

THE RESPONSIBILITY FOR PREVENTING AND DETECTING ACCOUNTING FRAUDS FROM THE VIEWPOINT OF SELF-REGULATORY AGENCIES IN TURKEY: DE JURE STATUS AND DE FACTO APPLICATION

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Abstract: Self-regulatory agencies' way of understanding and practices can help clarify the scope of the responsibility for preventing and detecting frauds. They are assumed to represent a vast majority of the public in an unbiased and equitable manner. Moreover, their final decisions and their reasoning behind could give critical hints to both the researchers and financial information users about the probable suspects of frauds, the fraud schemes self-regulatory agencies particularly want the liable parties to prevent and detect the penal aspects of accounting frauds, the primary responsibilities for detecting and preventing frauds, and the audit expectation gap. Besides these authorities have a material impact on setting and implementing relevant standards, codes, and other regulations. Therefore a research study was conducted in order for testing whether there is a statistically significant relationship between a series of variables some of which involve auditing-related factors and accounting frauds, and it is consequently found out that the Turkish self-regulatory agency imposed the primary responsibility for both preventing and detecting frauds upon the same party, the client company and its management. The findings of the research might also imply the absence of an audit-expectation gap in Turkey.

KeyWords: Accounting Frauds, Auditors' Responsibilities, Detecting Accounting Frauds, Auditor and Auditee Sanctions due to Accounting Frauds, Fraud Schemes

TÜRKİYE'DE DÜZENLEYİCİ KURULUŞLAR AÇISINDAN MUHASEBE HİLELERİNİN ÖNLENMESİ VE ORTAYA ÇIKARILMASI SORUMLULUĞU: HUKUKİ DURUM VE FİİLİ UYGULAMA

Özet: Düzenleyici kuruluşların yaklaşımı ve uygulamaları muhasebe hilelerinin önlenmesi ve ortaya çıkarılması sorumluluğunun kapsamının açıklığa kavuşturulmasına yardımcı olabilmektedir. Bu kuruluşların kamunun büyük bir çoğunluğunu adil ve yansız bir şekilde temsil edeceği varsayılmaktadır. Ayrıca aldıkları kararlar ve karar alma mantıkları hem araştırmacılara, hem de finansal bilgi kullanıcılarına olası hile şüphelileri, bu kuruluşların sorumlulardan özellikle önlenmesi ve ortaya çıkarmasını istedikleri hile yöntemleri, hilelerin cezaî yönleri, hilelerin önlenmesi ve ortaya çıkarılmasında temel sorumluluklar ve denetim beklenti boşluğu konularında önemli ipuçları verebilmektedir. Yine bunlar ilgili standart, yasa ve diğer düzenlemelerin oluşturulması ve uygulanmasında önemli etki sahibi olmaktadır. Bu nedenle, bağımsız denetimle ilgili faktörleri de kapsayan bir dizi değişken ile muhasebe hileleri arasında istatistiksel olarak anlamlı bir ilişki olup olmadığını sınanan bir çalışma yapılmış ve sonuç olarak Türkiye'deki düzenleyici kuruluşun muhasebe hilelerinin önlenmesi ve ortaya çıkarılması sorumluluğunu aynı tarafa, müşteri işletme ve yönetimine yüklediği bulunmuştur. Araştırmanın bulguları Türkiye'de bir denetim-beklenti boşluğu olmadığına da işaret etmektedir.

Anahtar Kelimeler: Muhasebe Hileleri, Denetçilerin Sorumlulukları, Hilelerin Ortaya Çıkarılması, Denetçi ve Denetlenenlere Uygulanan Yaptırımlar, Hile Yöntemleri.

I. INTRODUCTION

The responsibility for detecting and preventing accounting frauds in Turkey has been clearly defined in a series of communiqués. Both the first communiqué dated 1996 and the most recent communiqué dated 2006 has imposed the primary responsibility for detection and prevention on the client companies and their management. In fact, in Turkey and all over the world there is not much dispute about the fraud prevention responsibility. It rests with the client companies and their management, and they are expected to fulfill that responsibility essentially by designing, setting, implementing and updating various

control systems. On the other hand, in retrospect the fraud detection responsibility swung between external auditors and the client companies from time to time. Referring to the auditing literature, it is understood that one of the most controversial issues since 1930's at which the auditing of U.S. publicly held companies was made mandatory has focused on the issue about whose responsibility for the detection of accounting frauds was and had to be in reality. As a matter of fact, at the initial stages of compulsory auditing practices this responsibility was acknowledged as the primary auditing objective, but it lost its priority for auditors especially in the growth and expansion cycles of economy when weaknesses of firms

and business failures were not called much attention of the public and authorities, and it took back its priority in the recession and depression cycles when they were given too much weight to.

Having observed these pendulum swings in the definition of auditors' responsibility for detecting and preventing accounting (*i.e. financial reporting*) frauds, it is thought that self-regulatory authorities' point of view helps the researchers and financial public to clarify this subject because they may be argued to represent a vast majority of the interested parties. Their decision criteria and final decisions of self-regulatory agencies may also highlight whether there is an audit expectation gap* in the Turkish experience or not. Secondly, self-regulatory authorities have great power on setting and implementing standards, codes, and other regulations related to the auditing profession. Lastly, the sanctions imposed by these authorities upon the client companies, their management and auditors may enable researchers to clearly and objectively determine the responsibility for detecting and preventing accounting frauds. Thus, the audit firms may need to restructure and reschedule their audits in such a manner that they could detect more of accounting frauds as well.

