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# Fundamental Determinants, Opportunistic Behavior and Signaling Mechanism: An Integration of Earnings Management Perspectives

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*The systematic study of earnings management has now developed into a dynamic body of empirical literature. Despite a dynamic body of earnings management research that are well founded in economic theory, there have not been any attempts to take an integrated perspective (Beneish, 2001).This study integrates and well reconciles different research perspectives in the earnings management literature in attempt to provide a theoretical guidance for the future research. We first formulate a conceptual framework for understanding earnings management fundamental determinants based on market imperfection of information asymmetry and agency conflicts. We then highlight the arguments of opportunistic behaviour and signalling mechanism in order to address that earnings management is not necessarily bad; it could be a device to enhance communication with external parties and improve internal efficiency. Finally, we review different managerial incentives that drive earnings management and we discuss the linkage between efficient contracting, opportunistic behaviour and signalling mechanism.*

**Field of research:** Earnings management, information asymmetry, agency costs, opportunistic behavior and signaling mechanism

## 1. Introduction

The primary role of financial statements is to report a company's financial information to internal and external financial statement users in a timely and reliable manner. A major component of these annual reports is accounting earnings, which are used to develop corporate policies. Some major decisions that are shaped by available information in annual reports are: executive compensation, debt covenants, capital raising, and perhaps most importantly, for external investors to make investment decision. Ideally, the reported earnings should reflect a firm's underlying operating economics and facilitate efficient resource allocation within the firm. However, due to the control advantages that managers have in collecting and reporting firm specific information over external information users gives managers the opportunity to present earnings in a manner that is most suitable for the firm or managers. Commonly referred as earnings management (EM), this topic is of considerable interest to academics and practitioners.

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In a perfect market, there is no role for financial disclosures and thus no demand for accounting discretion (Watts & Zimmerman 1978, 1986; Holthausen & Leftwich 1983). However, with market imperfections such as information asymmetry and agency conflicts, financial reporting is necessary for efficient contracting. However, due to the inherent advantage of asymmetric information and flexibility afforded to in reporting, wealth can be transferred from shareholders to managers. In this paper, we formulate a conceptual framework for understanding EM fundamentals determinants based on market imperfection of information asymmetry and agency conflicts (See Figure-1).

We develop this conceptual framework by developing two competing perspectives in this area. The opportunistic behavior perspective, first enunciated by Watts and Zimmerman (1986), holds that managers take the opportunity to manage earnings in order to maximize their own utilities at the expense of the contracting parties and stakeholders. On the contrary, the signaling perspective, which stems from the work by Holthausen and Leftwich (1983), propose that managers exercise discretion in order to communicate inside information to outside investors to help investors predict and form expectations regarding the firm's future performance. The existence of the two competing perspectives forms an important dichotomy in examining the debates surrounding this research field.

Despite a dynamic body of EM research that are well founded in economic theory, there have not been any attempts to take an integrated perspective (Beneish, 2001). Moreover, considerable research in accounting field examines EM from contracting incentive perspective and draws its conclusion based on managerial opportunism; while most finance research focuses on evaluating the role of EM in capital market valuation and its underlying impact on economic efficiency. As such, we present EM literature with a multi-research approach to encompass the existing conflicted points of view. This study will be of interest to investors since it assesses to what extent managerial discretions can improve the value relevance of financial reporting.

The layout of the paper is as follows. The next section discusses the concept of EM and its definition followed by as discussion of determinants of EM. The next two sections discuss two competing perspectives of EM and managerial incentives in driving EM behaviour. The last section concludes and provides suggestions for future research.

## 2. What is earnings management?

There is no common definition for EM in the literature. General definitions suggest that managers exercise judgement for the purpose of hiding true performance in order to either influence the stock performance, to benefit from the contractual terms between the firm and managers, or to influence regulatory decisions. The terms "*private gain*" (Schipper, 1989), "*mislead*" (Healy & Wahlen, 1999) emphasize the opportunistic characteristic of EM and preclude the possibility that EM can enhance the information content of reported earnings. Definitions from Scott (1997) and Mulford & Comiskey (2002) suggest the possibility that EM can occur for the

signaling purpose. The implication of their definitions is that reported earnings can be informative for users if the management choice of accounting policies or estimates is perceived to be credible signals of a firm's underlying economics.

