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DETERMINANTS OF THE TIMELINESS OF FINANCIAL REPORTING: EMPIRICAL EVIDENCE FROM TURKEY

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bstract: This study has two cardinal aims. The first aim is to determine the timeliness of financial reporting in Turkey. The second aim is to investigate the impact of firm specific factors such as profitability, size and other related factors such as sector, index and auditing firm on the timeliness of financial reporting of firms listed on Borsa Istanbul (BIST). This study employs a data set from 286 listed firms which operates in a range of industries on BIST for the year 2016. Descriptive analysis results reveal that 73% of the firms that prepare consolidated financial statements and 57% of the firms that prepare unconsolidated financial statements publish their financial reports earlier than the regulatory deadline. Estimation results of multivariate regression indicate that profitability, firm size, audit firm size and corporate governance index have a significant negative effect on the timeliness of financial reporting (reporting lag). In contrast, operating in manufacturing, services and technology sectors and listing in BIST100 index have a significant positive effect on the timeliness of reporting.

Keywords: *Timeliness, the timeliness of financial reporting, Borsa Istanbul.*

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FİNANSAL RAPORLAMANIN ZAMANINDA YAPILMASININ BELİRLEYİCİLERİ: TÜRKİYE'DEN AMPİRİK KANIT

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Öz: Bu çalışmanın iki temel amacı vardır. Birinci amacı, Türkiye'de finansal raporlamanın zamanlılığını belirlemektir. İkinci amacı ise, kârlılık, büyüklük gibi firmaya özgü faktörler ile sektör, endeks ve denetim firması gibi diğer faktörlerin Borsa İstanbul (BIST)'a kayıtlı olan işletmelerin finansal raporlarını yayımlama zamanına etkilerini araştırmaktır. Bu çalışmada, çeşitli sektörlerde faaliyet gösteren ve Borsa İstanbul'a kayıtlı 286 firmanın 2016 yılına ait verileri kullanılmıştır. Tanımlayıcı analiz sonuçlarına göre, konsolide finansal tablolar hazırlayan firmaların %73'ü ve konsolide olmayan finansal tablolar hazırlayan firmaların %57'si, finansal raporlarını yasal sürenin bitiminden önce yayımlamaktadır. Çok değişkenli regresyon sonuçlarına göre ise, firma kârlığı, firma büyüklüğü, denetim firmasının büyüklüğü ve kurumsal yönetim endeksi, finansal raporlama zamanlaması (raporlama gecikmesi) üzerinde istatiksel açıdan anlamlı ve negatif yönde bir etkiye sahiptir. Buna karşın, firmaların imalat, hizmet ve teknoloji sektörlerinde faaliyet göstermesi ile BIST 100 endeksinde listelenmesi, finansal raporlama zamanlaması üzerinde istatiksel açıdan anlamlı ve pozitif yönde bir etkiye sahiptir.

Anahtar Sözcükler: *Zamanında sunum, finansal raporlamanın zamanlılığı, Borsa İstanbul.*

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INTRODUCTION

The International Accounting Standards Board (IASB) state that "*If financial information is to be useful, it must be relevant and faithfully represents what it purports to represent. The usefulness of financial information is enhanced if it is comparable, verifiable, timely and understandable"* (Conceptual framework for financial Reporting, 2010). According to IASB (2010), timeliness is one of the qualitative characteristics that enhance the relevance of financial information. Timeliness improves transparency as well, which is a very important component for the quality of financial information. Timely disclosure of financial information is also a very important sign of good governance as it reflects managerial efficiency and effectiveness (Joshi, 2005). Timeliness is the presentation of financial information for its users when they need. Disclosing information in a timely manner enables stakeholders to make economic decision efficiently and improves the mobility of capital and facilities. Many scholars note that the timing of financial information announcements has a great influence on capital markets since it reacts around information releases (Beaver, 1968; Ball, Brown, 1968; Kinney, McDaniel, 1993; Givoly, Palmon, 1982; Bagnoli *et al*., 2002). Any delay in disclosing financial reports increases information asymmetry and creates agency conflict. Moreover, it produces uncertainty in making economic decision and leads to postpone transaction on shares, which in turn negatively affects market efficiency.

Capital markets in Turkey have been making rapid progress for the last two decades. Turkish capital markets have completed its harmonization process with its European counterparts and adjusted its regulatory framework. Encouraged by the strong economic growths and measures taken by Turkish government, the financial markets have started to attract international investors to Turkey. Therefore, high quality and timely financial information has become particularly important for Turkish capital markets. Recognizing the importance of timely disclosure of financial reports, Turkish regulatory authorizes have set time limitations for companies to issue audited financial statements and business reports to users.

