
Detection of Fraudulent Financial Statement in India: An Exploratory Study

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Recently, high profile cases of financial statement fraud have been dominating the newspapers and news channels. Satyam Computers, one of biggest financial statement fraud in Indian listed companies, led by its founder, was identified in the recent past. This has eroded badly the trust of investors as well as the value of the stock price. This paper examines financial statement data of Indian Companies listed on Bombay Stock Exchange to develop a model for detecting factors associated with fraudulent financial statements (FFS). Frauds reported in financial statement are identified on the basis of the report filed by the auditors. A sample of a total of 60 firms included for drawing the model. Out of which, 30 with FFS and same is with non-FFS. Total 10 variables are selected for the examination as potential predictors of FFS. A logistic regression technique is used to develop a model to identify factors associated with FFS. This study of detecting fraudulent financial statement helps auditors, tax authorities and bankers to identify the false financial statement during the scrutiny.

Keywords: Financial Statement, Fraud Detection, Logistic Regression

Introduction:

Despite the financial disasters of Enron, WorldCom, and Global Crossings, investors were shocked recently by the financial implosions of Satyam Computers, Lehman Brothers and AIG. The past few years have seen several headline-grabbing incidents of corporate fraud in India. There were the Harshad Mehta and Ketan Parekh cases, followed by the Unit Trust of India case. And in the recent past, the Satyam and World Bank-Wipro cases that have not just tested the Indian business framework, but also sent ripples across the global scene (Narayanaswamy R., 2011). These cases underscore the need for investors and companies to protect their investments by detecting fraud in its earliest stages by distinguishing between truthful and misleading information. Investors look for credibility, transparency, and clarity in externally available corporate financial statements. Hence, it is imperative that to take a notice of this growing systemic problem and understand its motivations and methods.

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Since the booming of the Internet and the invention of other modern technologies, there has

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been a dramatic increase in fraudulent schemes associated with all facets in the business world. Some of these commonly observed schemes include credit card fraud, financial statement fraud, e-commerce transaction fraud, insurance fraud, money laundering,

computer intrusion fraud, telecommunications fraud, and subscription fraud. Financial

statement fraud in particular has cast rapidly increasing adverse impact not only on individual investors but the overall stability of global economies. According to the results of KPMG's Fraud Survey of 2003, organizations are reporting more experiences of fraud than in prior years. In 2003, 75% of surveyed companies reported that they experienced an instance of fraud, an increase of 13% as compared with 1998 (KPMG, 2003). Furthermore, Ernst & Young's Global Survey pointed out that the main contributing factors to the prevalence of fraud are the growing complexity of organizations and systems, changes in business processes and activities, enormous and ever-expanding volumes of transaction data, outdated and ineffective internal controls and so on (Ernst Young, 2003).

Financial fraud is a serious problem worldwide and more so in fast growing countries like India. Traditionally, auditors are responsible for detecting financial statement fraud. With the appearance of an increasing number of companies that resort to these unfair practices, auditors have become overburdened with the task of detection of fraud. Hence, various techniques and model is required to lessen the workload of the auditors. Satyam, Enron and Worldcom are the major scandals involving corporate accounting fraud, which arose from the disclosure of misdeeds conducted by trusted executives of large public corporations.

financial statement fraud might involve: (1) manipulation of financial records, (2) intentional omission of events, transactions, accounts, or other significant information from which financial statements are prepared, or (3) misapplication of accounting principles, policies, and procedures used to measure, recognize, report, and disclose business transactions.

References to false financial statement (FFS) are increasingly frequent over the last few years. Falsifying financial statements primarily consists of manipulating elements by overstating assets, sales and profit, or understating liabilities, expenses, or losses. When a financial statement contains falsifications so that its elements no longer represent the true picture, we can call it fraud. Management fraud can be defined as “deliberate fraud committed by management that injures investors and creditors through misleading financial statements” (Elliott and Willingham, 1980). For Wallace (1995), fraud is “a scheme designed to deceive; it can be accomplished with fictitious documents and representations that support fraudulent financial statements”. A financial statement fraud is defined by the Association of Certified Fraud Examiners as “The intentional, deliberate, misstatement or omission of material facts, or accounting data which is misleading and, when considered with all the information made available, would cause the reader to change or alter his or her judgment or decision.” In practice, financial statement fraud might involve: (1) manipulation of financial records, (2) intentional omission of events, transactions, accounts, or other significant information from which financial statements are prepared, or (3) misapplication of accounting principles, policies, and procedures used to measure, recognize, report, and disclose business transactions (Schilit, 2002). SAS No. 82 (AICPA, 1997) reiterates the idea that fraud is an intentional act, and fraud frequently includes the perpetrator(s) feeling pressure or having an incentive to commit fraud and also perceiving an opportunity to do so.

