

## Research Article

### Investigation of Effective Factors in Audit Delay: Evidence from Tehran Stock Exchange (TSE)

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**Abstract:** Timeliness of financial reporting of company has a significant importance in users view. One reason that makes researchers interested in study in this field is that audit report can cause delay in reporting financial statements. This study has been researched in the capital market of Iran (TSE) and has 1397 year-firm during 2004-2010. Results show that except debt ratio which its relationship with audit delay is rejected, all the rest like size of company, earning per share changes, industry, extra-ordinary figures, audit opinion have an significant relationship with audit delay.

**Keywords:** Audit opinion, debt ratio, earnings per share changes, existence of extra-ordinary, industry, size of company, type audit delay

## INTRODUCTION

One resource that can be used for decision making of users which is reliable is audited financial statement. It should be considered that information in financial statement can be used effectively when they have several quality characters. One of them is timeliness. Leventis *et al.* (2005) states that timeliness of financial statements is the focus of an increasing amount of attention by accounting researchers and regulatory bodies. It is known that information is sensitive to the passing of time and it lose its usefulness in decision making. So, less duration between year end and time of audit report, more information content are provided.

In this study, it is investigated the audit delay factors. One reason that companies justify their delaying financial reporting is that audit opinion is not reported and it is because financial report is not assert before audit opinion is reported (Wermert *et al.*, 1997).

Timelines of corporate audited annual financial reports is considered to be a critical and important factor affecting the usefulness of information made available to external users (Almosa and Alabbas, 2008). The length of the audit process highly affects the timelines of corporate financial reporting. The timeliness of financial reporting and audit delay has

investigated in various countries. McGee *et al.* (2009) presented a comparative study of companies in Russia and the USA with consideration of the timeliness of financial reporting and audit delay. Naimi *et al.* (2010) examined audit delay in Malaysian public listed companies. Their study results showed that active and larger audit committee shortens audit delay. Hegazy and Al-Ghanem (2011) analyzed the factors that affect delays in the signing of audit reports in Kuwait. Abdelsalam and Street (2007) examined the timeliness of corporate internet reporting by U.K. companies listed on the London Stock Exchange (LSE). Their results indicated that Companies need to voluntarily focus on improving the timeliness dimension of their corporate internet reporting so that the EU and U.K. Hence, the aim of current Study is to investigate the determinants of audit delay for listed stock companies in Tehran Stock Exchange.

## LITERATURE REVIEW

The term "audit delay" has been used to denote the elapsed time between the close of a fiscal year and the end of audit fieldwork. The latter is normally the date on which substantive audit tests are completed and the auditor leaves the client's premises. It is typically

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documented by the dating of the auditor's published report. Several prior studies consider the relation of various possibly causal factors to audit delay. Factors that have been investigated include: presence of accounting or disclosure issues such as extraordinary items, loss contingencies, uncertainty audit qualifications and accounting changes (Davies and Whittred, 1980; Whittred, 1980; Ashton *et al.*, 1987; Newton and Ashton, 1989; Ashton *et al.*, 1989), sign of earnings (Ashton *et al.*, 1987), nature, size and complexity of client operations and controls and proportion of audit work after year end (Ashton *et al.*, 1987) and whether the audit firm tends to follow a structured audit approach (Newton and Ashton, 1989; Williams and Dirsmith, 1988).

It has been suggested that management has incentives to exercise discretion over the timeliness of reporting Givoly and Palmon (1982), Pastena and Ronen (1979), Patell and Wolfson (1982), Penman (1984), Pastena and Ronen (1977) and Verrecchia (1983). In particular, it has been hypothesized that bad news is released later than good news and empirical research strongly supports this contention Chambers and Penman (1984), Courtis and Abacus (1976), Dodd *et al.* (1984), Elliott (1982), Givoly and Palmon (1982), Kross and Schroeder (1984), Lawrence (1983), Brown and Niederhoffer (1968), Pastena and Ronen (1979), Patell and Wolfson (1982), Whittred (1980) and Whittred and Zimmer (1984). Givoly and Palmon (1982) suggested that variability in the length of the annual external audit is a factor that explains variability in reporting delay. Ashton *et al.* (1987) also examined the relation between audit delay and a set of explanatory variables. They examined 14 variables from 488 U.S. clients of Peat, Marwick, Mitchell & Co. in 1981-82 and their sample included both public and nonpublic clients from six industries.