Due to its importance for well-functioning capital markets, timely disclosure of financial information has been attracting the attention of many scholars. Various empirical studies about the timeliness of financial reporting have been conducting in many countries. Studies of timeliness in Turkey have been also increasing in recent years (Gülec, 2017; Tuan, 2016; Erer, Comert, 2014; Vuran, Abdioğlu, 2013; Ozkan *et al*., 2013; Aktas, Kargin, 2011; Dumlu, Saltoglu, 2011; Turel, 2010; Dogan *et al*., 2007). These studies focus on several firm-specific factors that influence reporting behavior of firms and document mixed results. Changes in economic dynamics and regulations over the years give valuable space to re-examine the timeliness of reporting and its determinants in Turkey, as an emerging economy. In addition, examining different factors give deeper insight to help clarify the determinants of the timeliness of

financial reporting. In this context, this study aims to investigate determinants of the timeliness for all companies listed on BIST by examining different factors, thereby contributing to the related literature. In accordance with this purpose, firstly, the timely reporting (reporting lag or delay) for all companies listed on BIST is examined for the year 2016. Secondly, the effects of company specific attributes that have been mostly and rarely referenced in the related literature (e.g. profitability, firm size, audit firm size and sector, being in CG Index and BIST100 Index) on the timeliness of financial reporting for companies listed on BIST are investigated. The hypotheses constructed for this study are examined using an annual data set which consists of all listed companies on BIST for the year 2016. Statistical analysis is carried out using the EViews 8.0 program.

The remained of the paper is organized as follows. Section 1 presents a review of the literature. Section 2 gives an overview of the legal and institutional requirements for financial reporting in Turkey. Section 3 formulates the research hypotheses. Section 4 provides research methodology. Section 5 reports the data analysis and empirical results. Section 6 presents conclusions, limitations and recommendations for further research.

1. LITERATURE REVIEW

Several studies in the literature have focused on various features of the timeliness of financial reporting. The pioneering studies regarding the timing earnings announcements and the relevance of earnings information are conducted in the late sixties by Beaver (1968) and Ball and Brown (1968). Beaver (1968) indicates that stock prices do react significantly around the report date. Ball and Brown (1968) show that about half of the information that released during the year is considered new information and effect stock prices. Brown and Kennelly (1972) find that financial reports that released quarterly are at least 30 % more useful to predict stock results that annual reports. This implies that the sooner financial information released the more likely effect on stock prices.

The relationship between the timeliness of financial reporting and the content of information is also examined by many researchers (Beaver, 1968; Givoly, Palmon, 1982; Bagnoli *et al.*, 2002; Sengupta, 2004; Graham *et al.*, 2005). They give evidence that firms or managers tend to delay announcement when accounting numbers contain bad news. Whereas when accounting numbers contain good news, firms or managers rush to disclose good news. Many scholars explain the relational behind the tendency to delay the disclosure of earnings from different perspectives. For example, Graham *et al.,* (2005) state that delaying in releasing bad news could give time to managers to investigate and interpret the information content of this bad news. Kasznik, Baruch

(1995) argue that if bad news has a tendency to be permanent, managers would have incentives to delay disclosure, since bad news gives more discretionary disclosures to managers. Pride *et al*., (2015) assert that companies with bad news needs time to resort to creative accounting to make the accounting numbers acceptable for stakeholders. On the other hand, Bagnoli *et al*., (2002) and Sengupta (2004) suggest that reporting delay, regardless bad or good news, could stem from accounting and audit complexity. When a firm has a high accounting complexity, the audit process is prolonged, leading to further delay in reporting. Patell and Wolfson (1982) argue that poor financial performance can also influence audit length. If a firm has bad performance it needs more audit time to know the reasons behind the poor performance.

Contrary to empirical studies that support the notion of "companies release good news more promptly than bad news"; there are some studies which suggest the opposite notion. For example, Basu (1997) assumes and finds that companies tend to release bad news earlier than good news, since earnings are contemporaneously more sensitive to bad news than good news. He asserts that conservatism could be a reason for companies to report bad news earlier than good news. Contrary to the findings of Basu (1997), Gigler and Hemmer (2001) find that companies with relatively more conservative accounting systems have a low tendency to release their bad news earlier than good news compared to companies with less conservative accounting. On the other hand, some studies suggest that companies' disclosure policies could be country or industry specific. For instance, Giner and Rees (2001) compare France, Germany and UK accounting systems. They find more pervasive conservatism in Germany and France than UK. They also investigate the simultaneous relationship between earnings and returns and they find more persistent relationship between bad news and returns for all three countries. Comparing Belgian and Anglo-Saxon countries, Annaert *et al*., (2002) find that Anglo-Saxon companies report financial statements earlier than Belgian companies.

Various studies also propose that company attributes could affect the timeliness of reporting. For example, Givoly and Palmon (1982) suggest that firm size, the efficiency of internal control systems, company's history, corporate governance mechanism and the complexity of operating activities have an important influence on the timely reporting. Atiase *et al*., (1989) investigate the relationship between firm size and the timeliness of reporting and market reaction for earnings announcement. They find that large firms release their financial reports earlier than small firms and the market reaction to earnings announcements is bigger for small firms than large firms, regardless of whether the content of information is good or bad. Owusu-Ansah and Leventis (2006) examine the timeliness of financial reporting for Athens Stock Exchange. They find that companies, which are large, operate in service sector and are audited by big audit firms release their financial statement earlier than the companies

which operate in construction sector and have higher insider ownership. Afify (2009) analyses audit delay and its determinants for firms listed on the Cairo Stock Exchange. She finds that audit delay is significantly affected by corporate governance attributes (i.e., board independence, duality of CEO, audit committee) and by company size, profitability and industry. Haw *et al*., (2000) analyses the relationship between firm performance and the timeliness of annual financial statements for Chinese listed firms. They find that firms with profit disclose their financial statements earlier than firms with loss.

