332-333). The "event" examined in this study is announcement of annual audit reports to the public. The date of the event is determined as publication dates of these reports. The event window for the effect of the announcement of annual audit reports on the share prices determined as (-10, +10) days from the event. In other words, the AR and CAR values for each of the companies are calculated for a total of 21 days starting from 10 days before the announcement until 10 days later.

In order to calculate the abnormal returns, the actual and expected returns of each stock at time (-10, + 10) calculated with Equations (1) and (3), respectively.

$$R_{i,t} = \left[\frac{P_{i,t} - P_{i,(t-1)}}{P_{i,(t-1)}} \right] \tag{1}$$

$R_{i,t}$ = Daily return of stock "i" at time "t"

$P_{i,t}$ = The daily closing price of stock "i" at time "t"

$P_{i,(t-1)}$ = The daily closing price of stock "i" at time "t-1"

In order to use the Market Model in calculation of expected returns of stocks, XU100 and DAX30 returns calculated with Equation (5).

$$R_{(m,t)} = \left[\frac{I_{i,t} - I_{i,(t-1)}}{I_{i,(t-1)}}\right] \tag{2}$$

$R_{(m,t)}$ = Daily return of market at time "t"

$I_{i,t}$ = The daily closing price of index "i" at time "t"

$I_{i,(t-1)}$ = The daily closing price of index "i" at time "t"

In this study, the time between the current year event window and the previous year event window which have more than 126 observations was considered as the estimation window.

$$\widehat{R}_{i,t} = \alpha_i + \beta_i \times R_{m,t} + \varepsilon_{it} \tag{3}$$

$\widehat{R}_{i,t}$: Expected return of stock "i" at time "t"

α_i : Alpha value of stock "i"

β_i : Systematic risk value of stock "i"

$R_{m,t}$: Daily return of market at time "t"

ε_{it} : Error term

After calculating the expected returns, it is possible to calculate the AR and CAR values for the event windows with Equation (4) and (5) respectively.

$$\begin{aligned} AR_{i,t} &= R_{i,t} - \widehat{R}_{i,t} \\ &= \left[\frac{P_{i,t} - P_{i,(t-1)}}{P_{i,(t-1)}}\right] - (\alpha_i + \beta_i \times R_{m,t}) \end{aligned} \tag{4}$$

$$CAR_{i,n} = \sum_{t=-10}^{n} AR_{i,t} \tag{5}$$

$AR_{i,t}$: Abnormal return of stock "i" at time "t"

$CAR_{i,n}$: Cumulative abnormal return of stock "i" day "n"

Table 1. Descriptive Statistics of Dataset

	XU100				DAX30			
	$R_{i,t}$	$\widehat{R}_{i,t}$	$AR_{i,t}$	$CAR_{i,n}$	$R_{i,t}$	$\widehat{R}_{i,t}$	$AR_{i,t}$	$CAR_{i,n}$
Mean	0,0004	0,0010	-0,0006	-0,0081	0,0011	0,0010	0,0001	0,0035
Median	0,0000	0,0013	-0,0020	-0,0076	0,0009	0,0012	-0,0001	0,0001
Maximum	0,1994	0,0487	0,2013	0,4590	0,1285	0,0411	0,1140	0,2389
Minimum	-0,1938	-0,0481	-0,2124	-1,4360	-0,0846	-0,0409	-0,0876	-0,1674
Std. Dev.	0,0225	0,0106	0,0201	0,0655	0,0165	0,0109	0,0125	0,0416
n	10017	10017	10017	10017	3024	3024	3024	3024

$R_{i,t}$:Daily return of stock "i" at time "t"

$\widehat{R}_{i,t}$:Expected return of stock "i" at time "t"

$AR_{i,t}$:Abnormal return of stock "i" at time "t"

$CAR_{i,n}$:Cumulative abnormal return of stock "i" day "n"

Table 1 presents descriptive statistics for the data used in the analyses. There are 10017 observations in XU100 and 3024 observations in DAX30 analyzed in the study.

There are three hypotheses generated in the analyses and *Single Sample t Test* used to test these hypotheses with Statistical Package for the Social Sciences (SPSS). The first hypothesis (H1) is that the average abnormal returns and the cumulative average abnormal returns equal to zero.

$H_0: AAR_{i,t} = 0, CAAR_{i,t} = 0$

$H_1: AAR_{i,t} \neq 0, CAAR_{i,t} \neq 0$

The second hypothesis (H2) is that the average abnormal returns and the cumulative average abnormal return of stocks which have an "unqualified" audit opinion equal to zero.

$H_0: AAR_{unqualified} = 0, CAAR_{unqualified} = 0$

$H_1: AAR_{unqualified} \neq 0, CAAR_{unqualified} \neq 0$

Another hypothesis (H3) is that the average abnormal returns and the cumulative average abnormal returns of stocks which have an audit opinion other than "unqualified" equal to zero.

$H_0: AAR_{qualified,adverse,disclaimer} = 0, CAAR_{qualified,adverse,disclaimer} = 0$

$H_1: AAR_{qualified,adverse,disclaimer} \neq 0, CAAR_{qualified,adverse,disclaimer} \neq 0$

4. Findings

It is common to use January 1 to December 31 period as a one fiscal year in both Turkey and Germany. Therefore, the annual audit reports are usually issued within the first three months of the following year. However, sports-related companies BJKAS, FENER and GSRAY use 1 June to 31 May and KIPA 1 March – 28 February and IFX, SIE and TKA use the 1 October - 30 September for a fiscal year and prepare financial reports according to these periods. The results of the first hypothesis are shown in Tables 2 and 3. The results of the second hypothesis are shown in Tables 4 and 5. The results of the third hypothesis are shown in Tables 6 and 7 for XU100. Over the last five years, all of the DAX30 companies have "unqualified" opinion in their audit reports. So, we were able to analyze only the first hypothesis and the results are shown in Table 8 and 9 for DAX30.

According to results shown in Table 2, in Istanbul Stock Exchange (ISE) there is a statistically significant average abnormal return 10 days before the announcement and on the second, third, fourth and ninth day after the announcement in 2014. In 2015, there is a statistically significant abnormal return eight days before and on one, three, nine and ten days after the announcement. In 2016, there are statistically significant abnormal returns on nine, five and four days before and the first two days after the announcement date. In 2017, there are statistically significant average abnormal returns observed on ten, eight and seven days before the announcement date, and five, six and seven days after the announcement date. However, the abnormal returns before the announcement date (-0.004), (-0.004), (-0.005) are negative, the abnormal returns after the announcement date are positive (0,003), (0,003), (0,007). According to 2018 results shown in Table 2, it is not possible to talk about any abnormalities which are statistically significant in ISE before the audit announcement date. But, there are statistically significant abnormal returns on the first, third and tenth days (-0.006), (0.004) and (0.006) respectively after the audit report announcement.

When the cumulative abnormal returns shown in Table 3 are examined, there are statistically significant returns on ten, nine, eight, seven, six and five days before the announcement dates. But, all of these values are negative. Therefore it is not possible for individual and institutional investors to obtain an average positive abnormal return in the ten-day time period before the audit report announcement date in ISE. After the announcement in 2014, there are statistically significant cumulative abnormal returns from the third day to the tenth day after the announcement which are also negative values. According to Table 3 in 2015, none of the cumulative abnormal returns is statistically significant. In 2016, there is a statistically significant cumulative abnormal return only on seven day before the announcement date. In the ten-day period after the announcement date, there are statistically significant cumulative returns found in every day. When 2017 cumulative average abnormal returns are examined, there are statistically significant results for fifteen days starting from ten days before the announcement to four days after the announcement date. All of these statistically significant results are negative. In 2018, none of the cumulative abnormal returns is statistically significant value just like 2015.

