

## **1.0 INTRODUCTION**

### **1.1 OVERVIEW OF THE PROBLEM**

The most notable effect of the recent Asian economic crisis on Malaysia was the severe devaluation of stock values. This can be seen from the massive decline of the benchmark Kuala Lumpur Stock Exchange Composite Index (KLSE) from a high of 1,271.57 points on 25 February 1997 to 477.16 on 12 January 1998. This corresponds to a decline of 62.5 percent of market valuation (Bank Negara Malaysia, 1999, p.327). The devaluation has resulted in a massive loss of wealth and confidence in the Malaysian capital market. The crisis has also resulted in much public discussion on issues like corporate governance, transparency, rights of minority shareholders and shareholder value creation. These issues arise as investors tried to ascertain the cause of the crisis and how to avert its reoccurrence.

One way to understand the source of this crisis is to determine the financial profile and performance of the capital markets prior to 1997. This enables us to identify patterns that emerged during this period. One such research was carried out by Michael Pomerleano (1998) by comparing the financial ratios of key companies in selected countries. The countries selected in the study were Hong Kong, Indonesia, Korea, Malaysia, Philippines, Taiwan, Thailand, Latin America, France, Germany, Japan and United States of America. The lack of financial benchmarks and emphasis on shareholder value creation was identified as one cause of the crisis. According to Pomerleano, this occurs because of the lack of financial discipline in Asia. There was over investment and it led to the erosion of profit margins and returns on capital employed.

This can be seen from differences in the economic value added between countries. He recommends that companies in Asia refocus on value creation in order to tap the international capital markets. He contends that with increasingly mobile global capital, local corporations need to benchmark themselves against global standards. Therefore corporate capital spending must target to increase shareholder wealth.

The above comments were also echoed in the speech of Encik Ali Abdul Kadir, Chairman of Securities Commission, on the launch of Shareholder Value Survey Report by PricewaterhouseCoopers Malaysia (Ali Abdul Kadir, March 2000). He re-emphasised the need for Malaysian companies to place priority on value creation. Shareholder value creation is the total benefit that shareholders obtained from investing in a company. This comprises of capital gain from share price increase and dividends paid. Companies that do not focus on maximising shareholder value will not be able to compete with other more cost-efficient and high return firms. Companies that ignore shareholder wealth creation will have to incur higher long-term cost to access the capital market for funding and growth.

The "Shareholder Value Survey" was conducted in late 1999 to evaluate trends in shareholder value management in Malaysia (PricewaterhouseCoopers 2000). Participants of the survey were public listed companies, institutional investors and analysts in Malaysia. Two significant observations from the survey were:

1. Traditional performance and valuation measures such as earnings per share and price-earnings ratio continue to be heavily used despite of the superiority of cash flow measures.
2. Malaysian companies are of the opinion that company disclosures are primarily for compliance with statutory requirements and not so much as tool to communicate the future direction of their company.

Despite the above shortcomings, over half of the respondents from public companies indicated that shareholder value was a consideration in their decision making process. Therefore shareholders need a new performance measure to monitor wealth creation and ensure managerial goal alignment. One tool that has been much lauded overseas is Economic Value Added (EVA). EVA (EVA, a registered trademark of Stern Steward) basically is the profit or deficit remaining when the company's net operating income after tax minus the appropriate charge for both debt and equity (Al Ehrbar 1998, p.3). It encourages shareholders wealth creation because of the need to consider cost of equity. Therefore usage of EVA would indirectly influence managerial behaviour and decision making to focus on shareholder value. Its wide spread usage overseas especially in the United States has been attributed to claims that EVA has a better correlation with share price movements compared to other performance measures.

## **1.2 RESEARCH OBJECTIVES**

There have been some empirical studies done overseas to ascertain the effectiveness of EVA compared to traditional accounting performance measures in explaining stock returns. The results were however inconsistent (Refer to literature review in section 2.0). In Malaysia, no published academic study has yet been carried out to ascertain this relationship. The objective of this project is therefore to compare EVA with accounting performance measures in terms of association with stock returns for Malaysian companies. More specifically, this paper seek to answer the following research questions relating to EVA:

1. What is the relationship between EVA and stock returns in Malaysia?
2. Is EVA superior to Accounting performance measures in explaining stock returns for Malaysian companies?

In order answer the above questions, Correlation testing and Least Square Regression was carried out on Plantation companies listed on the First Board of the Kuala Lumpur Stock Exchange. Therefore if EVA is indeed superior, shareholders should use it to monitor management performance. This should result in wealth creation for all shareholders and improve corporate governance. Manager on the hand should refocus their attention on meeting EVA and not accounting profitability measures.