II. A SHORT BACKGROUND AND CURRENT LEGAL FRAMEWORK IN THE USA AND TURKEY

The transition of auditing profession's responsibility for detecting accounting frauds from being a primary auditing objective to narrowing it to giving an opinion if financial statements are fairly disclosed has gradually taken place within the 20th century. [3,4] As a matter of fact, the gradual change in the attitude of auditors toward detecting accounting frauds could be witnessed in the relatively short history of auditing in the USA and UK. It could be inferred from the recent history that auditors' responsibility for detecting frauds is one of the most controversial issues in auditing. [2]

Presently in the USA, the responsibility of auditors in detecting and reporting frauds is essentially determined within the context of the Sarbanes-Oxley Accounting Reform Act (hereinafter SOX) of 2002 and Statement of Auditing Standard (*i.e. SAS No.99, Consideration of Fraud in a Financial Statement Audit*) of 2002. SOX refers directly and indirectly auditors' responsibility for detecting frauds. The drastic changes coming with this act and loading auditors with new charges are summarized as follows: [5,6,7,8,2,9,10,11]

*This term implies in the final analysis the public perception about auditing and current audit practices. [1] In order to explain the same concept, sometimes the audit expectation-performance gap is used and it points out the mismatch or difference between the duties of the audit firms expected by the public to be performed and the duties already performed in the audits. [2]

- SOX assumed that auditors are not eligible and adequate in detecting frauds and created a new authority, that is the Public Company Accounting Oversight Board (*hereinafter* PCAOB) which is directly attached to the SEC. The foundation of the PCAOB is supported by the widespread public and political opinion that large-scale accounting frauds occurred especially in the publicly held companies audited ineffectively by the big audit firms. Before SOX, the Financial Accounting Standards Board (*hereinafter* FASB) and the American Institute of Certified Public Accountants (*hereinafter* AICPA) were the real authority in the accounting and auditing spheres under the supervision of the SEC, but not held directly responsible to the SEC. Also, the members of the PCAOB are not all accountants. In fact, two members are stipulated to be non-accountants. In the past, the members of the FASB authorised for setting accounting standards were all accountants.
- The quality controls of the audits are not to be made solely by other audit firms (*i.e. peer review*), but are to be made at the same time by the PCAOB. The PCAOB will periodically monitor the audit firms to evaluate their compatibility with the existing laws, regulations, and standards. In comparison to the peer reviews which are not binding for the audit firms and not accessible for the public at all, the PCAOB's reviews require sanctions and disclose the consequences of the reviews.
- The audit reports are reviewed and approved by a partner other than the one conducting audits.
- The audit firms could not simultaneously provide some management consulting and information services to be dictated by the PCAOB.
- Senior management of the client companies will assess the efficiency of their internal control systems after the completion of the audit reports and determine control weaknesses. Thereafter, auditors will give their own opinion about management's assessment. (*i.e. management's report on internal control*)
- Determining the audit firm and fees will be decided henceforth by audit committees, not the top management. Additionally, the audit reports will be submitted directly to the audit committees.
- By prohibiting the management from manipulating, forcing, misleading and effecting auditors under no circumstances, the impartiality and independence of auditors are thought to be strengthened.
- The partners responsible for making and reviewing audits are subject to rotation on every 5 years.
- Auditors will experience conflicts of interests when they start to work for former client companies. To prevent such a problem, if the top and middle

managers work for the audit firms during the year before audit, that audit firm will not make an audit of that client company.

- The limitation period for security frauds and manipulations is extended.
- The informing employees and auditors will be secured more within the legal framework. The retaliation against informants is subjected to heavier legal sanctions.
- All types of penalties of the PCAOB are increased with respect to time and quantities.

Generally, SOX is accepted as an extension of the Securities Act of 1933 (*named also as 'the act of truth'*), and aims at enhancing corporate governance and accountability in the client companies and increasing the reliability of financial statements by means of effective corporate governance and reforms within accounting profession. [11] This act demands more transparency in the public disclosures. [6]

Another determinant of auditors' responsibility for accounting frauds is a relatively new statement of standard, namely SAS No.99 of 2002. It was enacted in order for restoring confidence following large bankruptcies in the US capital markets and guiding auditors in their responsibility of assuring that the financial statements are free of material misstatements. According to Singleton et al [1] comparing former and newly enacted auditing standards, the main difference of SAS No.99 from the former SAS No.53 of 1988 (Auditor's Responsibility to Detect and Report Errors and Irregularities) and SAS No.82 of 1997 (*Consideration of Fraud in a Financial Statement Audit*) have its source in the audit process and auditors' responsibility for immaterial frauds. Porter et al [2] state that SAS No.53 adopted an affirmative approach in defining auditors' responsibilities in terms of accounting frauds. SAS No.82, unlike its predecessor, which embraced both errors and irregularities, dealt only with frauds in financial statement audits, and seemed to go beyond requiring auditors to plan and perform their audits to obtain reasonable assurance that the financial statements are free of material misstatements. It also requires them to actively search for accounting frauds. Together with SAS No.99 the audit process is estimated to undergo profound changes including the brainstorming session among the audit team during the audit planning stage. In this context, auditors are obligated to make brainstorming sessions as to the likelihood of frauds and their risk levels. If a high-risk transaction or activity is present, the situation is taken into consideration in applying audit techniques. Risk-based auditing is claimed to aim at preventing and decreasing the fraud risk. In case misstatements result from frauds or their effects are immaterial or obscure, auditors will collect additional evidences and assess the effects of this situation on other aspects of the audit. The second important change in the audit process is that auditors will

assume beforehand income accrual frauds are most of the time available in the financial statements.

By Golden et al [12] even audits conducted within the strict rules and standards could not detect frauds because of intentional and hidden nature of frauds and structural constraints of audits, and therefore auditors could provide only reasonable assurance. Despite this fact, auditors are asked to carry out some additional duties and transactions increasing the likelihood of detecting frauds. Moreover, they will discuss the subject and necessary actions with the superiors of suspicious employees, the senior management, audit committee or legal advisor, whomever is appropriate, and decide on whether a fraud examination apart from and in addition to the standard audit is necessary or not.