To better understand earnings management, we also need to distinguish between EM and accounting fraud. Academic literature usually defines management discretions which fall within Generally Accepted Accounting Principles (GAAP) as EM, whereas the Security Exchange Commission (SEC) extends its examining criteria of EM to outright fraudulent accounting. The interpretation that EM can occur within the GAAP is consistent between academia and regulator, but whether fraud constitutes EM is ambiguous in academic definitions. Brown (1999) argues that the difference between EM and fraudulent reporting is often very narrow and is not clear. As EM incorporates a bias and a manipulation of fair value of reported earnings, regulators often view EM as bad and thus tend to classify it as fraud. However, there is a clear distinction between fraud and EM depending on the managerial intent to deceive investors. Any presentation of reported earnings which deviates from the fair earnings of the firm but falls into the boundary of fraud can be defined as EM (See Figure-2).

## 3. Two fundamental conditions of EM

Within perfect and complete markets or, equivalent, efficient markets, there is no substantive role for financial disclosures since financial statements are completely relevant and completely reliable, and users of financial statements and mangers would have no conflict over accounting judgments and thus no scope for accounting manipulation (see Watts & Zimmerman 1979,1986; Smith & Warner, 1979; Holthausen & Leftwich, 1983). Unfortunately, in our world of imperfect and incomplete markets, the ideal condition does not always prevail. We interpret the two types of market imperfections—information asymmetry and agency costs formulate the basic conditions for the existence of EM.

### 3.1 Information asymmetry

The two principles of financial reporting—relevance and reliability, directly reflects the role of accounting information and are aimed to resolve the fundamental problem of information asymmetry. The released information is relevant information with respect to firm's future prospects, and is reliable information free of managerial manipulation[1]. Where financial disclosure and judgements initially are aimed to reduce the information asymmetry between managers and outsiders, it has been increasingly argued that manager's ability in exercising discretion is likely to impose costs on the users of accounting information. Dye (1988) and Trueman & Titman (1988) point out that the existence of information asymmetry between managers and shareholders is a necessary condition for EM. Schipper (1989) also highlights the condition for EM being the persistence of asymmetric information, but she relaxes the condition by arguing that the blocked communication can be eliminated through

[1] See Financial Accounting Standards Board, Statement of Financial Accounting Concepts No.2, Qualitative Characteristics of Accounting Information (Norwalk, CT: FASB, 1980)

the enforcement of contractual arrangement. From the perspective of a positive association between the conservatism of accounting estimates and corporate disclosure, Imhoff and Thomas (1994) provide empirical evidence in supporting this line of arguments. They conclude that firms who disclose more information are more likely to have conservative accounting estimates (engaging in less EM). Richardson (1998) uses the bid-ask spread and the dispersion in analysts' forecasts as a measure of information asymmetry and finds a positive association between EM and the level of information asymmetry.

### 3.2 Agency Costs

The second fundamental condition for the existence of EM is agency costs. Jensen and Meckling (1976) develop agency theory to explain the nexus between principals (owners/shareholders) and agents (managers). Principals use contracting to motivate agents who would otherwise have conflicts of interest with principals.

Although the primary function of contracting is designed to align the incentives between principals and agents (Deegan, 1996), the incompleteness and the rigidities in binding of contracts create agency concerns, which lead to manipulation of the reporting process. Watts & Zimmerman (1986) suggest that the ex-post managerial discretions are made to increase compensation or to avoid debt covenant violations. They use Positive Accounting Theory to illustrate how mangers choose accounting methods to achieve desired accounting numbers and thus influence one or more of the firm's contractual arrangements.

In fact, evidences of EM practice to generate higher management compensation suggest that the design of contracts to align the incentives of the agent with those of the principal might not be the optimal solution in mitigating agency costs (Hart & Holmstrom, 1987; Kreps, 1990). Watts & Zimmerman (1978) take the view that managers' choice of accounting methods is to maximize their own utility, where the utility is a function of the management compensation and the firm's stock price. Therefore, contracting which is designed to solve agency conflicts not only raise a room for managerial self-interested behaviour, but also imposes additional costs on shareholders if it is used in promoting managers' self interests rather than that of shareholders.

