EARNINGS MANAGEMENT AND STOCK RETURNS UNDER DIFFERENT STAGES OF FIRM LIFE CYCLE: EVIDENCE FROM AMMAN STOCK EXCHANGE

BY

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ABSTRACT

This study investigates the impact of earnings management on stock prices in the Amman Stock Exchange under the firm life cycle phenomena. In particular this study examines the two general practices of earnings management: real earnings management (REM) and accounting earnings management (AEM), which might be used by managers to either mislead or inform the external parties. In addition, it examines the information content of earnings management. This study uses a sample of the listed companies in the Amman Stock Exchange in the service and industrial sectors during the period 2001 to 2011. In order to estimate the essential elements of the study, the researcher uses the following models: the adapted modified Jones model (1991) to measure the accounting earnings management (AEM) and the Roychowdhury model (2006) to estimate the real earnings management (REM). Furthermore, Anthony & Ramesh (1992) and the Free Cash Flow (Dickinson, 2011) approaches are used to measure the firm's life cycle. The study uses minimum least square method to test the hypotheses. The findings show that managers tend to use the different techniques of the EM simultaneously and complementarily to reduce the risk of being noticed by the outsiders. Furthermore, the findings reveal that investors are misled by the earnings management practices when they price them positively while they are used opportunistically by managers. On the other hand, the results show that when the role of the firm life cycle on the usage and the pricing of the EM is considered the overall picture is altered. They show that the usage of the EM practices is different over the firm's life cycle. The usage of the EM in the early stages is limited and increases as the firm moves to the later stages. Moreover, the findings show that while the EM practices are positively related to future performance in the early stage of the firm's life, they are negatively related in the later stages. Overall, the findings provide evidence that while managers used earnings management practices informatively in the early stages, and opportunistically in the later stages, the outsiders are unable to capture the different usage of the earnings management and price the two types positively. The findings of this research help investors, regulators, and researchers to locate the hot spot of the firm's life where managers tend to use more of their discretion to manipulate earnings. Furthermore, it sheds light on the compounded usage of the EM and suggests that external parties need to examine all the techniques of the EM before deciding on the level of the manipulation.

خلاصة البحث

تهدف هذه الدراسة لإختبار مدى تأثير ادارة الارباح على اسعار الاسهم في ظل تأثير دورة حياة المنشأة في سوق عمان المالي. إن هذه الدراسة تختبر الاسلوبين الرئيسيين اللذين قد يستخدمهم المدراء لادارة الارباح وهما ادارة الارباح المحاسبية وادارة الارباح الحقيقية. كما تختبر هذه الدراسة المحتوى المعلوماتي لهذه الاساليب. تستخدم هذه الدراسة عينة من الشركات الصناعية والخدمية المدرجة في سوق عمان المالي خلال الفترة من 2001 – 2011. لقياس المتغيرات الرئيسية للدراسة تم استخدام نموذج Jones (1991) المعدل لتقدير ادارة الارباح المحاسبية، نماذج Roychowdury (2006) لتقدير ادارة الارباح الحقيقية، ونموذج Anthony and Ramesh (1992) و نموذج Dickinson (2011) لقياس دورة حياة المنشأة. كما تم استخدام طريقة المربعات الصغرى لإختبار فرضيات الدراسة. أظهرت نتائج الدراسة ان المدراء يستخدمون الاساليب المختلفة لادارة الارباح بشكل متزامن وتكميلي لتقليل مخاطر الاكتشاف من قبل الاطراف الخارجية. كما اظهرت النتائج ان المستثمرين في سوق عمان المالي قد ضُللوا بممارسات ادارة الارباح حيث انهم قيموا ممارسات ادارة الارباح بشكل ايجابي كونها تعمل على زيادة رقم صافي الربح النهائي في حين يستخدمها المدراء بشكل استغلالي لتحقيق مصالحهم الخاصة. ومما هو جدير بالذكر ان هذه النتائج قد تغيرت عند اخذ دورة حياة المنشأة بعين الاعتبار في استخدام وتقييم ممارسات ادارة الارباح. فقد بينت النتائج ان استخدام ادارة الارباح تختلف من حيث الكمية والنوع في المراحل المختلفة لعمر المنشأة. حيث اظهرت التحليلات ان استخدام اساليب ادارة الارباح محدود جدا خلال المراحل الاولى من عمر المنشأة ويزداد كلما انتقلت المنشأة الى المراحل المتأخرة من عمرها. كما اظهرت النتائج ان ممارسات ادارة الارباح لها علاقة ايجابية مع مقاييس الانجاز التشغيلي المستقبلي في المراحل الاولى من عمر المنشأة في حين تتحول هذه العلاقة الى علاقة سلبية في المراحل المتأخرة من عمر المنشأة. بشكل عام فإن نتائج هذه الدراسة تقدم دليل واضح على ان مدراء الشركات في سوق عمان المالي يميلوا لإستخدام اساليب ادارة الارباح لإعطاء معلومات للاطراف الخارجية عن مستقبل الشركة في المراحل الاولى من عمرها، و يميلوا لإستخدامها بشكل استغلالي لتضليل الاطراف الخارجية وتحقيق مصالحهم الخاصة في المراحل المتقدمة من عمر المنشأة. وعلى الرغم من ذلك فإن المستثمرين يقيموا هذه الممارسات دائما بشكل ايجابي دون اعتبار الهدف من هذه الممارسات مما يؤكد على ان المستثمرين يُضللوا بهذه الممارسات. تعتبر نتائج هذه الدراسة مفيدة جدا للمستثمرين والسلطات التشريعية والباحثين والاطراف الخارجية الاخرى حيث انها تساعدهم في تحديد اكثر المراحل خطورة في عمر المنشأة والتي قد يزداد فيها توجه المدراء لإستخدام اساليب ادارة الارباح للتلاعب برقم الربح، و انها تبين ضرورة النظر الى الاساليب المختلفة لادارة الارباح للحصول على فهم اوضح واشمل للاثر التجميعي لهذه الاساليب.

