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AUDIT REPORT TIMELINESS: EVIDENCE FROM TURKEY

DENETİM RAPOR ZAMANLILIĞI: TÜRKİYE ÖRNEĞİ

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Abstract

In this study, factors affecting audit report timeliness are analyzed. After the literature review, non-parametric statistical analysis is performed on the 2020 year-end reports of 509 enterprises in the BIST index. Results gathered from this analysis show that the scope of the audit (solo or consolidated), audit firm type (big four or other audit firms), audit opinion, assest size (exceeding 10,000 million TL), sector in which the company operates are determinants of audit report timeliness. Despite these, number of key audit matters do not have significant impact on audit report timeliness.

Audit report timeliness is not an area that has never been studied before in the academic literature. Although there are very few academic studies on the subject in the national literature, there are some studies in the international literature. This study contributes to the literature in two aspects. First, unlike previous studies, key audit matters are included in the analysis as an independent variable that can affect audit report timeliness. Second, an analysis is carried out by using non-parametric statistical methods instead of regression analysis used in other studies. To the best knowledge, there is no study in the literature that has these features.

Keywords: Audit, audit report, audit report timeliness, non-parametric tests

JEL Classification: M40, M42, M49

Öz

Bu çalışmada denetim rapor zamanlılığını etkileyen faktörler incelenmektedir. Literatür taramasını takiben BİST endeksindeki 509 firmanın 2020 yılsonu raporları üzerinde parametrik olmayan istatistiksel yöntemlerle analiz gerçekleştirilmiştir. Yapılan analizlerden elde edilen sonuçlar, denetimin kapsamı (solo veya konsolide), denetim firması türü (dört büyük veya diğer denetim firmaları), denetim görüşü, aktif büyüklüğü (10.000 milyon TL'yi aşan), şirketin faaliyet gösterdiği sektörün denetim rapor zamanlılığının belirleyicileri olduğunu göstermektedir. Buna karşın, kilit denetim konularının sayısının denetim rapor zamanlılığı üzerinde anlamlı bir etkisi bulunmamaktadır.

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Denetim rapor zamanlılığı akademik literatürde daha önce hiç üzerinde çalışma yapılmamış bir alan değildir. Ulusal literatürde konuyla ilgili çok az sayıda akademik çalışma olmasına karşın, uluslararası literatürdeki çalışmalar oldukça fazladır. Bu çalışma iki açıdan literatüre katkı sağlamaktadır. İlk olarak, daha önceki çalışmalardan farklı olarak, kilit denetim konuları denetim rapor zamanlılığına etki edebilecek bir bağımsız değişken olarak analize dahil edilmiştir. İkinci olarak ise bu çalışmada, geçmişte yapılan çalışmalardan farklı olarak diğer çalışmalarda faydalanılan regresyon analizi yerine parametrik olmayan istatistiksel yöntemlerden faydalanmak suretiyle bir analiz gerçekleştirilmiştir. En iyi bilgiye dayanarak, literatürde sayılan bu iki özelliği taşıyan bir çalışma bulunmamaktadır.

Anahtar Kelimeler: Denetim, denetim raporu, denetim rapor zamanlılığı, parametrik olmayan testler
JEL Sınıflandırılması: M40, M42, M49

1. Introduction

Audit, as an assurance service, provides useful and timely information to the stakeholders who need financial and non-financial information. Audit report timeliness is a popular concept among the researchers and a wide variety of conclusions are obtained from the studies on the determinants for report timeliness. The objective of this study is to identify the determinants of the audit report timeliness in Turkey.

In the first part of the study, the results of the different studies in literature are examined and potential determinants of the audit report timeliness are discussed. After the literature review part, a statistical model is used to analyze 2020 year-end reports of 509 enterprises in the BIST index companies by receiving from the Public Disclosure Platform. The last section is the conclusion part which lists the findings and compares the results with others' conclusions.

2. Literature Review

Studies in the literature regarding the timeliness of audit reports are given below. Although there are many studies in the international literature on the subject, it is seen that the studies carried out in the national literature are extremely limited. However, there is no study taking into consideration the impact of key audit matters on the timeliness of audit reports. In this respect, this study differs from other studies in the literature. Although there are some studies on the timeliness of financial reporting in the national literature, they are excluded from the scope of this study.