The variables were total revenues, four measures of firm complexity, industry classification, public/nonpublic status, month of fiscal year-end, quality of internal control, the relative mix of audit work performed at interim and final dates, the length of time the company had been a client of the auditor, two measures of profitability and the type of audit opinion issued. Regression results indicated that five variables were significantly associated with the natural logarithm of audit delay-total revenues, one of the complexity measures, internal control quality, the mix of interim and final work and whether or not the company was publicly traded. The  $R^2$  was 0.265 for the overall sample, but was higher for financial and public subsamples (0.310 and 0.388, respectively). Feltham

(1972) shows that timeliness affects a decision maker's expected payoff. Empirical research has also shown that timeliness affects security prices (Chambers and Penman, 1984; Givoly and Palmon, 1982; Kross and Schroeder, 1984). More comprehensive investigations of the determinants of audit delay have been performed in the US by Ashton *et al.* (1987) and in Canada by Ashton *et al.* (1989). In the earlier study, the authors examine a sample of 488 Peat Marwick Mitchell & Co. US clients for 1981. Multivariate analysis was used to evaluate the effects of fourteen independent variables, including several variables not publicly available. Because the distribution of audit delay was positively skewed the authors used the log of audit delay as the dependent variable. The adjusted  $R^2$  was approximately 26%, with five variables significantly associated with the dependent variable. These five variables were: log of revenue, quality of internal controls, operational complexity, relative mix of interim and final work and whether company ownership was public or private.

The Ashton *et al.* (1987) analysis of company ownership found that audit delay was significantly shorter for public companies. That is, after controlling for other factors, public companies were audited faster than private companies. The study also separately analyzed public and private companies to explore whether the explanatory variables were differentially related to the two subsamples. The results from the two subsamples were not similar. For example, whereas company size significantly affected audit delay for private companies it was not associated with audit delay for public companies. Further, the adjusted  $R^2$  was much larger for public than private companies. These findings suggest that company ownership may directly influence audit delay and that the relationship of other explanatory variables may be contingent upon the type of company ownership. Whittred (1980) finds that first-time audit report modifications for uncertainty and for accounting defects for Australian firms from the mid-1960s to the mid-1970s were associated with significant increases in audit delay. Those with report modifications averaged 106 days while a matched sample of firms without modifications averaged 86 days.

Audit report dates were obtained for the Kinney and McDaniel (1993) sample of 73 firms disclosing in their 1976-1985 annual reports correction of first, second, or third quarter earnings previously reported. Four firms were deleted because they publicly disclosed the correction prior to fiscal year end. The sample was extended by searching NAARS for 1986-1988. Sixteen additional firms were identified, for a total of 85 firms.

## RESEARCH METHODOLOGY

For researching this study's hypothesis, it is using Correlation and Regression analysis. From all coefficients for correlation, it is using Pearson-coefficient, because this coefficient is useful for normal and quantitative data. Hypos for that researcher using this kind of analysis, it hopes to find relationship between variables. As it is mentioned this study includes all companies listed on the Tehran Stock Exchange (TSE) for 2004-2010 for which we were able to observe six potential explanatory. Data were available for 1397 year-firm. For analyzing data and make information, it is used the software SPSS 18.

**Sample, data and model of audit delay:** The present sample of companies differs from any that has been analyzed previously in studies of audit delay or reporting delay: it is composed entirely of Iranian companies which were audited by Iranian auditors. It includes all companies listed on the Tehran Stock Exchange (TSE) for 2004-2010 for which we were able to observe six potential explanatory. Data were available for 1397 year-firm.

**Operational identification:** A model of audit delay was developed comprising nine explanatory variables. The model is similar to one employed by Ashton *et al.* (1989), but differs in several key respects. The contingent liability variable was excluded because of the inconsistent signs reported by Ashton *et al.* (1989).

**Timeliness of audit report (opposite of the audit delay):** In this study it is assumed that far time of audit report from the year end of the company causes less timeliness of the financial statement. So, in this study the differences between dates of year end and date of audit report is organized as audit delay.