## 4. Two competing perspectives of EM

As we discussed above, EM may arise from information asymmetry problem and agency conflicts that occur when equity ownership is separated from the day-to-day operation of the corporation and managers have a comparative information advantage over shareholders. On one hand, these market imperfections create an environment for managers to engage in accounting discretion to promote their self interest at the expense shareholders. On the other hand, they also create an opportunity for mangers to use accounting discretion to communicate their companies' performance related information in an appropriate manner with investors (Trueman & Titman, 1988; Dye, 1988; Schipper, 1989). EM literature reflects these

two competing perspectives as the opportunistic behaviour and the signalling mechanism.

## 4.1 Opportunistic behaviour

The perspective of opportunistic behaviour takes the view that managers use information asymmetry between outsiders and insiders to maximize their utility in dealing with compensation contracts, debt contracts and regulations. Investors are thereby misled by the unreliable information reported. Watts and Zimmerman (1978) first used opportunism approach in explaining mangers' discretionary behaviour over reported earnings to influence contractual outcomes and thus affect wealth transfers. Researchers who propose similar lines of arguments are Suh (1990), Guay et al. (1996), Christensen et al. (1999), and Bradshaw *et al.* (2001).

The opportunistic EM illustrates managers' desire to affect wealth transfer between related contracting parties and themselves. Positive Accounting Theory states that owners expect managers to exercise discretion toward their personal gain and take this into consideration when they offer managers with compensation plans. When the value of management compensation includes the expected managerial discretions, the compensation contracts drive up managerial expectation and thus increases the level of discretions itself. Scott (1997) refers to this as "unexpected" managerial discretion which results in a net loss in the aggregate shareholder wealth. In a contracting relationship, however, managers are more risk averse compared with other contracting parties. Subject to the constraints of these contracts, they will attempt to maximise their personal wealth. Dye (1988) and Fudenberg and Tirole (1995) demonstrate that risk-averse managers without access to capital markets will have an incentive to engage in EM.

## 4.2 Signalling mechanism

The proponents of the signalling perspective argue that managers manage earnings to convey their inside information about firms' prospects and thus it serves as a signalling mechanism. Managers may be able to affect the stock price by engaging in earnings management, thus creating a smooth and growing earnings string over time. As such, EM can be a signal mechanism through which inside information about the firm can be communicated from the management to the investors.

A number of studies have modelled some form of information asymmetry and depicted EM as rational equilibrium behaviour (Ronen & Sadan, 1980; Demski et al.1984; Lambert, 1984; Dye, 1988; Trueman & Titman, 1988; Suh, 1990; Wang & Williams, 1994; Chaney *et al*., 1995; Hunt *et al*., 1997; Bartov et al., 2002; Lev, 2003). These studies document signalling evidence of earnings management to facilitate efficient communication between managers and information users to improve the value relevance of financial reporting and, to enhance investors' ability in predicting firm's performance.

Further, the signalling perspective also implies that EM is sometimes is demanded

by shareholders. Beidleman (1973) and Dye (1988) argue that shareholders will demand for EM for two reasons. First, managers can reduce the cost of capital through a smoother, more predictable income stream. Second, Dye (1988) states that a more stable income stream influences prospective investors' perceptions of firm value. Since current shareholders will sell their shares to the next generation of future shareholders, managers will act on behalf of the current shareholders and has an incentive to manage earnings so as to maximize the selling price received by the current shareholders. Easton and Zmijewski (1989) and Chaney and Lewis (1995) find evidences that support this argument.

## 5. Incentives for EM

Earnings management, basically, can be classified as contractual and market-driven. In this section, we review three contractual based EM incentives namely compensation contracts, debt contracts and regulatory contracts, and capital market-driven EM for equity valuation purpose

### 5.1 Contractual incentives

There are three main contracting incentives attributed to EM. First, managerial compensation incentive is one of the most thoroughly investigated areas in EM. According to the agency theory of Jensen and Meckling (1976), managers are more likely to maximize earnings when their ownership concentration is low, they make income-increasing manipulation because their compensation is tied to earnings. Healy (1985) exhibits a boundary within which mangers are more likely to choose opportunistic manipulation to meet accounting earning based bonus schemes. Others include Dechow and Sloan (1991), Clinch and Margliolo (1993), Holthausen and Larcker (1995), and Gaver *et al.* (1995).

