Earning Management in Jordanian public Shareholding Service Companies and Influential Factors

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Abstract

This study aimed to examine the effect of several factors; company’s size represented by total assets, return on assets, return on equity, earning per share, financial leverage, book value to price ratio, independent direct board and the audit committee size on companies earning management, the sample consists of (58) Jordanian service companies listed on Amman Stock Exchange(ASE) in 2012, to achieve the aim of the study a multiple regression model which included many independent variables and the earning management level as the dependent variable..

The results of the study indicated that Jordanian service companies practice earning management by level (26.2%), which is a high percentage with varied levels between companies. It was found that transportation sector ranked first in earning management practices (52.4%) while health care sector ranked last in earning management practices (14.2%). Multiple regression analysis indicated a positive correlation between company’s size, financial leverage and earning management practices. A negative significant correlation was found between directors’ board autonomy and company’s earning management practices. No significant correlation was found between return on assets, return on equity, earning per share, book value to price ratio and company’s earning management practices.

Keywords: Earning management, Company size, Financial performance.

Introduction

The public listed general firms management boards practice of some interfering behaviors in the accounting data, which are used several parties, may have both negative and positive effects on the company’s net income. Some may describe such actions as fraud or manipulation while others may consider it as legitimate actions regardless of being immoral as long as it achieves the economic unit interest. These actions may lead to decreasing the income for taxes decrease purposes or to increase the company’s income to increase the rewards paid to board of director’s members or to smooth the income by decreasing it if it was low or to increase it if was low to reduce the acute fluctuations in the income level to achieve stability in the stocks’ process in the market.

The earning management practices are one of the practices used in the public companies and it is an ethical practice to gain the confidence of different stakeholders. The ethical nature of earning management is one of the controversial issues in the accounting field and it is based on whether these practices are ethically justified or not. By using earning management, does the management seeks to make core improvements in some aspects pertaining to its future strategy, or does it seeks to misguide the stakeholders. In any case, the misguidance is not always an unethical practice, but it needs reasonable justifications. When an alternative for misguidance is available, there is no justification for it (Al Ashkar, 2010).

The Jordanian Ministry of Industry and Trade and The Jordanian Securities Committee works on organizing the public sector companies. The application of the laws and regulations issued by the securities markets leads to improving the quality of financial reporting issued by the public service firms by quitting earning management practices and issuing accurate financial reports reflecting the actual status in them.

Objectives of the study

The study attempts to identify the practice level of earning management in the Jordanian service public firms listed on Amman Exchange Market by collecting the relevant data pertaining to the problem of the study from the financial annual reports issued by these firms in 2012, particularly those relating to earning management measurement using Jones Modified Model. This is done to determine the optional liabilities performed by the management then to identify some of the variables affecting earning management. In specific, the current study sought to achieve the following objectives:

1- To identify whether the Jordanian public service firms practice earnings management?

2- To identify factors affecting earnings management in the Jordanian service public firms?

Problem of the study

Problem of the study stems from the fact that Jordanian public service firms is one of the major sectors in business and many individuals and organizations use the service provided by them. The public service firms
play a vital role in the economic activity in Jordan. The increasing value of operational revenues in (2012) by (25%) compared to (2011) accompanied by the decrease in shareholders total right by (6%) in 2012, the liquidation of (3) public service firms despite the fact that there were earning in the financial year before liquidation indicates that firms are attempting- through their financial lists to give a dishonest picture about their financial performance to affect the process of their stocks in the exchange markets or to gain current or future rewards. The problem of the study can be addressed in the following questions:
1. What is Jordanian service firms listed at Amman Exchange Market practice level for earning management?
2. Are there factors affecting Jordanian service firms listed at Amman Exchange Market practice level for earning management?

Significance of the study
The significance of the current study stems from the topic being addressed in the problem of the study; that is earning management practice level and the factors affecting this practice in the Jordanian service firms listed on Amman Stock Exchange and the importance of the accuracy of annual financial reports published for each of these firms which are very important and have a value for the financial information users. These reports are of vital importance in important decision making. Considering the high competitiveness levels between the different firms, they might use earning management practices to change their financial lists to present them in an optimal financial position.