Finally, in the common law auditors bear responsibility against essentially two parties, their client companies and the third parties. The responsibility for the clients arises from audit contracts and torts, the responsibility for the third parties (*i.e. primary beneficiaries and other beneficiaries-foreseen class and foreseeable parties*) stems from their use audit reports. [5] In the aggregate, the SOX act and SAS No.99 brings about two key changes in the field of auditing. In the first place, the client companies and their auditors subjected to the act and standard mentioned above are to be controlled tighter than before. In the second place, the audit firms could not review themselves, but are to be hold under strict control of the PCAOB. [1]

On the other hand, in Turkish law auditors' responsibility are not embodied in detail and in fact dealt within the framework of general provisions and principles. By Çelik [13], the responsibility of auditors relates to whether the audit is conducted in accordance with generally accepted auditing principles and rules. It arises basically from their opinions about financial statements expressed in the audit reports. Auditors are responsible only for material misstatements in the financial statements and reports, not for immaterial ones. Whether the misstatement in question is material or not is to be determined by taking the terms and conditions of the specific case into account, but by and large misstatements which are able to change or have an effect on the economic decisions of an average financial statement user are qualified as material. The general provisions as to auditors' legal responsibility is provided within the framework of the capital market law no. 2499. In article 16, it is stated that external audit firms are legally responsible for losses arising from false or misleading information and statements in the audit reports they have prepared about the financial statements and reports. Furthermore, regarding external auditing standards in the capital markets article 29 of the second section of the communique serial: X, no:22 originated from IAS 240 said that the audit firms and auditors in charge are jointly and severally liable for losses of their clients and third

parties arising from audits made incompatible with auditing standards. Similar to the provisions effective in the USA, auditors bear responsibility against their clients and third parties in Turkey, too.

According to article 5 of the second section of the communique serial: X, no:22, it is stipulated that the primary responsibility for preventing and detecting frauds is imputed to the client companies and their management. Likewise, setting and implementing an internal control system that ensures the reliability of the financial system, the efficiency and effectiveness of operations, and the compliance with prevailing laws and regulations is also a duty of the top management. This responsibility covers establishing a financial reporting system based on the application and implementation of controls directed towards the preparation of financial statements which give a true and fair view of the operations of the company. In the same section, article 6 and 7 describe the boundaries of the responsibility of auditors. In article 6, it is specified that there might be a risk of not detecting material misstatements even in an audit planned and made in compliance with auditing standards because of structural limitations inherent in the nature of auditing. The frauds and irregularities including collusive actions complicate the problematic issue of the prevention and detection even further. On the other hand, auditors' ability to detect frauds depends on the artifice, number and position of fraudsters, the number and frequency of the fraud, the complexity of collusions, the relative magnitude of fraudulent numbers and figures recorded on documents. Even though auditors are good at identifying potential areas highly exposed to frauds and irregularities, it might sometimes be very difficult to distinguish such misstatements due to frauds from those due to errors such as in the event of the management's accounting estimates made at their sole discretion.

III. RESEARCH METHODOLOGY

In this research study, the multinomial logistic regression analysis was made by using SPSS 13.0 for Windows. Hosmer and Lemeshow [14] suggested the logistic regression model as the standardised analytical method if the response (i.e. dependent) variables are discrete or discontinuous. Logistic regression analysis looks for a relationship between a response variable and a group of explanatory variables and aims at reaching a reasonable model.

Since the penalties imposed upon the client companies and/or their management by self-regulatory agencies (*henceforth the client company penalty*, "CCP") and selected as the response variable of the two models have three levels and many of the explanatory variables are categorical, a multinomial logistic regression model is set up instead of a binomial logistic regression model. In several studies searching for a statistical relationship between penalties and accounting frauds performed such as by Firth [15], Bonner [16], Palmrose [8] and Green

[17], it has been observed that the multinomial logistic regression analysis was preferred to the simple or binomial analysis.

IV. RESEARCH MODELS AND SELECTED VARIABLES

Within the framework depicted above, no matter what the accounting fraud scheme is, the first model was set up to determine whether a statistically significant relationship between CCP and a series of factors representing the client company characteristics and some auditing-related factors. The auditing-related factors are cited below:

- the penalties imposed on the audit firms and auditors by self-regulatory agencies (*hereinafter audit penalties*, AP),
- auditors' opinion involving financial statements of the accounting period at which the accounting fraud took place (*hereinafter auditors' opinion*, AO),
- the audit firm's size, national or international, (*hereinafter audit firm's size*, AFS).

These factors were assigned as the test variables of the model. Other variables are incorporated into the model as the control variables and are as follows:

- The accounting fraud scheme (if there is a material misstatement or an improper disclosure, (*hereinafter FS*),
- the total assets of the defrauded company denominated in US Dollars (*hereinafter*, TA),
- the return on assets of the defrauded company denoted as a ratio (*hereinafter*, ROA),
- the debt/equity ratio of the defrauded company (*hereinafter*, DER),
- the sector or branch of activity the defrauded company operates in (if the company operates in the industry sector, *hereinafter* IS; in the agricultural sector, *hereinafter*, AS; and in the service sector, *hereinafter*, SS),
- the operating period of the defrauded company (the time period between the founding year of the defrauded company and the year of the accounting fraud at which it took place, *hereinafter*, OP),
- and the time lag period (the time period between the year the accounting fraud committed and the year the accounting fraud penalised, *hereinafter*, TLP).

In this context, the first model was formulated below:

First Model,

$$CCP = \alpha + \beta_1 AP + \beta_2 AO + \beta_3 AFS + \beta_4 FS + \beta_5 TA + \beta_6 ROA + \beta_7 DER + \beta_8 OP + \beta_9 SS + \beta_{10} IS + \beta_{11} AS + \beta_{12} TLP + \varepsilon$$

In the second model, only income-related frauds out of all material misstatements were left in the sample and it was sought for if there is a statistically significant relationship between CCP and a series of other explanatory variables. Just as in the first model, 3 auditing-related factors (AP, AO, and AFS), the characteristics of the client company (TA, ROA, DER, OP, IS, AS, SS) and the time lag period (TLP) are independent variables in this model. However, a newcomer, income-related frauds (IRF) substitute for the accounting fraud scheme (AFS) of the first model. In this context, the formulation of the second model is made as follows:

Second Model,

$$CCP = \alpha + \beta_1 AP + \beta_2 AO + \beta_3 AFS + \beta_4 IRF + \beta_5 TA + \beta_6 ROA + \beta_7 DER + \beta_8 OP + \beta_9 SS + \beta_{10} IS + \beta_{11} AS + \beta_{12} TLP + \varepsilon$$

The client company penalty (CCP) is the response (*i.e. dependent*) variable of both models and a categorical variable.