Lee & Yahng (2008) analyzed auditor-related factors affecting the delay in audit reports. In their analysis, a negative relationship has been determined between the non-audit fees paid to the auditors, the fact that the audit firm was one of the big four companies, the qualified audit opinion and the delay in the audit report. Besides, no relationship can be found between the auditor's term of office and the abnormal audit fees paid to the auditors and audit report delay. In addition, it is concluded that there is a negative relationship between tax services, abnormal audit hours, internal control systems design and the audit report delay time.

Habib & Bhuiyan (2011) analyzed the relationship between audit firms' sector expertise and the delay times of audit reports. In their examination, it is determined that the delay times of the audit reports are shorter in the enterprises audited by industry expert auditors. However, it is concluded that the implementation of International Financial Reporting Standards increased the audit report delay times for auditors other than industry expert auditors.

Nelson & Shukeri (2011) examined the relation between audit report timeliness and corporate governance features. Data from 703 publicly traded Malaysian companies are selected as sample in the study. In their analysis, it has been determined that there is a negative relationship between profitability, audit committee size, audit opinion, type of auditor and timeliness of audit reports. However, it is concluded that there is no relationship between the parameters of the audit committee members' expertise, audit committee meetings held and board independence.

Alkhatib & Marji (2012) conducted a study on the factors affecting the up-to-datedness of audit reports. In the study, the data of 137 public companies operating in Jordan are selected as sample. In their analysis, it is determined that there is a negative relationship between asset size, profitability, type of the audit company and report timeliness for the service sector. The correlations are found insignificant. However, a positive and significant relationship between leverage and timeliness of audit reports are identified.

Apadore & Noor (2013) analyzed the relation between corporate governance characteristics and audit report delays. It is determined that the audit reports take the shortest 26 days, the longest 148 days and an average of 100 days. It is identified that there is a significant relationship between ownership structure, profitability, business size, audit committee size and audit report delays. In contrast, it is found that there is an insignificant relationship between the types of auditors, audit committee independence, specialization of audit committee members, number of meetings and audit report delays.

Yücel, Ertan & Saraç (2013) examined the relationship between the corporate governance application levels of enterprises and the delay times of audit reports. In their study, it is concluded that the companies' presence in the corporate governance index negatively affects the audit report lag. On the other hand, the number of departments they report on, inclusion in the industrial index, number of subsidiaries and big four audit firms positively affect the audit report periods.

Ertan, Yücel & Saraç (2013) analyzed the factors affecting the audit duration of publicly traded companies. For this purpose, the data of the companies that are traded in the BIST index between 2006-2011 and that had the obligation to prepare consolidated financial statements are selected as sample. It is determined that the size of the company, leverage, net income, unqualified audit opinion and preparing the business report during the busy period negatively affected audit report lag.

Ahmed & Che-Ahmad (2016) analyzed effects of corporate governance features on audit report delays of banks. The study is carried out using the data of 14 banks and it is determined that the fact that the audit firm is one of the big four companies significantly affected the audit report timeliness.

Also, it has been determined that there is a negative relationship between board size, number of board meetings held, female members of the board and audit report timeliness. However, no relationship is identified between the size of the risk management and audit committees, specializations of board members and audit report timeliness.

Hassan (2016) investigated the factors affecting the delay in the audit report of publicly traded companies using agency theory. In the study, which is carried out using the data of 46 companies, it is concluded that business size, board size, complexity of business activities, the scattered ownership structure, the existence of the audit committees and audit firm status affected audit report delay.

Abernathy et al. (2017) conducted a literature review on the factors affecting the timeliness of audit reports. In their study, these factors are divided into two main groups as audit-related and company-specific factors, and within this framework, the results of the studies in the literature are included and suggestions for future academic studies are made.

Hashim (2017) investigated the relationship between the ownership structures of enterprises and the timeliness of audit reports. In the study, the data of 288 companies whose stocks are traded in the stock exchange are selected as sample. In the analysis made, it is concluded that the managerial ownership of the senior managers is longer than the delay time of the audit report. Also, significant negative relationships are identified between dedicated ownership, transient ownership, board diligence, company size and audit report lag. In addition, there is no correlation between foreign ownership and the delay in the audit report, while the existence of a similar relationship is found between temporary ownership and the delay in the audit report.