APPROVAL PAGE

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DECLARATION

I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated. I also, declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

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LIST OF ABBREVIATIONS

AEM	Accounting Earnings Management.
REM	Real Earnings Management.
CEM	Compounded Earnings Management
EM	Earnings Management
FLC	Firm Life Cycle.
ASE	Amman Stock Exchange.
EMH	Efficient Market Hypothesis.
AMF	Amman Financial Market.
JSC	Jordanian Stock Commission
SDC	Securities Depository Center
OTC	Over The Counter Market
GAAP	Generally Accepted Accounting Principles.
FASB	Financial Accounting Standard Board
SEC	Securities Exchange Commission
US	The United State of America.
IFC	International Financial Council
IPO	Initial Public Offering
SPSS	Statistical Package for Social Science.
i.e.	*(id est.)*: that is.
et al.	*(et alia)*: and others.
e.g.	*(exampligratia)*: for example.
Id	(*idem*): something that has been mentioned previously; the same.
CEO	Chief Executive Officer
SEOs	Seasoned Equity Offerings

CHAPTER ONE

INTRODUCTION

1.1 INTRODUCTION

This chapter presents an introduction and a brief summary of the intended study. The chapter highlights the research problem and objectives and the contribution of the study. However, the chapter is organized as follows: in the following Section a background about earnings management studies is presented; in Section 1.3 the problem statement of the research has been discussed, then the research objectives and questions are presented in Sections 1.4 and 1.5 respectively. Section 1.6 points out the contribution of the study, while the importance of the study is expressed in Section 1.7. The scope of the study is illustrated in Section 1.8, then the expected challenges and limitations of the study are highlighted in Section 1.9, then the researcher illustrates the organization of the chapters in Section 1.10. And lastly the chapter is ended by the conclusion in Section 1.11.

1.2 BACKGROUND

In recent years, accounting earnings and their quality have become a well-researched area due to its importance in interpreting the changes in stock prices (Ball and Brawn, 1968). It is agreed that stock price is the mirror that reflects the firm's financial situation. However, the quality of the accounting earnings is contingent upon its reliability in making investment decisions by investors and other interested parties to the firm. On the other hand, scholars of the accounting earnings/stock prices or returns relationship found that the explanatory power of accounting earnings is limited and differs across firms. Many researchers attribute the limited earnings' explanatory power to three reasons: methodological shortcoming; investors' irrationality; and the low quality of reported earnings (e.g. Ramakrishnan and Thomas, 1998; Collins et al., 1994; Ryan and Zarowin, 1993; Lev, 1989).