**The firm size (CS):** Size of the company is calculated by logarithm total assets in the end of financial year (natural logarithm of total assets). In this study we expect to view a negative relationship between size of the company and audit delay. Bigger the company more effective its internal control and it is very helpful for auditors that the company has a powerful internal control, because it ease the auditing procedure. Managements of larger companies may have incentives to reduce both audit delay and reporting delay since larger companies may be monitored more closely by investors, unions and regulatory agencies and thus face greater external pressure to report earlier Dyer and McHugh (1975). Other studies that have used assets as a measure of company size have found a negative (though

typically weak) relation with audit delay (Courtis and Abacus, 1976; Davies and Whittred, 1980; Garsombk, 1981; Gilling, 1977).

**Industry:** Industry classification (IND) was employed as an explanatory variable. The TSE (Tehran Stock Exchange), industry classification scheme. Companies were combined into two groups:

- Financial services companies
- All others

The financial (nonfinancial) companies were assigned a 0(1) for data analysis purposes. Prior studies have found that financial companies have shorter audit delays than companies in other industry classifications (Courtis and Abacus, 1976; Ashton *et al.*, 1987), which suggests that, dollar for dollar, financial assets are easier to audit than nonfinancial assets.

**Audit Opinion (OPIN):** Companies not receiving a standard (e.g., unqualified) audit opinion were expected to have a longer audit delay." Standard audit opinions were assigned a 0 and all others were assigned a 1. The rationale, in part, is similar to the income variable. That is, companies receiving a qualification may view this as bad news and slow down the audit process. For example, a company might not respond in a timely fashion to requests from the auditor. The receipt of a nonstandard audit report might be symptomatic of auditor-company conflict which would also tend to increase audit delay.

**Extraordinary item (Extr):** Companies reporting an extraordinary item were expected to have a longer audit delay and were assigned 1. Companies without an extraordinary item were assigned a 0. Extraordinary items by definition are indicative of unusual reporting items, so that additional time may be needed for audit. Further, the auditor may have significant uncertainty as to whether a particular item is extraordinary or not, which, in turn, may lead to extended negotiations between the auditor and the company.

**Changes percent in earnings per share:** Public expectation says that management tries to delay identifying bad news as noisy signal for company performance. Several studies before report that financial statements when there is good news, are reported sooner (Chambers and Penman, 1984; Givoly and Palmon, 1982; Kross and Schroeder, 1984; Pastena and Ronen, 1979). In this point of view, it is expected that reducing in earnings per share causes delay in audit report.

Table 1: Correlation between six independent variables and audit delay

Variables and audit delay	Audit delay	Size of the company	Changes percent in earnings per share	Industry	Extraordinary item	Audit report	Debt ratio
Audit delay	1	-	-	-	-	-	-
Size of the company	0.140**	1	-	-	-	-	-
Changes percent in earnings per share	-0.086**	-0.055*	1	-	-	-	-
Industry	0.001	0.039	-0.004	1	-	-	-
Extraordinary item	-0.072**	-0.269**	0.873	0.039	1	-	-
Audit report	0.007	0.000	0.010	-0.089**	-0.478**	1	-
Debt ratio	0.051	-0.468**	0.050	0.001	0.000	0.000	1
	0.058	0.000	0.015	0.032	0.105**	-0.109**	0.000
	0.078**	0.670**	0.015	0.032	0.105**	-0.109**	0.000
	0.003	0.000	0.585	0.237	0.000	0.000	0.000
	0.005	-0.122**	0.015	0.032	0.105**	-0.109**	0.000
	0.860	0.000	0.585	0.237	0.000	0.000	0.000

\*\* : Correlation in 0.01 (two tails); \* : Correlation in 0.05 (two tails)

Table 2: Calculated F-stat

Model		S.S.	df	M.S.	F-stat	Sig.
1	Regression	81313.422	6	13552.237	10.952	0.000
	Errors	1719945.056	1390	1237.371	-	-
	Total	1801258.478	1396	-	-	-

