THE ASSOCIATION BETWEEN ACCRUALS AND FINANCIAL HEALTH OF PUBLIC LISTED COMPANIES IN MALAYSIA

BY

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ABSTRACT

This paper explored the association between level of accruals and financial health of Malaysian public companies. The paper documents that levels of absolute discretionary accruals is useful in predicting financial distress. Controlling all other factors, firms with extreme (relatively large) accruals are more likely to experience financial distress than firms with average moderate absolute discretionary accruals. Whiles prior studies on this topic has been conducted in the west (primarily in the USA), similar research using Malaysian data has been lacking. My research thus tries to fill this gap.

I analyze data from 60 Malaysian companies listed on Bursa Malaysia Bhd since 1996. I contrast the levels of accruals of troubled companies (defined here as practice note 4 or PN4 companies under Bursa Malaysia practice notes) and a matched controlled non PN4 companies. I matched the two samples on 1996 revenue and principal activity. I first hypothesize that companies with averagely larger absolute discretionary accruals are more likely to fall under distressed firms or PN4 categorization than companies with relatively less absolute discretionary accruals. Using a sample of 360 firm year-year observation over the period 1997-2002 and using Spearman non parametric correlation, visual charts and descriptive statistics, I find that levels of absolute discretionary accruals do have an association with firm's financial health. I also put forward the argument that the state of a company's financial health is largely dependent on the nature (amount) of its net income, cash flow from operations, total assets and revenue, and therefore hypothesis that absolute discretionary accruals will be negatively correlated with these variables. The result of the test did not support the null hypothesis.

ملخَّص البحث

كشف هذا البحث عن العلاقة بين مستوى التراكمات المالية والانتعاش المالي للشركات الماليزية العامة. يرى الباحث في هذا البحث أن مستويات التحفظ على التراكمات المالية مفيد في التنبؤ بالمشاكل المالية. وبالتحكم في جميع العوامل فإن الشركات الأكثر تحفظاً على التراكمات المالية معرضة للمشاكل المالية أكثر من نظيراتها من الشركات التي تكون أقل تحفظاً على التراكمات المالية. ولقد أُجريت دراسات وبحوث حول هذه القضية في أمريكا في الوقت الذي لم تولي ماليزيا اهتماماً في هذا الصدد، فجاء بحثي هذا لسد هذه الفجوة أو الثغرة في مجال المالية.

لقد قمت بتحليل بيانات 60 شركة من قائمة بورسة ماليزيا المحدودة منذ عام 1996م، وقابلت بين مستويات التراكم في الشركات التي تعاني من مشاكل مالية (الشركات التي تطبق المذكرة 4 أو شركات PN4 تحت بورسة ماليزيا) وربطت بينها والشركات التي لا تطبق هذه المذكرة من حيث الدخل القومي والنشاط المالي الرئيس الذي تمارسه هذه الشركات. افترضت في بداية بحثي أن الشركات التي معدل تحفظها على التراكمات المالية والتي تطبق المذكرة 4 أو PN4 تكون أكثر تعرضاً للمشاكل المالية من نظيراتها الشركات التي تحفظها أقل. فبالملاحظة على عينة من 60 شركة بين الأعوام 1997 وعام 2002، وباستخدام العلاقة سبيرمان اللاقياسية، والرسوم البيانية، والإحصائيات الوصفية، وجدت أن مستويات التحفظ على التراكمات المالية له علاقة وطيدة بالرخاء المالي. وكذلك ناقشت الفكرة القائلة بأن الرخاء المالي للشركة ينعكس من خلال طبيعة الدخل الصافي للشركة، وعمليات سير الأموال، والدخل الكلي للشركة. وبذلك تكون العلاقة عكسية بين هذه المتغيرات والتحفظ على التراكمات المالية. واستناداً على نتائج التجربة فإن الفرضية صفر مرفوضة.