Table 2. XU100 H1 Results

Days	2014 AAR (N=97)				2015 AAR (N=97)				2016 AAR (N=94)				2017 AAR (N=94)				2018 AAR (N=95)			
	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed
-10	-0,003	0,018	**-1,821**	**0,072***	0,002	0,026	0,904	0,368	0,002	0,018	1,139	0,257	-0,004	0,017	**-2,326**	**0,022****	0,000	0,020	-0,206	0,837
-9	-0,002	0,017	-0,923	0,358	-0,002	0,018	-0,956	0,341	-0,004	0,014	**-2,480**	**0,015****	-0,002	0,014	-1,166	0,246	-0,002	0,025	-0,772	0,442
-8	-0,001	0,019	-0,358	0,721	-0,003	0,017	**-1,815**	**0,073***	-0,001	0,014	-0,880	0,381	-0,004	0,015	**-2,301**	**0,024****	0,000	0,025	-0,167	0,868
-7	-0,001	0,018	-0,748	0,456	-0,002	0,016	-1,099	0,275	-0,002	0,014	-1,431	0,156	-0,005	0,015	**-3,188**	**0,002*****	-0,001	0,021	-0,666	0,507
-6	-0,002	0,012	-1,410	0,162	0,003	0,022	1,193	0,236	0,001	0,013	0,621	0,536	0,001	0,019	0,501	0,617	-0,001	0,019	-0,543	0,589
-5	0,001	0,019	0,482	0,631	0,002	0,018	1,058	0,292	0,003	0,017	**1,662**	**0,100***	0,002	0,016	1,019	0,311	0,001	0,014	0,945	0,347
-4	0,001	0,020	0,313	0,755	0,002	0,020	1,135	0,259	-0,003	0,012	**-2,808**	**0,006*****	-0,003	0,017	-1,604	0,112	0,000	0,020	0,007	0,994
-3	0,000	0,025	0,078	0,938	0,000	0,018	-0,183	0,855	0,001	0,018	0,585	0,560	0,004	0,023	1,542	0,126	0,002	0,021	0,790	0,432
-2	0,000	0,017	-0,241	0,810	-0,003	0,019	-1,392	0,167	-0,002	0,013	-1,529	0,130	-0,001	0,017	-0,641	0,523	-0,002	0,017	-1,283	0,203
-1	0,001	0,018	0,820	0,415	0,000	0,016	-0,236	0,814	0,001	0,022	0,411	0,682	-0,001	0,015	-0,483	0,630	0,003	0,024	1,136	0,259
0	0,002	0,019	0,839	0,404	0,000	0,026	0,123	0,903	-0,002	0,015	-1,200	0,233	0,001	0,018	0,464	0,644	0,000	0,020	0,246	0,806
1	0,000	0,022	-0,141	0,888	-0,008	0,028	**-2,683**	**0,009*****	-0,005	0,028	**-1,919**	**0,058***	-0,001	0,041	-0,320	0,750	-0,006	0,032	**-1,834**	**0,070***
2	-0,004	0,019	**-1,972**	**0,051***	-0,002	0,027	-0,857	0,394	-0,004	0,018	**-1,869**	**0,065***	0,000	0,020	0,006	0,995	-0,002	0,020	-0,819	0,415
3	-0,005	0,020	**-2,445**	**0,016****	0,006	0,027	**2,192**	**0,031****	-0,002	0,015	-1,178	0,242	0,000	0,016	-0,097	0,923	0,004	0,021	**2,065**	**0,042****
4	-0,004	0,014	**-2,827**	**0,006*****	-0,002	0,018	-1,300	0,197	0,000	0,015	0,172	0,864	-0,001	0,015	-0,345	0,731	-0,002	0,017	-0,927	0,356
5	-0,003	0,024	-1,289	0,201	-0,002	0,017	-1,044	0,299	-0,001	0,016	-0,747	0,457	0,003	0,016	**1,833**	**0,070***	0,001	0,018	0,734	0,465
6	-0,001	0,025	-0,339	0,735	-0,002	0,018	-1,144	0,255	-0,002	0,017	-1,187	0,238	0,003	0,016	**1,834**	**0,070***	0,000	0,016	-0,242	0,810
7	-0,002	0,024	-0,862	0,391	-0,002	0,016	-1,223	0,224	-0,001	0,014	-0,659	0,512	0,007	0,028	**2,348**	**0,021****	0,000	0,022	-0,192	0,848
8	-0,003	0,028	-1,006	0,317	0,000	0,026	0,174	0,863	0,001	0,025	0,490	0,625	0,001	0,022	0,640	0,524	0,000	0,015	0,157	0,876
9	-0,008	0,024	**-3,142**	**0,002*****	0,005	0,029	**1,783**	**0,078***	0,001	0,017	0,524	0,601	0,000	0,017	0,007	0,995	0,003	0,024	1,035	0,303
10	0,002	0,021	0,847	0,399	-0,003	0,018	**-1,835**	**0,070***	-0,001	0,015	-0,943	0,348	0,002	0,017	0,987	0,326	0,006	0,027	**2,259**	**0,026****

*, **, *** are statistically significant at levels of 10%, 5% and 1%, respectively.