Table 3: Coefficients of variables

Model	Non-standard coefficient		Standard coefficient	t- value	Sig.
	Coefficient	S.E.			
Constant	27.885	12.763		2.185	0.029
Size of the company	4.590	0.921	0.189	4.985	0.000
Changes percent in earnings per share	-0.002	0.001	-0.085	-3.245	0.001
Industry	-26.744	4.497	-0.026	-5.947	0.001
Extraordinary item	21.431	4.288	0.154	4.998	0.000
Audit report	13.795	3.035	0.020	4.545	0.000
Debt ratio	0.014	0.024	0.016	0.596	0.551

### RESEARCH HYPOTHESIS

By considering older and prior studies and by considering the environmental condition, 6 hypos like below is recommended:

- H1:** There is a negative correlation between audit delay and size of the company.
- H2:** There is a negative correlation between audit delay and percent of changes in earnings per share.
- H3:** There is a positive correlation between audit delay and company's industry (for researching this hypo it is considered 1 for companies in non-financial industry and 0 otherwise).
- H4:** There is a positive correlation between audit delay and existence extra ordinary figure (it is a dummy variable that takes 1 if there is an extra figure and 0 otherwise).
- H5:** There is a positive correlation between audit delay and audit opinion (it is also a dummy variable that

takes 1 if its audit opinion is qualified and 0 otherwise).

- H6:** There is a negative correlation between audit delay and Debt ratio.

### RESULT ANALYSIS

The results are presented in two parts. First, summary of correlation results that describe the dependent variable and the six independent variables are presented. Second, the results from multiple regressions of audit delay on the independent variables are presented.

First part of results contains correlation between six independent variables and audit delay as Table 1.

By considering results from the Table 1, it can be asserted that in sample that this study, there are strong and positive correlation between audit delay and Size of company, Extraordinary Item, Audit report. So, hypos 1, 4 and 5 are accepted. Additionally, there are strong and negative correlation between audit delay and

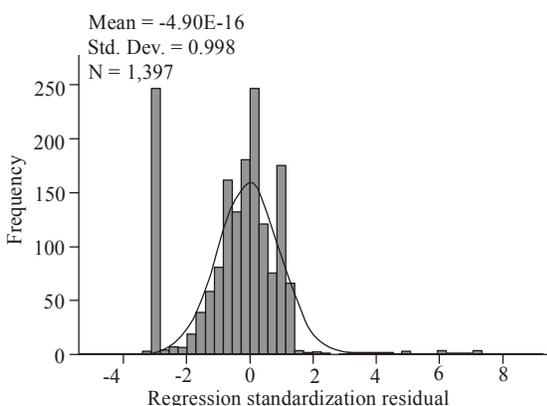


Fig. 1: Normality test

changes percent in Earnings per Share, Industry. So, hypo 2 is accepted and hypo 3 is rejected. Results show that there is no significant correlation between audit delay and debt ratio, so it cannot be asserted that hypo 6 is accepted.

In this study, more than aforementioned analysis, it is analyzed by regression relationship between independent variables and dependent variable.

Based on Table 2, hypo  $H_0$  that says regression equation is not suitable is rejected in the significance of 95% (error  $\alpha = 5\%$ ) and says that F stat calculated in this study for the aforementioned equation is more than F stat in table. It is obvious that when  $H_0$  is rejected then regression equation is meaningful.

Based on the above table the whole regression equation is meaningful because F-stat significance is meaningful. Coefficients of variables are entered in the Table 3.

It is shown in Fig. 1 that errors expansion of the regression equation of this study is normal with the mean of zero and standard deviation of 0.998 that is really near the Fig. 1.

## CONCLUSION

This study is done in capital market of Iran, [Tehran Stock Exchange (TSE)], for the period of 2004 to 2010 for 1397 companies listed in that market and used regression model based on the research content of Ashton *et al.* (1989). Based on prior studies, in this study six variables are chosen to be studied for understanding their relationship and correlation with the dependent coefficient of this topic named audit delay. Results show that there are strong and positive relationship and also correlation between audit delay and size of the company, extra ordinary figure and also audit opinion. So, the hypotheses of 1, 4 and 5 are accepted and there are strong and negative correlation

between audit delay and Changes percent in Earnings per Share, Industry. So, hypo 2 is accepted and hypo 3 is rejected. Results show that there is no significant correlation between audit delay and debt ratio, so it cannot be asserted that hypo 6 is accepted.

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