Studies have been conducted in Turkey on various firms and reveal differing results. For example, Dogan *et al*. (2007) analyses the relationship between timeliness of reporting and company size, profitability, financial risk and sectors for 2005. They find that the timeliness of financial statements is influenced by company and sector specific factors. Turel (2010) examines the impact of both company and auditor specific factors on the timeliness reporting for 211 non-financial companies. She finds that firms which report positive income and have standard audit opinions release their financial statements earlier than companies which are audited by the big four audit firms and operating in manufacturing sector. Aktas and Kargin (2011) investigate the effects of sector (financial-non-financial), financial statement type (consolidated- unconsolidated), and income (positive-negative) on the timeliness of reporting for the years from 2005 to 2008. They find that financial firms, unconsolidated firms and firms that report positive income publish their financial statements earlier than others. Dumlu and Saltoglu (2011) examine 78 companies listed on the Istanbul Stock Exchange (ISE) 100 Index between 2005 and 2009. They find that the reporting dates of firms operating in the finance and manufacturing sectors are not statistically different from each other. Vuran and Adiloglu (2013) analyses the relationship between the timeliness and the current ratio, ROA, CFO, interest expense, size and sign of income by using 178 non-financial listed companies for 2009. They find that ROA has a significant impact on the timeliness reporting for consolidated firms, while the current ratio, sign of income and auditor opinion have a significant impact on the timeliness reporting for consolidated firms. Ozkan *et al*. (2013) examine the effect of audit firm, industry and financial performance on the reporting date by using a sample of listed companies over the 2005-2010 periods. They find that non-financial firms which have losses release their financial statements later than others and companies which are audited by Big-4 firms shortens the reporting date of consolidated financial statements. By examining non-financial companies listed on the ISE from 2003 through 2010, Erer and Comert (2014) find that high-leveraged and consolidated firms are late reporters. Companies audited by a Big 4-firm and companies that don't change their auditors are early reporters. However, they don't find a significant association between reporting lag and the company size, profitability, financial year-end and industry type. Tuan (2016) investigated the effects of the audit committee factors on the timeliness of financial reports by using 223 firm- year

observations from listed in the Corporate Governance Index of the BIST between 2007 and 2014. He finds that the professional experience and financial expertise of audit committee members reduces the lag in financial reporting process. Gulec (2017) examines 150 non-financial listed companies in the BIST between 2009 and 2014. He finds that firm size, dividend per share, auditor type and positive income have a significant negative impact on the timeliness, while price to book ratio and leverage of firms have no significant impact on the timeliness.

2. LEGAL AND INSTITUTIONAL REQUIREMENTS FOR TIMELY REPORTING IN TURKEY

Most national regulatory authorizes have recognized the importance of timeliness of financial reporting. They have set statutory maximum time limits within which companies are required to issue financial statements to stakeholders and also file such reports with relevant regulatory bodies. In Turkey timeliness of financial reporting is regulated by Turkish Commercial code (TTC), and Capital Market Law (CML). Old TTC numbered 6762 was in force from 29 June 1956 until 30 June 2012, that code was replaced by the new TTC numbered 6102 when the new TTC entered into force on 1 July 2012. The requirements relating to preparing financial and nonfinancial reports remained the same in Turkish commercial code (Article 362 of old TTC and Article 437 of new TTC). According to TTC, annual reports required to be prepared at least 15 days before the date of the annual general meeting. Second source of relating to publishing of annual financial reports is Capital Market Law and the Communiqués published by Capital Markets Boards (CMB) of Turkey. Capital Market Law. No 2499 published in the official Gazette on July 30, 1981. Regarding timeliness of financial reporting, CMB of Turkey published many communiqués between 1989 and 2003. According to communiqué issued in 1989, companies listed on the ISE have to publish their audited annual financial statements by the 10th week after their financial year-end. According to communiqué issued in 2003, individual and consolidated financial statements must be published within 10 weeks and 14 weeks of the financial year-end, respectively. The last revision regarding timeliness of financial statements included in "Communiqué on Principles of Financial Reporting in Capital Markets" which is promulgated in the Official Gazette edition 28676 on 13 June 2013. Obligation to prepare annual and interim financial reports set in Article 5, 6 and 7. Disclosure of annual financial reports to public set in article 10 and Disclosure of interim financial reports to public set in article 11. According to Article 10 "*Entities… are required to disclose to public their annual financial reports and their independent audit reports relating thereto, as specified in the regulations of the Board pertaining to independent audit: a) within 60 days following the end of their accounting periods, in absence of the obligation to prepare consolidated financial statements; or b) within 70 days following the end of their accounting periods, in presence of the obligation to prepare consolidated financial*

statements" (Communiqué on Financial Reporting, 2013: 5-6). According to Article 11, *"Entities are required to disclose to public their interim financial reports: a) within 30 days following the end of the relevant interim period, in absence of the obligation to prepare consolidated financial statements; or b) within 40 days following the end of the relevant interim period, in presence of the obligation to prepare consolidated financial statements"* (Communiqué on Financial Reporting, 2013: 6). Table 1 gives chronologically statutory deadlines for consolidated and unconsolidated financial statements in Turkey.