Therefore, the importance of this study emerges from its attempt to identify earning management practice level and the factors affecting this practice in the Jordanian service firms listed on Amman Stock Exchange. The persons who can use the results of this study include investors, clients, managements, public organizations interested which have demands concerning the need for a set of controllers and ethical and professional principles to achieve credibility and integrity in the data contained in the financial reports needed by financial reports users, especially investors using the financial securities markets.

Hypotheses of the study
The following null hypotheses were addressed in this study
1. Jordanian service firms do not practice earning management.
2- There are no factors affecting earning management practices in the Jordanian service firms.
From these two main hypotheses, the following hypotheses emerged:
1- There is no significant correlation between firm size and earning management practice.
2- There is no significant correlation between return on assets and earning management practice..
3- There is no significant correlation between returns on equity and earning management practice.
4- There is no significant correlation between stock profitability and earning management practice.
5- There is no significant correlation between firm's financial leverage and earning management practice.
6- There is no significant correlation between book to market value ratio and earning management practice.
7- There is no significant correlation between firm's board of directors autonomy and earning management practice.
8- There is no significant correlation between auditing committee size and earning management practice.

Previous literature
Al Sartawi et al (2013) sought in their study to examine the ability of auditing committees to reduce earning management practices in the Jordanian firms. The study also sought to examine the attributes of the auditing committees and their role in reducing earning management before the financial crisis. To achieve the objectives of the study, the researchers analyzed the Jordanian related to determine rules and regulations to determine the attributes of auditing committees listed in these rules and regulations, and to identify their effect on earning management for a sample consisting of (50) Jordanian industrial firms (6) years before the appearance of the financial crisis (2001-2006) and to obtain their finance data from the annual financial reports issued by these firms and to develop the multiple regression model. Results of the study pertaining to the attributed of the auditing committee indicated that the size of the auditing committee, the financial experiences of its members and its meetings number has no effect on reducing the earnings management practices; while the auditing committee members' autonomy has an effect on reducing earnings management practices. As for the auditing committee members ownership for stocks, it was found that this variable had a significant effect on increasing earnings management practices.
In another study, Rahman et al., (2013) sought to identify the concept of earnings management, methods used to practice earnings management and the management motives to use earnings management and how firms monitor earnings management. The study used the descriptive analytical approach. To achieve the objectives of the study, the secondary resources were reviewed by resorting to the articles and studies published in a number of specialized journalist, books, and websites to obtain a clear picture about the use of earnings management by firms. Results of the study indicated that firms adopting earnings management practices were using this based on a number of factors such as to achieve motives for the management, to maintain the stock process in the financial markets, and to achieve personal motives. There were also some organizational and political motives for using earnings management practices. The auditing committee awareness and the use of governance practices and the use of ethical practices by the interested stakeholders played a vital role to control the earnings management practices.

In his study, Al Kandari (2012) investigated level of using earnings management practices by the Kuwait public firms, to identify the effect of management use for earnings management practices in the Kuwait public listed firms (acquisition accounting, relative importance misuse, using accounting estimations and revenues disclosure) on the firms profitability. To achieve the objectives of the study, the researcher designed a questionnaire consisting of (28) items. The questionnaire was administrated to a sample of (125) financial manger, external auditors, internal auditors working in the Kuwait listed public firm. Several statistical analysis methods were used in data analysis using (SPSS). Results of the study indicated that firms' management use earnings management practices, that there was a statistical significant effect for using earnings management by the firm's management on its profitability, that there were significant statistical differences between the perceptions of the sampled subjects concerning the firm's management use of earnings management practices.

Abed et al. (2012) investigated the relationship between earnings management practices, corporate governance characteristics (management board autonomy, management board size, separation between the executive manager position and head of management board position, the percentage of internal ownership) in addition to investigating other control variables (firm size, firm's financial leverage). To achieve the objectives of the study, a sample of Jordanian non-profit firms were used in the current study as their financial reports were analyzed (2006-2009). The level of earnings management practices were measured via the use of optional liabilities using Jones Models and to obtain the data relating to the variables of the study from the annual financial reports of the sampled firms. Researchers developed a multiple regression model. Results of the study indicated that there was only a significant correlation between the size of the management board and earnings management practices level. The results obtained in the current study had important implications and support the use of cooperate governance practices; lead to control the management board practices in distorting the annual financial reports. As a consequence, the levels of trust and transparency can be enhanced in the disclosed annual financial data.

