The Impact of Ownership Structure on Earnings Management: Evidence from Companies Listed at Amman Stock Exchange

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Abstract
The aim of the study is to examine the impact of ownership structure on earnings management by considering the case of listed companies of Amman stock exchange. To examine the research aim, secondary quantitative research method has been used; and thus, data of Concentrated Ownership for stockholders, Management Ownership percentage (independent variables), and earnings management (dependent variable) has been gathered for the period of 7 years, i.e. 2009 to 2015. Earning management of the research has been calculated by using Modified Jones Model. After gathering the data, it has been analyzed through Regression, T-Test, F-Test, coefficient, correlation, and linear collinearity. The study concludes that there is the significant impact of management ownership and concentrated ownership on earning management.

Keywords: Management Ownership, Concentrated Ownership, Earning Management

Introduction
Ownership structure has been considered as the most important aspect to control the agency cost as well as earning management activities. Considering ownership structure, Kouaib & Jarboui (2014); Leung, Richardson & Jaggi (2014); Huang, Wang & Zhou (2013) critically state that ownership structure of some public listed companies is concentrated in the hands of the few stockholders or families. Thus, these families and stockholders controlled the corporate structure of the public listed firm. However, Lim, How & Verhoeven (2014); Hamid, Tayebeh & Faezeh (2014) stated that ownership structure of the international companies is in the hand of the management. Therefore, management has the right to make changes accordingly as per the company's financial reports or financial data. According to the study conducted by González & García-Meca (2014); Kouaib & Jarboui (2014), firm's managers use financial reports to communicate with external stakeholders.

Within the the scope of accepted accounting standards, executives have flexibility to modify earnings by changing accounting methods, adjusted timing recognition of sales and inventory, sales of assets, allowances for bad debts, provision for deferred taxes, depreciation expenses, etc (Adam, Mukhtaruddin & Putri, 2014; Achleitner et al. 2014). Hence, according to the study of Bortoluzzo, Sheng & Gomes (2016); Chen & Zhang (2014), modification of earnings is termed as “Earnings Management”, which has raised serious concerns to financial regulators as the evidence on worse financial disclosure practices shown in the case of Enron, WorldCom, Xerox, Tyco, and others. Bouvatier, Lepetit & Strobel (2014); Azibi, Azibi & Tondeur (2017) pointed that the flexibility in accounting principles allows firms to keep pace with business innovation. If frequent earnings management irregularities caused biasedness in the financial results and might lead to incorrect interpretations and actions by users of the financial statement, then it stands to reason that regulators should issue appropriate measures to prevent earnings management or at least to mitigate the implications of monitor the problem.

A central issue in accounting research is the extent to which managers make alterations in reported earnings for their own benefits, which in turn, cause the biggest challenge for researchers to observe earnings management. An, Li & Yu (2016); Bar-Yosef & Prencipe (2013) examined contexts in which managers are seen to have strong incentive to manage earnings and test whether that behavior holds. Attempts have been made in the literature to identify the contexts in which managers are likely to take actions to manipulate earnings. Manager's reward has been consistently identified as an important motivation for earnings management because it is strongly tied to accounting performance (Chen, Shi & Xu, 2013; Chi et al., 2015).
Furthermore, managers are also concerned with a current business performance so that they have incentives to report earnings that meet a sustained growth trend and analysts' consensus forecast. Manipulating earnings slightly can improve the quality of financial report (Khan & Ibrahim, 2015; Elyasiani, Wen & Zhang, 2017). Manager's incentive has an important implication in the prediction of earnings management because the rewards on employment and compensation package depend implicitly and explicitly on firm's performance. Hence, the focus of the research is on examining whether there is the significant or insignificant impact of ownership structure on the earning management of the listed firms (Elyasiani, Wen & Zhang, 2017; Ferro & Wijaya, 2015).

The aim of the study is to examine the impact of ownership structure on earnings management by considering the case of listed companies of Amman stock exchange. For the research purpose, following are the research objectives based on which, this research has been developed:

- To identify the importance of ownership structure, mainly managerial ownership and concentrated ownership, in constraining the likelihood of earnings management in the companies listed on Amman Stock Exchange;
- To reveal that there is fewer earnings management when operating cash flows are high and; there is more earnings management when political costs, leverage and board size are high by utilizing Modified Jones Model;
- To analyze that highly leverage firms are more likely to engage in earnings management than firms that are not highly leveraged;

The structure of the study is presented as follows: section one is the introductory section that covers research background, research aim & objectives, problem definition, study questions, and significance of the research. Section two covers the literature review that will focus on the past reviews related to the stated topic. Section three would be the methodology spart that would focus on secondary quantitative research method. Section four would cover the research findings of SPSS, interpretation of results, tables & charts, and discussion on the research. Finally; section five will conclude the research topic and recommends the strategies for the management and stockholders of the firms.