Table 3. XU100 H1 Results

Days	**2014** CAAR (N=97)				**2015** CAAR (N=97)				**2016** CAAR (N=94)				**2017** CAAR (N=94)				**2018** CAAR (N=95)			
	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed
-10	-0,003	0,018	**-1,822**	**0,072***	0,002	0,026	0,903	0,369	0,002	0,018	1,137	0,258	-0,004	0,017	**-2,327**	**0,022****	0,000	0,020	-0,205	0,838
-9	-0,005	0,026	**-1,870**	**0,065***	0,001	0,026	0,227	0,821	-0,001	0,018	-0,785	0,435	-0,006	0,024	**-2,353**	**0,021****	-0,002	0,030	-0,782	0,436
-8	-0,006	0,030	**-1,837**	**0,069***	-0,003	0,030	-0,835	0,406	-0,003	0,024	-1,128	0,262	-0,009	0,027	**-3,362**	**0,001*****	-0,003	0,030	-0,914	0,363
-7	-0,007	0,033	**-2,058**	**0,042****	-0,004	0,033	-1,285	0,202	-0,005	0,029	**-1,667**	**0,099***	-0,014	0,030	**-4,642**	**0,000*****	-0,004	0,030	-1,388	0,168
-6	-0,009	0,038	**-2,292**	**0,024****	-0,002	0,032	-0,520	0,604	-0,004	0,031	-1,274	0,206	-0,013	0,034	**-3,830**	**0,000*****	-0,005	0,031	-1,641	0,104
-5	-0,008	0,043	**-1,792**	**0,076***	0,000	0,036	0,080	0,936	-0,001	0,034	-0,345	0,731	-0,012	0,036	**-3,176**	**0,002*****	-0,004	0,034	-1,113	0,269
-4	-0,007	0,049	-1,460	0,147	0,003	0,037	0,705	0,482	-0,005	0,036	-1,242	0,217	-0,015	0,040	**-3,575**	**0,001*****	-0,004	0,035	-1,067	0,289
-3	-0,007	0,056	-1,239	0,218	0,002	0,042	0,542	0,589	-0,004	0,043	-0,800	0,426	-0,011	0,044	**-2,411**	**0,018****	-0,002	0,040	-0,522	0,603
-2	-0,007	0,058	-1,261	0,210	0,000	0,041	-0,100	0,920	-0,006	0,044	-1,220	0,226	-0,012	0,049	**-2,429**	**0,017****	-0,004	0,043	-0,999	0,320
-1	-0,006	0,060	-0,971	0,334	-0,001	0,044	-0,181	0,857	-0,005	0,049	-0,904	0,369	-0,013	0,049	**-2,557**	**0,012****	-0,002	0,045	-0,344	0,732
0	-0,004	0,065	-0,654	0,515	0,000	0,057	-0,085	0,933	-0,006	0,052	-1,214	0,228	-0,012	0,053	**-2,193**	**0,031****	-0,001	0,050	-0,214	0,831
1	-0,005	0,071	-0,643	0,522	-0,008	0,062	-1,277	0,205	-0,012	0,057	**-2,025**	**0,046****	-0,013	0,067	**-1,950**	**0,054***	-0,007	0,054	-1,260	0,211
2	-0,008	0,074	-1,130	0,261	-0,010	0,068	-1,500	0,137	-0,016	0,062	**-2,441**	**0,017****	-0,013	0,073	**-1,773**	**0,079***	-0,009	0,060	-1,412	0,161
3	-0,013	0,078	**-1,682**	**0,096***	-0,004	0,075	-0,572	0,568	-0,017	0,061	**-2,746**	**0,007*****	-0,014	0,076	**-1,732**	**0,087***	-0,004	0,069	-0,596	0,553
4	-0,017	0,081	**-2,091**	**0,039****	-0,007	0,077	-0,860	0,392	-0,017	0,063	**-2,617**	**0,010*****	-0,014	0,077	**-1,787**	**0,077***	-0,006	0,073	-0,777	0,439
5	-0,020	0,094	**-2,128**	**0,036****	-0,009	0,077	-1,092	0,277	-0,018	0,066	**-2,701**	**0,008*****	-0,011	0,081	-1,331	0,186	-0,005	0,076	-0,578	0,565
6	-0,021	0,110	**-1,907**	**0,059***	-0,011	0,079	-1,326	0,188	-0,020	0,071	**-2,796**	**0,006*****	-0,008	0,081	-0,960	0,339	-0,005	0,079	-0,606	0,546
7	-0,023	0,124	**-1,842**	**0,069***	-0,013	0,076	-1,630	0,106	-0,021	0,073	**-2,818**	**0,006*****	-0,001	0,088	-0,153	0,879	-0,005	0,087	-0,598	0,552
8	-0,026	0,142	**-1,814**	**0,073***	-0,012	0,079	-1,513	0,133	-0,020	0,074	**-2,615**	**0,010*****	0,000	0,088	0,004	0,997	-0,005	0,090	-0,550	0,584
9	-0,034	0,161	**-2,065**	**0,042****	-0,007	0,088	-0,766	0,445	-0,019	0,079	**-2,356**	**0,021****	0,000	0,088	0,005	0,996	-0,003	0,092	-0,270	0,787
10	-0,032	0,150	**-2,107**	**0,038****	-0,010	0,088	-1,135	0,259	-0,021	0,081	**-2,469**	**0,015****	0,002	0,092	0,186	0,852	0,004	0,101	0,357	0,722

*, **, *** are statistically significant at levels of 10%, 5% and 1%, respectively.

The second hypothesis is that "the average abnormal returns and the cumulative average abnormal returns of stocks which have an "unqualified" audit opinion equal to zero". In the first hypothesis, all businesses were included in the analyses regardless of the audit opinion. But, in the second hypothesis, only the "unqualified" opinions were analyzed. 2014 results are very similar to the results of the first hypothesis as shown in Table 4. In Turkey, there were 89 companies with "unqualified" audit opinions in 2015. The analyses result of these reports has eighty percent similarities with the first hypothesis's results in 2015. When average abnormal returns are examined in 2016 and 2017, there are four and five statistically significant results respectively. In 2018, statistically significant positive average abnormal returns are observed on three and ten days later the announcement date.

When the cumulative abnormal returns are examined, there are statistically significant results before and after the event in 2014. There are no statistically significant results in 2015. In 2016, there are no statistically significant results before the announcement date. After the announcement date, there are statistically significant results till the end of the event window starting from the second day. There are statistically significant negative cumulative returns for 15 days starting from the beginning of the event window in 2017. There are statistically significant results in four days and all of them are before the announcement date in ISE according to 2018 findings.

The third hypothesis is that the average abnormal returns and the cumulative average abnormal returns are equal to zero for businesses which have not an unqualified audit opinion. The results shown in Table 6 and 7 for ISE. According to the findings shown in Table 6, there are statistically significant abnormal returns three days before the announcement of the audit reports and one day after in 2014. These returns have negative values. But when cumulative returns are examined, there is not a statistically significant result in findings. Table 6 shows that there are statistically significant average abnormal returns on one day and six day before the event date in 2015. When 2016, 2017 and 2018 results are examined, there are abnormal returns only in two or three days which are randomly scattered within the event window. However there are statistically significant cumulative abnormal returns in 2015, 2016 and 2017, there is not a significant result was found trough to the event window in 2018.