Shaheen (2011) sought in his study to examine to how extent do the banking sector practice earnings management and to identify the risks resulting from these practices by identifying the nature of these practices, their indicators, the methods used in their practice, and the resulting consequences in the operating national banks in Palestine. The study was conducted on a sample of (5) Palestinian national banks as their annual financial reports were analyzed in the period (2005-2009). The study also measured the earnings management practice using the Modified Jones Models to identify the optional liabilities practiced by the management. A questionnaire was also used to measure bank's management awareness for the risks resulting from earnings management. It was found in this study from the statistical analysis that Palestinian national banks practice earnings management at high levels in the years studied in the current study with variant degrees. Banks' managements were not aware about the risks resulting from practicing earnings management, that the earnings management practices had a significant effect on the financial data integrity, making them misleading and making them loose their objectivity, credibility which in turn has negative effects on the financial lists users' decisions.

Al Qathammi (2010) examined levels of Saudi listed firms use for earnings management, to test the effect of some variables on these firms' trends to adopt earnings management practices. These variables included the size of firm, firm's debt level, sector the firm operates. The study was conducted on a sample of (87) listed firms in the Saudi Stock Market. The study relied in earnings measurement on estimating the optional liability for the sampled firms using Modified Jones Model (1995). The study also developed a multiple regression model. Results of the study indicated that firms negatively practice earnings management and that the loosing firms positively practice earnings management. There was no effect for the firm's size and the sector that the
firm practices its operations on the earnings management, while there was an effect for the firm's debt and profitability on earnings management practices.

Gunney (2010) examined the relationship between real transactions manipulation and the future firm's performance. Furthermore, the study examined the effect of certain factors (firm size, number of branches, the ratio between the market value for equity to the book value of equity, the returns on assets average, the cash flows from the operational activities, in addition to the research and development expenses) on earnings management practices. To achieve the objectives of the study, the study was implemented on a sample consisting of all manufacturing firms which their financial statements are published via the internet (1988-2002) in the Great Britain and United States of America. The study also obtained the financial statements from the published financial reports. The researchers developed a multiple regression analysis model. It was found in the study that there was a significant correlation between the firm size, number of branches, and cashflows from the operational activities from one hand and the earnings management on the other. It was further found that research and development expenses in the firm encourage the management to practice earnings management. The study showed that there was no significant correlation between earnings management and the market equity value ratio to the book value.

Shtaiwi (2009) attempted in his study to test and analyze the effects of some economic variables on earning management practices in a sample of Egyptian firms. Another objective of the study was to identify the correlation between the variance in the due accounting influence by the economic factors, including the characteristics of the firm, the nature of disclosure environment. To achieve the aims of the study, the financial statements from the annual financial reports for a sample of (50) listed firms at Cairo and Alexandria stock markets (2003-2005) were examined and analyzed. Results of the study showed that there is a correlation for the variance in the due accounting and economic factors; including firm's size, financial leverage size, the length of operations cycle, and the growth on assets. Results of the study indicated that the more the firm's size was, the lesser the use of earnings management, the lesser was the financial leverage, the lesser was the operations cycle period and the decrease of the negative earnings, the nature of the sector the firm operates in, the firm's record in the stock market, the reduction in variance in the cash distributions, the reduction in earnings management practices with the increases in growth rates, the reduction in the fluctuations in the stock price, the market value decrease to the stock ratio.

Methodology

Population and sample of the study

The study population consists of all Jordanian Services Companies listed on the Amman Stock Exchange (ASE) for fiscal year 2013, shares of (86) Company (Jordan Securities Commission, 2012). These procedures produced a sample of (58) Services companies that represent approximately 67% of the total Services companies listed on the ASE. Information about these companies was collected from the companies’ annual reports for the year 2012 and from the Jordanian Shareholding Companies Guide for the year 2013 issued by the Amman Stock Exchange and that the following conditions are available:

-End of its fiscal year on 31/12.
-The annual financial report of the company available for the year 2013.
-The shares to be traded on the ASE in 2013.