**Significance of the Research**

Extant literature suggests that earnings management may be correlated with managerial ownership through mediating variables such as executive compensation and manager's discretion over reported earnings (Elyasiani, Wen & Zhang, 2017; Ferro & Wijaya, 2015). Unfortunately, very few studies that directly address the association of earnings management and managerial ownership were published in academic journals. Perhaps the most notable work related to earnings management and managerial ownership is the study by Bortoluzzo, Sheng & Gomes (2016); Chen & Zhang (2014) that discussed the association of managerial ownership and managerial effort which is assumed to be equivalent to refraining from earning management. The paper by An, Li & Yu (2016); Bar-Yosef & Prencipe (2013) documented both small and large sized firms manage earnings to avoid negative earnings, and that small-sized firms engage more in earnings management than the large and medium-sized firms to avoid losses.

Although findings in the literature regarding the corporate value and managerial or institutional ownership are impressive, there are several gaps need to be fulfilled. First, the empirical findings reported in various studies have been largely nonexistent outside the Amman. Second, despite the vast literature regarding managerial ownership and concentrated ownership has been addressed to the relationship of earnings management (Chen, Shi & Xu, 2013; Chi et al., 2015). Third, evidence of the managerial ownership and firm performance relationship are still inconsistent and require further development of theoretical aspects and empirical studies to reconcile the findings.

**Problem Definition**

There are both practical and theoretical reasons for conducting this study. From practical perspectives, understanding the influences of managerial ownership on earnings management provides valuable information to practitioners and financial regulators to make informed decisions and appropriate policy approach (Khan &
Ibrahim, 2015; Elyasiani, Wen & Zhang, 2017). This is because managerial ownership is generally tied to firm's ownership and corporate structure while firm size represents for and contain itself important firm’s characteristics.

Practitioners and regulators can base on the indicators of firm’s ownership and firm’s size to issue appropriate measures to reduce earnings management bias and likelihoods. On a theoretical level, this study integrates managerial ownership and costs of earning management into a theoretical model that help better understand how these factors influence the intensity of earnings management through the mediating role of manager’s rewards and accounting discretions (Elyasiani, Wen & Zhang, 2017; Ferro & Wijaya, 2015).

Following is the research question that has been used to examine the impact of an independent variable on dependent variables of the research:

- Is there a significant or insignificant impact of ownership structure on earnings management by considering the case of listed companies of Amman stock exchange?

Literature Review

This section presents the literature review that helps in examining the research topic by examining the past studies.

Earnings Management

In spite of large literature in earnings management, there are two definitions of earnings management widely cited in the literature. According to Chen, Shi & Xu (2013), earnings management is: "A purposeful intervention in the external financial reporting process, with the intent of some private gain." Similarly, Chi et al. (2015) defined earning management as Earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers."

Both definitions associate earnings management with manager's objectives. The first definition emphasizes manager's incentives to manage earnings while the second refers to outcomes of earnings management to influence the true economic value of a firm. Although these two definitions are widely accepted, they are practically difficult to operationalize as these are centered on manager's intent which is unobserved. According to the study researched by Elyasiani, Wen & Zhang (2017); Etemadi & Moghadam (2014), in the real world, the term of earnings management is not used by regulators and practitioners. Instead, financial restatement or financial fraud is an extreme form of earnings management used by case. Ferro & Wijaya (2015); Ghazalat et al. (2017) argued that it is GAPP itself that drives earnings management because it allows managers with flexibility in the realization of assets and liabilities and accrual of incomes and expenses. Managers would, therefore, take it for granted to manipulate earnings. In contrast to this view, Bouvatier, Lepetit & Strobel (2014); Azibi, Azibi & Tondeur (2017) pointed out that the flexibility in accounting principles allows firms to keep pace with business innovation.