The accounting fraud scheme (FS) is an explanatory (*i.e. independent*) variable, which is a discrete (*i.e. categorical*) variable and has two levels. At this point material misstatements are expected to be punished more severely than improper disclosures. Income-related frauds (IRF) is another discontinuous explanatory variable and has two levels. In some of the former studies [6,12], material misstatements and income-related frauds are expected to be punished more severely than improper disclosures and asset, debt, and expense-related frauds, and also common fraud schemes expected to be punished more severely than unusual schemes of fraud. Audit penalties (AP) are a categorical explanatory variable and have two levels. It is taken into the models to determine whether auditor sanctions correlate with the client company penalties because in the event that the client companies and the audit firms are penalised simultaneously, a joint responsibility argument may be introduced.

Auditors' opinion (AO) is a categorical explanatory variable and has three levels. We hope that auditors' opinion other than unqualified opinions are positively related with the CCP and auditors' unqualified opinions are inversely related with the CCP. The audit firm's size (AFS) is another categorical explanatory variable and has two levels. Since they are widely known to have more financial and human resources, become more competent and impartial, make more effective audit plans and programs, use new techniques promptly, be more afraid of losing its reputation in case of failing to detect frauds and so behave risk-averse, multinational audit firms are expected to detect frauds more likely than local audit firms, and therefore be penalised less than local audit firms.

Total assets of the client company which is defrauded due to the accounting fraud denominated in the US Dollars (TA) is a scale explanatory variable. Some of the studies cited above [17,15] found that total assets and the return on assets of the client company have an inverse relationship with the CCP and contrarily the debt/equity ratio of the client company has a positive relationship with the CCP. In addition, the worse the financial situation of the client company before the incidence of the accounting fraud, the more inclined it manipulates its income and other important financial figures. It follows that lower total assets and return on assets and higher debt/equity ratios are considered to indicate poor and adverse financial position. Likewise, since they can manage to compensate the plaintiffs and their attorneys for the accounting frauds the companies having high amount of assets and insuring their assets against various risks are sued more frequently. Therefore, as the client companies are expanding (*i.e. their assets are increasing in size*), it is claimed that they are more likely to be sued and penalised afterwards. The debt/equity ratio of the client company (DER) is another scale independent variable. For the very similar reasons already given for the TA above, the level of indebtedness of the client company and the CCP variable are expected to move in the same direction. The return on assets of the client company denoted as a ratio (ROA) is a scale independent variable. For the similar reasons given for TA and DER variables before, the declines in the return on assets of the client company are expected to increase the CCP, that is they are negatively related.

The sector or branch of activity the client company operates in is a categorical explanatory variable. In practice, the sectors most frequently suffering from the frauds are banking and financial services, public institutions, manufacturing, health, and retail services. [18,19,20,21]. Furthermore, Bonner et al [17] maintain that the sector or branch of activity of the client company is one of the factors affecting the number of lawsuits, and pinpoint technology and financial services as the sectors most vulnerable to fraud and litigation. The operating period of the client company is a scale variable. As the length of the operating period increases, the client companies are expected to be penalised less because they become a permanent market player and attain a satisfactory position with respect to trademarks, reputation and social responsibility. The time lag period is another scale explanatory variable. As the length of the time lag period increases, the frequency and quantity of penalties also increase since overall economic and social costs of the fraud increase as time passes.

In both models above, it is considered investigating implicitly whether the authorised regulatory agency perceive a joint responsibility of the client companies and audit firms for detecting accounting frauds by searching the presence of some auditing-related factors' relationship with the client company penalties. If

the audit and client company penalties significantly increase or decrease simultaneously or if the client company penalties increase while unqualified opinions of the audit firms increase, it may be possible to assume a joint responsibility of both the client companies and audit firms to a certain degree. Otherwise, it may not be mentioned about a case of joint responsibility and therefore the responsibility for detecting accounting frauds might and should be individually and solely assigned to the client companies. In other words, if the latter is the case the audit firms and auditors might not be held responsible for detecting accounting frauds in any way, shape, or form. The last audit-related factor, the auditing firm's size is incorporated into the model to learn if the self-regulatory agency takes the size as a factor into account in deciding upon penalties. Taking the size factor as one of the decision criteria in penalising the client companies audited by multinational audit firms less than those audited by local audit firms, as in the case of USA, may deteriorate the efficiency of regulatory agencies' penal policies and also cast doubts on the impartiality of these agencies on one hand, but on the other hand may point out that multinational audit firms are relatively successful in detecting accounting frauds with respect to local ones.

V. SAMPLE SELECTION AND THE DATA SET SPECIFICATIONS

The Capital Markets Board (*hereinafter* CMB), Turkey's self-regulatory agency in charge of monitoring and supervising the capital markets, has been imposing penalties on the client companies (*mainly publicly held companies*) subjected to the capital markets laws and regulations since its founding year of 1982 and penalised both the client companies and audit firms due to accounting frauds, errors, irregularities and breaches of other regulations since the issuing year of 1996 of the communiqué as to the external audit. CMB has continued penalising the audit firms according notably to the new communiqué dated 2006 that substituted for the old communiqué dated 1996 and other capital market institutions in accordance with its current legislation.

The departments of CMB (*i.e. corporate finance, enforcement, and accounting standards departments*) liable for monitoring and supervising the capital market institutions investigate problematic cases flowing from various information channels (*e.g. tips&complaints, the audit reports, or staff's examination*), and then send their case reports and reviews to the board of directors of CMB. After the board meeting regarding the report and review of the specific case in hand, the summary of the final section of the decree for penalties and other decisions (*approvals, permissions, restrictions, or prohibitions, etc.*) are issued in weekly bulletins of CMB in written and digital forms. The data base of the research has been reproduced from the subsections of the weekly

bulletins of CMB under the headline assigned for public disclosures of material events[†].