Habib et al. (2018) examined the reasons for the delay in audit reports, taking into account the factors related to auditing, corporate governance and the company. In their analysis, they determined the factors that reduced audit report delays as; the audit firm being one of the big four companies, audit committee has at least one member who has financial expertise, ownership concentration, non-audit services, auditor tenure and firm profitability. On the other hand, it is determined that the complexity of the audited firm, audit opinion and audit season variables had positive effects on the delay times of audit reports.

Harindahyani & Harindahyani (2018) conducted a study on the factors affecting the timeliness of audit reports by using the data of the companies operating in Indonesia for the period 2013-2016. In their research, a significant relationship is determined between audit report timeliness and business performance, type of auditor, auditor opinion, audit committee size, audit committee meetings held and board independence. In addition, it is concluded that there is no relationship between competence and tenure of audit committee members and audit report timeliness.

Mutiara, Zakaria & Anggraini (2018) analyzed the effects of business size, profit level, solvency and audit company size on timeliness of the audit reports. In their study, which is conducted on infrastructure, public service and transportation enterprises, it is determined that the size and profitability of the enterprise had negatively affected audit report delays. Also, it is concluded that solvency and audit firm size did not have a significant effect.

Handoko, Deniswara & Nathania (2019) analyzed the factors affecting audit report delays in publicly traded companies operating in the food and beverage sub-sector. As a result of the study, it is determined that financial leverage affected the audit report delay. On the other hand, no significant relationship is found between profitability, audit opinion and reputation of public accounting firms and audit report delay.

Güleç & Mozeikçi (2020) conducted a study on the factors affecting the delay in audit reports. In their study, 123 businesses operating in BIST index are selected as a sample. In their analysis, it is determined that there is a significant relationship between the size of the firm, company profitability, duality and sectoral variables and the delay of the audit reports. On the other hand, it is concluded that the financial leverage ratio cannot affect the audit report delay.

Lisa & Hendra (2020) conducted research on businesses operating in the manufacturing sector for the factors affecting the delay of audit reports. In their study, 3-year data of 69 companies are selected as sample. As a result of the analysis, it is determined that there is a positive and significant relationship between auditor change, audit mandate and company size audit report delay. Besides, it is concluded that the profitability variable have a negative effect on the audit report delay.

Egbunike & Asuzu (2020) examined whether there is a relationship between the fees paid to audit firms and the delay in the audit report. In their study, the data of the companies operating in the manufacturing sector are selected as sample. As a result of the study, it is determined that audit fees negatively affected the delay of the audit report.

Omer, Aljaaidi & Al-Moataz (2020) investigated the effect of combined execution of the risk management function in the audit committee on audit report timeliness in publicly traded companies operating in the manufacturing sector. In their study, it is concluded that financial leverage and company age positively affected audit report lag. Whereas ROA have a negative effect on audit report lag.

Borgi, Ghardallou & AlZeer (2021) conducted a study about financial reporting timeliness of 119 publicly traded businesses in Saudi Arabia. In their study, the effect of the demographic characteristics of the general managers of the companies on the timing of the financial reports are analyzed. It is determined that the reporting times of general managers who have been in office for a longer period of time are shorter, there is a negative relation between the timely preparation of financial reports and the accounting and financial expertise of the general manager, and there is a positive relationship between general manager sociability and timely reporting. Besides, audit opinion, audit fees and company size have negative effects and financial leverage have positive effect on audit report lag.

Bhattarai (2021) conducted a study on the factors affecting the delay in audit reports in commercial banks. In the analysis, the audit report delay is the dependent variable; profitability, bank size, bank age, leverage and board size are determined as independent variables. It is concluded that leverage and board size are the main factors affecting the delay in audit reports. Their effects are in positive direction.

Raweh et al. (2021) analyzed the impact of audit committee members' industry expertise on audit report timeliness. They concluded that audit committee industry expertise, board size, ownership concentration and ROA negatively affected audit report lag. Besides, the size of the audit committee and audit fees have positive effects.

In Table 1, dependent and independent variables (including the control variables) and results (significant associations) of the prior literature are summarized.