Issues of Earnings Management

With few exceptions where court evidence was brought forward as in the case of Enron, WorldCom, Xerox, Tyco and others, earnings management cannot be observed, and therefore, it was difficult to be detected. Researchers, such as, An, Li & Yu (2016); Bar-Yosef & Prencipe (2013) in earnings management generally starts with identifying conditions or contexts in which managers are seen to have strong incentive to manipulate earnings and test whether that behavior holds. Review of research design issues in the earnings management studies by Bortoluzzo, Sheng & Gomes (2016); Chen & Zhang (2014) pointed out three common approaches: those based on the aggregate accruals, those based on specific accruals, and those based on the distribution of reported earnings. At the fundamental level, earnings management is related to the firm’s performance to achieve some benchmarks. The salience of benchmark appeared as results of three psychological factors: fundamental human thought processes related to positive and negative numbers; the reference points as the prospect theory predicts and the thresholds come to fore (Khan & Ibrahim, 2015; Elyasiani, Wen & Zhang, 2017).
These benchmarks could be the last year's earning performance, the analyst's earnings forecasts or whatever benchmarks that are specified in the contracts of managers and the firm. A firm failed to meet earning benchmarks can be extremely costly because outsiders (investors, stockholders, lending banks) rely on these benchmarks to evaluate the firm's perspectives and therefore stock prices could fall instantly (Chen, Shi & Xu, 2013; Chi et al., 2015). For managers, missing earnings targets could substantively reduce manager's rewards as both compensation and employment depend on the achieved earnings targets. Inference of earnings management to achieve thresholds is based on the assumption of reported earnings frequency distribution (Elyasiani, Wen & Zhang, 2017; Ferro & Wijaya, 2015). When managers respond to earnings thresholds, the distribution of reported earnings gets distorted. González & García-Meca (2014); Kouaib & Jarboui (2014) found evidence of earnings management to achieve thresholds from the US firm data. It should be noted that frequency distribution of reported earnings does not indicate which components of earnings are manipulated. Another approach which is sometimes applied to detect earnings management is to examine specific accounting components. If earnings management exists, managers tend to adjust accruals related to some specific accounts, change accounting methods or the timing of earnings announcement. Considerable evidence suggests that managers use discretionary accruals to adjust deferred tax expenses accounts; guide analyst’s forecast downward to avoid missing earnings expectation (Chen, Shi & Xu, 2013; Chi et al., 2015); influence tax rate policy by decreasing book income prior to reduction in corporate tax as case in Malaysia; manipulate provision for bad debt and other forms. However, the extent to which this research approach is applicable depending on the available knowledge of researchers in each specific cases. Interpretation of evidence is constrained in the context study. However, this approach has been so far employed widely in earnings management studies (Darmadi, 2016; Khan & Ibrahim, 2015).

Managerial Ownership and Earning Management

On the basis of the study examined by Adam, Mukhtaruddin & Putri (2014); Achleitner et al. (2014), agency theory suggests that managerial behavior influences the firm's value. When separation of ownership and control exists, there appears agency cost as the interests of the firm's owners and managers are not fully aligned. So firm's managers have the incentive to optimize their utility rather than maximize firm value. Following this line of agency theory, a large number of studies have developed to examine firm performance – managerial shareholding relationship. Viewing this relationship generally take two perspectives: the incentive alignment effect and the entrenchment effect (Holderness, 2014; Chhabra, 2016). The former postulates a positive relationship at the lower level of managerial ownership because the proportion of managerial shareholding increases the managers' benefits that rise according to their efforts and external disciplines. But employment pressures constrain the manager's behavior to be in line with shareholders' interest. This is referred as the convergence of shareholders and managers interest hypothesis. At a significantly high level of managerial ownership, external disciplines have less effect, and the managers have complete control of firm (Chen, Shi & Xu, 2013; Chi et al., 2015; Elyasiani, Wen & Zhang, 2017). Manager's on-the-job perks, shirking and self-interest investment drives manager's behavior to act more on their own benefits than shareholder's wealth. This is also called the entrenchment hypothesis that negatively affects the firm's value. Thus, the relationship between managerial ownership and firm's value is predicted to be nonlinear. The nonlinear relationship, therefore, predicts the humped shape of firm value against the managerial ownership (Elyasiani, Wen & Zhang, 2017; Ferro & Wijaya, 2015; Khan & Ibrahim, 2015).