On the assumption that it is not required to penalise the client companies and their audit firms for doing errors in the financial statements because errors, which are not intentional in the final analysis, are to be corrected within a certain period of time given by self-regulatory agencies and such an application is deemed sufficient for correcting these errors, a penalty decree issued in weekly bulletins for reasons other than doing errors was regarded to be a proxy for fraud. Therefore, all the penalty decrees imposed by CMB due to material misstatements and improper disclosures in the financial statements of the client companies subjected to the capital market laws and regulations were included within the scope of this research study.

627 cases of penalty decreed for material misstatements and improper disclosures are extracted from the weekly bulletins of CMB. 320 of these cases involve material misstatements, and 307 cases involve improper disclosures. From among 320 cases, 160 cases had to be excluded from the sample because of the non-availability of either the financial statements or the audit reports of the client companies aforementioned in the penalty decrees, and thus only the remaining 160 cases could be used for research purposes. These cases included material misstatements such as income/asset overstatement or understatement, understatement of debts/liabilities, fictitious income and improper asset valuations.

In a similar way, from among 307 cases 135 cases were excluded from the sample due to the same reason cited above, the non-availability of either the financial statements or the audit reports of the client companies, and thus the remaining 172 cases could be used for research purposes. These cases consisted of false, misleading, and incomplete disclosures. Both the cases of material misstatements and improper disclosures are stated among the financial statement and asset misappropriation frauds of the Association of Certified Fraud Examiners (*from now on* ACFE)' classification widely accepted across the world in the fraud-related researches. ACFE may be qualified as the leading organisation that represents the profession of fraud examination and more importantly perform up-to-date and periodic researches in the USA.

Ultimately 160 cases of penalty for material misstatements and 172 cases of penalty for improper disclosures constituted a sample of 332 cases in total. At first sight, it looks like a majority of these penalties were imposed upon the client companies and only a few penalties were related to the studies of the audit firms. CMB might have penalised the client company and audit firm simultaneously, but such cases could only be

[†]Özel Durum Açıklamaları

detected by means of getting access to the internal resources of CMB, and for the time being it is not possible to search for this kind of cases concerning joint responsibilities and penalties. 332 cases from among a total of 627 cases were in fact randomly selected and this number was accepted enough to draw some conclusions from the research findings. As matter of fact, the studies of Yazıcıoğlu and Erdoğan [22], Büyüköztürk et al [23], Altunışık et al [24], İslamoğlu [25] and also the rule-of-thumbs all led to the the same conclusion that the size of the sample was regarded as sufficient to make statistical analyses.

In the accounting and auditing literature, there exists a good deal of similar research studies to the one introduced here. To illustrate, in a research investigating an alleged relationship between the type of accounting frauds and auditor sanctions by Firth et al [15], 472 enforcement releases in 1996-2002 period were collected from the bulletins of the China Securities Regulatory Commission. 337 cases which did have nothing to do with the accounting frauds were excluded from the sample, 43 cases were excluded for non-existence of relevant data, 18 cases were excluded for duplication, 9 cases were excluded for the absence of audit-related information, and as a result a final sample of 72 cases were reached to perform the research in question.

In another research seeking for an alleged relationship between the type of accounting frauds and auditor sanctions by Bonner et al [17], 472 enforcement actions in 1982-1995 period were collected from the accounting and enforcement releases of the US Securities and Exchange Commission (*hereinafter* SEC), 17 cases which did have nothing to do with the accounting frauds were excluded from the sample, 24 cases were excluded due to the breaches of relevant auditing laws and regulations, 6 cases were excluded for the absence of any audit firm, 45 cases were excluded for non-availability of the financial statements, and as a result a final sample of 261 cases were reached to perform the research in question.

In another research testing a potential relationship between the causes and consequences of earnings manipulation by Dechow et al [26], from among 436 companies penalised in 1982-1992 period 165 cases were eliminated for the breaches of auditing standards, 70 cases were eliminated for the reference to the same company, 76 cases were eliminated for the absence of relevant financial information, 29 cases were eliminated for their involvement with initial public offering procedures, 4 cases were eliminated for the uncertainty regarding the manipulation period, and as a result a final sample was reduced to 92 cases.

In a research looking for a potential relationship between the type of accounting frauds with some other audit-related factors and auditor sanctions by Rollins and Brewster [27], from among 309 penalties imposed in

1982-1991 period, by eliminating multiple penalties imposed for the same fraud and by taking only one penalty imposed for the same fraud committed at different times a final sample was obtained with 91 cases.

VI. OUTPUTS OF THE MULTINOMIAL LOGISTIC REGRESSION ANALYSIS

For both models constructed for analytical purposes, the multinomial logistic regression was applied by means of SPSS 13.0 for Windows. The significance level (*i.e.* α) was supposed to be 1 %. The SPSS outputs were given at the end of the article.

First Model,

The pseudo R^2 's (*i.e.* *the coefficient of determination*) are used in the research instead of R^2 's of the linear regression analysis. There are 3 pseudo R^2 statistics included in the SPSS output; Nagelkerke $R^2 = 0.515$, Cox and Snell $R^2 = 0.441$ and McFadden $R^2 = 0.300$. In other words, this model accounts for 30.0 % to 51.5 % of the variation in the response variable.

Correct classification rate was calculated as 69.4 %. Then it might be argued that the model is quite able to discriminate the types of penalties in case of observing improper disclosures. The model correctly classifies 90.5 % of the warnings, 61.8 % of the denunciations, and 18.8 % of the pecuniary fines.

Two relevant statistics were referred to as the measure of the goodness-of-fit of the model. Since p-value is equal to 0.000 and greater than 0.010, the model is said to be considerably fit the observations or data. In a similar way, the Pearson Deviance statistic indicating again the goodness-of-fit of the model is 0.512 and 1.000 and these figures confirm the same outcome.

According to the likelihood ratio tests summarised in Table 1, the audit opinions disclosed on the audit report, operating in the sectors other than the industry sector, the time lag period, and the accounting fraud scheme are specified as the statistically significant factors. Meanwhile, the parameter estimates of the first model are given in Table 2.