APPROVAL PAGE

I certify that I have supervised and read this study and that in my opinion, it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a thesis for the degree of Master of Science in Finance.
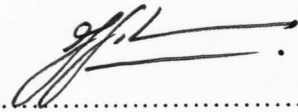
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Mansor bin Ibrahim
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and Management Sciences

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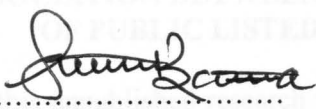
DECLARATION

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.

Issah Hamdu

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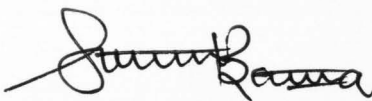# DECLARATION OF COPYRIGHT AND AFFIRMATION OF FAIR USE OF UNPUBLISHED RESEARCH

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Dedication

*This research is dedicated to my family, both in Ghana and Malaysia,
And the late Dr. Unvar Rahman and his family.*

ACKNOWLEDGEMENTS

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CHAPTER ONE

OVERVIEW OF THE STUDY

1.1   INTRODUCTION

The 1997-1998 Asian financial crisis has taught market regulators and standard setters a hard lesson on the need to keep an eye on the accounting practices of companies. Regulators, and in some cases, investors have often been concerned about management ability to manipulate financial results of their companies under the guise of allowable accounting standards. The existence of flexibility and subjectivity in accounting procedures and policy choices provide greater room for earnings manipulation and heightens pressure for negotiation between management and auditors on the application of appropriate Generally Accepted Accounting Principles (GAAP).

Not surprisingly, the post crisis period in Asia saw various pressures (in particular from the IMF and World Bank) to enhance corporate governance and improvement in the accounting and auditing mechanism in the affected countries. The result was a drastic revamp in the accounting standards as well as trading rules (in the capital capitals) in Malaysia. A notable change in the trading rules and practices in the Malaysian capital market was the introduction of Practice Note Four (PN4) status. [1]

Managers, on the other hand, learnt the hard way the need to maintain sustainable levels of accruals and borrowings [2]. The pre-crisis period saw companies paying little attention to cash flow management (Mohamad 1995). Availability of easy

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[1] Practice Note 4 (PN4) firms are said to be distressed, insolvent and not income-generating. See chapter 3 for a detail explanation on the PN4 status categorization.
[2] Accruals are the non cash component of earnings. For a detail explanation of accruals, see chapter 4 page 52).

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credit coupled with little supervision (both on the part of regulators and company's boards) ensured little attention was given to the analysis of the accruals and cash components of current earnings for the purpose of predicting future earnings, and hence performance of Malaysian companies. This was oversight considering the numerous findings on the relationship between earnings (accruals) and general future financial status of companies.

Earnings are the summary measure of firm performance produced under the accrual basis of accounting. This measure is widely used by a wide range of users. Among the common usage of the earning's measure include executive compensation plans, establishment of debt covenant and listing on stock exchanges.

Few issues in financial markets have attracted as much attention as earnings management. Thus, it has become a recurring subject matter in both academic research and world capital and financial markets. Despite the popular wisdom that earnings management exists, it has often been difficult to be documented with convincing evidence. A common approach in this regard has been to identify managers' incentive to manage earnings (Healy and Wahlen, 1998). In an attempt to identify earnings management, researchers such as Healy (1985), DeAngelo, DeAngelo & Skinner (1994) and Rosner (2003), have often relied on the pattern of unexpected accruals and or accounting methods. Examples include, DeAngelo (1986), DeFond and Jiambalvo (1994), to name a few.

1.2   BACKGROUND OF THE STUDY

Prior research on the information in accruals has shown mixed results. This is not least because of the very nature of accruals. Researchers have often defined accruals in different ways, often depending upon the information that is been sought from

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accruals. Generally, accruals (total accruals) have been separated into discretionary and non discretionary accruals. Janes (2003) provided an analysis on firms with extreme accruals (very high or very low). He identified that they are more likely to become distressed than firms with moderate accruals.