Table (1)
Distribution of the study sample

<table>
<thead>
<tr>
<th>Sector</th>
<th>No. of companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Care Services</td>
<td>4</td>
</tr>
<tr>
<td>Educational Services</td>
<td>6</td>
</tr>
<tr>
<td>Hotels and Tourism</td>
<td>12</td>
</tr>
<tr>
<td>Transportation</td>
<td>13</td>
</tr>
<tr>
<td>Technology and Communications</td>
<td>2</td>
</tr>
<tr>
<td>Media</td>
<td>2</td>
</tr>
<tr>
<td>Utilities and Energy</td>
<td>4</td>
</tr>
<tr>
<td>Commercial Services</td>
<td>15</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>58</strong></td>
</tr>
</tbody>
</table>
Model of the study

Data were collected for this study from the sample (n=58 companies) of the reality of annual reports issued by service companies listed on the ASE for the year 2012, so as to detect the data variables of the study are as follows:

1. Obtaining the data relating to measuring earnings management practices by calculating the optional liabilities representing the earnings management for the service firms sector as it was widely used in many of previous studies. The study used (Modified Jones Model, 1995) as the studies conducted by Jean et.al., (2004); Tendeloo, (2005)has indicated that this model is the most robust model to detect earnings management. The model uses the following formula:

\[
DACCit = (TACCit /TAit-1) - [\beta_1 (1/TAit-1) + \beta_2 (\Delta REVit - \Delta RECIt)/TA it-1 + \beta_3 PPEit /TA it-1]
\]

Where
- DACC: the optional liabilities representing the earnings management practices.
- TACC: the net income before the exceptional earnings- the net cash flows from the operational processes.
- TA: the total assets for the previous financial year.
- \(\Delta\) REV: changes in revenues.
- \(\Delta\) REC: changes in creditors.
- PPE: the total assets.

1. Collecting financial data from the reality of annual reports of companies study sample which relates total assets, return on assets, return on equity, earning per share, financial leverage of the company Book Value to price, independent direct board, in addition to the Audit committee size.

2. The following multiple regression model is developed to test the research hypotheses:

\[
EM = \alpha + \beta_1 SIZE + \beta_2 ROA + \beta_3 ROE + \beta_4 EPS + \beta_5 Lev + \beta_6 BM + \beta_7 INDIR + \beta_8 Audcom + Et
\]

Where:
- EM: Earning Management level
- \(\beta_i\): the regression coefficients, \(i = 1, \ldots, 8\)
- Size: Company’s size represented by total assets.
- ROA: Return on Assets
- ROE: Return on Equity
- EPS: Earning Per Share
- Lev: Financial leverage
- BM: Book Value to price
- INDIR: independent direct board
- Audcom: Audit committee size
- Et: Error term

Analysis results

In this section, the author presents the results relating to the earning management practices in the Jordanian service listed firms at ASE for the year (2012). This section also addresses the significant effect between the practice of earnings management in the Jordanian listed firms and some of the firm's related variables such as firm's size (the total assets, returns on assets, and returns on equity, stock profit, firm's financial leverage, and book to market value ratio, board of directors’ autonomy in addition to the auditing committee autonomy). The section also presents the correlations values between the independent variables examined in this study. Finally, it presents the descriptive analysis for the variables of the study.

Level of earning management practices based on the service sector

Table (2) shows Level of earning management practices based on the service sector in the Jordanian firms listed on ASE. The earnings management measures were measured using the optional due estimation for the sampled firms using Modified Jones Model as it shows the level of earning management practices based on the service sector and for all of the sampled firms.
Table (2) Level of Earnings Management Practices based on Service Sector

