

Effect of using Financial Ratios on the Auditor's Opinion: Evidence from Jordan

Ghassan. F. Al Matarneh

Faculty of Finance and Business Administrative, Al- al-Bayt University

P. O. Box 144170, Zip Code 11814 Amman, Jordan

Tel: 00962-777770846

E-mail: dr_matarneh@yahoo.com

Abstract

The main objectives of this paper are to provide evidence whether the using of financial ratios affects the auditor's opinion, and improve the communication process between the auditor and users of financial statements. To accomplish these objectives, a questionnaire was designed and distributed to a sample of Jordanian external auditors. The results of the questionnaire indicate that Jordanian auditors consider the long term paying ability ratios, profitability ratios, and activity ratios as important ratios affect the auditors' opinion, While the Jordanian auditors does not consider the short term debt paying ability ratios, and market (investment) ratios as ratios affect the auditor's opinion. The study recommended many recommendations most important that the auditor should paying attention to financial analysis because of its importance in the service of the audit process especially in the final stage.

Keywords: Effect, Financial Ratios, Auditor's Opinion, Jordan

1. Introduction

The Jordanian external auditor is required by company law to examine the financial statements of companies and to express an opinion thereon, whether they are prepared in all material respects according to an identified financial reporting framework. In compliance with the Jordanian companies Act enacted in 1997, such a framework is based on the International Financial Reporting Standards issued by the International Accounting Standards Board and the auditor's opinion is drawn up in accordance with the International Standards on Auditing issued by the International Federation of Accountants.

So the investors need the correct information with a high degree of correctness, reliability and credibility, as this information is obtained from the published audited reports and financial statements by companies and used by third party, specially the benefiting private investors in order to rationalize their decisions, therefore the auditor's report is the reference that the investors is use because reflecting the reality, safety of accounting procedures of the company, and their commitment to accounting standards when preparing financial statements, as well as the opinion of the auditor about the fairness of financial statements are the essence of the report, because of its importance for investors in the process of decision-making.

In recent years the audit profession is facing a crisis of credibility, responsible and loss of confidence as a result of the growing financial crisis at the local and global, which led to the questions

raised by investors about the reason for not giving the auditors warning signs about the economical situation of those companies.

To express the auditor's opinion in justice of the financial statements, he must do the necessary analytical procedures to get this opinion, and using the financial ratios is one of those procedures, which have a significant impact on the type of opinion shown by the auditor, so the auditor must calculate the financial ratios that can be a sound basis for his neutral technical opinion. Therefore this study aims to provide evidence whether the using of financial ratios affect the auditor's opinion, and improve the communication process between the auditor and users of financial statements. This is achieved by examining the effect of these ratios on the auditor's opinion.

The paper is organized as follows. Section 2 provides a literature review. Section 3 provides a theoretical framework about auditor report and opinion. Section 4 describes the research methodology. Section 5 presents the results of the study, while section 6 summarizes the study and provides its main conclusions.

2. Previous Researches

Kaminski, and others (2004) indicate that fraudulent financial reporting is a matter of grave social and economic concern. The Treadway Commission recommended that the Auditing Standards Board require the use of analytical procedures to improve the detection of fraudulent financial reporting. This is an exploratory study to determine if financial ratios of fraudulent companies differ from those of non fraudulent companies. Fraudulent firms were identified by examining the SEC's Accounting and Auditing Enforcement Releases issued between 1982 and 1999. The fraudulent firms (n=79) were then matched with non fraudulent firms on the basis of firm size, time period, and industry. Using this matched-pairs design, ratio analysis for a seven-year period (i.e. the fraud year \pm 3 years) was conducted on 21 ratios. Overall, 16 ratios were found to be significant. Of these, only three ratios were significant for three time periods. Of the 16 statistically significant ratios, only five were significant during the period prior to the fraud year. Using discriminate analysis, misclassifications for fraud firms ranged from 58 percent to 98 percent. These results provide empirical evidence of the limited ability of financial ratios to detect and/or predict fraudulent financial reporting.