Financial statements are a company's basic documents to reflect its financial status (Beaver, 1966). A careful reading of the financial statements can indicate whether the company is running smoothly or is in crisis. If the company is in crisis, financial statements can indicate if the most critical thing faced by the company is cash or profit or something else. All the listed companies are required to publish their financial statements every year and every quarter. The stockholders can form a good idea about the companies' financial future through the financial statements, and can decide whether the companies' stocks are worth investing. The bank also needs the companies' financial statements in order to decide whether to grant loans to them. In a nutshell, the financial statements are the mirrors of the companies' financial status. Financial statements are records of financial flows of a business. Generally,

they include balance sheets, income statements, cash flow statements, statements of retained earnings, and some other statements.

The paper is organised as follows: the second section reviews research on false financial statements and variables of the study. Third section underlines the methodologies employed, the method and the sample data used in the present study. The fourth section describes the empirical results and discussion obtained using T-tests and logistic regression analysis. Concluding remarks would be mentioned in the last section.

Literature Review:

Financial statement fraud may be perpetrated to increase stock prices or to get loans from banks. It may be done to distribute lesser dividends to shareholders. Another probable reason may be to avoid payment of taxes. Nowadays an increasing number of companies are making use of fraudulent financial statements in order to cover up their true financial status and make selfish gains at the expense of stockholders.

Characteristics of FFS

No one knows how many business failures are actually caused by fraud, but undeniably lots of businesses, especially small firms, go bankrupt each year due to fraud losses. Worldwide incidences of fraud cut across all industries with greatest losses apparent (fraud losses by industry) in real estate financing, manufacturing, banking, oil and gas, construction, and in health care (Wells, 1997). Losses can occur in almost any area, certainly not just in cash areas.

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Losses in cash actually represent the lowest level of fraud. Accounts receivable, expenditures for services, and inventory losses are each three times higher than those in cash. Fraud is not

just a problem in large firms. Small businesses with 1-100 employees are also susceptible. This is a serious problem because fraud in a small firm has a greater impact, as the firm does not have the resources to absorb the loss (Wells, 1997). In a global economy and multinational trade, the trend of international fraud affects all countries (Vanasco, 1998).

A report by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) compiled by Beasley *et al.* (1999) examined fraudulent financial reporting from 1987-1997 by US public companies. Some of the most critical insights of the study are:

1. The companies committing fraud generally were small,
2. Incidences of fraud went to the very top of the organisations concerned. In 72 per cent of the cases, the CEO appeared to be associated with the fraud, and in 43 per cent the CEO was associated with the financial statement fraud.
3. The audit committees and boards of the respective companies appeared to be weak. Most audit committees rarely met, and the companies' boards of directors were dominated by insiders and others outsiders "grey" directors, with significant equity ownership and apparently little experience of serving as directors of other companies. A total of 25 per cent of the companies did not have an audit committee.
4. The founders and board members owned a significant portion of the companies. In nearly 40 per cent of the companies, authorizations for votes by proxy provided evidence of family relationships among the directors and/or officers. The founder and current CEO was the same person or the original CEO/President was still in place in nearly half of the companies.
5. Severe consequences resulted when companies commit fraud, including bankruptcy, significant changes in ownership, and suspension from trading in national exchanges.

Several fraud cases which showed that the cash, inventory, and related party transactions are prone to fraud.

Most techniques for manipulating profits can be grouped into three broad categories - changing accounting methods, fiddling with managerial estimates of costs, and shifting the period when expenses and revenues are included in results (Worthy, 1984). Other false statements include manipulating documents, altering test documents, and producing false work reports (Comer, 1998). The study of Vanasco (1998) examines several fraud cases which showed that the cash, inventory, and related party transactions are prone to fraud. Over half the frauds involved overstating revenues by recording revenues prematurely or fictitiously. Many of those revenue frauds only affected transactions recorded right at the end of significant financial reporting periods (i.e. quarter-end or year-end). About half the frauds also involved overstating assets by understating allowances for receivables, overstating the value of inventory, property, plant and equipment and other tangible assets, and recording assets that did not exist.