Concentrated Ownership and Earning Management

Concentrated ownership of stockholders is hypothesized to provide a monitoring mechanism that helps to align the interest of managers and shareholders. Stockholders play a direct (through ownership) and indirect (trading their shares) role in monitoring a firm. Critics generally have two broad views on the impact of institutional shareholding on firm's earnings quality. The stockholder invests on behalf of their clients and is accountable to them for the investment returns (Lim, How & Verhoeven, 2014; Hamid, Tayebeh & Faezeh, 2014). The primary objective of these stockholders is to invest in a portfolio of firms that generate maximum possible returns. Considering both short and long-term investment focus, it is assumed that this concentrated ownership may look for firms with good corporate governance practice or actively monitor the firms. However,
in the Indian context, it has been observed that the institutional investors did not actively monitor the firm performance (Bortoluzzo, Sheng & Gomes, 2016; Chen & Zhang, 2014).

The practice of earnings management within the firms may, therefore, pose a challenge for these investors. Examining earnings management practices of firms provide information to capital market regulators on improving the disclosure practices of firms such that management discretion is minimized (Bouvatier, Lepetit & Strobel, 2014; Azibi, Azibi & Tondeur, 2017). Also, it will help provide an additional tool for ensuring that financial reporting matches the real economic value of the firm. Foreign institutional investors as a part of owners also focus on the earnings management practices of firms in their self-interest. Further earnings management practices could have an impact of business group affiliation and industry differences (Kouaib & Jarboui, 2014; Leung, Richardson & Jaggi, 2014; Huang, Wang & Zhou, 2013).

Summary of the Literature Review

Manager's rewards are tied to firm's accounting performance, equity and stock options. Empirical studies have found considerable evidence that manager's discretionary to influence short-term stock prices, reported earnings, income smoothing, using high accruals to sell more share in the future, to exercise unusually high stock options. All the evidence imply that earnings management is more driven by manager's incentives to optimize expected income.

Methodology

The focus of this part of the research is on methodology section, which is the systematic section through which researcher is able to find out the accurate answer of the research (Khan & Ibrahim, 2015; Elyasiani, Wen & Zhang, 2017). Hence, methodology section help in examining the impact of ownership structure on earnings management by considering the case of listed companies of Amman stock exchange.

Research Method

On the basis of the research conducted by Bortoluzzo, Sheng & Gomes (2016); Chen & Zhang (2014), there are types of research method, i.e., quantitative research method and qualitative research method. Through effective use of the quantitative and qualitative research method, the researcher examines the relationship between earning management and ownership structure. Considering research methods, Adam, Mukhtaruddin & Putri (2014); Achleitner et al. (2014) illustrated that quantitative research covers numbers, and figures, therefore, it has been used for numeric interpretations. Hence, quantitative research method helps in interpreting the research and provides the exact outcome of the research. On the other hand, as demonstrated by González &García-Meca (2014); Kouaib & Jarboui (2014), qualitative research method does not interpret the research by using numbers and figures.

Similarly, Lim, How & Verhoeven (2014); Hamid, Tayebeh & Faezeh (2014) argue that all research cannot have a numeric interpretation; and thus, the outcome of all research cannot be in numbers and figures. Hence, qualitative research does not require number and figures; and it is mostly used in the social research. Comparative to current research, quantitative research method has been used, as the focus of the research is on numbers and figures. The basic intention behind the selection of the quantitative research method is that this research requires numeric interpretation.

Research Design

According to the research conducted by Bortoluzzo, Sheng & Gomes (2016); Chen & Zhang (2014), there are two types of research design, i.e., primary and secondary research design; however, this research has used secondary research design. Hence, data of the dependent and independent variables of the secondary research design has been gathered from the annual reports, websites, and past research of the firms. In addition to this, secondary research design is easy to collect and does not depend on the respondent as well as past research. Considering this importance, current research has used secondary research design; however, this research can use primary research design.

In the primary research design, a researcher can use its own data; and thus, this saves time and cost of the researcher. Considering primary research design, Bouvatier, Lepetit & Strobel (2014); Azibi, Azibi & Tondeur (2017) argue that primary research design does not provide the accurate answers to the research. Thus, secondary research design has been used to examine the impact of corporate ownership structure on the earning.
management. For the research purpose, this study has selected companies from multiple sectors for the period of 7 years, i.e., 2009 to 2015.

**Sample Size & Sampling Strategy**

The population of this research is the companies listed on the Amman stock exchange; however, current research has used multiple sectors to analyze the impact of ownership structure on earnings management. To select sample size within current research, this research has used probability sampling.