Kirkos, and others (2008) observe that data mining tools and methods can be used to facilitate auditors to issue their opinions. Numerous of these methods have not yet been tested for the purpose of discriminating cases of qualified opinions. In this study they employ three Data Mining classification techniques to develop models capable to predict qualified auditors' reports. The input vector is composed of quantitative and qualitative variables. The three developed models are compared in terms of their performances. Additionally, variables which are associated with qualified reports and can be used as indicators are revealed.

Songa, and Wong (2006) they using a panel data base of both audit firms and listed firms in China from 2001 to 2003, they examine the relationship between audit firm size and audit opinions in China's relatively competitive auditing market for publicly listed firms. They find that listed firms which are more likely to go bankruptcy, firms which have engaged in earnings management and those with small sizes are more likely to get dirty opinions. There is also a positive relation between audit firm size and the probability of getting dirty opinion.

Farrugia, and Baldacchino (2005) identifying the different types of qualifications in auditor's reports of companies in Malta, the extent of multiple and repeated qualifications in such reports and any significant relationships between such main types of qualifications and firm-specific variables. The study results show that 19.9 per cent of sampled companies had a qualified auditor's report. The most common type of qualification was that of limitation-on-scope found in small companies and issued by non-Big four audit firms. Small companies were also prone to going concern qualifications in view of their more common net liability situations. Disagreement-with-management qualifications were found to be more likely in larger companies and to be mostly issued by big four audit firms.

Study of Gaganis, and Pasiouras (2007) seeks to examine the determinants of auditors' opinion in the banking industry, using a sample of banks drawn from nine Asian countries over the period 1995-2004. The results of the study indicate that Asian banks that receive qualified opinions are in general smaller ones, less well capitalized, less profitable and cost efficient, and appear to have excess liquidity. More external auditing requirements and less accounting and disclosure requirements in the banking sector, also increase the probability of receiving a qualified audit opinion.

3. Financial Ratios and Auditors' Opinion

3.1. Financial Ratios

The financial ratios are one of the most important tools of financial analysis and most commonly used by auditors, where these ratios appeared in the mid-nineteenth century, so the financial ratios can be defined as a tool of financial analysis provides a measure of the relationship between two of the terms of the financial statements. (Khanfar, and Almatarneh, 2009:127)

Short term debt paying ability: The entity's ability to maintain its short term debt-paying ability is important to all users of financial statements. If the entity cannot maintain a short term debt-paying ability, it will not be able to maintain a long-term debt-paying ability, nor will it be able to satisfy its stockholders. Even a very profitable entity will find itself bankrupt if it fails to meet its obligations to short-term creditors. (Gibson, 2010:253). One of indicators is reflected from its current ratio. The company where its current liabilities of the company have been higher than its current assets, and the company could not pay its short term obligation, may be the early signal that the company suffers from liquidity difficulty. Altman (1968) stated that the company which consistently suffers from operational losses infrequently has very small working capital than that of its total asset.

Long term paying ability: The long term debt and solvency analysis evaluate the risk level faced by the company. High proportion of debt against equity fuels the company risks (White, Sondhi, and Fried, 1997:162). The measuring device, total debt to total equity ratio portrays on the capital structure owned by the company, so that it may be observed the risk level of not paying any debt. Total high debt to equity ratio indicates that the company will encounter danger of insolvency and will fall into bankruptcy (Altman, 1968). So does Chen and Church (1992) who review the capability of the variable of debt payment failure to explain the audit opinion, where its result indicates that in any failed companies, they more likely receive unmodified opinion one year before it is stated bankrupt, at time of such company has not yet failed.

Profitability ratios: A class of financial metrics that are used to assess a business's ability to generate earnings as compared to its expenses and other relevant costs incurred during a specific period of time. For most of these ratios, having a higher value relative to a competitor's ratio or the same ratio from a previous period is indicative that the company is doing well.

Market ratios: This ratio is known as the investment ratios or shares ratios, as investors in financial markets and traders using these ratios to trade-off between the available investment options and to identify the trends in market prices of shares in the financial market.