Earlier studies' documenting the relations between high accruals and unfavorable events includes Dechow, Sloan and Sweeney (1996) and Rosner (2003). They find that firms with high accruals are more likely to be subjected to SEC enforcement actions for violation of generally accepted accounting practices. DeFond and Jiambalvo (1994) and Dichev and Skinner (2002) finds management attempt to manipulate earnings to be associated with high accruals. Change in auditors has always been viewed as a negative signal about a firm's performance. Among other studies; Johnson and Lys (1990) and DeFond and Subramanyam (1998) find that firms with high accruals are more likely to change auditors. Thus, prior literature indicates an association between accruals and undesirable firms' outcome, including performance. This association exists between accruals and financial distress in firms.

Whilst there is no generally accepted definition of "financial distress", firms faced with certain situations are commonly considered to be in financial distress. Among these conditions are operating losses for successive quarters or years, default on accounting and non accounting based debt covenant, liquidity problems as well as threat of delisting. For the purpose of this study, firms facing delisting (generally classified by Bursa Malaysia as Practice Note 4 companies) shall be considered as being in financial distress.

In the aftermath of the Asian crisis, Practice Note 4 companies (hereafter troubled companies) were found to have higher unmanageable debts levels as

compared to healthy firms.[3] By 2002, of the 99 firms categorized as troubled firms since 2001, only 11 had been able to restructure their debts either with their lenders or with the Malaysian Corporate Debt Restructuring Committee (Danaharta). [4] Prior research by Jensen and Meckling (1976) have shown that borrowers have the incentive and (in some cases) the ability to shift wealth from lenders to shareholders. Debt contracts typically include covenants as a way of resolving conflicts between debtholders and shareholders. Covenants require the borrower to adhere to certain accounting measures such as the maintenance of certain accounting ratios notably liquidity ratios (notably quick and current ratios) and leverage ratios (such as debt-to-total assets ratios).

Given that evidence abound to the effect that tightness of debt covenant play a significant role in signaling the level of credit worthiness of firms, it is expected that the initial level of debt covenants would reflect information in accruals about financial distress. Thus, an initial tightness of debt covenants should reflect the magnitude of a firm's accrual levels (Janes, 2003). Similarly, PN4 companies that have high levels of debts (as was the case for most of the companies under this categorization) are likely to have larger accruals. Cash flow problem, a scenario PN4 companies are hypothesized to face, will prompt companies to seek additional cash infusion. With their financial performance at a low, raising equity is unlikely to be successful, hence the option of raising funds through debt issuance is what is left to such companies.

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[3] Non PN4 firms may alternatively referred to as healthy firms through out this study.
[4] The Malaysian Corporate Debt Restructuring Committee (Danaharta) was set up in 1998 to mediate debt disputes and to help restructure debt of (qualified) companies affected by the crisis. It closed it doors in July 2002 after resolving 57 accounts with a total debt of RM45.8 billion.

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1.3   PROBLEM STATEMENT

The importance of accruals in the measurement of a firm's performance has been widely researched. Text on financial statement analysis often advocate the need to examine the accruals and cash components of current earnings for the purpose of predicting future earnings, and hence performance of a firm. According to Sloan (1996) and Richardson *et al.* (2004), the (abnormal) accrual component of earnings is less persistent than the cash component of earnings. Thus, a larger proportion of accrual in the earnings of a firm may signal future financial slow down for the firm. Troubled companies have been found to have persistently large negative accruals (Rosner, 2003). Thus, the role played by accruals in the future performance of a firm has been well established. [5]

Considerable number of empirical studies, (Sloan 1986, DeFond and Jiambalvo, 1994; DeFond and Subramanyam, 1998; Dichev and Skinner, 2002; Janes, 2003) has found a link between the level of accruals and a firms' future financial health. These studies have established various relationships between high levels of accruals and future decline in firms' performance. Johl *et al.* (2003) using data from Malaysia found a high correlation (0.746) between abnormal total accruals and leverage. The study found that the pre-crisis period was associated with mean income-increasing abnormal accruals and the post-crisis period with mean income –decreasing abnormal accruals.