**Variables of the Research**

On the basis of the research conducted by Lin, Hutchinson & Percy (2015); Swastika (2013); Pandey (2014), there are three types of variables, i.e., dependent variables, independent variables, and control variables. The dependent variable is the variable that is being tested in the research and measured in the empirical studies. On the other hand, an independent variable is a variable that is changed that is controlled by the research of the study with an intention to identify the impact of the independent variable on the dependent variable of the research. In order to examine the ownership structure, this research has used Concentrated Ownership for stockholders – (CO) and Management Ownership percentage (MO) as the independent variables of the research. On the other hand, earnings management is the dependent variable of the research. Thus, earning management of the research has been calculated by using Modified Jones Model.

**Data Analysis**

The aim of the research is to examine the impact of ownership structure on the earning management of the multiple sectors listed on the Amman Stock Exchange. Thus, data of the dependent and independent variables of the research has been gathered from the annual reports and websites of the sectors and firms for the period of seven years, i.e., from 2009 to 2015.

In order to examine the ownership structure, this research has used Concentrated Ownership for stockholders - (CO) and Management Ownership percentage - (MO) as the independent variables; while, earnings management is the dependent variable of the research. After gathering the data, it has been analyzed through Regression, T-Test, F-Test, coefficient, correlation, Linear Collinearity.

**Research Limitations**

As this research has used secondary research method, therefore, data of the variables of research has been gathered from the websites and annual report of a firm. Considering research method within ownership structure and earning management research, Tandry, Setiawati & Setiawan (2014); Park (2017); Moghaddam et al. (2014) critically state that primary research method is more suitable, as research topic has been identified by using either survey instruments or by using interview and open-ended questionnaire.

**Result & Analysis**

**Regression**

According to the study conducted by Adam, Mukhtaruddin & Putri (2014); Achleitner et al. (2014), regression help in examining the impact of an independent variable on a dependent variable of the research. Through effective use of regression analysis, researcher easily examines how much dependent variable regressed by the independent variable of the research.

Earning Management (EM) & Management Ownership (MO)

The focus of this part of the regression is on the EM and MO, in which EM is the dependent variable; while MO is the independent variable of the research.

<table>
<thead>
<tr>
<th>Variables Entered/Removed*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

a. Dependent Variable: EM
b. All requested variables entered.
Below is the model summary of the EM and MO, which illustrates that there is 3.2% relationship between two variables, as adjusted R-Square of the two variables is 0.032. Additionally, the value of Durbin-Watson is 0.593, which is not in between the critical value; thus, there is this first order linear autocorrelation in multiple linear regression data.

**Model Summary**

<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>
<th>Change Statistics</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.185$a$</td>
<td>.034</td>
<td>.032</td>
<td>629307617.01720</td>
<td>.034</td>
<td>14.621</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), MO  
b. Dependent Variable: EM

ANOVA help in examining the analysis of variance between the values of the variable. With respect to the below-stated table, it is analyzed that sig value of EM and MO is 0.000, which is less than the 0.05. Thus, EM and MO have a significant relationship at the 0.05 level (2-tailed).

**ANOVA**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
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<td>5790272460992938000.000</td>
<td>14.621</td>
<td>.000 $^a$</td>
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<tr>
<td>Residual</td>
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<td>396028076835870020.000</td>
<td>14.621</td>
<td>.000 $^a$</td>
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<tr>
<td>Total</td>
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<td>412</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

a. Dependent Variable: EM  
b. Predictors: (Constant), MO

The coefficient table helps in developing the equation for the dependent variables of the research. Below is the coefficient table that helps in developing the equation of MO and EM:

\[
EM = 43892918.381 + 2991778644.940 
\]

From the equation, it is analyzed that if MO will increase (on the average basis), then EM would be increased by 43892918.381. However, if MO will increase by 2991778644.940, then EM will increase by 3035671562.

**Coefficients**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
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<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
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</tr>
<tr>
<td>(Constant)</td>
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<td>0.185</td>
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<td>0.000</td>
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</table>

a. Dependent Variable: EM

Earning Management (EM) & Concentrated Ownership for Stockholders (CO) 

The focus of this part of the regression is on the EM and CO, in which EM is the dependent variable; while CO is the independent variable of the research.