Table 4. XU100 H2 Results

Days	2014 AAR (N=87)				2015 AAR (N=89)				2016 AAR (N=86)				2017 AAR (N=88)				2018 AAR (N=85)			
	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed
-10	-0,003	0,019	**-1,673**	**0,098***	0,002	0,026	0,866	0,389	0,003	0,019	1,291	0,200	-0,004	0,018	**-2,148**	**0,034**	0,000	0,020	-0,095	0,924
-9	-0,002	0,018	-0,966	0,337	-0,002	0,018	-1,265	0,209	-0,004	0,015	**-2,461**	**0,016**	-0,001	0,014	-0,856	0,394	-0,002	0,024	-0,646	0,520
-8	0,000	0,019	-0,097	0,923	-0,003	0,017	-1,512	0,134	-0,001	0,015	-0,741	0,460	-0,004	0,016	**-2,154**	**0,034**	-0,002	0,022	-0,771	0,443
-7	-0,003	0,017	-1,629	0,107	-0,002	0,016	-1,377	0,172	-0,002	0,015	-1,101	0,274	-0,005	0,016	**-3,019**	**0,003***	-0,002	0,020	-0,737	0,463
-6	-0,002	0,013	-1,451	0,150	0,004	0,021	**1,670**	**0,099***	0,001	0,013	0,830	0,409	0,001	0,019	0,609	0,544	-0,003	0,017	-1,337	0,185
-5	0,000	0,018	0,128	0,898	0,001	0,018	0,555	0,580	0,003	0,017	1,373	0,173	0,001	0,015	0,713	0,478	0,001	0,014	0,720	0,474
-4	0,000	0,019	-0,164	0,870	0,002	0,021	1,120	0,266	-0,003	0,012	**-2,417**	**0,018**	-0,003	0,018	-1,346	0,182	0,000	0,020	-0,154	0,878
-3	0,002	0,026	0,649	0,518	-0,001	0,019	-0,287	0,775	0,002	0,019	0,807	0,422	0,004	0,023	1,465	0,147	0,003	0,019	1,411	0,162
-2	0,000	0,017	-0,042	0,967	-0,003	0,020	-1,486	0,141	-0,001	0,013	-1,090	0,279	-0,002	0,016	-1,283	0,203	-0,002	0,018	-1,198	0,234
-1	0,002	0,018	1,204	0,232	0,000	0,017	0,233	0,817	0,001	0,023	0,603	0,548	-0,001	0,015	-0,761	0,449	0,004	0,025	1,528	0,130
0	0,001	0,018	0,488	0,627	0,001	0,026	0,284	0,777	-0,002	0,016	-0,983	0,328	0,001	0,019	0,413	0,681	0,000	0,020	0,119	0,906
1	0,001	0,023	0,227	0,821	-0,007	0,028	**-2,239**	**0,028**	-0,006	0,029	**-1,860**	**0,066***	-0,002	0,042	-0,371	0,711	-0,006	0,033	-1,588	0,116
2	-0,004	0,020	**-1,741**	**0,085***	-0,002	0,028	-0,584	0,561	-0,004	0,019	**-1,830**	**0,071***	0,000	0,021	-0,158	0,875	-0,002	0,020	-0,722	0,472
3	-0,006	0,020	**-2,779**	**0,007***	0,007	0,028	**2,242**	**0,027**	-0,002	0,016	-0,926	0,357	-0,001	0,017	-0,373	0,710	0,005	0,021	**1,955**	**0,054***
4	-0,005	0,014	**-3,077**	**0,003***	-0,003	0,018	-1,316	0,192	0,001	0,015	0,380	0,705	0,000	0,016	-0,280	0,780	-0,002	0,015	-1,415	0,161
5	-0,003	0,025	-1,298	0,198	-0,002	0,017	-0,850	0,398	-0,002	0,016	-0,884	0,379	0,003	0,016	**1,960**	**0,053***	0,001	0,017	0,456	0,649
6	-0,001	0,026	-0,269	0,788	-0,002	0,018	-0,841	0,403	-0,003	0,018	-1,336	0,185	0,003	0,015	1,558	0,123	0,000	0,016	0,001	0,999
7	-0,002	0,025	-0,888	0,377	-0,002	0,017	-1,374	0,173	-0,001	0,015	-0,718	0,475	0,005	0,019	**2,223**	**0,029**	-0,001	0,022	-0,292	0,771
8	-0,003	0,030	-1,068	0,288	0,000	0,027	0,165	0,869	0,002	0,026	0,562	0,575	0,002	0,022	0,660	0,511	0,001	0,015	0,830	0,409
9	-0,008	0,025	**-3,047**	**0,003***	0,006	0,030	**1,869**	**0,065***	0,001	0,018	0,379	0,706	0,000	0,016	0,275	0,784	0,003	0,025	0,994	0,323
10	0,002	0,022	0,840	0,403	-0,004	0,018	**-1,968**	**0,052***	-0,001	0,015	-0,636	0,527	0,001	0,017	0,810	0,420	0,006	0,028	**2,065**	**0,042**

*, **, *** are statistically significant at levels of 10%, 5% and 1%, respectively.

Table 5. XU100 H2 Results

Days	2014 CAAR (N=87)				2015 CAAR (N=97)				2016 CAAR (N=86)				2017 CAAR (N=88)				2018 CAAR (N=85)			
	Average	St. Dev.	t stat.	Sig. 2-tailed	Average	St. Dev.	t stat.	Sig. 2-tailed	Average	St. Dev.	t stat.	Sig. 2-tailed	Average	St. Dev.	t stat.	Sig. 2-tailed	Average	St. Dev.	t stat.	Sig. 2-tailed
-10	-0,003	0,019	**-1,673**	**0,098***	0,002	0,026	0,866	0,389	0,003	0,019	1,291	0,200	-0,004	0,018	**-2,148**	**0,034****	0,000	0,020	-0,095	0,924
-9	-0,005	0,027	**-1,786**	**0,078***	0,000	0,026	-0,006	0,996	-0,001	0,019	-0,621	0,537	-0,005	0,025	**-2,050**	**0,043****	-0,002	0,030	-0,590	0,557
-8	-0,005	0,031	-1,616	0,110	-0,003	0,031	-0,848	0,399	-0,002	0,025	-0,917	0,362	-0,009	0,028	**-3,044**	**0,003*****	-0,004	0,028	-1,215	0,228
-7	-0,008	0,034	**-2,284**	**0,025****	-0,005	0,034	-1,423	0,158	-0,004	0,030	-1,319	0,191	-0,014	0,031	**-4,286**	**0,000*****	-0,005	0,029	**-1,724**	**0,088***
-6	-0,010	0,038	**-2,502**	**0,014****	-0,001	0,033	-0,394	0,695	-0,003	0,032	-0,879	0,382	-0,013	0,035	**-3,430**	**0,001*****	-0,008	0,030	**-2,433**	**0,017****
-5	-0,010	0,043	**-2,196**	**0,031****	0,000	0,037	-0,072	0,943	-0,001	0,035	-0,132	0,895	-0,012	0,037	**-2,966**	**0,004*****	-0,007	0,032	**-1,968**	**0,052***
-4	-0,010	0,045	**-2,140**	**0,035****	0,002	0,038	0,543	0,589	-0,004	0,037	-0,911	0,365	-0,014	0,040	**-3,271**	**0,002*****	-0,007	0,034	**-1,952**	**0,054***
-3	-0,009	0,056	-1,439	0,154	0,002	0,043	0,357	0,722	-0,002	0,044	-0,427	0,670	-0,010	0,045	**-2,165**	**0,033****	-0,004	0,038	-1,048	0,298
-2	-0,009	0,059	-1,362	0,177	-0,001	0,042	-0,324	0,747	-0,004	0,045	-0,731	0,467	-0,013	0,050	**-2,368**	**0,020****	-0,007	0,041	-1,473	0,144
-1	-0,006	0,062	-0,942	0,349	-0,001	0,046	-0,216	0,830	-0,002	0,050	-0,378	0,706	-0,014	0,050	**-2,592**	**0,011****	-0,002	0,044	-0,525	0,601
0	-0,005	0,066	-0,755	0,452	0,000	0,058	-0,039	0,969	-0,004	0,052	-0,656	0,514	-0,013	0,054	**-2,247**	**0,027****	-0,002	0,047	-0,439	0,662
1	-0,005	0,073	-0,615	0,540	-0,007	0,064	-1,034	0,304	-0,009	0,058	-1,509	0,135	-0,015	0,068	**-2,013**	**0,047****	-0,008	0,054	-1,350	0,181
2	-0,008	0,075	-1,049	0,297	-0,009	0,070	-1,178	0,242	-0,013	0,063	**-1,955**	**0,054***	-0,015	0,075	**-1,874**	**0,064***	-0,009	0,059	-1,476	0,144
3	-0,014	0,080	**-1,681**	**0,096***	-0,002	0,077	-0,254	0,800	-0,015	0,062	**-2,206**	**0,030****	-0,016	0,078	**-1,892**	**0,062***	-0,005	0,068	-0,663	0,509
4	-0,019	0,083	**-2,136**	**0,036****	-0,005	0,079	-0,555	0,580	-0,014	0,064	**-2,059**	**0,043****	-0,016	0,078	**-1,929**	**0,057***	-0,007	0,071	-0,937	0,352
5	-0,023	0,097	**-2,157**	**0,034****	-0,006	0,078	-0,747	0,457	-0,016	0,066	**-2,203**	**0,030****	-0,013	0,083	-1,438	0,154	-0,006	0,075	-0,784	0,435
6	-0,023	0,114	**-1,901**	**0,061***	-0,008	0,080	-0,917	0,362	-0,018	0,072	**-2,356**	**0,021****	-0,010	0,083	-1,143	0,256	-0,006	0,078	-0,751	0,455
7	-0,026	0,130	**-1,838**	**0,070***	-0,010	0,078	-1,237	0,220	-0,019	0,075	**-2,407**	**0,018****	-0,006	0,086	-0,603	0,548	-0,007	0,088	-0,741	0,461
8	-0,029	0,149	**-1,820**	**0,072***	-0,010	0,081	-1,132	0,261	-0,018	0,076	**-2,186**	**0,032****	-0,004	0,086	-0,431	0,668	-0,006	0,092	-0,574	0,567
9	-0,037	0,169	**-2,055**	**0,043****	-0,004	0,090	-0,390	0,697	-0,017	0,081	**-1,966**	**0,053***	-0,004	0,088	-0,373	0,710	-0,003	0,094	-0,294	0,770
10	-0,035	0,157	**-2,097**	**0,039****	-0,007	0,090	-0,785	0,435	-0,018	0,083	**-2,035**	**0,045****	-0,002	0,092	-0,206	0,837	0,003	0,104	0,289	0,773