Table 1. Statutory Deadline for Financial Statements

	Annual Period		**Interim Period**	
Types of financial statements	**Consolidated**	**Unconsolidated**	**Consolidated**	**Unconsolidated**
Before 2013	14 Weeks	10 Weeks	6 Weeks	4 Weeks
Since 2013	70 Days	60 Days	40 Days	30 Days

Entities may prepare financial statements stipulated in other legislation such as Tax Legislation. However, financial statements to be disclosed to public pursuant to Capital Markets Legislation are required to be prepared in accordance with the principles set down in this Communiqué.

3. HYPOTHESES DEVELOPMENT

As a stated above, this study aims to research the effects of firm-specific factors on the timeliness of financial reporting in Turkey. Several company attributes could have an impact on the timeliness of financial reporting. This study focus on some of the following attributes that identified, proposed and considered relevant in prior studies; profitability, company size, audit firm size and sector. Furthermore, this study investigates the impact of firms' share indexed, namely in Corporate Governance index and BIST 100 index on the timeliness of reporting.

Profitability

Many prior studies give evidence that the timeliness is related to the information content of financial reporting. Some studies assume and find that companies delay announcement when their accounting numbers contain bad news (loss), but when accounting numbers contain good news (profit), they tend to be more eager to announce good news to public (Beaver, 1968; Givoly, Palmon, 1982; Bagnoli *et al*., 2002; Sengupta, 2004; Graham *et al*., 2005). On the other hand, some studies argue that firms report bad news earlier than good news because of either from conservative accounting systems or from legal requirements (Basu, 1997; Bushman, Piotroski, 2006). For

Turkish companies, Turel (2010), Aktas and Kargin (2011), Ozkan *et al*. (2013) and Gulec (2017) find a significant negative association between profitability and reporting lag, while Erer and Comert (2014) don't find. Based on above discussion, the following hypothesis can be empirically tested.

H_1: There is a negative relationship between profitability and the timeliness (reporting lag) of financial reporting.

Company size

The size of company is considered to have an impact on the timeliness of financial reporting. Many studies argue that large firms tend to report financial information in a timelier basis for several reasons (Ng, Tai, 1994; Ahmed, 2003; Lont, Sun, 2006). First, large firms have more resources that enable them to disclose their financial reports more timely. Second, large firms have strong internal control system in their organizations which help auditors in auditing large number of transaction and sophisticated accounting systems in a relatively shorter time. Additionally, large firms can afford continuous auditing or being audited by the big auditing firms. Third, large firms are more visible to public and often widely held stock companies that are pressured to provide timely financial information to shareholders and stakeholders. Fourth, large firms may have a relatively good corporate governance mechanism. Contrary to these arguments, Sengupta (2004) argue that larger companies might need longer time for reporting due to more complex accounting practices. Prior studies give mixed results concerning the relationship between the timeliness of financial reporting and company size. For example, Givoly and Palmon (1984), Ng and Tai (1994), Abdulla (1996), Lee *et al*. (2008) Dogan *et a*l. (2007), Turel (2010), Vuran and Adiloglu (2013) and Guleç (2017) find negative relationship between timeliness and company size, while Simnett *et al*. (1995), Abdelsalam and Elmasry (2008), Kasharmeh and Alijiri (2010) and Erer and Comert (2014) find there is no relationship between timeliness and company size. Considering discussion about company size and mixed empirical results give good reason to re-examine the association between company size and the timeliness reporting for Turkish firm. Hence following hypothesis is formed.

H_2: There is a negative relationship between company size and the timeliness (reporting lag) of financial reporting.

Size of audit firm

Auditing plays important role for the timeliness of reporting or for reporting lags since it is a function of financial reporting process. According to accounting theory and practices, accounting numbers should be audited before financial statements are published. Increased complexity of accounting and setting high auditing standards have

made necessary for companies to be audited by larger auditing firms. Because larger audit firms have personnel, facilities, equipment, funds and experience much more than small audit firms. Moreover, larger audit firms have larger clients thereby more likely to have continuous auditing, since large firms can easily afford the cost of auditing. Hence, large audit firms with more experience and resources could complete the audit process more accurately and more timely than small audit firms. Studies which examine the relationship between audit firms and reporting lag give mixed results. For example, Owusu-Ansah and Leventis (2006), Ozkan *et al*. (2013), Erer and Comert (2014) and Gulec (2017) find that firms which audited by big audit firms disclose their financial reports earlier than firms audited by non-big audit firms, while Ng and Tai (1994), Turel (2010), Wan-Hussin and Bamahros (2013) and Pizzini *et al*., (2015) find contradict results. Mixed empirical results give a good reason to re-examine the relationship between the size of audit firm and the timeliness of financial reporting. Hence the following hypothesis is formed.