**Variables Entered/Removed**

<table>
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<th>Method</th>
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<td>CO $^a$</td>
<td>.</td>
<td>Enter</td>
</tr>
</tbody>
</table>

a. Dependent Variable: EM  
b. All requested variables entered.

Below is the model summary of the EM and CO, which illustrates that there is 0.14% relationship between two variables, as adjusted R-Square of the two variables is 0.014. Consequently, the value of Durbin-Watson is...
0.583, which is in not in between the critical value; thus, there is first order linear autocorrelation in multiple linear regression data.

**Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
<th>Durbin-Watson</th>
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<td>R Square Change</td>
<td>F Change</td>
</tr>
<tr>
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<td>.128</td>
<td>.016</td>
<td>.014</td>
<td>635149277.76242</td>
<td>.016</td>
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</table>

a. Predictors: (Constant), CO  
b. Dependent Variable: EM

ANOVA help in examining the analysis of variance between the values of the variable. With respect to the below-stated table, it is analyzed that sig value of EM and MO is 0.009, which is lower than the 0.05. Thus, EM and CO have a significant relationship at the 0.05 level (2-tailed).

**ANOVA**

<table>
<thead>
<tr>
<th>Model</th>
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<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
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<td>Residual</td>
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<td>403414605042123010.000</td>
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<tr>
<td>Total</td>
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<td>412</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: EM  
b. Predictors: (Constant), CO

The coefficient table helps in developing the equation for the dependent variables of the research. Below is the coefficient table that helps in developing the equation of CO and EM:

\[
EM = 290635166.126 - 3232026.769
\]

From the equation, it is analyzed that if CO will increase (on the average basis), then EM would be decreased by 290635166.126. However, if MO will decrease by -3232026.769, then EM will decrease by 287403140.

**Coefficients**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
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<tr>
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<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
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<td>(Constant)</td>
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<td>83122929.668</td>
<td>3.496</td>
<td>.001</td>
</tr>
<tr>
<td>CO</td>
<td>-3232026.769</td>
<td>1236905.482</td>
<td>-.128</td>
<td>-2.613</td>
<td>.009</td>
</tr>
</tbody>
</table>

a. Dependent Variable: EM

**T-Test**

The basic vision of the T-Test is to compare mean and standard deviation between two different independent groups of the research; or dependent and independent groups of the research (Khan & Ibrahim, 2015; Elyasiani, Wen & Zhang, 2017). On the basis of the below-stated T-Test, it is analyzed that mean of the EM is 89373024, mean of the MO is 0.0152, and mean of the CO is 62.2712. This shows that the average earning management of the research sectors is in negative figures; while average management ownership and concentrated ownership of the research sectors are in positive figures.

**One-Sample Statistics**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
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<th>Std. Deviation</th>
<th>Std. Error Mean</th>
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<td>.03963</td>
<td>.00195</td>
</tr>
<tr>
<td>CO</td>
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<td>62.2712</td>
<td>25.29826</td>
<td>1.24485</td>
</tr>
<tr>
<td>EM</td>
<td>413</td>
<td>89373024.5950</td>
<td>63962595.96299</td>
<td>31473917.98528</td>
</tr>
</tbody>
</table>

On the basis of the one-sample T-Test, it is identified that there is a significant relationship between MO, CO, and EM of the research sectors.
One-Sample Test

<table>
<thead>
<tr>
<th></th>
<th>Test Value = 0</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>t</td>
<td>df</td>
<td>Sig. (2-tailed)</td>
<td>Mean Difference</td>
</tr>
<tr>
<td>MO</td>
<td>7.796</td>
<td>412</td>
<td>.000</td>
<td>.01520</td>
</tr>
<tr>
<td>CO</td>
<td>50.023</td>
<td>412</td>
<td>.000</td>
<td>62.27119</td>
</tr>
<tr>
<td>EM</td>
<td>2.840</td>
<td>412</td>
<td>.005</td>
<td>89373024.5947</td>
</tr>
</tbody>
</table>

Correlation

On the basis of the study examined by González & García-Meca (2014); Kouaib & Jarboui (2014), correlation help in examining the positive and negative relationship between dependent and independent variables of the research. Below is the correlation value of the EM, MO, and CO. On the basis of the correlation table, it is examined that MO has a significant relationship with EM and significant relationship with CO. Additionally, it is identified that CO has a significant relationship with EM and significant relationship with MO. In the last, EM has a significant relationship with MO and significant relationship with CO.