The accrual –firm performance relationship has been tested by researchers using various models including Z-score (Altman, 1968), relationship among financial statement variables such as net income to total assets, total liabilities to total assets

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[5] The term accrual is used here as a general term and includes both accruals (total accruals) and deferrals. Accruals can generally be classified as discretionary (i.e. can be influence by management policy such as delaying ordering inventory) and non discretionary accruals (accruals beyond the control of management).

and current assets to current liabilities (Zmijewski, 1984) and hazard model using various financial ratios (Shumway, 2001).

The fundamental problem driving this study is, therefore, to explore the role played by accrual (if any) in the financial health of Malaysian listed companies before, during and after the crisis. The problem is, if firms are in financial distress, can accounting data, (particularly accrual numbers) signal this beforehand? While several studies have been undertaken on this subject, the study will explore how performance of Malaysian firms is linked to the level of accruals, and how accruals is related to variables used as proxy for firm performance.

1.4   OBJECTIVES OF THE STUDY

The main objective of this research is to explore empirically the association of accruals with the financial health of firms. The paper will research on whether accruals levels in company's financial statements is a useful indicator for predicting financial distress and whether there exist a correlation between accrual levels and firms' financial health. Sub-objectives derived from the main objectives are to explore the relationship between accruals and variables used as proxy measure of the financial health of a firm. These include net income, cash flow from operations, revenue, total assets and total accruals.

Based on the above research objectives, this paper hopes to provide answers to the following questions:

1. Is there a correlation between accruals and firm's financial performance?
2. Is there an association between absolute discretionary accruals and firm's financial performance?
3. Is there any relationship between absolute discretionary accruals and:

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a) Total assets

b) Revenue

c) Operating cash flow

d) Net income

1.5   CONTRIBUTION OF THE RESEARCH

This study contributes to existing literature on accruals in a several ways. First, the study has investigated the impact of accounting accruals on firms' financial performance using Malaysian data. Secondly, the study provides a window of opportunity for Malaysian regulators to take a deeper look at earnings management, and hence levels of accruals by Malaysian public companies. This is necessary not only to strengthen the resilience of such companies in the event of crisis, but more importantly to safeguard investors' interest against unscrupulous managers, and thus increase the investor confidence in the Malaysian capital market. Thirdly, the study provides a test of the relationship between accruals and the three well-known variables used in the analysis of the financial performance of companies. Previous studies have generally investigated accruals by focusing on either its usage as an earnings management tool or its impact on the general future performance of firms studied

1.6   RESEARCH METHODOLOGY AND DATA COLLECTION

To achieve the above stated objectives, detailed descriptive statistics are computed for all relevant variables. Whilst several models are available for the computation of accruals, for the purpose of this study, the basic model that will be used in the computation of discretionary accruals is the DeAngelo's (1986) model. Relevant relationship of firm discretionary accruals and firm performance variables will be graphed for vivid description of any identified pattern. Finally, a nonparametric

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correlation will be computed to explore association, if any between the relevant variables.

The data for this study is obtained principally from electronic sources (Bloomberg and Bursa Malaysia website) and manual compilation of financial data from annual reports and annual company handbook. The population of the study covers all firms listed on the Bursa Malaysia from 1990 to 2003. To capture the hypothesized relation the sample will comprise of 30 healthy and 30 financially distressed firms covering pre and post 1997 Asia financial crisis.

1.7   SCOPE AND ORGANIZATION OF THE STUDY

In terms of scope, I obtain data covering the periods prior to, and after the 1997 Asian financial crisis. This is to enable the study on the effects of the crisis in the analysis and to ward of any bias or distortion that could likely be caused by these two periods.

Whilst the population of the study will cover the main board and second board of the Bursa Malaysia (KLSE), the sample companies used is not uniformly distributed according to the two main boards.