*, **, *** are statistically significant at levels of 10%, 5% and 1%, respectively.

Table 6. XU100 H3 Results

Days	2014 AAR (N=10)				2015 AAR (N=8)				2016 AAR (N=8)				2017 AAR (N=6)				2018 AAR (N=10)			
	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed
-10	-0,003	0,010	-0,951	0,367	-0,002	0,007	-0,744	0,481	-0,006	0,009	**-2,147**	**0,069***	-0,001	0,015	-0,104	0,921	-0,002	0,021	-0,263	0,799
-9	0,000	0,009	0,164	0,874	0,001	0,018	0,218	0,834	-0,007	0,011	-1,803	0,114	-0,007	0,007	**-2,400**	**0,062***	0,001	0,014	0,112	0,913
-8	-0,005	0,010	-1,491	0,170	0,002	0,019	0,287	0,782	-0,004	0,011	-1,045	0,331	-0,003	0,011	-0,708	0,511	0,009	0,045	0,661	0,525
-7	0,012	0,023	1,644	0,135	0,000	0,014	0,013	0,990	0,002	0,014	0,339	0,745	-0,004	0,009	-1,038	0,347	-0,008	0,019	-1,404	0,194
-6	0,000	0,011	-0,041	0,968	-0,017	0,019	**-2,614**	**0,035****	-0,003	0,012	-0,677	0,520	0,001	0,008	0,459	0,666	-0,010	0,013	**-2,628**	**0,027****
-5	0,007	0,023	0,918	0,382	0,010	0,018	1,542	0,167	0,006	0,015	1,044	0,331	0,013	0,018	1,776	0,136	0,008	0,013	**2,038**	**0,072***
-4	0,009	0,028	1,015	0,336	0,005	0,017	0,821	0,439	-0,003	0,008	-1,115	0,302	-0,005	0,010	-1,189	0,288	0,002	0,020	0,254	0,805
-3	-0,014	0,016	**-2,676**	**0,025****	0,000	0,013	-0,089	0,931	-0,006	0,009	**-2,015**	**0,084***	0,004	0,007	1,462	0,204	-0,001	0,030	-0,069	0,946
-2	-0,003	0,015	-0,712	0,494	-0,001	0,016	-0,200	0,848	-0,004	0,013	-0,835	0,431	0,010	0,028	0,870	0,424	0,004	0,012	0,965	0,360
-1	-0,006	0,014	-1,392	0,197	-0,009	0,010	**-2,389**	**0,048****	-0,001	0,011	-0,378	0,717	0,005	0,010	1,264	0,262	-0,002	0,013	-0,452	0,662
0	0,007	0,025	0,924	0,379	-0,008	0,019	-1,147	0,289	-0,001	0,016	-0,215	0,836	0,002	0,014	0,315	0,765	0,007	0,013	1,813	0,103
1	-0,008	0,012	**-2,176**	**0,058***	-0,007	0,017	-1,267	0,246	0,007	0,018	1,093	0,311	-0,001	0,016	-0,127	0,904	0,007	0,023	1,015	0,337
2	-0,005	0,011	-1,344	0,212	-0,013	0,013	**-3,000**	**0,020****	0,001	0,016	0,116	0,911	0,002	0,009	0,431	0,685	0,001	0,032	0,120	0,907
3	0,005	0,013	1,179	0,269	0,006	0,012	1,558	0,163	-0,001	0,010	-0,311	0,765	0,008	0,009	2,116	**0,088***	0,010	0,012	**2,525**	**0,032****
4	0,002	0,008	0,876	0,404	0,000	0,005	-0,096	0,926	-0,005	0,012	-1,091	0,311	0,002	0,008	0,500	0,638	-0,002	0,029	-0,214	0,836
5	0,000	0,012	-0,036	0,972	-0,001	0,010	-0,396	0,704	-0,002	0,011	-0,598	0,569	-0,001	0,012	-0,117	0,912	0,000	0,014	-0,005	0,996
6	-0,002	0,011	-0,523	0,614	0,006	0,027	0,625	0,552	-0,006	0,013	-1,329	0,226	0,008	0,025	0,767	0,478	0,000	0,021	0,046	0,964
7	0,000	0,008	0,182	0,860	-0,003	0,020	-0,363	0,727	-0,002	0,008	-0,849	0,424	0,033	0,082	0,996	0,365	0,006	0,026	0,776	0,458
8	0,002	0,008	0,596	0,566	0,003	0,011	0,777	0,463	0,002	0,011	0,521	0,619	0,004	0,011	0,784	0,468	0,000	0,012	-0,115	0,911
9	-0,003	0,008	-1,087	0,305	0,003	0,014	0,545	0,603	0,000	0,011	-0,125	0,904	-0,007	0,025	-0,632	0,555	0,002	0,013	0,551	0,595
10	0,000	0,009	0,100	0,922	0,005	0,008	1,654	0,142	-0,007	0,006	**-3,334**	**0,013****	0,000	0,009	-0,072	0,946	0,003	0,016	0,567	0,585

*, **, *** are statistically significant at levels of 10%, 5% and 1%, respectively.