H_3: There is a negative relationship between the size of audit firm and the timeliness (reporting lag) of financial reporting.

Sector

In modern economies, businesses are distinguished by industry or sector. An industry or a sector is classification that refers to groups of companies that are related based on their primary business activities. Therefore, the process of accounting for financial information would be differing for each sector. Thus, sector or industry affiliation should have influence on the timeliness of financial reporting. In most of prior studies, sector or industry recognized as an important determinant of the timeliness reporting (Ashton *et al*.,1989; Owusu-Ansah, Leventis, 2006; Afify, 2009, Aktas, Kargin (2011). According these studies financial companies have less reporting delays than companies are in other sectors. In terms of the timeliness, companies that are in financial sector are subjected to regulatory pressure more than other companies since financial sector has a vital role in economic developments. Hence one can expect that financial companies should release earlier financial reports than other companies. However, Dumlu and Saltoglu (2011) and Dogan *et al*. (2007) don't find statistically significant association between sector and reporting time. Considering to business complexity and accounting process, manufacturing companies is also might have a longer reporting lag than other companies. Ozkan *et al*. (2013) show that non-financial firms with loss release their financial statements later than others. Same considering can be hypotheses for service and technology companies. This relationship is tested by following hypotheses:

H_4: There is a significant negative relationship between financial sector and the timeliness (reporting lag) of financial reporting.

H_5: There is a significant positive relationship between manufacturing sector and the timeliness (reporting lag) of financial reporting.

H_6: There is a significant positive relationship between services sector and the timeliness (reporting lag) of financial reporting.

H_7: There is a significant positive relationship between technology sector and the timeliness (reporting lag) of financial reporting.

Stock market indexes

Stock indexes are created to measure the joint performance of group of stocks traded in a given stock market. Indexes help to build for main market companies by providing investors with clear and independent benchmarking of stocks, sectors and the market as a whole. It also creates the basis for portfolio trading both active and passive investors. Companies that want to attract investors and to maintain the benefits of being in a specific index need to report their financial statements in a timely manner. Therefore, it is important to examine the relationship between index and the timeliness of financial information besides firms attributes discussed above. In this study, it is selected BIST 100 Index and Corporate Governance (CG) Index. In this context, following hypotheses are formed.

H_8: There is a negative relationship between BIST 100 index and the timeliness (reporting lag) of financial reporting.

H_9: There is a negative relationship between CG index and the timeliness (reporting lag) of financial reporting.

4. RESEARCH METHODOLOGY

4.1. Sample and Data Collection

The sample comprises all listed firms (296 firms) on the BIST for the year 2016. 6 listed firms are excluded because of having different reporting date from the financial year end (31 December) and 4 listed firms are excluded due to missing data. The final sample consists of 286 listed firms which operates in a range of industries. The data for each firm included in the sample were taken from their annual reports available on firms' own website and Public Disclosure Platform's website. Table 2 presents the distribution of the sample of firms in terms of sector type, audit firms, index and preparation of financial statements.

Table 2. Firms by Sector, Auditor, Indexes and Preparation of Financial Statements

SECTOR	Number of firm	Percentage
Manufacturing	162	56.65
Financial institutions	61	21.32
Services	49	17.13
Technology	14	4.90
TOTAL	**286**	**100**
AUDITOR		
Audited by Big- 4 (PwC, KPMG, E&Y, Deloitte)	168	58.7
Non- audited by Big- 4	118	41.3
TOTAL	**286**	**100**
BIST 100 INDEX		
Listed on BIST100 index	79	27.6
Non listed on BIST100 index	207	72.4
TOTAL	**286**	**100**
CG INDEX		
Listed on CG Index	42	14.7
Non -listed on CG Index	244	85.3
TOTAL	**286**	**100**
PREPARATION OF FINANCIAL STATEMENTS		
Consolidated Financial Statements	188	65.7
Unconsolidated Financial Statements	98	34.3
TOTAL	**286**	**100**

4.2. Variables and Model Development

The explanatory variables for this research are company size, profitability, size of audit firm, sectors, BIST 100 index and CG index, which are hypothesized to influence the timeliness of financial reporting. The timeliness of financial reporting is measured by using similar approach with prior studies (Turel, 2010; McGee, 2007; Owusu-Ansah, Leventis, 2006; Karim *et al*., 2006). As a measure of the timeliness, they use audit lag which is the period between the financial year-end and the date financial reports was signed by the external auditor. The rationale behind using audit lag is twofold. First, the financial statements are required to disclose to public after the independent auditor has certified that they are true and fair. The second, companies are required to disclose their financial statements to public and their independent audit reports within the legal time allowed. Hence, in this study, the timeliness is calculated as the number of days between a firm fiscal year-end and the date of the independent auditor's report for each company included in the sample, and termed as reporting lag.