Second, as with management compensation contracts, the existence of debt contracts provide managers incentives to manipulate accounting numbers. The incidences of manager's exercise of discretion to avoid debt covenant violations is known as the "debt hypothesis" (Watts & Zimmerman, 1978). Researchers either try to hypothesize earnings management with closeness to debt covenants, or investigate the impact of debt covenants on earnings management within those firms that have violated debt covenants. These studies include McNichols and Wilson (1988), Press and Weintrop (1990), Healy and Palepu (1990), Beneish and Press (1993), Hall (1994), DeFond and Jiambalvo (1994), Sweeney (1994) and DeAngelo & Skinner (1994). To the extent that EM practices are not observed, management may be acting opportunistically and not to the benefit of debtholders.

Third, favourable accounting figures may attract stricter regulations. Firms are more likely to choose income-decreasing manipulation to reduce political costs (Watts & Zimmerman, 1978; Holthausen & Leftwich, 1983; Monem, 2003; Lim & Matolcsy, 1999). Han & Wang (1998) found oil firms that expected to profit from the 1990 Gulf War used accruals to reduce their reported quarterly earnings, thus, relax the political restriction on sudden gasoline price increase. Cahan (1992) found managers

reduce income during antitrust investigation since regulators may perceive a high accounting income to indicate excessive market power. By lowering income, manager could argue that the firm's monopoly has diminished.

## 5.2 The argument of efficient contracting

Scott (1997) points out that EM can also be motivated by efficient contracting purpose. Efficiency assumes that EM facilitate internal control and decision making, including monitoring mangers, limit opportunism, minimize taxes, reduce costly debt covenant renegotiations, and minimize contracting costs. In the case of setting compensation contracts and lending contracts, owners/lenders will anticipate managers' incentives to manage earnings to transfer wealth among contracted parties, and they take into account the effects in the amount of contracts they offer against any expected managerial opportunism. Christie and Zimmerman (1994) state that such expected managerial opportunism should be already encompassed into efficient contracting and only unexpected managerial opportunism is inefficient. Therefore, EM per se can be a device used by manager to reinforce contracting efficiency. Nevertheless, a few researchers addressed this issue. Christie and Zimmerman (1994) investigate the frequency of acquired firms engage in income-increasing EM to maximize reported earnings. The found that those income-increasing discretions are not used to avoid possible takeover and therefore conclude that EM for contracting purpose is not as opportunistic as originally thought.

The interest point that we raise in this paper is the linkage between efficient contracting and signaling mechanism. According to Dechow (1994), given efficient capital markets, earnings should be less associated with stock returns than cash flows if accrual component of earnings are largely the result from opportunistic manipulation. Alternatively, if accruals reflect efficient contracting, earnings should be more associated with stock returns than cash flows. Her confirmation about the second alternative leads us to concern is there any interaction between contracting efficiency and information signaling? Are corporate earnings management behaviors interpreted either by contracting incentives or capital markets motives consistent? Subramanyam's (1996) study further proves that our concern is possible. He finds that discretionary accruals are highly associated with future earnings performance; moreover, the stock market reacts positively to earnings discretion. The implication of his finding is that management discretionary behaviors through accruals increase earnings persistence, and thus improve the ability of current earnings in signaling future firm's prospect. Although he doesn't interpret the positive market reaction is due to efficient contracting, it is nature for us to argue that, given securities market efficiency, we would hardly to observe a positive market reaction if discretions were made opportunistically. Therefore, we believe that information signaling per se is correlated with the level of contracting efficiency.

## 5.3 Capital market-driven motives

A substantial body of recent research focus on capital market motives that focus on managers' manipulation of earnings in an attempt to influence short-term stock performance.