Table 1: Summary of the Studies in Literature

Study	Dependent Variable	Independent Variables	Results
Lee &Yahng (2008)	Audit report lag	• Abnormal audit fees • Abnormal audit hours • Auditor tenure • Big4 auditors • Client firm size • Extraordinary items • Fiscal year • Leverage • Loss (reporting negative earnings) • Listed on stock exchange • Non-audit service fees • Number of subsidiaries • Ownership concentration • Proportion of inventory and receivables to total assets • Provision of tax services • Services relating to the design of internal control systems • ROA • Type of audit opinion	• Abnormal audit hours (-) • Big4 auditors (-) • Non-audit service fees (-) • Provision of tax services (-) • Services relating to the design of internal control systems (-) • Type of audit opinion (Unqualified) (-)
Habib & Bhuiyan (2011)	Audit report lag	• Company size • Financial condition • Financial year-end • IFRS mandatory adoption • Industry • Industry expertise of the auditors • Loss • Non-audit service fees • Ownership concentration • Subsidiaries • Tenure	• IFRS mandatory adoption (+) • Industry expertise of the auditors (-)

Study	Dependent Variable	Independent Variables	Results
Nelson & Shukeri (2011)	Audit report timeliness	• Audit committee meetings • Audit committee members' qualifications • Auditor type • Audit opinion • Board independence • Profitability • Size of the audit committee	• Audit opinion (-) • Auditor type (-) • Profitability (-) • Size of the audit committee (-)
Alkhatib & Marji (2012)	Audit report delay	• Audit firm type • Company size • Industry • Leverage • Profitability ratio	• Leverage (+)
Apadore & Noor (2013)	Audit report lag	• Audit committee meetings • Expertise of the audit committee members • Independence of the audit committee • Independence of the board • Internal audit investment • Ownership concentration • Organizational size • Profitability • Size of the audit committee • Types of auditors	• Organizational size (-) • Ownership concentration (+) • Profitability (-) • Size of the audit committee (-)
Ertan, Yücel &Saraç (2013)	Audit report lag	• Auditor rotation • Big4 audit firm • Compliance with corporate governance principles • Leverage • Liquidity ratio • Net income/ loss • Number of subsidiaries • Number of reports by departments • Inclusion of the business in the industrial index • Preparing the business report during the busy period • Total assets • Unqualified audit opinion	• Leverage (-) • Net income (-) • Preparing the business report during the busy period (-) • Total assets (-) • Unqualified audit opinion (-)

Study	Dependent Variable	Independent Variables	Results
Yücel, Ertan & Saraç (2013)	Audit report lag	• Big4 audit firm • Inclusion of the business in the industrial index • Inclusion of the business in the corporate governance index • Leverage • Net income/ loss • Number of subsidiaries • Number of reports by departments • Total assets • Unqualified audit opinion	• Big4 audit firm (+) • Inclusion of the business in the industrial index (+) • Inclusion of the business in the corporate governance index (-) • Number of subsidiaries (+) • Number of reports by departments (+)
Ahmed & Che-Ahmad (2016)	Audit report lag	• Audit quality • Audit committee size • Board committees • Board expertise • Board meeting frequency • Board size • Female members on the board committee • Loss • Risk management committee size • Total assets	• Audit quality (-) • Board size (-) • Board meeting frequency (-) • Female members on the board committee (-)
Hassan (2016)	Audit report lag	• Audit complexity • Audit firm status • Board size • CEO duality • Corporate size • Existence of audit committee • Ownership dispersion • Ownership concentration	• Audit complexity (-) • Audit firm status (+) • Board size (+) • Corporate size (-) • Existence of audit committee (-) • Ownership dispersion (-)
Hashim (2017)	Audit report lag	• Board diligence • Board expertise • Company size • Dedicated ownership • Duality of CEO • Foreign ownership • Independence of the board • Managerial ownership • Transient ownership	• Board diligence (-) • Company size (-) • Dedicated ownership (-) • Managerial ownership (+) • Transient ownership (-)