<table>
<thead>
<tr>
<th>Sector</th>
<th>Number of firms</th>
<th>Earnings Management Practices Level</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Care Services</td>
<td>4</td>
<td>0.142</td>
<td>0.151</td>
</tr>
<tr>
<td>Educational Services</td>
<td>6</td>
<td>0.333</td>
<td>0.168</td>
</tr>
<tr>
<td>Hotels and Tourism</td>
<td>12</td>
<td>0.307</td>
<td>0.168</td>
</tr>
<tr>
<td>Transportation</td>
<td>13</td>
<td>0.524</td>
<td>0.181</td>
</tr>
<tr>
<td>Technology and Communications</td>
<td>2</td>
<td>0.315</td>
<td>0.236</td>
</tr>
<tr>
<td>Media</td>
<td>2</td>
<td>0.219</td>
<td>0.106</td>
</tr>
<tr>
<td>Utilities and Energy</td>
<td>4</td>
<td>0.221</td>
<td>0.193</td>
</tr>
<tr>
<td>Commercial Services</td>
<td>15</td>
<td>0.261</td>
<td>0.164</td>
</tr>
<tr>
<td>Total earnings management</td>
<td>58</td>
<td>0.262</td>
<td>0.168</td>
</tr>
</tbody>
</table>

It can be noted from the previous table:

- The level of earnings management practices in the Jordanian service listed firms ranged between (14.2%- the lowest average) and (52.4%-est average the high).
- The sectors that used the earnings management practices the more in the industry was as follows: the transportation sector (52.4%), then education (33.3%). On the other hand, the least sectors using earnings management practices was health care (14.2%), while the media services, the energy and utilities and commercial service used the earnings management practices with close rates (26.2%).
- In general, results of the study indicated that Jordanian service firms listed in ASE reported earnings management practices in the different sectors (M=26.2%, SD=16.8%), indicating that there was no distribution in the earnings management practices between the sampled firms. Descriptive analysis for the independent variable.

Table (3) shows the results obtained for the descriptive analysis for the independent variables relating to the sampled firms using the appropriate statistical analysis procedures such as means, standard deviations, higher value, lesser value for the total sample consisting of (58) Jordanian service firms listed on ASE in (2012).

Table (3)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA (Log)</td>
<td>7.448</td>
<td>0.609</td>
<td>5.691</td>
<td>8.900</td>
</tr>
<tr>
<td>ROA</td>
<td>0.019</td>
<td>0.136</td>
<td>-0.180</td>
<td>0.637</td>
</tr>
<tr>
<td>ROE</td>
<td>-0.193</td>
<td>1.355</td>
<td>-10.114</td>
<td>0.508</td>
</tr>
<tr>
<td>EPS</td>
<td>0.082</td>
<td>0.292</td>
<td>-1.040</td>
<td>1.070</td>
</tr>
<tr>
<td>Lev</td>
<td>0.346</td>
<td>0.243</td>
<td>0.015</td>
<td>0.940</td>
</tr>
<tr>
<td>BM</td>
<td>1.184</td>
<td>0.909</td>
<td>0.168</td>
<td>4.508</td>
</tr>
<tr>
<td>INDIR</td>
<td>0.863</td>
<td>0.144</td>
<td>0.333</td>
<td>1.000</td>
</tr>
<tr>
<td>Audcom</td>
<td>5.448</td>
<td>1.327</td>
<td>3</td>
<td>8</td>
</tr>
</tbody>
</table>

It can be noted from the above table:

- The means for the total assets (Log) was (M=7.448, SD=0.609) indicating that there is a variance in the sampled service firms’ sizes as their total assets (Log) ranged between (5.691- the least value) and (8.900- the highest value).

- The previous table shows that the return on assets has obtained in average a positive value reaching to (0.019) with low standard deviation (0.136). At the same time, when noting the return on equity, one can see that it reported a negative value (-0.193) with a high standard deviation of (1.355), which means that there were no significant differences in the results reported for the Jordanian listed service firms on the returns on assets variable and the high levels for the differences in the returns on equity variable. The Jordanian listed service firms report reaching in average to (0,082) with a standard deviation of (0.292) meaning that the share profitability for the firm was variant and ranged between (-1.04) and (1.07).

- When looking to the financial leverage variable measured dividing the total liabilities to the total assets for the sampled firms, we can notice that the Jordanian service listed firms rely in their assets funding on the internal funding compared to the external funding resources. The means scores for the external funding sources was
(M=0.346) with a standard deviation of (0.243). This indicates that there was a significant variance on the Jordanian listed service firms on the external funding resources when purchasing their asset. The average ratio for the book value to the market value was (1.184) indicating that Jordanian listed service firms use the least reserved rules and standards and has a positive effect on the published asset value in the financial statements and negatively on the present liabilities and had negative effects on the future firm’s value as the assets are presented using exaggerated figures while the liabilities are presented with the least value.