Variables of the Study:

Financial ratios describing all aspects of financial performance, including profitability, solvency/liquidity and managerial performance; are indicators of the company's health (Courtis, 1978). Financial ratios are a valuable and easy way to interpret the numbers found in financial statements. They can help to answer critical questions such as whether the business is carrying excess debt or inventory, whether customers are paying according to terms, whether the operating expenses are too high, and whether the company assets are being used properly to generate income.

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Liquidity measures a company's capacity to pay its liabilities in short term. There are two ratios or evaluating liquidity. They are:

1) Current ratio = Total current assets/ Total current liabilities

2) Quick ratio = (Cash + Accounts receivable + Any other quick assets) /Current liabilities

The higher the ratios the stronger is the company's ability to pay its liabilities as they become due, and the lower is the risk of default. *Safety* indicates a company's vulnerability to risk of debt.

There are three ratios for evaluating liquidity. They are:

1) Debt to equity = Total liabilities/Net worth

2) EBIT/Interest = Earnings before interest and taxes/Interest charges

3) Cash flow to current maturity of long-term debt = (Net profit+ Non-cash expenses)/Current portion of long-term debt.

Profitability ratios measure the company's ability to generate a return on its resources. There are four ratios to evaluate a company's profitability. They include:

1) Gross profit margin=Gross profit / Total sales

2) Net profit margin=Net profit / Total sales

3) Return on assets=Net profit / Total assets

4) Return on equity=Net profit / Net worth

Efficiency evaluates how well the company manages its assets. There are four ratios to evaluate the efficiency of asset management:

1) Accounts receivable turnover=Total net sales /Accounts receivable

2) Accounts payable turnover=Cost of goods sold/Accounts payable

3) Inventory turnover=Cost of goods sold/Inventory

4) Sales to total assets=Total sales /Total assets

Ravisankar P. et al. (2011) also had mentioned some key financial items which are relevant for detection of financial statement fraud. These are listed below:

- Z-score: The Z-score is developed by Altman (Altman, 1968). It is a formula for measurement of the financial health of a company and works as a tool to predict

bankruptcy. It is used to detect financial statement fraud as well. The formula for Z-score for public companies is given by:

$$\text{Z-score} = 1.2 * (\text{Working capital} \div \text{Total assets}) + 1.4 * (\text{Retained earnings} \div \text{Total assets}) + 3.3 * (\text{Earnings before interest and tax} \div \text{Total assets}) + 0.06 * (\text{Market value of equity} \div \text{Book value of total Liabilities}) + 0.999 * (\text{Sales} \div \text{Total assets}).$$

- A high debt structure increases the likelihood of financial fraud as it shifts the risk from equity owner to the debt owner. So the financial ratios related to debt structure such as (i) Total debt/Total assets and (ii) Debt/Equity need to be carefully considered when searching for indications of fraud.
- An abnormal value reported as a measure of continuous growth such as sales to growth ratio is also a factor that may be indicative of fraudulent financial practice.
- Many items of the financial statements such as Accounts receivable, Inventories, Gross margin etc. can be estimated to some degree using subjective methods and different accounting methods can often lead to different values even for the same company.

Table 1 Items from financial statements of companies that are used for detection of financial statement fraud.

<u>No.</u>	<u>Financial items</u>
1	Debt
2	Total assets
3	Gross profit
4	Net profit
5	Primary business income
6	Cash and deposits
7	Accounts receivable
8	Inventory/Primary business income
9	Inventory/Total assets
10	Gross profit/Total assets
11	Net profit/Total assets
12	Current assets/Total assets
13	Net profit/Primary business income
14	Accounts receivable/Primary business income
15	Primary business income/Total assets
16	Current assets/Current liabilities
17	Primary business income/Fixed assets
18	Cash/Total assets
19	Inventory/Current liabilities
20	Total debt/Total equity
21	Long term debt/Total assets
22	Net profit/Gross profit
23	Total debt/Total assets
24	Total assets/Capital and reserves
25	Long term debt/Total capital and reserves
26	Fixed assets/Total assets
27	Deposits and cash/Current assets
28	Capitals and reserves/Total debt
29	Accounts receivable/Total assets
30	Gross profit/Primary business profit
31	Undistributed profit/Net profit
32	Primary business profit/Primary business profit of last year
33	Primary business income/Last year's primary business income
34	Account receivable /Accounts receivable of last year
35	Total assets/Total assets of last year