Particularly, several studies provide empirical evidence to support that the low information content of reported earnings is responsible for the weak association between the accounting earnings and the stock returns or prices (e.g. Kallunki and Martikainen, 1997; Easton et al., 1992). Therefore, in the late of the last century, many researchers studied more deeply about earnings quality and earnings management. They argue that earnings management might impact the earnings quality, which in turn will impact the stock prices.

Collectively, their findings suggest that managers have many incentives to use their judgment to affect the accounting earnings, such as: management compensation (Healy, 1985; Pourciau, 1993; Gaver et al., 1995); avoiding debt-covenant (Press and Weintrop 1990; Beneish and Press 1993; Sweeney 1994); meeting and beating earnings benchmarks (Burgstahler and Dichev 1997; Barth et al., 1999; Brown and Higgins 2001; Harris et. al., 2011); and reducing regulatory or political costs (Jones 1991; Han and Wang 1998).

Earnings management is an activity where managers use their discretion to mislead stock holders about the economic performance of the company. Healy and Wahlen state that;

> Earnings management occurs when managers use their 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 practices. (Healy and Wahlen, 1999, p. 368)

In line with this definition of earnings management, many scholars argue that managerial intervention in the reporting process can occur not only via accounting estimates and methods, but also through operational decisions (e.g. Dechow and Sloan, 1991; Graham et. al., 2005; Roychowdhury, 2006; Dechow et. al., 2010). Consistently, Ronen and Yaari (2011) defined EM as "*a collection of managerial decisions that result in not reporting the true short-term, value-maximizing earnings as known to management*'' (p. 27). Similarly, this definition of earnings management includes both real actions (production or investment decisions) and financial reporting choices (for example, judgments and estimates that affect accruals).

In general, either type of earnings management (accounting earnings management or real earnings management) managers manipulate to achieve their goals, it will surely alter the accounting numbers and reduce their quality (Liu, 2008; Kim and Qi, 2010), which in turn may negatively affect stock prices or returns (Sloan, 1996; Harris et. al., 2011). The impact of earnings management on stock prices can be emphasized by quoting Warren Buffet, who notoriously does not give investment advice, but nevertheless suggests that investors should *"first, beware of companies displaying weak accounting"*[1].

However, other researchers argue that managers' incentives for earnings management are not always opportunistic. Managers may manage earnings to reduce the information gap between the management and the external parties (e.g. Dechow, 1994; Subramanyam, 1996; Alqerm and Abdeljalil 2008). Subramanyam (1996) made an important contribution to the literature of earnings management by presenting the informative usage of earnings management. He documents that managers sometimes use their discretion over earnings as a measure to improve earnings quality and to

[1] Berkshire Hathaway's 2001 annual report in the chairman's' letter to shareholders (p. 21).

convey some important information to the external users or investors in order to reduce the gap between management and the outsiders.

In line with this perspective, Xiue (2003) argues that earnings management is a natural outcome of the flexibility inherent in generally accepted accounting principles (GAAP) (i.e. accounting earnings management), and that, exercised with appropriate economic judgment (real earnings management), it is actually a friend to both the accountant (who can better reflect economic reality) and non-accountants, including stockholders whose wealth might be better maximized. In other words, with respect to managers' typical goals of maximizing shareholders' wealth, income smoothing (one form of earnings management) is desirable because it reduces the variability in future expected cash flows, drives down the cost of equity, and maximizes the share prices.

Thus far, managers use earnings management to intentionally manipulate accruals in order to influence the firm's value and deliver signals about its future, or to achieve special management concerns. More specifically, accruals can be classified into two categories: discretionary accruals and nondiscretionary accruals. The former is the one that can be used by management to manipulate earnings, while the second one tends to be less affected by management judgment, and is influenced by business characteristics.

Moreover, some researchers went further to interpret earnings management as a noise effect. Guay, Kothari and Watts (1996) developed three theories to interpret the incentives for discretionary accruals (earnings management): informative, opportunistic and noise effect, and they suggest that discretionary accruals (earnings management) is neither informative nor opportunistic, but are noise effect. This study will refer to managing earnings through accruals from this point onward as accounting earnings management (AEM).