In order to examine the relationship between company attributes and the timeliness of financial reporting, the following regression model is developed:

$$LAG_{it} = \alpha_0 + \beta_1 SIZE + \beta_2 PROF + \beta_3 BIG4 + \beta_4 BIST100 + \beta_5 CGIND + \beta_{6-9} SECT + \varepsilon_{it}$$

Where:

LAG = Number of days between a firm’s fiscal year-end and the date of audit report.

SIZE = Natural logarithm of total assets.

PROF = Dummy variable which takes the value of 1 when the firm has profit, 0 otherwise.

BIG-4 = Type of external auditor represented by a dummy variable which takes the value 1 when the firm is audited by Big-4 (PwC, Deloitte, Ernst&Young and KPMG), 0 otherwise. .

BIST100 = Dummy variable which takes the value of 1 if the firm listed on BIST100 index, 0 otherwise.

CGIND = Dummy variable which takes the value of 1 if the firm listed on corporate governance index, 0 otherwise.

SECT = Dummy variables for sector : if the firm belongs to manufacturing sector takes 1, otherwise 0; if the firm belongs to financial sector takes 1, otherwise 0; if the firm belongs to service sector takes 1, otherwise 0; if the firm belongs to technology sector takes 1, otherwise 0.

5. DATA ANALYSIS AND RESULTS

5.1. Descriptive statistics

In Turkey, legal requirements regarding disclosure of annual financial reports to public differ depending on obligation to prepare consolidated or unconsolidated financial statements, as a mentioned in section 2. Therefore, the timeliness is analyzed for consolidated and unconsolidated financial statements separately in terms of descriptive statistics. Table 3 and 4 show the frequency distribution of publication date after fiscal year-end for companies prepare consolidated or unconsolidated financial statements.

Table 3. Frequencies for Publication Date of Consolidated Financial Statements

Reporting Lag	Frequency	Percentage	Cumulative Percentage
1-30	4	2.1	2.1
31-40	17	9.0	11.1
41-50	21	11.2	22.3
51-60	33	17.6	39.9
61-69	63	33.5	73.4
70	**43**	**22.9**	**96.3**
71-80	6	3.2	99.5
80-90	1	0.5	100
Total	***188***	***100***	

Table 3 presents approximately 73% of the firms released their financial reports before the end of regulatory publication date (70th) after fiscal year-end. About 23% of the firms disclosed their financial reports precisely on the 70th day and just about 4% of the firms released their financial reports late, exceeding regulatory dead-line with maximum 20 days.

Table 4. Frequencies for Publication Date of Unconsolidated Financial Statements

Reporting Lag	Frequency	Percentage	Cumulative Percentage
1-30	1	1.0	1.0
31-40	6	6.2	7.2
41-50	20	20.1	27.3
51-59	29	29.7	57.0
60	**40**	**41.0**	**98.0**
61-70	0	0.0	98.0
71-80	1	1.0	99.0
80-90	1	1.0	100
Total	***98***	***100***	

Table 4 shows that about 57% of the firms reported earlier than the last publication date (60th day) after fiscal year-end. 41% of the firms disclosed their financial reports just on the 60th day. About 2% of the firms reported late, exceeding regulatory dead-line with maximum 30 days.

Table 5. Descriptive Statistics of Reporting Lag

REPORTING LAG	Min.	Max.	Mean	[edian	Std.Dev.	Number (%)
Consolidated	27	81	59.94	64	12.33	188 (65.7)
Unconsolidated	28	90	54.36	57	8.77	98 (34.3)

As shown in Table 5, firms that have to prepare consolidated financial statements disclose their statements to public on average 60 day and firms that have to prepare unconsolidated financial statements disclose their statements to public on average 54 day after the end of their fiscal year-end.

Table 6. Descriptive Statistics of Independent Variables for Firms Prepare Consolidated Financial Statements

VARIABLES	Min	Max	Mean	Med.	Std. Dev.	Number (%)
Profit	27	71	57.74	61	13.07	141 (75.0)
Loss	46	81	66.53	69	6.23	47 (25.0)
Audited by Big- 4	27	81	57.13	60	13.38	121 (64.4)
Audited by Non-Big- 4	39	75	65.01	69	8.03	67 (35.6)
Listed on Bist100 index	28	71	57.96	62	12.23	67 (35.6)
Non-Listed on Bist100 index	27	81	61.04	67	12.30	121 (64.4)
Listed CG. index	27	70	52.76	58	14.65	33 (17.6)
Non- Listed CG. index	28	81	61.47	67	11.25	155 (82.4)
Manufacturing	33	81	62.26	67	10.01	99 (52.7)
Non- manufacturing	27	75	57.36	63	14.09	89 (47.3)
Services	39	70	60.81	63	9.88	31 (16.5)
Non-Services	27	81	59.77	64	12.78	157 (83.5)
Financial	27	75	54.54	60	15.87	48 (25.5)
Non-Financial	33	81	61.79	67	10.29	140 (74.5)
Technology	33	70	59.11	69	14.89	9 (4.8)
Non-Technology	27	81	59.98	64	12.24	179 (95.2)