Correlations

<table>
<thead>
<tr>
<th></th>
<th>MO</th>
<th>CO</th>
<th>EM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>-.052</td>
<td>.185**</td>
</tr>
<tr>
<td>MO Sig. (2-tailed)</td>
<td>.292</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>413</td>
<td>413</td>
<td>413</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>-.052</td>
<td>1</td>
<td>-.128**</td>
</tr>
<tr>
<td>CO Sig. (2-tailed)</td>
<td>.292</td>
<td>.009</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>413</td>
<td>413</td>
<td>413</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.185**</td>
<td>-.128**</td>
<td>1</td>
</tr>
<tr>
<td>EM Sig. (2-tailed)</td>
<td>.000</td>
<td>.009</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>413</td>
<td>413</td>
<td>413</td>
</tr>
</tbody>
</table>

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

Discussion

From the above-stated analysis, it is examined there is the significant impact of ownership structure on the earning management. Comparative to the research of Adam, Mukhtaruddin & Putri (2014); Achleitner et al. (2014), there is a positive relationship between the lower level of managerial ownership and earning management because the proportion of managerial shareholding increases the managers' benefits that rise according to their efforts and external disciplines. However, pressure constraint the manager's behavior, as they have to look at shareholder’s interest as well as investor’s interest too. With respect to current research, the relationship between managerial ownership and earning management of the firms is significant. Hence, increase in managerial ownership would increase the earning management of the firm.

However, local and international firms have to focus on the interest of stakeholders especially interest of shareholders and investors, as they play an important role in the earning management of firms. Thus, Chen, Shi & Xu (2013); Chi et al., 2015; Elyasiani, Wen & Zhang, (2017) illustrated that at a significantly high level of managerial ownership, external disciplines have less effect, and the managers have complete control of the firm. This might result in the transformation of the earning of firms, which reduce the benefits of shareholders and investors. Similarly, Kouaib & Jarboui (2014); Leung, Richardson & Jaggi (2014); Huang, Wang & Zhou, (2013) critically state that managers rely on on-the-job perks; and thus, perks and benefits drive manager's behavior to act more on their own benefits than shareholder's wealth. Hence, the firm should rely on then concentrated ownership rather than managerial ownership structure.

However, the current research concluded that managerial ownership structure regressed the earning management by 3.2%, which is higher than the concentrated ownership structure (1.4%).
Conclusion & Recommendations

Conclusion

The aim of the study is to examine the impact of ownership structure on earnings management by considering the case of listed companies of Amman stock exchange. To examine the research aim, secondary quantitative research method has used; and thus, data of multiple sectors has been gathered from the websites and annual reports of the firm for the period of seven years, i.e., 2009 to 2015. With an intention to examine the ownership structure, this research has used Concentrated Ownership for stockholders – (CO) and Management Ownership percentage (MO) as the independent variables of the research. On the other hand, earnings management is the dependent variable of the research. Thus, earning management of the research has been calculated by using Modified Jones Model.

After gathering the data, it has been analyzed through Regression, T-Test, F-Test, coefficient, correlation, and linear collinearity. The study concludes that there is 3.2% relationship between EM and MO; hence, MO regressed the EM by 3.2%. Additionally, it is analyzed that sig value of EM and MO ownership is 0.000, which is less than the 0.05. Thus, EM and MO have a significant relationship at the 0.05 level (2-tailed). On the other hand, there is 0.14% relationship between EM and CO; thus, CO regressed the EM by 0.14%. Moreover, it is analyzed that sig value of EM and CO is 0.009, which is lower than the 0.05. Thus, EM and CO have a significant relationship at the 0.05 level (2-tailed). From the result of the study, it analyzed that there is the significant impact of management ownership and concentrated ownership on earning management.

Recommendations

Following are the recommendations for the internal and external stakeholders of listed firms with an intention to enhance earning management in future:

- Firms should focus on the management ownership as well as concentrated ownership to reduce the modification of the earnings by changing accounting methods, adjusted timing recognition of sales and inventory, sales of assets, allowances for bad debts, provision for deferred taxes, depreciation expenses, etc.
- Owners should provide an incentive to managers and executives, as they are concerned with current business performance. This will reduce the manipulation of earnings; and can improve the quality of the financial report. Manager's incentive has, therefore, an important implication in the prediction of earnings management because the rewards on employment and compensation package depend implicitly and explicitly on firm's performance.

References