- According to previous research, many other financial ratios can be considered for fraud detection, such as Net profit/Total assets, Working capital/Total assets, Net profit/Sales, Current assets/Current liabilities and so on.
- The tenure of CEO and CFO: According to the auditors' experience and previous research, the high turnover of CEO and CFO may indicate the existence of financial fraud in the company.
- Some qualitative variables such as previous auditor's qualifications can be considered to determine the likelihood of fraudulent book keeping.

Spathis (2002) had identified nine important ratios useful in detecting FFS. In this study initially 17 variables were identified. However, to avoid ratios providing the same information due to high correlations, few highly correlated ratios were excluded while retaining ratios describing all aspects of financial performance, including profitability, solvency/liquidity and managerial performance (Courtis, 1978). These ratios include debt to equity, total debt/total assets, account receivables to sales, inventory to sales, gross profit to total assets, sales to total assets ratio, net profit to sales, net profit to total assets, working capital to total assets for their ability to predict FFS.

Financial distress may be a motivation for FFS (Bell *et al.*, 1993; Stice, 1991). When the company is doing poorly there is greater motivation to engage in FFS. Therefore, researcher has used the Altman (1968, 1983) Z-score as a control variable to investigate the association of FFS and financial distress.

For the purpose of developing a model and predicting the FFS, researcher has considered debt to equity, total debt/total assets, account receivables to sales, inventory to sales, gross profit to total assets, sales to total assets ratio, net profit to sales, net profit to total assets, working capital to total assets along with Z-score. All these ratios have an ability to measure company's liquidity, profitability, safety, efficiency. Z-score is useful in predicting the financial distress and motivation for FFS.

Methodology:

Spathis et al. (2002) compared multi-criteria decision aids with statistical techniques such as logit and discriminant analysis in detecting fraudulent financial statements. Huang et al. (2008) developed an innovative fraud detection mechanism on the basis of Zipf's Law. The purpose of this technique is to assist auditors in reviewing the overwhelming volumes of datasets and identifying any potential fraud records.

For analysis and developing a model to predict, a data set of 60 companies listed on the Bombay Stock Exchange of India. Out of which 30 companies are with non-FFS and remaining 30 are with FFS. Frauds reported in financial statement are identified on the basis of the report filed by the auditors. The data also contained 35 financial items for each of these companies. Table 1 lists these financial items. Of these, 28 were financial ratios reflecting

Table 2 Characteristics (means) of firms' means and t-tests			
Characteristics	Non-FFS	FFS	T-test
Total assets	708116	171499	2.826
Inventories	115121	13454	2.157
Working capital	223676	44036	2.356
Equity	288372	90476	2.135
Sales	1050398	97330	2.602
Net profit	110099	9565	2.198

liquidity, safety, profitability, and efficiency of companies. A total of ten variables were found to be possible indicators of FFS. These include the ratios: debt to equity, sales to total assets, net profit to sales, accounts receivable to sales, net profit to total assets, working capital to total assets, gross profit to total assets, inventory to sales, total debt to total assets, and

financial distress (Z-score). Some of the characteristics of the sample companies are mentioned in Table 2.

There is a statistically significant difference between average profits of FFS firms, with profit averaging at Rs. 9565 lacs and non-FFS companies averaging a profit of Rs. 110099 lacs ($t=2.198$) Similarly a significant difference can be observed in all remaining variables i.e Total Assets of FFS is Rs. 171499 lacs and Non-FFS is Rs. 708116 lacs ($t=2.826$), Inventory of FFS firms is Rs. 13454 lacs and Non-FFS is Rs. 115121 lacs ($t=2.157$), average working

capital between FFS firms with Rs. 44036 lacs and non-FFS firms with Rs. 223676 lacs ($t=2.356$). Mean equity also gives a statistically significant difference between FFS firms and non-FFS firms with Rs. 90476 lacs and Rs. 288372 lacs respectively ($t=2.135$). Similarly, significant difference is observed for average sales of FFS firm at Rs. 97330 lacs and Non-FFS firms at Rs. 1050398 lacs ($t=2.602$).