However, the collapse of some big firms such as Enron, WorldCom and E Toyes in the early years of this century, and the enactment of Sarbanes-Oxley (SOX, July 30, 2002)[2] have a great impact on the researchers in the earnings management field. Many researchers direct their interest to another trend in earnings management. The new trend investigates the managers' tendency to use operation decisions instead of using accounting earnings to manage earnings.

This tendency of using real economic events (operation decisions) is known as real earnings management (REM). Under this stream of EM, managers tend to alter the accounting earnings by changing their operating decisions. In fact, such actions will affect the cash flows and in some cases the accruals. Studies that directly examine earnings management through real activities have concentrated mostly on investment activities, such as reductions in expenditures on research and development.

REM can be considered as the tendency of managers to make operational decisions with respect to some special interest for management or for the firm, such as making the decision to reduce prices at the end of the year in order to increase sales and thus beat the analysts' forecasts. Roychowdhury (2006) defines REM as departures from normal operational practices, and as being motivated by managers' desire to mislead at least some stakeholders into believing certain financial reporting goals that have been met in the normal course of operations. These departures do not necessarily contribute to firm value even though they enable managers to meet reporting goals.

From the previous literature, it can be inferred that earnings management literature can be classified into three stages of study:

[2] An act passed by U.S. Congress in 2002 to protect investors from the possibility of fraudulent accounting activities by firms' managers. SOX was enacted in response to the accounting scandals in the early 2000s.

The first stage is about the managers' incentives for earnings management, which can be either opportunistic to achieve the managers goals, such as management compensation, or informative to deliver information for the outside users, based upon the information asymmetry between managers and external parts of the firm (Healy, 1985; Pourciau 1993; Gaver et al., 1995; Subramanyam, 1996; Verrechia, 2001).

The second stage is about the procedures for earnings management: accounting earnings management (AEM) (Sloan 1996; Subramanyam 1996; Alqerm and Abdeljalil 2008; Mashruwala and Mashruwala, 2011) or real earnings management (REM) (Dechow and Sloan, 1991; Bushe, 1998; Roychowdhury, 2006; Cohen et al., 2011). In some recent studies, researchers investigated other measures to manage earnings, such as: classification shifting (McVay, 2006; Fan et al., 2010; Barua, and Sbaraglia, 2010) and pro forma earnings (Elshafi, Yen, and Yu, 2010)

The third stage is about the consequences of earnings management. This could be the performance measures, such as net income for the same year and the following years, or operating cash flows. In addition, since the stock price is the mirror of the firm, we can measure the consequences of earnings management by the changes in the stock returns (Hirst, Koonce and Venkataraman, 2008).

Nevertheless, managing earnings through the economic events REM is not a new practice. In fact, it has been known before, but the existence of the less costly alternative induced managers to abandon it. In other words, the availability of the low cost techniques (AEM) to manage earnings motivates managers to neglect the REM and increase their usage of the AEM. Unfortunately, the obstacles of using AEM after the enactment of Sarbanes-Oxley led managers to revive the use of REM. The field of REM research has been investigated by different researchers, such as Dechow and Sloan (1991) and Bushe (1998), but as mentioned above, managers tend to use REM extensively especially at the end of the financial year, after 2002 (Roychowdhury, 2006; Bartov and Cohen, 2007; Mizik and Jacobson, 2007).

However, while most of the scholars investigate the usage of different techniques of the REM separately, very few researchers investigate the aggregated usage of the REM. From another point of view, although most of the researchers examined the REM (i.e. separately or aggregated) from a contracting perspective, very few have explored REM from the capital market perspective. Therefore, this study is an extension of the earlier research about AEM and REM. It investigates how the Amman Stock Exchange prices these two types of earnings management and how their evaluation or pricing in the capital market might change when the compounded effect of them is considered.

On the other hand, the firm's life cycle variable has been ignored in most of the earnings management researches, where, in fact, firms have different stages in their life with different characteristics. There are many scholars (e.g. Anthony and Ramesh, 1992; Black, 1998; Aharony et al., 2006) who document that the accounting earnings and the operating cash flow information content vary over the firm's life cycle.

However, ignoring this variable, the firm's life cycle, will cause two problems: potential bias and reduction in power (Liu, 2008). In other words, ignoring the firm's life cycle effects can mislead the interpretation of the earnings management and the kind of earnings management that managers may tend to use. So this study will fill this gap by investigating whether managers change their EM techniques according to the firm's life cycle, and whether these techniques are interpreted and priced differently, through the capital market. In other words, do the users of the accounting numbers in the capital market evaluate the EM techniques differently over the different stages of the firm's life? Ultimately, this study addresses the effect of earnings management on the stock returns under the firm's life cycle.