Audit-related factors (AO, AFS, and AP) were selected to be the test variables in applying the model. Auditors' opinion (AO) is regarded as a significant explanatory variable and positively relates to the warnings and pecuniary fines. In other words, the client company penalties tend to show an increase in case of unqualified audit opinions. Audit penalties (AP) and the audit firm's size (AFS) are not found significant and thus seem having no effect on both warnings and pecuniary fines. On the other hand, the factors other than audit-related factors are selected as the control variables. In this context, if the accounting fraud scheme (FS) relates to improper disclosures, it is deemed statistically significant. In other words, in case of making improper disclosures, the warnings and pecuniary fines imputed to the client

companies might be said to increase. The operating period of the client company (OP) is not a significant variable, and it seems no correlation between the client company penalties and the operating period. The time lag period (TLP) is another significant variable. If that period increases, the warnings and pecuniary fines imputed to the client companies might be said to decrease. Operating in the agriculture or service sectors (i.e. sectors other than the industry sector) does not seem to have any effect on the warnings, but seem to have an effect on the pecuniary fines. In other words, the pecuniary fines tended to increase mainly in the cited sectors in case of observing improper disclosures.

Second Model,

3 pseudo R^2 statistics included in the SPSS output are Nagelkerke $R^2 = 0.607$, Cox and Snell $R^2 = 0.504$ and McFadden $R^2 = 0.395$. That is to say, this model accounts for 39.5 % to 60.7 % of the variation in the response variable.

Correct classification rate was calculated as 78.6 %. Then it might be stated that the model is able to discriminate the types of penalties in case of observing asset and liability-related frauds. The model correctly classifies 88.0 % of the warnings, and 80.0 % of the denunciations. The pecuniary fines, on the other hand, are not classified correctly by the second model.

As the goodness-of-fit statistics, because p-value is equal to 0.000 and greater than 0.010, the model is said to be perfectly fit the observations or data. In a similar way, the Pearson Deviance statistic indicating also the goodness-of-fit of the model is 0.938 and 1.000 and these figures confirm the same conclusion.

With reference to the likelihood ratio tests summarised in Table 3, the audit opinions disclosed on the audit report, income-related frauds, the operating period of the client company, and the time lag period are specified as the statistically significant factors. In the meantime, the parameter estimates of the second model are summarised in Table 4.

All of the above also signifies that auditors' opinion (AO) is regarded as a significant explanatory variable much the same as in the first model. The warnings and pecuniary fines tend to increase in case of unqualified audit opinions. The audit firm's size (AFS) are not found significant and thus have no effect on both the warnings and pecuniary fines. Audit penalties (AP) are not deemed as a significant factor on both the warnings and pecuniary fines. Among all the frauds, asset and liability-related frauds are deemed statistically significant. In other words, in case of observing improper disclosures, the warnings and pecuniary fines imputed to the client companies might be said to increase. The operating period of the client company (OP) and the time lag period (TLP) are both significant variables much the same as in the first model, that is the client company

penalties tend to decrease as the length of both periods extends.

VII. ANALYSIS OF THE RESEARCH FINDINGS

The absence of any significant relationship between the client company penalties and audit penalties might indicate that detecting accounting frauds is the sole responsibility of the client companies and their management, and imposing even a partial detecting responsibility on the audit firms is not considered at all. In the opposite case, at which a significant relationship between them is found (i.e. as the client company penalties increase/decrease, the audit penalties increase/decrease simultaneously), then a joint responsibility would be argued to some degree, but there is not such a correlation in both models.

In fact, taking a brief look at the raw data obtained from 332 penalties decreed by the CMB showed that the audit firms and/or their auditors were penalised in only 5 cases and this fact alone might suggest the client companies are responsible for detecting accounting frauds. Another finding that supports the same conclusion above is that within the research period extending from 2000 to 2008 the CMB penalised the audit firms 43 times and 38 of those penalties followed from the usual quality control reviews discovering breaches of the audit-related regulations such as the lack of sufficient appropriate audit evidence and audit programme, which are not directly associated with the financial statements of the client companies, but directly associated with breaches of the communiqués Serial: X, No: 22 and Serial: X, No: 16 regarding external audit and external audit standards. These breaches do not have nothing to do with the incompetence or acquiescence of auditors in preventing and detecting accounting frauds. To put it another way, 88.0 % of audit penalties do not arise from the accounting frauds. In the remaining 5 penal cases, the audit firms were held responsible and penalised due to the fact that the team in charge of audit was not able to detect frauds or properly identify them in their audit reports. Only in 3 cases, the audit firms were penalised together with the client companies, and in 2 cases they are penalised alone, without the client companies. This fact may be interpreted as the willingness of the CMB to aid the infant audit industry and encourage new audit firms' entrance to the still developing audit market. Notwithstanding the fact that new responsibilities recently imposed upon auditors such as a separate assessment of fraud risk and review and approval of the management's assessment of internal controls installed by the client company increased the responsibility of auditors to a certain extent, the effects of these reform-like developments might not yet spill over on the Turkish audit market, therefore might not deeply transform the Turkish auditors' responsibilities into those of their counterparts especially in the USA.

As auditors express an unqualified opinion on the financial statements, an increase occurs in the number and amount of the warnings and pecuniary fines imposed by the CMB. The most probable cause of this fact might be the CMB's approach imposing much of the responsibility on the client companies. The CMB might also think that after the public watch of the audit firms detecting accounting frauds becomes more complicated when the fraudsters act in collusion and the economic and social costs of the frauds rise as the period during which frauds keep undetected extend. The fraud scheme that plan to circumvent the internal controls of the client company and the audit firms might be judged by the CMB a more complex and serious fraud, and therefore it might consider the client companies and their management should be penalised severely for such kind of fraud. Though the audited financial statements include some errors and frauds, and also auditors' unqualified opinions on them imply in fact an audit or auditor failure, the CMB might prefer the audit firms not to penalise or rather avoid penalising them. the CMB here might consider encouraging the audit firms like the infant industries in the economy and therefore want them to grow up in the long run. Besides, it may not want to deter the audit firms from entering already underdeveloped and unsaturated audit market in Turkey because even moderate penalties may make it difficult for the newcomers to survive in the industry. Lastly, the CMB might also mean that since it penalises the client companies because of improper disclosures rather than material misstatements, all responsibility for making public disclosures should belong to the client companies. The CMB's practices seem to be consistent with those of their counterparts all over the world.