Activity ratios: An activity ratio is one of several accounting ratios that measure how quickly a company can convert certain of its assets into cash, or revenue. Three commonly assessed activity ratios are the asset turnover ratio, the inventory turnover ratio and the receivables turnover ratio. An activity ratio, along with other accounting ratios, is used in fundamental analysis to determine the relative strength of a company compared to its competitors.

3.2. Auditor's Opinion

The auditor's opinion is expressed in an auditor's report and is normally in a brief and standard form. An opinion is issued without a modification when the auditor has sufficient evidence to support the disclosures and amounts in the financial statements. Otherwise, a modified audit report is issued

(Farrugia, and Baldacchino, 2005:823). The auditor shall form an opinion on whether the financial statements are prepared, in all material respects, in accordance with the applicable financial reporting framework. In order to form that opinion, the auditor shall conclude as to whether the auditor has obtained reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error.

The auditor shall express an unmodified opinion when the auditor concludes that the financial statements are prepared, in all material respects, in accordance with the applicable financial reporting framework. If the auditor:

- A Concludes that, based on the audit evidence obtained, the financial statements as a whole are not free from material misstatement; or
- B Is unable to obtain sufficient appropriate audit evidence to conclude that the financial statements as a whole are free from material misstatement, the auditor shall modify the opinion in the auditor's report in accordance with ISA 705. If financial statements prepared in accordance with the requirements of a fair presentation framework do not achieve fair presentation, the auditor shall discuss the matter with management and, depending on the requirements of the applicable financial reporting framework and how the matter is resolved, shall determine whether it is necessary to modify the opinion in the auditor's report in accordance with ISA 705 (IFAC, ISA, 700:2010).

4. Research Methodology and Hypothesis

4.1. Research Methodology

The research depended on the method of analytical statistics and analysis of content, and on secondary and primary data. Secondary data for the study were obtained through reference, research, and universities research papers. For the initial data, they were collected through a questionnaire, which is designed depending on the nature of the elements of the problem which is available in literature reviews. The statistical descriptive style analysis technique also the content analysis has been used to achieve the objectives of the study. The survey questionnaire contains two parts, first part included demographic characteristics, the second part covers the responders' commitment, each set questions formed a field paragraph, which covers the questions of the study. Five- Likert scale has been used as a measure of reflect the views of respondents regarding the paragraphs contained in the questionnaire, which was allocated weight (5) for the situation strongly agree, and (4) for agree, and (3) for the situation is neutral and (2) for disagree, and (1) for Strongly Disagree. the questionnaire has introduced to a group of professionals and professors for the purpose of arbitration, where they can modify it based on their observations and a previous test was conducted on it, and the amount of Cronbach's alpha were reached (.748), which is indicated on the consistency and steadfastness (Sekaran, 2005). And arithmetic mean, standard deviation and percentages were used in the quarterly analysis of the responses to the questionnaire.

4.2. Research Hypothesis

Research seeks to test the following hypothesis:

- H1 There is an effect of using short term debt –paying ability ratios on the auditor's opinion.
- H2 There is an effect of using long term paying ability ratios on the auditor's opinion.
- H3 There is an effect of using profitability ratios on the auditor's opinion.
- H4 There is an effect of using market (investment) ratios on the auditor's opinion.
- H5 There is an effect of using activity ratios on the auditor's opinion.

4.3. Sample of Auditors

A comprehensive containing method for the study population consists of the Jordanian external auditors of the sum of (486) auditor, the total number of questionnaires distributed was (200) questionnaire, including (179) questionnaire valid for analysis, and thus the percentage of the collected questionnaires were (%36.8).

5. Results of the Study

5.1. Characteristics of Respondents

The demographical characteristics are described for the respondents and analyze their opinions and responses on the survey questionnaire, and the arithmetic means and standard deviations were extracted from their responses for each field of the questionnaire table (1) shows that 127 respondents or 71 percent hold a bachelor degree, 18 respondents or 10 percent hold Higher Diploma, and 34 respondents or 18.9 percent have a master certificate, As for the area of study, the overwhelming majority of the respondents 60.3 percent have an academic degree in accounting, and 25.7, 13.9 percent have finance, business administrative certificate respectively. The job level for respondents reveal that 20.6 percent partner, 35.8 percent are senior auditors, and 43.6 percent auditors. It can also be seen from the table that the majority of responders 89.9 percent have had experience for more than ten years. Overall, the table information indicates that they are qualified to answer the questionnaire and can be trusted in their abilities and information.