Table 7. XU100 H3 Results

Days	2014 CAAR (N=10)				2015 CAAR (N=8)				2016 CAAR (N=8)				2017 CAAR (N=6)				2018 CAAR (N=10)			
	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed
-10	-0,003	0,010	-0,951	0,367	-0,002	0,007	-0,744	0,481	-0,006	0,009	**-2,147**	**0,069***	-0,001	0,015	-0,104	0,921	-0,002	0,021	-0,263	0,799
-9	-0,003	0,012	-0,688	0,509	0,000	0,023	-0,046	0,964	-0,013	0,018	**-2,117**	**0,072***	-0,007	0,021	-0,871	0,424	-0,001	0,027	-0,144	0,889
-8	-0,007	0,018	-1,298	0,227	0,002	0,020	0,217	0,835	-0,017	0,017	**-2,860**	**0,024****	-0,011	0,030	-0,872	0,423	0,008	0,033	0,771	0,460
-7	0,005	0,026	0,563	0,587	0,002	0,016	0,275	0,791	-0,016	0,018	**-2,456**	**0,044****	-0,014	0,031	-1,143	0,305	0,000	0,023	-0,039	0,970
-6	0,005	0,029	0,507	0,625	-0,016	0,024	-1,866	0,104	-0,018	0,028	-1,829	0,110	-0,013	0,029	-1,100	0,321	-0,011	0,024	-1,406	0,193
-5	0,011	0,044	0,814	0,437	-0,006	0,031	-0,537	0,608	-0,013	0,027	-1,361	0,216	0,000	0,029	0,031	0,977	-0,003	0,027	-0,298	0,773
-4	0,020	0,069	0,921	0,381	-0,001	0,022	-0,129	0,901	-0,016	0,031	-1,476	0,183	-0,004	0,025	-0,416	0,694	-0,001	0,031	-0,086	0,933
-3	0,007	0,058	0,359	0,728	-0,001	0,032	-0,126	0,903	-0,022	0,031	**-2,028**	**0,082***	0,000	0,022	0,015	0,989	-0,002	0,044	-0,108	0,916
-2	0,003	0,046	0,222	0,830	-0,003	0,033	-0,219	0,833	-0,026	0,037	**-1,994**	**0,086***	0,010	0,012	**2,084**	**0,092***	0,002	0,041	0,160	0,877
-1	-0,003	0,038	-0,227	0,826	-0,011	0,027	-1,160	0,284	-0,027	0,045	-1,714	0,130	0,015	0,015	**2,406**	**0,061***	0,000	0,034	0,015	0,988
0	0,005	0,059	0,247	0,811	-0,019	0,029	-1,847	0,107	-0,029	0,047	-1,734	0,126	0,017	0,022	1,836	0,126	0,007	0,043	0,534	0,606
1	-0,003	0,061	-0,177	0,864	-0,026	0,040	-1,836	0,109	-0,022	0,047	-1,283	0,240	0,016	0,018	**2,116**	**0,088***	0,015	0,049	0,950	0,367
2	-0,008	0,060	-0,434	0,674	-0,040	0,051	**-2,187**	**0,065***	-0,021	0,054	-1,100	0,308	0,018	0,018	**2,428**	**0,060***	0,016	0,070	0,711	0,495
3	-0,004	0,058	-0,193	0,851	-0,033	0,052	-1,788	0,117	-0,022	0,058	-1,062	0,324	0,026	0,012	**5,184**	**0,004*****	0,026	0,070	1,163	0,275
4	-0,001	0,061	-0,068	0,947	-0,033	0,052	-1,810	0,113	-0,027	0,067	-1,129	0,296	0,027	0,007	**9,309**	**0,000*****	0,024	0,079	0,946	0,369
5	-0,001	0,060	-0,078	0,939	-0,035	0,053	-1,840	0,108	-0,029	0,069	-1,192	0,272	0,027	0,011	**5,819**	**0,002*****	0,024	0,087	0,858	0,413
6	-0,003	0,054	-0,190	0,854	-0,029	0,045	-1,795	0,116	-0,035	0,063	-1,570	0,160	0,034	0,019	**4,488**	**0,006*****	0,024	0,088	0,860	0,412
7	-0,003	0,054	-0,162	0,875	-0,031	0,042	**-2,111**	**0,073***	-0,038	0,065	-1,631	0,147	0,068	0,098	1,694	0,151	0,030	0,101	0,951	0,367
8	-0,001	0,054	-0,068	0,947	-0,028	0,043	-1,889	0,101	-0,036	0,066	-1,533	0,169	0,071	0,091	1,912	0,114	0,030	0,100	0,942	0,371
9	-0,004	0,056	-0,223	0,828	-0,026	0,036	**-2,034**	**0,081***	-0,036	0,060	-1,692	0,134	0,065	0,067	**2,372**	**0,064***	0,032	0,100	1,020	0,334
10	-0,004	0,052	-0,225	0,827	-0,021	0,034	-1,728	0,128	-0,043	0,063	**-1,949**	**0,092***	0,064	0,071	**2,213**	**0,078***	0,035	0,095	1,160	0,276

*, **, *** are statistically significant at levels of 10%, 5% and 1%, respectively.

Over the last five years, all of the DAX30 companies have "unqualified" opinion in their audit reports. Thus, we analyzed only the first hypothesis and the results are shown in Table 8 and 9. According to the empirical results shown in Table 8, there are statistically significant abnormal returns on two days before and one day after the announcement in 2014. There are statistically significant abnormal returns on the announcement date and five days later in 2015. According to the results, in 2016 there is a statistically significant abnormal return on one day before the event date. There are also statistically significant abnormal returns on one and nine days after the disclosure. In 2017, the results of the analyses show that, there is statistically significant abnormal return on three days before the audit report announcement with a ten percent confidence level. Six and ten days later the announcement date, there are statistically significant abnormal returns with a five percent confidence level. According to the results in 2018, there are statistically significant abnormal returns on five different days within -5+3 period from the event date. When the cumulative abnormal returns shown in Table 9 are examined, there are only statistically significant results on the event date and one day before in 2014. As shown in the Table 9, there isn't a significant result in 2015, 2016, 2017 and   2018   findings.