1.3 PROBLEM STATEMENT

Financial reports are the most important tools that investors, lenders, government, analysts and others use to evaluate firms and make a wide range of economic decisions (Gowthorpe and Amat, 2005). However, managers, through their discretion on accounting information and firm operations, may mislead the external parties (Jensen, 2005). The availability of different alternatives to manage earnings makes it harder for others to detect such manipulation. Furthermore, managers may use different techniques to manage earnings, according to the life cycle of the firm.

Managers may alter the net income by applying AEM techniques, such as doubtful debt allowance or warranty allowance, during the growth stage[3], while in the mature stage, they may tend to use more REM techniques, such as reduce production cost or increase sales through price discounts. Furthermore, at the declining stage, managers may tend to use both REM and AEM and even beyond GAAP techniques to affect the earnings level or to achieve managers' special interests. This in turn may influence the share prices.

Jordan is a nation with few economic resources. The World Bank classifies Jordan as "lower middle income country". Unlike its neighbors, the lack of natural recourses led the government to focus on other streams to boost the economy by exploiting its biggest two assets: the educated people and the strategic location. Therefore, the Jordanian government started its privatization in 1990s in order to

[3] Firms in their early stages are on the minimal level of the EM, hence they have more alternative to manage earnings and so they will tend to use the lowest cost which is AEM. Nevertheless, Jensen (2005) suggests that the need for the EM increases as the firm's overvaluation increases which might be related to the firm life.

encourage investment in this knowledge economy. Many formerly government-dominated sectors have been privatized.

Since capital markets is the most important tool to advertise the Jordanian market, attract the foreign investors and accumulate the needed capitals for companies, the government issued many acts to improve and enhance the efficiency of the Amman Stock Exchange. But the financial crisis in the late 2005, which led the index to drop from more than 9,500 points to less than 4,000 by December 2006, had raised many questions about the transparency of the listed companies and the earnings quality, which provides a fertile ground for further studies on the earnings management and manipulation.

However, as mentioned earlier, managers might have different alternatives to manage earnings. Additionally, firms go through different stages throughout their life. Firms have different characteristics over the different life stages, which might impact the managers' decisions on the magnitude, type, and incentive to manage earnings. Ultimately, while investigating the earnings management techniques[4] separately might not capture the whole effect of the manipulation, this research investigates the two types of the earnings management and their compounded effect, under the effect of the firm's life cycle.

Under such a context, this study has an important role for the researchers, regulators, and investors in Jordan. By shedding a light on the earnings management practices and their interpretation from the capital market perspective, regulators will have a better understanding of the EM techniques and their consequences. Ultimately, it might help them to issue the needed acts to protect investors and enhance the transparency of the listed firms in ASE.

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[4] Earnings management techniques and earnings management practices are used interchangeably in this research to refer for the same meaning.

Based upon the previous discussion, the research problem can be summarized as follows:

1- The usage of the earnings management such as AEM, REM techniques and/or both of them as a compounded earnings management (CEM) by managers may affect the quality of accounting numbers, which may mislead the stock prices.
2- The interpretation and the evaluation of EM techniques (AEM, REM and CEM) in the Amman Stock Exchange might vary with respect to investors understanding.
3- EM techniques may be changed and may have different meaning and signals in different stages of the firm life.

1.4 RESEARCH OBJECTIVE

This study aims to investigate the effect of the accounting earnings management (AEM), the real earnings management (REM), and their compounded effect (CEM) on the stock returns under the firm's life cycle. In particular, this study examines the impact of the different types of the earnings management on the stock returns, then investigates how the firm's life cycle impacts the usage and pricing of the different types of the earnings management. Finally it examines the effect of the firm's life cycle on the EM predictability of future operating performance.

As a matter of fact, this study is motivated by the contradictory findings about the relationship between the EM and the stock returns. While many researchers document a negative relationship between the EM and the stock returns, others find a positive relationship. Hence, this study attempts to solve this disputed finding by including the firm's life cycle in investigating the EM. Additionally, it is motivated