Table 1: Demographic distribution of the respondents

Variable	Variable Categories	Frequency	%
Qualifications	Bachelor's Degree	127	71
	Higher Diploma	18	10.1
	Master's Degree	34	18.9
	Specialization Accounting	108	60.3
	Finance	46	25.7
	Business Administrative	25	13.9
Job Level	Partner	37	20.6
	Senior Auditor	64	35.8
	Auditor	78	43.6
Experience	less than 5 years	18	10.1
	From 5-10 years	45	25.1
	From 10-15years	78	43.6
	More than 15 years	38	21.2

5.2. Descriptive Statistics

5.2.1. Factors Affecting the Auditor's Opinion

Short term debt –paying ability. Four ratios were used to reflect the effect of using of short term debt –paying ability ratios on the auditor's opinion. Table (2) points out that the arithmetic mean of all the paragraphs that reflect the effect of using the short term paying ability ratios on the auditor's opinion. The table shows highest mean was for the cash ratio, working capital and the lowest was for the current ratio, all paragraphs was under the scale (3.5). The arithmetic means of the respondent's answers of this field are reached to (2.4763), and the standard deviations were (.38647) which means that the respondents believe that the short term paying ability ratios does not affect the auditor's opinion.

Table 2: The effect of using the following short term debt paying ability ratios on the auditor's opinion.

Paragraph	Mean	S D
Current ratio	2.6089	.78119
Acid test ratio	2.8436	.54885
Cash ratio	2.8492	.54529
Working capital	2.8492	.59458
Total Field	2.4763	.38647

Long term paying ability ratios. Five ratios were used to reflect the effect of using of long term paying ability on the auditor's opinion. Table (3) points out that the arithmetic mean of all the paragraphs that reflect the effect of using the long term paying ability ratios on the auditor's opinion. The table shows highest mean was for the debt to tangible net worth, and the lowest was for the time interest earned, all paragraphs was above the scale (3.5). The arithmetic means of the respondent's answers of this field are reached to (3.8022), and the standard deviations were (.38218) which means that the respondents believe that the long term paying ability ratios effect the auditor's opinion.

Table 3: The effect of using the following long term paying ability ratios on the auditor's opinion.

Paragraph	Mean	S D
Debt ratio	3.7598	.79560
Debt to equity ratio	3.7430	.74267
Time interest earned	3.7318	.92143
Fixed charge coverage	3.8715	.75716
Debt to tangible net worth	3.9050	.75716
Total Field	3.8022	.38218

Profitability ratios. Six ratios were used to reflect the effect of using of profitability ratios on the auditor's opinion. Table (4) points out that the arithmetic mean of all the paragraphs that reflect the effect of using the profitability ratios on the auditor's opinion. The table shows highest mean was for the return on total equity, and the lowest was for the Net profit margin, all paragraphs were above the scale (3.5). The arithmetic means of the respondent's answers of this field are reached to (4.5091), and the standard deviations were (.27763) which means that the respondents believe that the profitability ratios affect the auditor's opinion.

Table 4: The effect of using the following profitability ratios on the auditor's opinion.

Paragraph	Mean	S D
Net profit margin	4.1899	.68508
Gross profit margin	4.6425	.55646
Total assets turnover	4.4190	.49478
Sales to foxed assets	4.5531	.49857
Return on operating assets	4.6704	.47139
Return on investment	4.5642	.74957
Return on total equity	4.7654	.42496
Return on common equity	4.2682	.79014
Total Field	4.5091	.27763

Market ratios. Eight ratios were used to reflect the effect of using of market ratios on the auditor's opinion. Table (5) points out that the arithmetic mean of all the paragraphs that reflect the effect of using the market (Investment) ratios on the auditor's opinion. The table shows highest mean was for the dividend yield, and the lowest was for the price earnings ratio. The arithmetic means of the respondent's answers of this field are reached to (2.4648), and the standard deviations were (.31523) which means that the respondents believe that the market (Investment) ratios do not affect the auditor's opinion.