-In terms of the board of directors’ autonomy, it was found that boards of directors had autonomy of the executive management board reaching in average to (86.3%) and a standard deviation of (0.144). Combining between board of directors and executive management is a violation to cooperate governance regulations issued by the Jordanian securities committee requiring that the board of directors entail the independent individuals (nonexecutives).

As for the auditing committee size, it was found that the Jordanian service firms form their auditing committees in accordance to the cooperate governance regulations issued by the Jordanian securities committee requiring the need for forming an auditing committee to monitor the accounting and auditing activities in the firm, to ensure that there was no conflict of interests by the firm's transactions with the different stakeholders (Jordanian Securities Committee, 2007) as the average number for the auditing committee in the Jordanian service firms was (5.448) and a standard deviation of (1.327). The average number of the auditing committee members ranged between (3-8 members).

-The least standard deviations for the variables of the study were relating to the returns on assets as this value was (0.136) meaning that it is the least distributing from the its means value. At the same time, the higher standard deviation was for the returns on equity reaching a value of (1.355) meaning that it is the higher distributing from the its means value

**Correlation matrix**

Before conducting the analysis, the regression model was checked for the presence of multicollinearity problem between the independent variables. This occurs when two or more independent variables are highly correlated which makes it difficult to determine the individual contribution of each variable to the prediction of the dependent variable (Barrow, 1988). (Kennedy, 1985). (Anderson et al. 1993) consider an absolute correlation coefficient high if it exceeds (70%) for any two of the independent variables. To assess the extent of this problem with respect to the current regression model, a correlation matrix incorporating all the independent variables was run (see Table 4). As seen from the table, the correlation coefficient between each pair of the independent variables is not high, suggesting that the results of the regression model are not affected by multicollinearity.

<table>
<thead>
<tr>
<th></th>
<th>TA</th>
<th>ROA</th>
<th>ROE</th>
<th>EPS</th>
<th>Lev</th>
<th>BM</th>
<th>INDIR</th>
<th>Audcom</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>0.179(**)</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROE</td>
<td>0.306(*)</td>
<td>0.254(**)</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EPS</td>
<td>-0.215</td>
<td>0.105</td>
<td>-0.152</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lev</td>
<td>0.332(*)</td>
<td>0.333(*)</td>
<td>-0.343(**)</td>
<td>-0.117</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BM</td>
<td>-0.130</td>
<td>-0.033</td>
<td>-0.401(**)</td>
<td>-0.034</td>
<td>-0.014</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INDIR</td>
<td>0.285(*)</td>
<td>0.015</td>
<td>0.090</td>
<td>0.054</td>
<td>0.235</td>
<td>-0.015</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Audcom</td>
<td>-0.047</td>
<td>-0.160</td>
<td>0.125</td>
<td>0.100</td>
<td>-0.094</td>
<td>-0.107</td>
<td>-0.056</td>
<td>1.000</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed). *Correlation is significant at the 0.05 level (2-tailed).**

**Multicollinearity Test:**

General Linear Model (GLM) based mainly on the independence assumption of each independent variables and because this condition is not achieved, the general linear model is not fit for the application and cannot be considered good for the process of estimating the parameters (Sifo & Meshaal, 2003), (Shwiyat, 2013) in order to achieve this we use Collinearity Diagnostics scale, this test is a measure of impact on the link
between the independent variables, and (Gujarati, 2003) found that to get the value (VIF) is higher than (10)
which refers to a problem with Multicollinearity independent concerned variable.