Table 8. DAX30 H1 Results

Days	2014 AAR (N=28)				2015 AAR (N=28)				2016 AAR (N=29)				2017 AAR (N=29)				2018 AAR (N=30)			
	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed
-10	0,002	0,008	0,995	0,328	0,004	0,013	1,655	0,110	0,001	0,019	0,372	0,713	0,000	0,015	-0,117	0,908	0,000	0,008	0,161	0,873
-9	0,004	0,017	1,331	0,194	0,000	0,009	-0,033	0,974	0,002	0,016	0,660	0,515	0,001	0,014	0,482	0,633	-0,002	0,010	-1,102	0,280
-8	0,000	0,008	0,254	0,801	-0,001	0,009	-0,387	0,701	0,000	0,014	0,118	0,907	0,001	0,011	0,699	0,490	-0,001	0,011	-0,432	0,669
-7	0,000	0,010	-0,109	0,914	-0,002	0,009	-0,906	0,373	0,002	0,013	0,820	0,419	0,001	0,010	0,639	0,528	-0,002	0,007	-1,452	0,157
-6	0,001	0,009	0,630	0,534	-0,002	0,008	-0,950	0,351	0,001	0,013	0,317	0,754	0,002	0,011	1,155	0,258	0,001	0,014	0,577	0,568
-5	0,000	0,009	-0,055	0,957	0,001	0,007	0,666	0,511	0,001	0,013	0,528	0,602	-0,001	0,012	-0,252	0,803	0,000	0,010	-0,118	0,907
-4	-0,001	0,013	-0,590	0,560	0,000	0,008	0,217	0,830	-0,001	0,012	-0,276	0,785	-0,001	0,010	-0,520	0,607	-0,001	0,013	-0,249	0,805
-3	-0,002	0,011	-1,181	0,248	0,002	0,012	1,008	0,322	0,000	0,008	-0,109	0,914	-0,003	0,007	**-1,900**	**0,068***	0,003	0,008	1,858	**0,073***
-2	0,003	0,007	**2,487**	**0,019****	-0,002	0,009	-1,012	0,321	-0,001	0,010	-0,688	0,497	-0,001	0,010	-0,596	0,556	-0,004	0,011	**-1,701**	**0,100***
-1	0,002	0,007	1,449	0,159	0,002	0,009	1,217	0,234	0,004	0,014	**1,729**	**0,095***	0,000	0,008	0,318	0,753	0,006	0,018	**1,861**	**0,073***
0	0,002	0,025	0,447	0,659	-0,008	0,019	**-2,196**	**0,037****	0,001	0,031	0,108	0,915	-0,003	0,029	-0,557	0,582	0,005	0,029	0,976	0,337
1	-0,006	0,018	**-1,788**	**0,085***	0,002	0,014	0,731	0,471	-0,006	0,013	**-2,285**	**0,030****	0,001	0,015	0,488	0,629	0,007	0,014	**2,665**	**0,012****
2	0,000	0,012	0,172	0,864	-0,001	0,008	-0,621	0,540	0,000	0,010	0,257	0,799	0,002	0,009	0,943	0,354	0,002	0,010	1,260	0,218
3	0,000	0,009	-0,012	0,990	0,000	0,012	0,182	0,857	-0,002	0,013	-1,007	0,323	-0,001	0,011	-0,630	0,534	-0,006	0,017	**-1,901**	**0,067***
4	0,000	0,009	0,133	0,895	0,003	0,011	1,289	0,208	0,004	0,014	1,604	0,120	-0,001	0,009	-0,780	0,442	-0,002	0,009	-1,280	0,211
5	-0,002	0,010	-0,860	0,398	0,004	0,012	**1,717**	**0,097***	-0,001	0,012	-0,570	0,573	0,001	0,009	0,568	0,575	-0,001	0,008	-0,824	0,417
6	-0,001	0,008	-0,780	0,442	0,002	0,011	1,175	0,250	0,001	0,011	0,443	0,661	0,003	0,007	**2,225**	**0,034****	-0,001	0,013	-0,580	0,566
7	0,000	0,009	-0,103	0,919	0,002	0,008	1,072	0,293	-0,001	0,011	-0,380	0,707	-0,002	0,018	-0,709	0,484	0,002	0,010	1,115	0,274
8	0,003	0,012	1,129	0,269	0,000	0,009	-0,206	0,839	-0,003	0,013	-1,193	0,243	-0,003	0,009	-1,585	0,124	-0,001	0,009	-0,633	0,531
9	0,002	0,008	1,355	0,187	0,002	0,009	0,945	0,353	-0,004	0,011	**-1,905**	**0,067***	0,000	0,011	0,233	0,818	0,000	0,011	0,199	0,844
10	0,000	0,009	0,008	0,994	0,000	0,010	0,063	0,950	-0,001	0,013	-0,340	0,737	-0,004	0,007	**-2,661**	**0,013****	-0,003	0,008	-1,717	0,097

*, **, *** are statistically significant at levels of 10%, 5% and 1%, respectively.

Table 9. DAX30 H1 Results

Days	2014 CAAR (N=28)				2015 CAAR (N=28)				2016 CAAR (N=29)				2017 CAAR (N=29)				2018 CAAR (N=30)			
	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed	Ave-rage	St. Dev.	t stat.	Sig. 2-tailed
-10	0,002	0,008	0,995	0,328	0,004	0,013	1,655	0,110	0,001	0,019	0,372	0,713	0,000	0,015	-0,117	0,908	0,000	0,008	0,161	0,873
-9	0,006	0,019	1,618	0,117	0,004	0,019	1,141	0,264	0,003	0,025	0,715	0,481	0,001	0,023	0,220	0,827	-0,002	0,011	-0,889	0,381
-8	0,006	0,021	1,555	0,132	0,003	0,019	0,969	0,341	0,004	0,029	0,673	0,506	0,002	0,023	0,569	0,574	-0,003	0,016	-0,914	0,368
-7	0,006	0,024	1,272	0,214	0,002	0,016	0,616	0,543	0,006	0,034	0,879	0,387	0,004	0,023	0,846	0,405	-0,005	0,018	-1,374	0,180
-6	0,007	0,025	1,483	0,150	0,000	0,017	0,126	0,900	0,006	0,040	0,846	0,405	0,006	0,023	1,389	0,176	-0,003	0,023	-0,737	0,467
-5	0,007	0,026	1,382	0,178	0,001	0,020	0,353	0,726	0,008	0,040	1,034	0,310	0,005	0,028	1,022	0,315	-0,003	0,025	-0,729	0,472
-4	0,005	0,026	1,095	0,283	0,002	0,021	0,422	0,677	0,007	0,038	0,992	0,330	0,004	0,031	0,781	0,442	-0,004	0,028	-0,755	0,456
-3	0,003	0,021	0,741	0,465	0,004	0,021	0,984	0,334	0,007	0,039	0,963	0,344	0,002	0,027	0,364	0,718	-0,001	0,031	-0,196	0,846
-2	0,006	0,023	1,449	0,159	0,002	0,021	0,556	0,583	0,006	0,039	0,789	0,437	0,001	0,031	0,119	0,906	-0,005	0,034	-0,740	0,465
-1	0,008	0,022	**2,042**	**0,051***	0,004	0,025	0,919	0,366	0,010	0,043	1,275	0,213	0,001	0,033	0,188	0,852	0,001	0,045	0,173	0,864
0	0,011	0,031	**1,801**	**0,083***	-0,004	0,037	-0,494	0,625	0,011	0,054	1,068	0,294	-0,002	0,051	-0,196	0,846	0,007	0,048	0,743	0,463
1	0,004	0,040	0,577	0,569	-0,002	0,046	-0,189	0,852	0,005	0,056	0,483	0,633	-0,001	0,050	-0,057	0,955	0,013	0,055	1,354	0,186
2	0,005	0,039	0,638	0,529	-0,003	0,049	-0,277	0,784	0,005	0,056	0,530	0,601	0,001	0,049	0,114	0,910	0,016	0,054	1,612	0,118
3	0,005	0,039	0,649	0,522	-0,002	0,051	-0,228	0,821	0,003	0,053	0,301	0,766	0,000	0,050	-0,031	0,975	0,010	0,057	0,952	0,349
4	0,005	0,040	0,648	0,523	0,001	0,047	0,068	0,946	0,007	0,054	0,720	0,477	-0,002	0,047	-0,185	0,854	0,008	0,061	0,699	0,490
5	0,003	0,044	0,396	0,695	0,005	0,046	0,533	0,598	0,006	0,057	0,564	0,577	-0,001	0,049	-0,076	0,940	0,006	0,062	0,575	0,570
6	0,002	0,044	0,249	0,805	0,007	0,043	0,863	0,396	0,007	0,061	0,603	0,551	0,002	0,049	0,255	0,801	0,005	0,063	0,446	0,659
7	0,002	0,042	0,239	0,813	0,009	0,045	1,027	0,313	0,006	0,060	0,543	0,591	0,000	0,056	-0,008	0,993	0,007	0,067	0,585	0,563
8	0,004	0,043	0,540	0,594	0,008	0,046	0,964	0,344	0,003	0,062	0,275	0,786	-0,003	0,056	-0,267	0,791	0,006	0,069	0,481	0,634
9	0,006	0,045	0,758	0,455	0,010	0,048	1,092	0,285	-0,001	0,061	-0,074	0,942	-0,002	0,055	-0,223	0,825	0,006	0,070	0,509	0,614
10	0,006	0,047	0,727	0,474	0,010	0,048	1,112	0,276	-0,002	0,062	-0,144	0,887	-0,006	0,055	-0,578	0,568	0,004	0,070	0,300	0,766

*, **, *** are statistically significant at levels of 10%, 5% and 1%, respectively.