One stream of research examines specific capital market event such as initial public offerings (IPOs) and seasonal equity offerings (SEOs) where managers of firms going public may manage the earnings reported in their prospectuses in the hope of receiving a higher price for their shares. Teoh, Wong and Rao (1998) find that reported earnings of firms are unusually high at the time of IPOs and such unusual high earnings are attributed to discretionary accruals. The findings related to SEOs are similar. Rangan (1998) and Teoh, Welch and Wong (1998a, 1998b) further document that IPO and SEO firms under-perform the market in the years following their offerings. Erickson & Wang (1999) find acquiring firms exhibit income-increasing accruals prior to stock-based acquisitions, as directors try to convince shareholders that the bid price is inadequate relative to earnings so that they can reject the bid. Louis (2004) not only confirms that acquiring firms overstate their earnings in the quarter preceding a stock swap announcement, but also finds evidence of a reversal of the stock price in the days leading to the merger announcement.

The other stream of research on capital market incentive relies on the analysis of the discontinuity of earnings distribution. This stream suggests that earnings benchmarks provides a strong incentive for EM since missing a benchmark will cause significant negative impact on stock valuation (Bartov *et al.*, 2000; Skinner & Sloan, 2002). Burgstahler and Dichev (1997) hypothesise that managers have incentives to avoid reporting losses and earnings declines and they find evidences around two earnings benchmarks—zero earnings, and previous year earnings. Beatty *et al.* (2002) conclude that accounting discretion is used to sustain earnings growth strings since firms that maintain consistent growth strings command a market premium. Burgstahler and Eames (1998) assert that managers manage engage in earnings manipulation to meet or exceed analysts' forecasts which later literature regard as the third benchmark. Holland and Ramsay (2003) and Coulton *et al*, (2005) examine two benchmarks—zero earnings and previous year earnings and document similar evidence in Australia.

## 6. Conclusion and Future Research Directions

The study of EM has now grown into a dynamic body of empirical literature with a strong conceptual framework. We review research on earnings management and particularly address contradicting arguments. We develop a conceptual framework for understanding EM fundamentals based on the market imperfection of information asymmetry and agency conflicts. We highlight the two competing perspectives in viewing EM; the opportunistic behaviour of managers using accounting discretion to increase their compensation or protecting their job security, and signalling mechanism that managers used to communicate their expectations of firm performance to investors and therefore maximize shareholders' wealth.

Despite a rich background of this area, researchers still haven't worked out a conceptual framework that integrates and reconciles the underlying economic theories. The difficulties, in part, are due to the complexity of the environment in which EM are carried out, and/or econometric complications in detecting management that are unobserved and unmeasured.

We feel it is important for researchers to address these fundamental issues. Thus we articulate the importance in formulating an integrated approach for earnings management research. Such an integrated approach can serve as a reference for the existing conflicted points of view.

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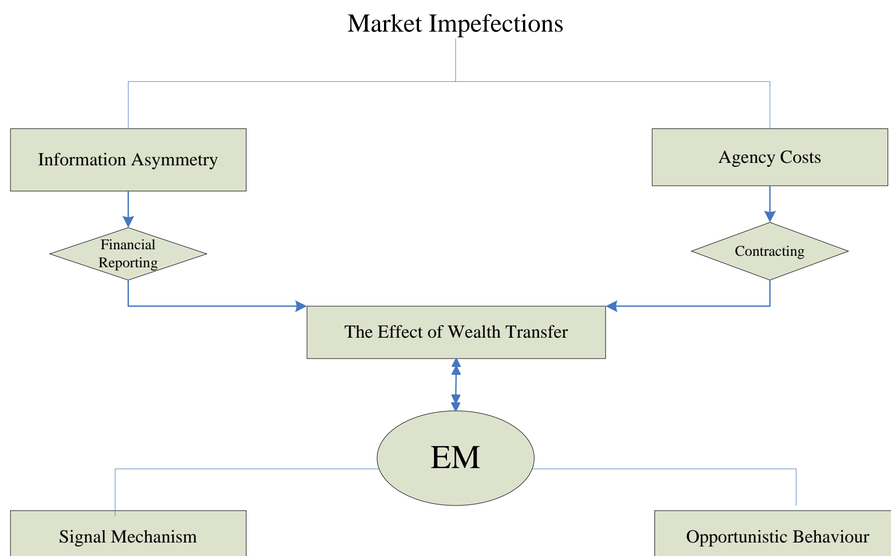
## Figure 1-A Conceptual Framework of EM



## Figure 2-The Classification of EM