As seen in Table 6, the firms that reported profit disclose financial statements in average of 58 days. The firms that reported loss disclose their financial statements in average of 67 days. Firms with profit disclose their financial statements on average 9 days earlier when compared to companies with loss. The firms that reported profit are 75% of the total sample that cover companies prepare consolidated financial statements in research year. The firms audited by Big- 4 release their financial statements on average 8 day earlier than the firms audited by Non Big-4. Table 6 also shows that about 64 % of the firms that prepare consolidated financial statements audited by Big-4. The firms listed in BIST 100 index and CG index publish their financial statements

earlier than firms not listed on BIST 100 index and CG index, on average 3 days and 8 days respectively. Regarding sectors, firms that operate in financial sector publish their financial statements earlier than firms in other sectors. According to descriptive results, publication of financial statements after fiscal year-end takes on average of 55 days for finance firms, 59 days for technology firms, 61 days for service firms and 62 days for manufacturing firms.

Table 7 presents descriptive statistics for firms that prepare separate financial statements. From the table, one can see the firms with profit report financial statement approximately 7 days earlier than the firms with loss. The firms audited by big audit firms release in average 4 days earlier than firms audited by non–big audit firms. The firms that listed on BIST 100 index and CG index disclose their financial statement earlier than non-listed on these indexes on average 6 and 2 days respectively. Regarding sectors, it takes on average 51 days for financial firms, 52 days for technology firms, 55 days for manufacturing firms and 57 days for service firms to publish their financial statements after the financial year-end. Table 7 also shows that 64% (a large majority) of the firms operate in the manufacturing sector while, only 5% of the firms operate in the technology sector.

Table 7. Descriptive Statistics of Variables for Firms Prepare Unconsolidated Financial Statements

VARIABLES	Min	Max	Mean	Med.	Std. Dev.	Number (%)
Profit	28	60	52.76	56.5	8.21	76 (77.6)
Loss	43	90	59.91	60	8.54	22 (22.4)
Audited by Big- 4	28	90	52.19	55	10.52	47 (48.0)
Audited by Non Big- 4	39	75	56.37	60	6.24	51 (52.0)
Listed on Bist100 index	36	60	49.42	49.5	8.13	12 (12.2)
Non-Listed on Bist100 index	28	90	55.06	57	8.68	86 (87.8)
Listed CG index	36	60	52.67	60	9.43	9 (9.2)
Non- Listed CG index	28	90	54.54	57	8.74	89 (90.8)
Manufacturing	36	90	54.73	57	9.14	63 (64.3)
Non- manufacturing	28	60	53.71	57	8.15	35 (35.7)
Services	36	60	56.72	58.5	5.71	18 (18.4)
Non-Services	28	90	53.84	57	9.27	80 (81.6)
Financial	28	60	50.62	55	9.91	13 (13.3)
Non-Financial	36	90	54.94	57	8.50	85 (86.7)
Technology	42	60	52.20	53	8.14	5 (5.1)
Non-Technology	28	90	54.48	57	8.83	93 (94.9)

5.2. Correlation and Regression Analysis

In this study, I use pooled Ordinary Least Squares (OLS) for the cross-sectional data to estimate the relationship between firm- specific factors and the timeliness of financial statements for Turkish listed firms. As mentioned above, requirements concerning the timeliness of financial reporting in Turkey differ according to the method that required applying in the preparation financial statements. The difference between disclosure requirements is likely to give biased regression estimation results in pooled cross-sectional data. For this reason, following Turel (2010), I use a ratio instead of days for the dependent variable of the regression models. The ratio of reporting lag is calculated as follows: (the reporting lag /obligatory date)*100. For example, if a firm reports its audited consolidated financial statements 60 days after the fiscal year end, the ratio of reporting lag for the firm would be 85.7((60/70)*100). If a firm published its audited unconsolidated financial statements 53 days after the fiscal year-end, then the ratio of reporting lag for the firm would be 88.3((53/60)*100).