Table (5)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Multicollinearity Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>TA</td>
<td>0.630</td>
</tr>
<tr>
<td>ROA</td>
<td>0.820</td>
</tr>
<tr>
<td>ROE</td>
<td>0.541</td>
</tr>
<tr>
<td>EPS</td>
<td>0.898</td>
</tr>
<tr>
<td>Lev</td>
<td>0.558</td>
</tr>
<tr>
<td>BM</td>
<td>0.796</td>
</tr>
<tr>
<td>INDIR</td>
<td>0.855</td>
</tr>
<tr>
<td>Audcom</td>
<td>0.933</td>
</tr>
</tbody>
</table>

Table (5) shows that (VIF) values for all independent variables was lesser than (4), thus supporting
the results obtained from the Pearson Matrix previously mentioned indicating that there are very weak correlations
between the independent variables. Thus, the linear interfering problem did not affect the good of fit for the
model used in this study.

Autocorrelation Test

The autocorrelation problem appears in the model if the observations were interrelated which will in
turn affects the quality of the model used as it may lead to eliciting untrue effect for the independent variables
on the dependent at high levels as a result of this correlation. To verify the absence of this problem, Durbin
Watson Test was used. The optimal results obtained from this test range between (1.5) to (2.5), indicating that
there is no autocorrelation between the variables. Economists feel confidence about the results obtained if the
autocorrelation was not found, especially when the (D-W) value is close to (2.0), as the autocorrelation
problem may be at low levels (Al Saifo& Meshaal, 2003). The results pertaining to calculated (D-W) indicated
that this value was (2.146). According to the previous rule, the calculated test value falls within the acceptable
range, indicating that there was no problem relating to the autocorrelation affecting the fitness of good for the
model of the study.

The Multiple Regression Analysis Results

Table (5) shows the results pertaining to the multiple regression analysis relating to the effect of the
variables affecting earnings management practices in the Jordanian service firms in (2012) using (SPSS). It can
be noted that the used model had a significant effect at the significance level (1%).

Table (6)

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Coefficients</th>
<th>t-statistic</th>
<th>Sig. Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA</td>
<td>0.191</td>
<td>1.135</td>
<td>0.042</td>
</tr>
<tr>
<td>ROA</td>
<td>0.104</td>
<td>0.705</td>
<td>0.484</td>
</tr>
<tr>
<td>ROE</td>
<td>-0.244</td>
<td>-1.339</td>
<td>0.187</td>
</tr>
<tr>
<td>EPS</td>
<td>0.022</td>
<td>0.158</td>
<td>0.875</td>
</tr>
<tr>
<td>Lev</td>
<td>0.447</td>
<td>2.496</td>
<td>0.016</td>
</tr>
<tr>
<td>BM</td>
<td>-0.032</td>
<td>-0.210</td>
<td>0.834</td>
</tr>
<tr>
<td>INDIR</td>
<td>-0.029</td>
<td>-0.200</td>
<td>0.041</td>
</tr>
<tr>
<td>Audcom</td>
<td>-0.067</td>
<td>-0.481</td>
<td>0.032</td>
</tr>
<tr>
<td>F- value</td>
<td>1.066</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig.</td>
<td>0.008</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It can be noted from the above table:

There was a significant positive correlation between the following independent variables: firm size, firm's
financial leverage and the earnings management practices. Also, there was a negative significant correlation
between earnings management practices and the board of directors autonomy.

There was no significant correlation between earnings management practices and the following
independent variables: return on assets, return on equity, share value, book to market value ration.
The R-Square test was used to detect the total independent variables adequacy to account the variances found in the dependent variable (earnings management). The results obtained are presented in table (7).

### Table (7)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.449(a)</td>
<td>0.321</td>
<td>0.231</td>
<td>0.169903</td>
</tr>
</tbody>
</table>

Predictors: (Constant), AUDCOM, TA, BM, ROA, EPS, INDIR, LEV, ROE
Dependent Variable: EM

As seen in the previous table (7), the R-Square value was (0.231), indicating that the combined independent variables had a positive effect on the earnings management practices in the Jordanian listed service firms. All these variables accounted for (23%) of total variance in the dependent variable (Earnings management practices). (77%) of variance occurring and affecting the earnings management practices are results on non accounted for variables in this study.

### Multiple Regression Results Discussion and Testing Hypotheses

In light of the results obtained from the regression analysis, one can note that the firm's financial leverage was one of the most influential factors on earnings management practice in the Jordanian listed service firm at ASE. The service firms' reliance on the external funding sources in funding their assets purchase or expansion drives them to practice earnings management to influence their earnings positively. This result is consistent with the results reported in Al Qathamai (2010), Shtaiwi (2009) and Shen and Chih (2007) which indicated that there was a positive significant correlation between the firm's financial leverage and earnings management practices. This result is inconsistent with the results reported in Abed et al., (2012) reporting that there was no significant correlation between the firm's financial leverage and earnings management practices.