This study consists six chapters with chapter one being the introductory chapter. The introductory chapter gives an overview of the whole research. A brief description of each of the other chapters is presented below:

Chapter two presents a review of prior studies on the subject matter for the study. It covers a review of theoretical and empirical research on earnings management, accruals and financial distress as well as accruals and management actions. I also review the literature on earnings management, accruals, and indications of financial performance of firms, with particular emphasis on the role of accruals in

the future financial status of firms. Literature is obtained from refereed journal articles, books, working papers and completed thesis.

Chapter three describes the Malaysian institutional environment and the role of capital market on the economy. The chapter also reviews the historical background of the Practice Note Four (PN4) classification by the Bursa Malaysia and the role of this classification in management of financial performance of firms.

Chapter four discusses the sample selection procedure, the variables of study and the model used in the computation of discretionary accruals. The chapter also discusses the development of a testable hypothesis to test the impact of accruals on firms' financial health.

Chapter five provides a detailed analysis and interpretations of study variables and the hypothesized factors based on the descriptive statistics generated from the model used.

Chapter six summarizes the findings of the study, examines the implications of the findings and provides a brief recapitulation of the contribution of this study. The chapter also provides a conclusion to the study. The chapter ends with a discussion on the study's limitations and some recommendations for further research on the topic studied.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

Studies on earnings management analyses the incentives for managers to manipulate earnings. Often the focus has been on the opportunistic behavior of the managers at the expense of the firm's other stakeholders. Such studies often focus on management's use of accruals.[6] The test for earnings management usually requires a reliable model to estimate the quantum of discretionary accruals. Existing models includes simple models in which discretionary accruals are measured as total accruals, with nondiscretionary accruals assuming to be constant (Healy, 1985; DeAngelo, 1986) to complex models that attempts to separate accruals into discretionary accruals and nondiscretionary accruals (Jones, 1991; Dechow *et al.*, 1995).

Irrespective of the model employed in the analysis of earnings management, one common area of concern to academia has been the incentive for, and the effects of earnings management. This is important because of the need to understand the influence and importance of accounting accruals in arriving at a summary measure of a firm's performances. While there is available empirical evidence on the positive use of accounting accruals, earnings management has often been employed by managers to manipulate the true picture of a firm's financial health (see Lipe, 1986; and Schipper, 1989).

Academic research has determined a number of contracting theories of earnings management, of which 'management compensation' is one of them.

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[6] Earnings management can be achieved by various means including the use of accruals, changes in accounting methods and changes in capital structure (such as debt-equity swap).

Generally, compensation (implicit and explicit alike) are used to align the motivation of management to shareholders' interest. Explicit compensation contracts often tie compensation to reported (accounting) earnings, creating incentives for managers to manipulate earnings.

Results from numerous studies investigating possible enticement of earnings management includes:

a) attempts at reducing regulatory or political cost (Watts and Zimmerman, 1978 and Jones, 1991), (b) avoidance of debt covenant violation (Dhaliwal, 1980; Press and Weintrop, 1990; Smith, 1993; and DeFond and Jiambalvo, 1994), and (c) management compensation contracts (Christie, 1990 and Healy, 1985). All these indicate that the purpose for exploitative use of accounting accruals varies across wide range of fields in financial reporting. The effect of such manipulation on the performance of firms is, thus, an area worth studying.

The rest of the chapter is divided into two main sections. The first is a theoretical review of the various terms commonly used in the literature on earnings management. Thus, various definitions of these terms will be provided. The second part of the chapter will review the literature relating to earnings management, and hence accruals in earnings management.

2.2 DEFINITION OF EARNINGS MANAGEMENT

Before reviewing prior research on earnings management, a definition of earnings management is provided here. Earnings management has been defined in various ways by a number of researchers, in some cases to reflect the studies conducted. For the purpose of this study, two definitions of earnings management are presented.

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