Study	Dependent Variable	Independent Variables	Results
Habib et al. (2018)	Audit report lag	• Audit opinion • Audit season • Auditor tenure • Big4 affiliation • Existence of a financial expert member on an audit committee • Firm complexity • Non-audit services • Ownership concentration • Profitability	• Audit opinion (+) • Audit season (+) • Auditor tenure (-) • Big4 affiliation (-) • Existence of a financial expert member on an audit committee (-) • Firm complexity (+) • Non-audit services (-) • Ownership concentration (-) • Profitability (-)
• Harindahyani & Harindahyani (2018)	Audit report timeliness	• Audit committee qualification • Audit committee size • Audit opinion • Audit tenure • Auditor type • Firm performance • Frequency of audit committee meetings • Independence of the board	• Audit committee size (-) • Audit opinion (-) • Auditor type (-) • Firm performance (-) • Frequency of audit committee meetings (-) • Independence of the board (+)
Mutiara, Zakaria & Anggraini (2018)	Audit report lag	• Company size • CPA firm size • Profitability • Solvency	• Company size (-) • Profitability (-)
Handoko, Deniswara & Nathaniz (2019)	Audit report lag	• Audit firm reputation • Audit opinion • Leverage • Profitability	• Leverage (-)
Güleç & Mozeikçi (2020)	Audit report lag	• CEO Duality • Industry (financial – non-financial) • Leverage • Profitability • Total assets	• CEO Duality (-) • Industry (financial) (+) • Profitability (-) • Total assets (-)
Lisa & Hendra (2020)	Audit report lag	• Auditor switching • Profitability (ROA) • Size of the company • Tenure audit	• Auditor switching (+) • Profitability (ROA) (-) • Size of the company (+) • Tenure audit (+)

Study	Dependent Variable	Independent Variables	Results
Egbunike & Asuzu (2020)	Audit report lag	• Audit fees	No statistically significant relationship identified.
Omer, Aljaaidi & Al-Moataz (2020)	Audit report lag	• Audit committee effectiveness • Board of directors effectiveness • Combination of risk management and audit committees' functions • Company age • Company size • Leverage • ROA	• Company age (+) • Leverage (+) • ROA (-)
Borgi, Ghardallou & AlZeer (2021)	Financial reporting timeliness	• Audit fees • Audit opinion • Big4 audit firm • CEO tenure • CEO accounting financial expertise • CEO sociability • CEO social media • Company size • Company age • Leverage • ROE	• Audit fees (-) • Audit opinion (-) • CEO tenure (-) • CEO accounting financial expertise (-) • CEO sociability (-) • Company size (-) • Leverage (+)
Raweh et al. (2021)	Audit report timeliness	• Audit committee financial expertise • Audit committee industry expertise • Audit committee size • Audit committee independence • Audit committee meetings • Audit fees • Auditor tenure • Big4 audit firm • Board size • Firm size • Fixed effects of industry • Ownership concentration • ROA • Year	• Audit committee industry expertise (-) • Audit committee size (+) • Audit fees (+) • Board size (-) • Ownership concentration (-) • ROA (-)

Study	Dependent Variable	Independent Variables	Results
Bhattarai (2021)	Audit report lag	• Company age • Company size • Size of the board • Financial leverage • Profitability	• Size of the board (+) • Financial leverage (+)

In the next sections, methodology and findings of the analysis are explained. Unlike the prior studies a different methodology is used other than the regression analysis to identify the effects of factors on audit report timeliness. The results are obtained by using statistical analysis and compared with the results of the prior academic studies.

3. Methodology

As discussed under the Literature Review section, both in national and international literature regression analysis are used in studies on audit report timeliness. Unlike prior studies, in this study implements an alternative statistical method in identifying the factors affecting audit report timeliness in Turkey.

3.1. Data and Variables

The report timeliness is a concept that should be discussed in a broad perspective. First, it is slightly different from the capacity to be used in audit reporting, but these two concepts are still very relevant. Reporting is the final process for audit engagements. Some other steps need to be performed before the report is distributed to the stakeholders. Therefore, a comprehensive view is needed to understand all the processes and to analyze the capacity used for a particular audit engagement.