### 1.3 CONCEPTUAL DEFINITION & BACKGROUND ON EVA

EVA (Economic Value Added) is basically the residual that remain after deducting capital (debt and equity) charge against profit (Al Ehrbar 1998, p. 1-3). The capital charge is for the opportunity cost forgone by financiers and shareholders. It is known as residual income or economic profit. Below is the basic equation of EVA:

$$\text{EVA} = \text{NOPAT} - \text{C\%}(\text{TC})$$

Where:

NOPAT = Net operating profit after taxes;

C% = Cost of Capital; and

TC = Total Capital (Debt and Equity).

Stern Stewart & Co. recommended that some accounting adjustments be made on NOPAT and TC to arrive at the economic value. Economic value is the after tax cash flow available to the shareholders (Helfert 2000, p.358). It is obtained through dividends or/and total liquidation (includes share disposals). These adjustments according Al Ehrbar were necessary to rectify distortions created by accounting conservatism. Stern Stewart & Co has identified 160 potential adjustments that can be made on NOPAT and Total Capital. However Al Ehrbar suggested about half a dozen major accounting standard adjustments. Below is a description of some of the recommended adjustments and its rational.

## Accounting Adjustments for EVA

- **Research & Development**

Current accounting treatment	Accounting adjustment for EVA
Research and development expenses being written off immediately.	Capitalisation of research and development expenses and amortization over appropriate period.

Rational for adjustment:

The current accounting practice according to Al Erhbar encourages Chief Executive Officers (CEO) to act and think with a short-term perspective. This results in little investment in research and development (R&D) and is therefore detrimental to shareholder wealth. Capitalisation of R&D would give CEO more flexibility on R&D investment while still maintaining shareholder control through higher charge on cost of capital.

- **Strategic Investments**

Current accounting treatment	Accounting adjustment for EVA
Capitalisation of cost of investment.	Capitalisation of investment cost in accounts but suspension of investment cost and capital charge on investment during EVA computation until such a time when the acquisition is expected to be profitable. When the acquisition is profitable, both costs are reincorporated into the EVA calculation.

Rational for adjustment:

This adjustment will result in investment cost and capital charge on investment cost being deferred until later periods. Therefore it does not

penalise the CEO for making strategic acquisitions in the short term while still maintaining focus on increasing shareholder wealth in the long term.

- **Goodwill On Acquisition**

Current accounting treatment	Accounting adjustment for EVA
Amortisation of goodwill on acquisition.	Capitalisation of goodwill without amortisation.

Rational for adjustment:

Stern Stewart & Co. provided the following reasons for not amortising goodwill:

- Goodwill represent assets with indefinite lives; and
- Capitalisation of goodwill will result in the CEO having to continually produce a return on the acquisition price of the asset.

- **Expense Recognition**

Current accounting treatment	Accounting adjustment for EVA
Expenses incurred to establish new brands, enter new markets or gain market share is written off immediately.	Capitalisation of the expenses incurred to grow the business and amortising it over an appropriate period.

Rational for adjustment:

This discourages companies from reducing marketing expenses just to meet quarterly earnings target.

- **Depreciation**

<b>Current accounting treatment</b>	<b>Accounting adjustment for EVA</b>
Straight-line depreciation for plant and equipment.	Sinking-fund depreciation for plant and equipment. This results in a small depreciation charge in the early years but increasing charges later in the asset's life.

Rational for adjustment:

This method of depreciation would better reflect the economic life of a long-lived asset. This is because such equipment begin to lose substantial value later in its life when obsolescence and physical deterioration set in.

- **Taxation**

<b>Current accounting treatment</b>	<b>Accounting adjustment for EVA</b>
Tax expenses include provision for deferred taxes.	Deferred tax should be removed from the tax expense figure.

Rational for adjustment:

The tax expense should only reflect tax payable to the Inland Revenue Department.

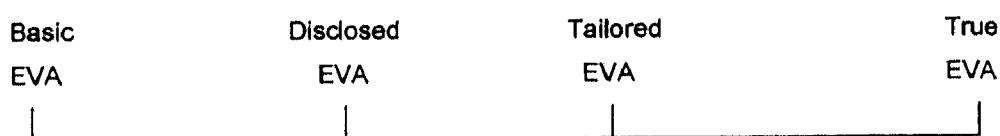
Although Al Ehrbar suggested and explained the adjustments, he could not specify exactly what adjustments were necessary for each company. Instead, Al Ehrbar says that each company needs a tailored definition based on its organisation structure, business mix, strategy and accounting policies. He provided the following set of criteria that can be used to judge the need for adjustments (Al Ehrbar 1998, p.161-181):



1. Is the impact of the adjustment material to decision makers?
2. Other secondary criteria:
  - Availability of data;
  - Is the adjustment understandable to operating managers;
  - Can the adjustment be easily explained to employees, directors and stockholders;
  - Does it aligns calculated EVA more closely with the market value of the firm;
  - The adjustment must be definitive (No change for at least three years);