As it can be seen above as the number of audit opinions other than unqualified ones increases the client company penalties decrease. This may stem from more than one reason. To begin with capital, labour and money markets usually penalise the client companies and their management associated with the accounting frauds, and the penalties in question can reach relatively high levels. Thus, the CMB might not want to aggravate these market penalties with its own pecuniary fines. As a matter of fact, Sjögren and Skogh [28] note an inverse relationship between administrative pecuniary fines and other penalties imposed by the markets and courts. Second, if the troubles that are identified by the auditors are related with some defects and weaknesses in the control environment, information systems and corporate governance mechanisms, the CMB might want to allow a reasonable time for the client companies and their management to make necessary corrections and/or adjustments. The CMB might in the first place warn the client companies before imposing a penalty in the form of a pecuniary fine and if the client companies insist on avoiding the corrections and/or adjustments, it might consider aggravating the penalties. In other words, the CMB avoids imposing

administrative pecuniary fines on the client companies immediately because these companies might be the ones which are warned to make predefined corrective/adjusting actions and so are watched closely by the CMB for their practices.

No significant relation between the client company penalties and the size of the audit firms was found. This fact might reveal that the CMB could remain indifferent the size factor, do not distinguish between local and multinational audit firms by their size, and thus care about its impartiality and independence. In that vein, Gerety and Lehn [29] discovered that the shortcomings in corporate governance, the size of the audit firms and management compensation schemes based on financial performance measures do not lead to the perpetration of frauds.

There are some other secondary findings of the logistic regression analysis. One is that the warnings and pecuniary fines intensify in case of improper disclosures rather than material misstatements. This fact suggest the principle of full disclosure remain on the top of the CMB's agenda. This fact might also imply that the CMB lacks a systematic and effective control and review mechanism focusing solely on detecting errors and frauds. Currently, the CMB has been trying to detect material misstatements and improper disclosures implicitly from the mandatory files submitted by the client companies for reasons such as capital increases, shift to the registered capital system, quotation, public offerings, and other issues. Under normal circumstances it reviews the the financial statements, audit reports and any data and information flowing through the various information channels. Then it informs either the client company or audit firm in order to draw their attention, to warn, or to impose a pecuniary fine if a material misstatement or an improper disclosure is detected. When the CMB detects an error or fraud, it usually gives a warning to force the the client company or audit firm for corrective actions and measures. If that error or fraud is repeatedly committed or they avoid making corrections, it resorts to denunciations and/or administrative pecuniary fines. The control and review process for detecting errors and frauds should normally be separated from the periodic quality control reviews of the audit firms. For instance, in the year 2008 the CMB conducted 12 quality control reviews within which it periodically monitors the audit firms with respect to the terms of foundation, operational procedures, employee specifications, and audit contracts drawn up with the client companies.

Another secondary finding that deserves attention is that a hypothesis stating that the CMB penalises income-related frauds heavier than other material misstatements could not be verified. Conversely, in the event that other material misstatements related to assets and liabilities are included in the financial statements, the probability of the warnings and pecuniary fines being observed is to rise. This point may mean that the CMB

does not take notice of the specific fraud scheme, and even though the primary objective of income-related frauds is the overstatement of the earning capacity and market capitalisation of the client companies it does not penalise them heavier than other material misstatements.

Total assets, the return on assets, and debt-equity ratios of the client companies are not considered as significant factors behind the client company penalties. This finding might indicate that the CMB does not take the size, profitability, and debt burden of the client companies at imposing sanctions. Therefore, it might not regard lower total assets and return on assets and higher debt-equity ratios as the indicators of poor financial position which in turn facilitates the perpetration of frauds. Moreover, a significant relationship between operating in the industry sector and the client company penalties do not exist. It was indeed observed that there is an increase in the warnings and pecuniary fines in case of operating in the service and agriculture sectors. In addition, it was found that the operating period of the client companies is negatively related with the client company penalties. A reasonable explanation for this finding may be that as the client companies build a reputation in their own sector, industry, or market, they begin to employ a more qualified workforce and attach more importance to business ethics as an influential factor in planning and performing their internal and external operations. For this reason, they might be penalised less by the CMB in comparison with the previous periods. Finally, it is worth to mention as the last finding that the time lag period is negatively related to the client company penalties. In fact, as the time lag period increases, the economic and social costs of errors and frauds are also expected to increase, but this expectation does not materialize. As the time lag period rises, the cuts made in the budget for reviews, audits, and other controls related to the previous periods and giving priority to the present period compared to the previous periods in review, audit, and control activities may give rise to a decline in the number of the CMB penalties.

VIII. CONCLUDING REMARKS AND FURTHER COMMENTS

For the most part the CMB penalises the client companies and their management in connection with accounting frauds (*i.e. material misstatements and improper disclosures*). Occasionally, in a few cases the audit firms and/or auditors are penalised because of accounting frauds. As a result, it is understood that the CMB regards both preventing and detecting frauds as the primary responsibility of the client companies' management, which could be confirmed with the fact that the audit firms are not systematically penalised for not preventing and detecting frauds. Here, the CMB may presuppose that the audit firms generally plan and conduct their audits in compliance with the prevailing auditing

standards and thus such kind of audits are considered sufficient to detect accounting frauds.