Table 8. The Results of Pearson Correlation

Correlation Probability	LAG	PROF	SIZE	BIG4	BIST100	CGIND	MAN	SERV	FIN	TECH
LAG	1									

PROF	**-0.311**	1								
	0.000	-----								
SIZE	**-0.414**	0.129	1							
	0.000	0.029	-----							
BIG4	**-0.300**	0.042	0.457	1						
	0.000	0.479	0.000	-----						
BIST100	**-0.17**0	0.056	0.574	0.343	1					
	0.004	0.346	0.000	0.000	-----					
CGIND	**-0.230**	0.049	0.405	0.267	0.384	1				
	0.000	0.407	0.000	0.000	0.000	-----				
MAN	0.170	0.034	-0.310	0.012	-0.154	-0.095	1			
	0.004	0.563	0.000	0.840	0.009	0.107	-----			
SERV	0.064	-0.047	-0.015	-0.147	0.072	-0.058	-0.520	1		
	0.283	0.426	0.806	0.013	0.225	0.332	0.000	-----		
FIN	**-0.250**	-0.046	0.429	0.124	0.137	0.170	-0.578	-0.237	1	
	0.000	0.443	0.000	0.036	0.021	0.004	0.000	0.000	-----	
TECH	-0.027	0.128	-0.098	-0.007	-0.031	-0.003	-0.259	-0.103	-0.118	1
	0.652	0.031	0.099	0.901	0.597	0.966	0.000	0.082	0.046	-----

Table 9 shows the findings of the multivariate linear regression model which is regressed reporting lag on some firm attributes which identified and hypothesized above. The table also presents the explanatory power of multiple linear regression models with adjusted R square and F statistic value. The estimation results indicate that estimated multivariate linear regression model give explanation by about 29 % for the variations in reporting lag. In other words, 29 % of the variation in reporting lag explained by the firm attributes that identified for this study. The value of F is also show that the regression model is significantly at the 0.01 level. The coefficient estimates for all independent variables are also statistically significant at 1% level except for financial companies.

Table 9. The Results of Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	137.173	0.956	143.440	0.000
PROFIT	-10.864	0.121	-90.014	0.000
SIZE	-4.788	0.086	-55.373	0.000
BIG4	-5.426	0.119	-45.733	0.000
BIST100	5.585	0.181	30.791	0.000
CGIND	-3.658	0.159	-23.011	0.000
MANU	5.219	0.608	8.590	0.000
SERV	3.912	0.617	6.341	0.000
FIN	-0.405	0.601	-0.674	0.500
TECH	2.560	0.653	3.920	0.000
R-squared	0.285	F-statistic		2966.107
Adj R-squared	0.285	Prob(F-statistic)		0.000

The estimation results indicate that reporting lag is significantly and negatively associated with profit, firm size, audit firm and CG index. Financial companies are too having negative association with reporting lag but not significantly. The remaining company attributes have significantly and positive relationship with reporting lag. As seen from the table 9, profit, company size, audit firm and CG index have coefficient value -10.864, -4.788, -5.426 and -3.658 respectively. These results support the hypotheses 1, 2, 3, and 9 and reject the hypothesis 8 at the significance level of 0.01. Regarding sector affiliation, manufacturing, services and technology firms are positively related to reporting lag with coefficient value 5.219, 3.912, 2.56 respectively and these results support the hypotheses 5, 6, 7 at the at the significance level of 0.01. Finally, financial firms have -0.405 coefficient value but not statistically significant at the 0.01 level. Thus findings reject the hypothesis 4.

In summary, the study results are consistent with extant literature which suggests that firms tend to release good news (profit) promptly than bad news (loss).

Furthermore, the empirical results support the arguments that large firms, firms audited by Big-4 and firms that have a good governance system are timelier in terms of publishing financial reporting.

CONCLUSION

Increasing financial integration and globalization forces countries' economies to be more transparent. Achieving greater transparency in the global financial systems allows a more efficient allocation of financial resources as capital flows need transparent information. Timeliness is one of the essential determinants of transparency. Therefore, economic entities must disclose their financial statements or reports in a timely manner to be useful to investors and stakeholders in making decisions about providing resources to the entities. Most of international and national economic bodies and countries are aware of the importance of the timeliness of financial information. They have set limitations to the maximum time for publishing financial information and to the minimum frequency of disclosures.

This study investigates both the timeliness of financial reporting and the determinants of the timeliness of financial reporting in Turkey. The data was obtained from the annual financial statements and reports of 286 firms listed on the Istanbul Stock Exchange for the year 2016. The descriptive statistics indicate that 73% of the firms that prepared consolidated financial statements and 57% of the firms that prepared unconsolidated financial statements disclosed their financial statements to public earlier than the end of the regulatory publication date after fiscal year-end. Estimated regression model gives good explanation for the variation in the timeliness of financial reporting. Estimation results show that 29% of the variation in the timeliness explained by company attributes identified in this study. According to the results; firms with profit, large firms, firms audited by 4-big audit firms and firms with good governance disclose their financial statements in a more timely manner than other firms.

The empirical findings of this study give insight to the determinants of the timeliness reporting in Turkey; however these findings are not free from limitations which give opportunities for further research. First, this study does not investigate all company attributes that could impact on the timeliness of financial reporting. This study focuses only on some specific company characteristics. So, further investigation might be conducted by including more company attributes that might influence timeliness in financial reporting. Second, this study examines the timeliness of financial reporting for listed companies for a given year, namely just for 2016. Therefore, it has the disadvantages of studies that uses cross-sectional data such as not giving a correct behavior over a period to time and might face some challenges for pooled sample. Hence, future studies might investigate timeliness reporting behavior of companies using data over a period of time such as panel data.

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