There was a significant correlation at the significance level ($\alpha = 0.05$) between firm's size and the earnings management practice in the Jordanian listed service firm at ASE. This result is consistent with the results reported in Shen and Chih (2010) that there was a positive significant correlation between the firm's size and earnings management practices. This result is inconsistent with the results reported in Al Qathami (2012) and Abed et al., (2012) reporting that there was no significant correlation between the firm's size and earnings management practices.

As for the effect of the financial performance of the firm (returns on assets, returns on equity and share earnings), it was found that here is no significant correlation at the significance level ($\alpha = 0.05$) between with the earnings management practices in the Jordanian listed service firm at ASE. This result is consistent with the results reported in Gunny (2010) indicating that there was no significant correlation between returns on assets and earnings management practices. This result is inconsistent with the results reported in Al Kandari (2012) and Al Qathami (2012) reporting that there was significant correlation between the EPS and earnings management practices, indicating that as the share value decreases, the more the firm used earnings management practices.

The results of the multiple regression also indicated that there was a significant negative correlation at the significance level ($\alpha = 0.05$) between boards of directors autonomy and the earnings management practice in the Jordanian listed service firm at ASE. The boards of directors autonomy helps on reaching higher control and monitoring practices, using effective assessment for all the financial operations in the firm, preventing fraud and manipulation in the financial statement. These practices are stated in the Jordanian Governance Standards to earn the trust of foreign investors and dealers with the different dealers with the Jordanian firms. This result is consistent with the results reported in Shen and Chih (2010) and is inconsistent with the results reported in Abed et al., (2012) indicating that there was no significant correlation between boards of directors autonomy and earnings management practices.

The results indicated that there was a significant negative correlation at the significance level ($\alpha = 0.05$) between numbers of the auditing committee and the earnings management practice in the Jordanian listed service firm at ASE. The auditing committee consist of independent members in the board of directors and practice its monitoring role, works on enhancing the efficiency and quality of the internal and external auditors, works on ensuring their autonomy from the management and prepare special reports, following up the execution of these reports to assure that the firm is executing the recommendations stated in these reports, which may reduce the practice of earnings management. This result is consistent with the results reported in Shen and Chih (2007) and
Rahman et al., (2013) and is inconsistent with the results reported in Abed et al., (2012) indicating that there was no significant correlation between numbers of the auditing committee and earnings management practices

Conclusion

Results:

In light of the statistical analysis results, the following conclusions were formulated:

1- The Jordanian listed service firms on ASE practice earnings management with an average of (26.2%), and this is a high average and with varying degrees between the firms.
2- The transportation sector is the highest in practicing earnings management (M=52.4%) and the health care service was the lesser in practicing earnings management (M=14.2%).
3- The financial leverage of the firm is the most influential factors on using earnings management practices in the Jordanian listed service firms. The results of the study indicated that there was a positive and significant correlation at the significance level (α= 0.01) while the size of the auditing committee in the firm was the least influential on earnings management practices in the Jordanian listed service firms.
4- The earnings management practice is positively related with the firm's size, the firm's financial leverage and was negatively related with the boards' of directors' autonomy and the number of auditing committee.
5- There were no significant correlations between returns on assets, returns on equity, share earnings, book to market value ratio and the earnings management practices in the Jordanian listed service firms.

Recommendations:

1. To inform investors about the mechanisms and models that can be used to detect earnings management practice to identify financial statements manipulation which make their investments at risk.
2. To enforce some penalties on the service firms using earnings management practices to influence investors', shareholders and financial statements users' decisions.
3. To further investigate the earnings management topic and its relationship with other variables examined in the context of the current study.

References


Shtaiwi, Ayman Ahmad (2009). An applied study to analyze the effect of some economic factors on earnings management practices in the Egyptian firms. The Scientific Journal for Trade & Finance, Faculty of Trade, Tanta University, 1, 214-267.


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