In all academic studies summarized in the Literature Review section, report timeliness is taken as number of the days from the closing of the financial year until the report distributed. In our study, the same calculation is considered to determine the days. For statistical purposes, the numbers are converted into the yearly base by divided each number to 365. At that point, conceptually, the distinction between the report timeliness and audit capacity performed is highly important. Although the calculation made to determine audit timeliness is very popular among the studies, the major determinant of the timeliness can be thought as the time spent for the audit engagement. The time spent for an audit engagement can be calculated as defining how many full-time employees' man-days are allocated to a particular audit engagement. This is not only limited with the efforts paid after the financial year is closed, but also closely related with the efforts made before the year-end. Besides, the number of the days is not a representation for the man-days. The preferences or the capacity of the audit company may also have an effect on the report timeliness through man-days. Moreover, this is not an issue that can only be considered in audit firm level, since the abilities of the audit teams or individual auditors normally differ. Thus, although it is not easy to determine all these effects since the data is not publicly shared, an approximation is tried to be performed by adding the audit companies into the statistical model into two categories, which are Big4 and others. In grouping the audit companies with this respect, it is assumed that the methodologies or standards used by the Big4 companies are close to each other.

One another potential effect may arise from the report type. It is quite normal to expect consolidated reports to be more time-consuming than the solo ones. In practice, for most companies, issue date of the solo reports and the consolidated reports are identical, showing intention of aligning the report timing for both types of reports.

Audit opinion can be a determinant for the audit report timing. It may be expected that the qualified audit opinions can require more deepening in audit engagements than the reports finalized with an unqualified audit opinion.

Another variable that may affect audit report lag is the asset size. It can be expected that as the asset size is growing, the complexity of the financial accounts is increasing. Thus, the audit procedures to be used during the engagements can be increased.

Sectoral differences reflect to the transactions and the booking and reporting procedures. Thus, for determining the independent variables for audit report timeliness, considering sectors can be beneficial for purposes of the study.

Key audit matters are the issues on which independent auditors put the most effort (Çakalı, 2021: 60). The concept of key audit matters is very new and the number of these issues can be an indicator for the complexity of the audit engagement. Thus, for the audit engagements with high number of key audit matters, it may be expected audit report timeliness to differ. Considering the literature review, this is the first study analyzing the relation between the number of key audit matters and audit report timeliness.

More items may be added to a list of variables which influence audit report timeliness but for most of them having the data may require additional efforts: number of years in the same client, technology using by the company in booking or reporting, experience of the finance team in the audited company, complexity of the accounting system, number of transactions, etc. By leaving the rest of the list to the further studies, the variables selected in this study are summarized in Table 2.

Table 2: Variables

Dependent	**Independent**
Report Timeliness: Days from Year-end	Auditor: Big4 or Others
	Scope: Consolidated or Solo
	Audit Opinion: Unqualified or Qualified
	Asset Size
	Sector
	Number of key audit matters

The data is received from the Public Disclosure Platform and total 509 annual reports in 2020 are analyzed. For statistical purposes, the data is grouped. The number of observations in each data group is summarized in Table 3.

Table 3: Number of Observations

Variable	Group	Number of Observations
Report Timeliness	No group, numerical value converted into a year basis	509
Scope	Consolidated	270
	Solo	239
Auditor	Big4	283
	Others	226
Audit Opinion	Unqualified	442
	Qualified	67
Asset Size (mio TL)	1.000 and below	249
	1.000 to 10.000	176
	10.000 to 100.000	61
	100.000 and above	23
Sector	Construction	11
	Electricity, gas and water	11
	Finance	234
	Manufacturing	176
	Mining	5
	Technology	20
	Transportation, storage, communication	8
	Wholesale and retail trade	29
	Others	15
Number of key audit matters	0	30
	1	248
	2	144
	3	62
	4 or more	25

As listed in Table 3, asset size, sector and number of key audit matters are also categorized into sub-groups.

3.2. Design

As discussed in the Literature Review section, all studies performed on report timeliness are based on the regression analysis. Considering the purpose of the study, the results of the regression analysis and coefficients may not provide more information than the sign of the relationship. Commenting on the magnitude of the coefficients can provide practically insignificant results. As an alternative solution, this study aims to analyze the relationship between dependent variable and independent variables by comparing the mean/median values. In this way, a chance to confirm the results of the regression analysis will be gotten.

Before deciding on the statistical method, normality tests are performed. Depending on the results of the normality test, proper statistical models are used to analyze the differences in sub-categories.

Kruskal-Wallis and Mann Whitney U tests are performed to understand if the difference between the sub-groups exists. A very general null hypothesis for the tests is H_0: Dependent variable is not significantly different from the categories of the independent variable.