The statistical method selected was logistic regression analysis (Koyuncugil and Ozgulbas, 2011, Chen Y., 2011) and following logit model was used using financial ratios from the firms to see which of the ratios were related to FFS. By including the data set of FFS and non-FFS we may find out what factors significantly influence the firms with FFS.

$$E(y) = \frac{\exp(b_0 + b_1x_1 + b_2x_2 + b_3x_3 + \dots + b_nx_n)}{1 + \exp(b_0 + b_1x_1 + b_2x_2 + b_3x_3 + \dots + b_nx_n)}$$

Where,

$Y = 1$ if FFS firm occurs

$Y = 0$ if non-FFS firm occurs

$E(y) = p$ (FFS firms occurs)

b_0 = the intercept term

$b_1; b_2; \dots; b_n$ = the regression coefficients of independent variables

$x_1; x_2; \dots; x_n$ = the independent variables

The models are presented as:

$$FFS = b_0 + b_1 (DEBT/EQ) + b_2 (SAL/TA) + b_3 (NP/SAL) + b_4 (REC/SAL) + b_5 (NP/TA) + b_6 (WC/TA) + b_7 (GP/TA) + b_8 (INV/SAL) + b_9 (TD/TA) + b_{10} (Z) + e$$

Where,

FFS = 1 if FFS discovered group, 0 otherwise.

$Z = 1.2 * (\text{Working capital} \div \text{Total assets}) + 1.4 * (\text{Retained earnings} \div \text{Total assets}) + 3.3 * (\text{Earnings before interest and tax} \div \text{Total assets}) + 0.06 * (\text{Market value of equity} \div \text{Book value of total Liabilities}) + 0.999 * (\text{Sales} \div \text{Total assets})$

The models will classify firms into FFS and non-FFS categories based upon financial statement ratios that have been documented as diagnostic in prior studies.

Data Analysis and Result Discussion:

Variables (Ratio)	Mean		Standard Deviation		T-test (two tailed)
	Non-FFS	FFS	Non-FFS	FFS	
Inventory/Sales	0.197	0.423	0.094	0.765	-1.604
Gross Profit/Total Assets	0.364	0.173	0.152	0.252	3.560*
Net Profit/Total Assets	0.073	-0.058	0.083	0.059	7.003*
Net Profit/Sales	0.097	-0.096	0.072	0.042	12.684*
Account Receivables/Sales	0.576	1.086	0.089	1.044	-2.666*
Sales/Total Assets	1.435	0.502	1.070	0.997	3.493*
Working Capital/Total Assets	0.328	0.046	0.128	0.287	4.913*
Total Debt/Total Equity	0.070	0.185	0.133	0.063	-4.275*
Total Debt/Total Assets	0.028	0.106	0.049	0.019	-8.124*
Z	1.859	0.814	0.687	0.781	5.503*

* T-test is significant at 5% level

Table 3 represents the mean, standard deviation and *t*-tests of ratios for non-FFS and FFS firms. The statistical significance along with large differences in mean values of ratios between FFS and non-FFS firms indicates that these ratios may be definitely related to FFS. All the ratios except Inventory/Sales are statistically significant. The very low values for NP/TA and NP/SAL for the FFS firms compared to the corresponding ones for non-FFS indicate that the companies facing difficulties of low returns in relation to assets and sales try to manipulate the financial statements either by increasing revenue or by reducing expenditure so as to improve the profit and loss account. The same holds for the GP/TA ratio where FFS companies show on average half the gross profit of that of non-FFS firms with respect to total assets. The ratio WC/TA shows that FFS firms have a very low WC and present liquidity problems such that they cannot meet their obligations. Low WC is associated with financial distress (Bonner *et al.*, 1998).

FFS firms seem to have on average both a higher TD/TA and DEBT/EQ. The higher debt to equity, the lower sales to total assets and the Z-score values for the FFS firms may indicate that many firms issuing FFS were in financial distress (Fanning and Cogger, 1998; Summers and Sweeney, 1998). This could provide the motivation for management fraud. The ability to manipulate the values in accounts receivable (REC/SAL) was clearly reflected in the results. The INV/SAL indicated that those firms with FFS keep high inventories and cost of goods sold.

The T-test provides valuable information regarding a large number of variables over a sample. Ratios allow better generalization and are easily derived from published financial statements, and they have been used in the model development.