Table 5: The effect of using the following market (Investment) ratios on the auditor's opinion.

Paragraph	Mean	S D
Degree of financial leverage	3.5531	.79410
Earnings per share	3.4246	1.02149
Primary earnings per share	3.4860	.91404
Fully diluted earnings per share	3.5866	.84603
Dividends per share	3.6034	.90826
Dividends payout ratio	2.3743	.83438
Price earnings ratio	2.3743	.83438
Book value per share	2.4525	.84914
Market value to book value	2.5754	1.01597
Dividend yield	3.9497	.78807
Total Field	2.4648	.31523

Activity ratios. Ten ratios were used to reflect the effect of using of activity ratios on the auditor's opinion. Table (6) points out that the arithmetic mean of all the paragraphs that reflect the effect of using the activity ratios on the auditor's opinion. The table shows highest mean was for the payables turnover, and the lowest was for the days of inventory holding, all paragraphs were above the scale (3.5). The arithmetic means of the respondent's answers of this field are reached to (4.0509), and the standard deviations were (.27827) which means that the respondents believe that the activity ratios affect the auditor's opinion.

Table 6: The effect of using the following activity ratios on the auditor's opinion.

Paragraph	Mean	S D
Inventory turnover	3.5587	.82153
Days of inventory holding	3.4693	.86304
Receivables turnover	4.0279	.94471
Average collection period	3.9888	.78604
Aging schedule	3.5866	.96398
Bad debts to credit sales	4.2123	.72644
Payables turnover	4.6425	.55646
Total assets turnover	4.4190	.49478
Networking capital turnover	4.4190	.49478
Total Field	4.0509	.27827

5.3. Testing Research Hypotheses

(T) test was used to test the hypothesis of the study, and table (7) illustrates the test results for all the hypotheses of it, the decision rule has been adopted to accept the alternative hypothesis and reject the null hypothesis if the calculated (T) value was greater than the indexed (T), and accept the null hypothesis and reject the alternative hypothesis if the calculated (T) value was less than the indexed (T) value at the level of significance (0.05).

The results of (T) test showed that the calculated (T) values were greater than the indexed values for the second, third, and fifth Hypotheses, as the calculated (T) value was (28.084) of the effect of long term paying ability ratios on the auditor's opinion, the hypothesis of affect of profitability ratios on the auditor's opinion reached (72.724), and the hypothesis of effect of activity ratios on the auditor's opinion reached (50.527). While the hypothesis related to effect of short term paying ability ratios on the auditor's opinion reached to (-18.131), and the hypothesis related to affect of market (investment) ratios on the auditor's opinion reached to (-22.715). In accordance with the decision rule, the null hypotheses were rejected and the alternative hypotheses were accepted for the second, third, and fifth hypotheses, and the alternative hypotheses were rejected and the null hypotheses were accepted for the first and fourth hypotheses, which means the long term debt paying ability ratios,

profitability ratios, and activity ratios are effect the auditor's opinion, but the short term paying ability ratios, and market (investment) ratios does not affect the auditor's opinion.

Table 7: The results of the hypothesis test.

The hypothesis	Arithmetic Mean	Calculated T	Result of null Hypothesis test
Effect of short term debt paying ability ratios	2.4763	-18.131	Acceptance
Effect of long term paying ability ratios	3.8022	28.084	Rejection
Effect of profitability ratios	4.5091	72.724	Rejection
Effect of market (investment) ratios	2.4648	-22.715	Acceptance
Effect of activity ratios	4.0509	50.527	Rejection

6. Summary and Conclusion

The objectives of this study were:

1. Provide evidence whether the using of financial ratios effect the auditor's opinion.
2. Improve the communication process between the auditor and users of financial statements.