During the analysis, SPSS software is used, and the results are aggregated by Excel software.

4. Findings

Test results are aggregated in Table 4.

Table 4: Test Results

Variable/Group	**Results**							
Scope	C	S						
Consolidated (C)								
Solo (S)	.000							
Auditor	B4	O						
Big4 (B4)								
Others (O)	.000							
Audit Opinion	U	Q						
Unqualified (U)								
Qualified (Q)	.034							
Asset Size (,000)	1	10	100	1000				
1,000 and below (1)								
1,000 to 10,000 (10)	**.775**							
10,000 to 100,000 (100)	.009	.013						
100,000 and above (1000)	.000	.000	.003					
Sector (.000)	C	E	F	Ma	M	Te	T	W
Construction (C)								
Electricity, gas and water (E)	.013							
Finance (F)	.000	**.708**						
Manufacturing (Ma)	.011	**.087**	.000					
Mining (M)	**.221**	**.115**	.029	**.375**				
Technology (Te)	.004	**.951**	**.358**	.029	**.071**			
Transportation, storage, com. (T)	**.152**	**.351**	**.116**	**.959**	**.622**	**.281**		
Wholesale and retail trade (W)	.038	**.229**	.006	**.648**	**.273**	**.150**	**.842**	
Others (O)	**.610**	**.061**	.001	**.087**	**.497**	.023	**.325**	**.160**
Number of key audit matters (.038)	0	1	2	3	4			
0								
1	**.077**							
2	.007	.026						
3	**.078**	**.445**	**.492**					
4 or more (4)	.023	**.346**	**.901**	**.549**				

Considering the results listed in the table, the following comments are made for each independent variable comparing with the dependent variable.

- Significance levels in variable comparison show that the report timeliness of the groups defined in this study are different. In all different aspects, i.e., scope, auditor, audit opinion, asset size, sector and number of key audit matters, audit report timing differs. This implies that there are more than one different variable, which affect audit report timeliness. As discussed in Data and Variables section, some other factors affecting the audit report timeliness can be listed.
- The result of the comparison made between the audit scope, namely solo-consolidated differentiation, shows that the report type is one of the determinants of the report timeliness. Although, for a particular company, tendency for alignment of the solo and consolidated audit reports' timing can be found in practice, the statistical result is as expected, considering the burden of the work required for solo and consolidated audit reports.
- The same is true for the other independent variable, auditor. The results show that there is a difference between Big4 audit firms and others in respect to report timeliness. This can be explained by the maturity or standardization of the methodologies applied by the audit companies.
- According to the results, the audit opinion makes difference in audit timeliness. As discussed in the first part of the study, this can cause from the need for extra efforts for the clients that their financial statements will be reported with a qualified audit opinion.
- Asset size is another independent variable, but the results show that up to 10,000 million TL, asset size cannot make a significant difference in report timeliness. After that threshold, it seems that depending on the asset size, audit report timeliness can differ.
- The sector that the audited company operated in is another independent variable. The results show that in most cases the audit report timeliness differs depending on the sector. Although the opposite is true for some comparisons, in most of them the sector makes difference in timing.
- The last variable, number of key audit matters, which is new in literature, results some inconsistent conclusions. According to the results of the analysis, for example, there is no significant difference between the reports with no key audit matters and reports with one or three key audit matters, while a significant difference is found if they consist of two or four key audit matters. A potential explanation for this situation can be the complexity or scope of each individual key audit matters, which are not included into the analysis. The result supports that a significant difference can be found in report timing comparing the number of key audit matters.

5. Conclusion and Discussion

The timeliness of the independent audit reports is extremely important so that the users of the reports, who benefit from the independent audit reports of the enterprises, can make accurate and timely decisions. There are a number of factors affecting audit report timeliness, and some academic studies in the international literature have focused on the effect of these factors on audit report timeliness.

This study is performed to explain the potential determinants of the report timeliness in audit procedures. In order to achieve this objective, hypothesis testing as a new statistical approach is applied as an alternative to the existing one, the regression analysis. The benefit of the regression analysis is the potential of explaining the signs of the relations between dependent and independent variables. This alternative study seeks the opportunities to validate the results from the preceding studies bringing a different approach to the research.