Multivariate Logistic Regression is used for model development and testing. Table 4 reports the results for logistic regression. Result of

Table 4 Logistic Regression results of Non-FFS and FFS

Independent Variables	Unstandardized coefficient	S.E.	Sig.
Inventory/Sales	3.541	1.023	0.005
Net Profit/Total Assets	-27.336	7.602	0.003
Total Debt/Total Assets	5.649	1.903	0.005
Z	-3.206	0.826	0.000
Constant	0.524	1.127	0.723
χ^2	46.529		0.000
R_L^2	0.452		
N	60		
Prediction Accuracy			
Non-FFS	79.82%		
FFS	82.73%		
Overall	81.28%		

analysis reveals that the overall accuracy for classification of the companies of predicted model is 81.28 per cent. It means 24 (78.82 per cent) out of the 30 non-FFS firms and 25 (82.73 per cent) out of the 30 FFS firms were classified correctly. The relationship between the dependent - non-FFS and FFS firms - and the independent variables is statistically significant ($\chi^2 = 46.529$, $p < 0.000$). The strength of association between the dependent and independent variables is $R_L^2 = 0.452$, indicating a medium-efficient strong relationship.

The results indicate that only four variables; Inventory/Sales, Net Profit/Total Assets, Total Debt/Total Assets and Z; with significant coefficients entered the model. The ratio Inventory/Sales has an increased probability of being classified with FFS firms ($b = 3.541$, $p < 0.005$) and this ratio has a positive effect. This implies that firms with high inventories to sales have an increased probability of being classified with FFS firms. This demonstrates that FFS firms keep higher stocks, indicating a lower stock turnover with respect to sales.

Net Profit/Total Assets has a higher probability of being classified with FFS firms ($b = -27.336$, $p < 0.003$) and this ratio has a significant negative effect. That means that firms with lower net profit to total assets have an increased probability of being classified with the FFS firms.

The ratio Total Debt/Total Assets has an increased probability of being classified with FFS firms ($b = 5.649$, $p < 0.005$) and this ratio has a significant positive effect. That means that firms with high total debt to total assets values have an increased probability of being classified with the FFS group.

The same strong effect of being classified with FFS firms appears to be attributed to the Z score ($b = -3.206$, $p < 0.000$). This ratio has a significant negative effect, meaning that firms with lower Z score values have lower probability of being classified with the non-FFS firms. That means that non-FFS firms have higher Z scores. The negative coefficient; same as ration of Net Profit/Total Assets; of the Z score indicates that an improvement in the liquidity position of a firm leads to an improvement in the profitability of the firm. Similarly, an improvement in the Z score of the firm will have a negative effect on the probability of FFS.

The coefficient of the debt ratio Total Debt/Total Assets and Inventory/Sales ratio has a positive sign, which indicates that more leverage and large inventories make the firm more vulnerable to FFS. The analysis shows that higher Total Debt/Total Assets may indicate that many firms issuing FFS were in financial distress (Persons, 1995). This could provide the motivation for management fraud.

Conclusion:

This paper intends to advances in the existing literature of fraud detection. A total of ten variables were identified as possible indicators of FFS. These include the ratios: debt to equity, sales to total assets, net profit to sales, accounts receivable to sales, net profit to total assets, working capital to total assets, gross profit to total assets, inventory to sales, total debt to total assets, and financial distress (Z-score). Using logistic regression technique is deployed for

development of probability of sample. The the variables: sales ratio, the to total assets, total assets ratio, distress (Z-

The models include the variables: the inventories to sales ratio, the ratio of total debt to total assets, the net profit to total assets ratio, and financial distress.

model with a high detecting FFS in a models include the inventories to ratio of total debt the net profit to and financial score). The model

was efficient in predicting the variables with the overall accuracy of 81.28 percent. In general the indicators entered in the model are associated with FFS firms. Companies with high inventories with respect to sales, high debt to total assets, low net profit to total assets and low Z scores are more likely to misrepresent financial statements according to the results of the analysis.

The proposed model could be of useful to auditors, both internal and external, to taxation and other state authorities, individual and institutional investors, stock exchanges, law firms, economic analysts, credit scoring agencies and to the banking system. Computer linked programming could be done to increased to speed of the work and decreasing the overall cost and timing of auditing the statements.

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