To accomplish these objectives, a questionnaire was designed and distributed to a sample of Jordanian. The results of the questionnaire indicate that Jordanian auditors consider the long term paying ability ratios, profitability ratios, and activity ratios as important ratios affect the auditor's opinion. It was found that "profitability" had the highest mean score (4.5091), followed by "activity" (4.0509) and "long term paying ability" (3.8022). While the Jordanian auditors does not consider the short term debt paying ability ratios, and market (investment) ratios as important ratios affect the auditors' opinion. It was found that "market (investment)" had the lowest mean score (- 22.715), followed by "short term debt paying ability" (-18.131).

The study recommended that the need for caution when relying on the analytical procedures in assessing the performance and then linking this to the auditor's opinion as these ratios and financial instruments are only indicators that may point to the existence of unusual things, and not necessarily that the financial statements are materially distorted if these ratios and indicators weak, and this result is indicated by the liquidity ratios, also the auditor should paying attention to financial analysis because of its importance in the service of the audit process especially in the final stage, paying attention to using the market ratios because of their importance to current and prospective investors.

References

- 1] Chen, Kevin. C. W. & Bryan K. Church. (1996). Going Concern Opinions and the Market's Reaction to bankruptcy Filings, *the Accounting Review*. Vol. 71, pp 117-128. Available from www.jstor.org.
- 2] Chrysovalantis Gaganis, & Fotios Pasiouras. (2007). *A multivariate analysis of the determinants of auditors' opinions on Asian banks*, Managerial Auditing Journal, Vol. 22 Iss: 3, pp.268 – 287. DOI: 10.1108/02686900710733143
- 3] Edward, I, Altman. (1968). *Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy*", Journal of Finance, Vol. 23, No. 4, (September), pp. 589-609. DOI: 10.2307/2978933 Key: cite like: 1560509.
- 4] Gibson, Charles, H. (2010). *Financial statement Analysis; Using Financial Accounting Information*, South-Western, Division of Thomson Learning. Mason, USA.
- 5] IFAC, IASSB, (2010). *Handbook of International Auditing, Assurance, and Ethics Pronouncements*, International Federation of Accountants, New York, USA.

- 6] Kathleen A. Kaminski, T. Sterling Wetzel, & Liming, Guan.(2004).Can financial ratios detect fraudulent financial reporting?, *Managerial Auditing Journal*, Vol. 19 Iss: 1, pp.15 – 28. DOI: 10.1108/02686900410509802
- 7] Khanfar,M., & Almatarneh,G.(2009).*Financial Statements Analysis;Theoretical and Practical Approach*,(2nd Edition). Amman,Jordan:Dal Almaseerah for publication.
- 8] Kirkos, E., Spathis, C., Nanopoulos, A., &Manolopoulos, Y. (2006). Predicting Qualified Auditor's Opinions: a Data Mining Approach, *10th East-European Conference on Advances in Databases and Information Systems, Proceedings of the 2nd ADBIS Workshop on Data Mining and Knowledge Discovery*, Thessaloniki, Greece, September 3-7, pp. 26-36. DOI: 10.1.1.20.8952, 10.1.1.129.7711.
- 9] Konrad J. Farrugia, &Peter J. Baldacchino. (2005). Qualified audit opinions in Malta, *Managerial Auditing journal*, Vol. 20 No. 8, 2005, pp. 823-843. DOI: 10.1108/02686900510619674.
- 10] Sekaran, Uma. (2005). *Research Methods for Business: A Skill Building Approach*. (7th ed), New York: John Wiley and Sons, Inc.
- 11] Songa,Chuntao, lifrank,M., &Wong,Sonia,l.(2006). Determinants of Audit Opinion: Evidence from China's listed firms, *China Accounting Review*, Vol. 10, No.2. DOI: CNKI:SUN:ZKJP.0.2006-02-010
- 12] White, Gerald I., Sondhi, Ashwinpaul C., & Fried, Dov. (1998).*The Analysis and use of Financial Statements*. (2nd ed), New York: John Wiley & Sons, Inc.