In the study, the 2020 year-end reports of 509 enterprises in the BIST index are analyzed. The audit reports of the said enterprises are reached through the Public Disclosure Platform and the required data are obtained with the content analysis method. Normality tests are performed to test whether the data meets the normal distribution conditions. Upon failure to meet the normal distribution conditions, relevant statistical analysis are made using non-parametric Kruskal-Wallis and Mann Whitney U tests.

The results obtained as a result of the analyzes made using the data obtained from 509 audit reports are given below:

- The scope of the audit work, to be solo or consolidated, results different report timeliness measurements between the groups. Thus, the scope can be considered as the determinant of report timeliness. The scope has not been discussed directly in the literature, but potential effects are considered indirectly through company size.
- Depending on auditor type, which is another grouping criteria, report timing medians also differ. Lee &Yahng (2008), Nelson & Shukeri (2011), Yucel, Ertan & Saraç (2013), Hassan (2016), Habib et al. (2018), Harindahyani & Harindahyani (2018) found significant relationship between the audit company and report timeliness, while Alkhatib & Marji (2012), Apadore & Noor (2013), Ertan, Yücel & Saraç (2013), Borgi, Ghardallou & AlZeer (2021) and Raweh et al. (2021) had been reporting no relation. Thus, our study supports the first group, which found significant relation.
- Our finding regarding the audit opinion, which represents a significant difference between the grouped data, supports Lee &Yahng (2008), Nelson & Shukeri (2011), Ertan, Yücel & Saraç (2013), Habib et al. (2018), Harindahyani & Harindahyani (2018), Borgi, Ghardallou & AlZeer (2021), while Handoko, Deniswara & Nathania (2019) and Yucel, Ertan & Saraç (2013) identified no significant relationship between the variables.
- As discussed before, until the asset size exceeds 10,000 million TL, the difference between the groups is not significant, while the difference between the groups after 10,000 million TL asset size has been reporting significant. This result cannot be found by using regression analysis, but at least it is known that the effect of the asset size on report timeliness is found significant in the studies of Apadore & Noor (2013), Ertan, Yücel & Saraç (2013), Hassan (2016), Hashim (2017), Mutiara, Zakaria & Anggraini (2018), Güleç & Mozeikçi (2020), Lisa & Hendra (2020), Borgi, Ghardallou & AlZeer (2021), Bhattarai (2021). Other studies, which do not identify any significant relationship between these variables are Lee &Yahng (2008), Habib & Bhuiyan (2011), Alkhatib & Marji (2012), Yucel, Ertan & Saraç (2013), Ahmed & Che-Ahmad (2016), Omer, Aljaaidi & Al-Moataz (2020), Raweh et al. (2021).

- Sector in which the auditee has been operating is detemined as another determinant of the audit report timeliness since the median values significantly differ between the groups. The result supports the findings of Güleç & Mozeikçi (2020), while Habib & Bhuiyan (2011) and Alkhatib & Marji (2012) had not been reporting any significant relations.
- Number of the key audit matters, which is new for literature, results different medians between the groups, but in commenting on the results consistency cannot be ensured. This may be an opportunity for researchers since the scope or complexity of the key audit matters can be taken into consideration in further studies.

Report timeliness is one of the most popular concepts among researchers and the results found in independent studies vary. Key audit matters, as a determinant of audit report timeliness, can be considered in further studies and alternative statistical techniques can be applied for contributing different aspects to the literature.

Author Contribution

CONTRIBUTION RATE	EXPLANATION	CONTRIBUTORS
Idea or Notion	Form the research idea or hypothesis	Gürol BALOĞLU Kaan Ramazan ÇAKALI
Literature Review	Review the literature required for the study	Gürol BALOĞLU Kaan Ramazan ÇAKALI
Research Design	Designing method, scale, and pattern for the study	Gürol BALOĞLU Kaan Ramazan ÇAKALI
Data Collection and Processing	Collecting, organizing, and reporting data	Gürol BALOĞLU Kaan Ramazan ÇAKALI
Discussion and Interpretation	Taking responsibility in evaluating and finalizing the findings	Gürol BALOĞLU Kaan Ramazan ÇAKALI

Conflict of Interest

The authors declared no potential conflicts of interest.

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