5. Conclusions

In order to ensure that the rational behavior required for sustainable economic development can be achieved in financial markets, all information that investors use in the decision-making process must be accurate, true and fair. Any financial or non-financial information prepared by the companies and made available to the related parties affects financial markets and investors' decisions directly or indirectly. In particular, the information on the financial statements prepared by the companies are the main factors that play a key role in investment decisions and the efficiencies of the financial markets. Therefore, financial statements need to be audited and approved by an independent entity to ensure whether they are true, accurate and fair or not. Today, audit institutions fulfil this task by independent auditors.

The audit report is one of the significant outputs of the audit process. In this paper, we have analyzed the audit report effects on stock markets and investors' decisions in Turkey and Germany. For this purpose, abnormal returns were calculated in pre and post ten days periods for the audit report disclosure date, case study analysis has been used to test whether abnormal returns are statistically significant or not. According to the findings, it can be said that audit reports have an influence in both markets but in Turkey, the effects last longer than Germany.

According to the results, there is a "re-active" investor profile against the audit reports' announcement in Turkey. Positive and negative abnormal returns are associated with systematic and non-systematic risks. So, it is possible to say that the increase in systematic risks has a negative effect on investors, especially after 2015 in Turkey stock market. In addition to the systematic risks, because of the low level of financial literacy and the importance of the audit have not been fully understood, there are some contradictory results to theoretical expectations. Therefore, the factors underlying irrational behaviors can be analyzed in further studies.

When the results of Germany compared with the results of Turkey, it is observed that the effect of the audit reports on financial market in Germany lasts shorter than Turkey and it is seen that the audit report announcements are reflected in the stock prices within a few days. This shows that there is a more efficient stock market in Germany than Turkey. The fact that there are statistically significant results in cumulative abnormal returns only in 2014, supports this result.

The audit report announcement dates of the companies included in the analysis in Germany were obtained from the financial calendar on the website of each company. Although the financial calendar of each company differs from one another, the audit report announcement date of each company is determined in advance and announced to the public. This increases transparency in the market and enables investors to reach information at the same time. Developing a similar practice in Turkey may increase market efficiency and rationality of investors' decisions.

From the obtained findings, it is possible to say that Turkish stock market is not even semi-strong form efficient as previous studies showed and German stock market is more efficient than Turkish market. Investigating the differences between the companies and the sectors, analyzing the factors which affect the returns in addition to the audit report and expanding the scope of the study with more stock markets and companies could be research topics in further studies.

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Extended Summary

The Effect of Annual Independent Audit Reports on Stock Market Performance: Evidence from Turkey and Germany

In today's world, innovations in the field of industry, technological and logistical developments are destroying the borders of the countries. Taking an economic decision is becoming more complicated and difficult in today's global world. The accuracy and reliability of information related with companies have become more important for individual and institutional investors. The independent auditing firms evaluate the financial information of the enterprises whether they include any problems, irregularities, errors and frauds according to predetermined criteria, and presents the result to the use of the third parties.

In financial markets, the disclosed financial statements' reliability of a certain level confirmed by an independent body makes independent audit reports important for investors. Existing and potential investors benefit from audit reports in their decisions. This paper aims to clarify the relationship between financial markets and independent auditing, and the effect of the announcement of an audit report on stock prices and the perception of investors to audit reports in Germany and Turkey. For this purpose, the last five years' independent audit reports and stock price changes of listed companies were examined to understand whether there is any abnormal return before and after the announcements of audit reports.

Impact of accounting and auditing standards and audit reports on financial markets, stock returns, and cost of capitals and the investor's perception of audit reports have been analyzed by many researchers in different markets. Semba (2003), compares the International Accounting Standards with Chinese-GAAP in determining the stock prices in Shanghai Stock Exchange and as a result, and concludes that the financial information prepared by Chiese-GAAP is more related to stock prices. Aygoren and Uyar (2007) analyze the impact of audit opinions on stock returns and the reaction of the market to the audit opinions in Istanbul Stock Exchange (ISE) with event study analysis. For this purpose, they investigate randomly selected 101 listed companies' 2004 and 2005 audit reports. According to their findings, they state that unqualified and qualified audit opinions provide different information to investors and they conclude that the ISE cannot be classified as a semi-strong form efficient market. Ittonen (2009), investigates the abnormal returns volatility of stocks and changes in systematic risk at the announcement dates of audit reports. As a result of the empirical study conducted on the enterprises in the Russell 3000 index, it was stated that there was an increase in the volatility and systematic risk after the announcement of audit reports, and this increase in volatility and changes in systematic risk have influenced the abnormal returns. Kara (2015) investigates the effect of audit opinions on the stock returns of 88 non-financial companies listed on ISE between the 2009-2014 periods. Regression method was used in the analyses and the author emphasizes that ISE cannot be classified as efficient market even a semi-strong form.

Event Study Analysis conducted in the study to determine whether an independent audit report announcement causes an "abnormal behavior" in the stock price. Each announcement assumed as an event and (-10+10) days of each event accepted as an event window. Starting from 10 days before the event date for 21 days in total, AR and CAR values calculated with the market model for the last five years (2013-2018).

Within the scope of study, the stocks listed in XU100 and DAX30 were analyzed over the last five years. The auditor's opinions in the audit reports, the announcement dates of the audit reports, the daily stock prices and the daily closing prices of XU100 and DAX30 are used. The market data, audit reports and announcement dates for the stocks listed in XU100 were gathered from Public Disclosure Platform (KAP) and the audit reports and announcement dates for the stocks listed in DAX30 were gathered from websites of each company. The daily market data for the stocks and the index were obtained from Bloomberg Data Terminal.

There are three hypotheses generated in the analyses. The first hypothesis (H1) is that the average abnormal returns and the cumulative average abnormal returns equal to zero. The second hypothesis (H2) is that the average abnormal returns and the cumulative average abnormal return of stocks which have an "unqualified" audit opinion equal to zero. And the third hypothesis (H3) is that the average abnormal returns and the cumulative average abnormal returns of stocks which have an audit opinion other than "unqualified" equal to zero.

Actual returns of each stocks are calculated with the $R(i,t)=[(P(i,t)-P(i,(t-1))/P(i,(t-1)]$ $R(i,t)$: daily return of stock "i" at time "t"; $P(i,t)$: the daily closing price of stock "i" at time "t" and $P(i,(t-1)$: the daily closing price of stock "i" at time "t-1" equation. In order to calculate the expected returns the following basic market model was used. $\check{R}_(i,t)=\alpha_i+\beta_i\times R_(m,t)+\varepsilon_{it}$ $\check{R}_(i,t)$: expected return of stock "i" at time "t"; α_i: alpha value of stock "i"; β_i: sys-

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tematic risk value of stock "i"; $R_{(m,t)}$: daily return of market at time "t" and ε_it: error term. After calculating the expected returns, AR values calculated with subtracting the expected returns from the actual returns.

According to the findings, there are statistically significant results in both markets. It means that, independent audit reports have an influence in both markets but the effects in Turkey last longer than in German. The positive and negative abnormal returns are associated with systematic and non-systematic risks. So, it is possible to say that the increase in systematic risks has a negative effect on investors, especially after 2015 in Turkey stock market. When the results of Germany examined, it is seen that the audit report announcements are reflected in the stock prices within a few days. This shows that there is a more efficient stock market in Germany than Turkey. The fact that there are statistically significant results in cumulative abnormal returns only in 2014, supports this result.