The CMB's tendency to penalise the client companies rather than the audit firms for the accounting frauds might implicitly show that there is not any audit expectation gap between the public and the audit firms in Turkey because the CMB seems to agree with the audit firms about the responsibility for preventing and detecting frauds. The CMB may be a good candidate to represent the public (*i.e. the financial information users*) because all users of the financial information are difficult to reach. However, this is an implication, not a proof. To understand precisely whether Turkey experiences an audit expectation gap or not, a larger part of the public or preferably all of it had better to be included in a survey. At this point investors, creditors, financial institutions, and the tax administration come to mind in the first place. The more the financial information users are covered in a survey, the more their expectations can realistically and truly be estimated and compared with the actual audits.

The CMB's policy changes might have an impact on the number and monetary amount of penalties to a certain extent. In fact, the CMB found warnings enough in the breach of regulations until the year of 2002. From this year on, a new policy was adopted in such a way that a warning was to be given in case of the first breach, and a pecuniary fine is to be imputed in case of repetitive acts. Accordingly, it is expectedly faced predominantly with the warnings until 2002 and the pecuniary fines following 2002. This pattern observed in imposing penalties applies to the whole period except for the years 2001, 2005, and 2006. The intensification of penalties especially in recent years could not attributed to the proof of the pattern cited above, but could largely be attributed to the exercise of CMB's discretion. It should be noted at this stage that in the CMB's final decision-making process, the exercise of discretion may be governed by some internally known, but externally unknown factors which reflect the board's priorities, considerations, and concerns. Additionally, the autonomy of self regulatory agencies may be paralysed or constrained by their fiscal and/or administrative dependence on the government budget and by some other political interventions. As a matter of fact, the research finding about the models' classification of the pecuniary fines brings the confidential aspects of the CMB's decision making processes to mind.

On the other hand, the potential losses incurred due to material misstatements or improper disclosures affect only on a small segment of the public because the capital markets in Turkey have not gained much depth and not progressed as desired. As a matter of fact, by the periodic report of the Association of Capital Market Intermediary Institutions of Turkey [30], in the year 2008 it was estimated that there were only 317 securities and 989,850 investors in the Turkish capital markets compared to approximately 2 million companies and a

population over 70 million. 980.337 of them were individual investors and 88.0 % of them had an equity portfolio under 10.000 US dollars, 97.0 % under 50.000 US dollars, and 99.0 % under 100.000 US dollars. The foreign investors had 67.9 % of the total equity portfolio and 1,649 foreign funds had 46.1 % of the total equity portfolio. When the economic and social costs negatively affect only a small group of people depicted above, no strong will to prevent and detect frauds are likely to arise and the audits are likely to be conducted in an environment that the audit firms do not want to undertake the additional responsibilities in preventing and detecting accounting frauds.

Finally, it should be emphasised a growing need for much more transparency and data&information related

to the decision-making processes of self-regulatory authorities in particular and public authorities in general. As the CMB begins to give more detailed data&information about their warnings, denunciations, pecuniary fines and other penalties, new penal cases in which the audit firms are penalised alone or jointly with the client companies could be added into the data sets, and therefore a more comprehensive and representative sample could be obtained for statistical applications. Besides, the statistical analysis probably can yield more reliable, meaningful and generalisable outputs used for making inferences about detecting accounting frauds presently and in the future because errors and frauds could better be classified with the help of more detail and transparency in the decision-making process of regulatory authorities.

TABLES

Table 1: Likelihood Ratio Tests

Effect	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	441.760	0.000	0	.
AP	442.819	1.060	2	0.589
AO*	454.881	13.121	4	0.011
AFS	441.972	0.213	2	0.899
IS*	460.978	19.219	2	0.000
TLP*	525.686	83.926	2	0.000
FS*	480.958	39.198	2	0.000

*Significant variables at $\alpha = 1\%$

Table 2a: Parameter Estimates (Warnings)

Variables	B	Exp (B)	p
Intercept	2.121		0.146
[AP=0]	-0.922	0.398	0.503
[AO=0]	0.755	2.127	0.434
[AO=1]*	1.414	4.110	0.001
[AFS=0]	0.189	1.208	0.682
[IS=0]	0.218	1.244	0.594
TLP*	-1.097	0.334	0.000
[FS=0]*	1.571	4.813	0.001

Table 2b: Parameter Estimates (Pecuniary Fines)

Variables	B	Exp (B)	p
Intercept	-0.036		0.983
[AP=0]	-1.588	0.204	0.305
[AO=0]	-0.421	0.657	0.764
[AO=1]*	1.178	3.248	0.015
[AFS=0]	0.232	1.261	0.651
[IS=0]*	1.559	4.754	0.002
TLP*	-0.880	0.415	0.000
[FS=0]*	2.956	19.215	0.000

*Significant variables at $\alpha = 1\%$.

**The reference group is the first level (i.e. denunciations) for the response variable.

Table 3: Likelihood Ratio Tests

Effect	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	165.755	0.000	0	.
AP	169.396	3.641	2	0.162
AO*	188.922	23.167	4	0.000
AFS	167.796	2.040	2	0.361
IRF*	180.389	14.633	2	0.001
OP*	183.680	17.925	2	0.000
TLP*	212.283	46.528	2	0.000

*Significant variables at $\alpha = 1\%$.

Table 4a: Parameter Estimates (Warnings)

Variables	B	Exp (B)	p
Intercept	3.570		0.018
[AP=0]	-0.886	0.412	0.489
[AO=0]	1.467	4.337	0.257
[AO=1]*	2.318	10.156	0.000
[AFS=0]	0.723	2.060	0.242
[IRF=0]*	1.553	4.727	0.004
OP*	-0.093	0.911	0.000
TL*	-0.969	0.380	0.000

Table 4b: Parameter Estimates (Pecuniary Fines)

Variables	B	Exp (B)	p
Intercept	0.664		0.773
[AP=0]*	-3.779	0.023	0.054
[AO=0]	4.546	94.291	0.026
[AO=1]*	3.705	40.631	0.003
[AFS=0]	1.238	3.447	0.181
[IRF=0]*	3.889	48.862	0.013
OP*	-0.077	0.925	0.036
TLP*	-1.311	0.269	0.001

*Significant variables at $\alpha = 1\%$

**The reference group is the first level (i.e. denunciations) for the response variable.

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