Different set of adjustments will result in different EVA figures. Accordingly, the different EVA values can be placed on a continuum line with Basic EVA on one side and True EVA on the other. A diagram of the continuum is indicated below (Al Ehrbar 1998, p.164-166):

**Figure 1.1: EVA continuum spectrum**



*(Source: Al Ehrbar 1998, p.165)*

Where:

Basic EVA – EVA using unadjusted accounting figures;

Disclosed EVA – EVA published by Stern Stewart & Co;

Tailored EVA – EVA customised based on organisational specifics;

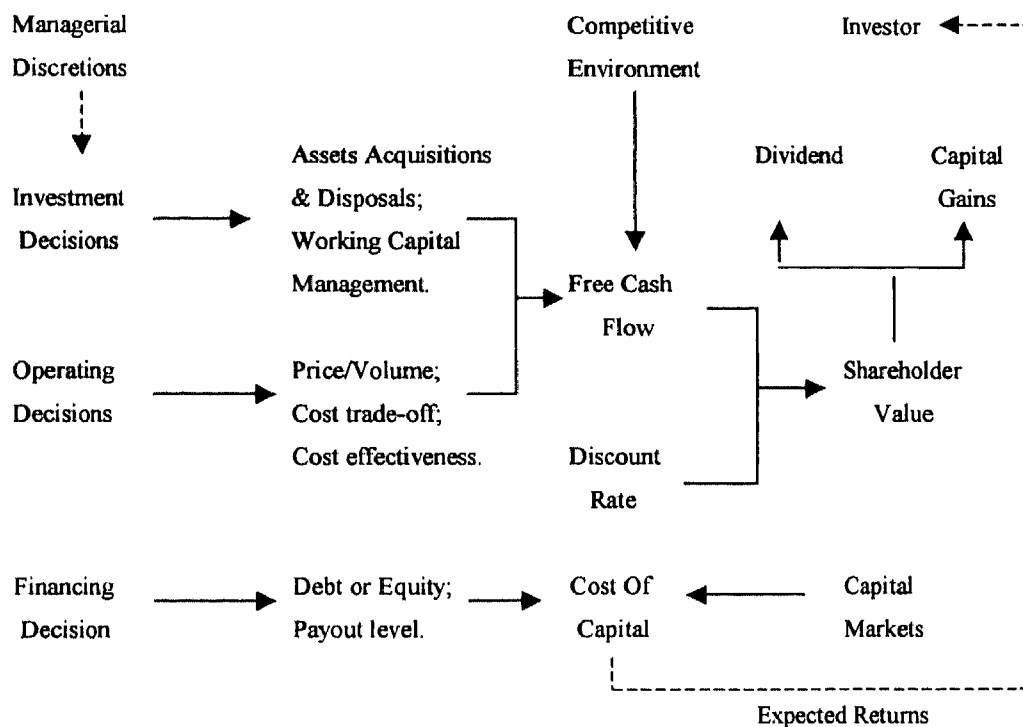
True EVA – EVA with all the theoretical correct adjustments.

After taking into account the adjustments, the EVA equation can be reformulated into the following equation:

$$\text{EVA} = [\text{NOPAT} + \text{Acctadj}] - [\text{C\%} (\text{TC} + \text{Acctadj})]$$

Where: Acctadj – Accounting Adjustments

**Figure 1.2: Shareholder value creation diagram**



(Source: Helfert 2000, p.399)

The theoretical superiority of EVA lies with its claimed linkage with shareholder value creation. In order to understand this, we must examine this relationship (Refer to Figure 1.2). Shareholder value is created when a business generates cash flows in excess of investor expectations. Investment

and operating decisions of managers affects the generation of cash flow from operations after taxes or free cash flow (NOPAT + Acctadj). The choice and quantum of financing would influence the capital structure and level of weighted average cost of capital. Therefore shareholder value and True EVA is created when (NOPAT + Acctadj) is more than the cost of capital. Positive True EVA permits the company to pay dividends. The increase in share price also permits existing shareholders to realize capital gains. The combination of dividends and capital gains would result in the increase total shareholder value (TSR) (Helfert 2000, p.398)<sup>1</sup>. Based on the shareholder value creation diagram (Figure 1.2) and EVA equation, a manager can increase True EVA by: -

1. Increasing operating profit without requiring more capital;
2. Using less capital for the same level of operation; and
3. Investing in projects that earn more than the cost of capital.

The use of EVA should lead to the following benefits (Al Erhbar 2000, p. 5-6):

1. Creation of shareholder wealth. This is the linkage between EVA and shareholder value creation. If a company achieves positive EVA, this should lead to higher share prices and dividends.
2. Better alignment of employee and managerial goals with shareholder goals when it is used to set compensation. This would lead to better governance and reduce agency cost. This is because it directly ties managerial performance with shareholder returns. In addition, EVA makes the cost of capital visible to managers.
3. Conceptually simple and can be easily understood by even non-finance or lower level employees. This leads to acceptance of EVA as

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<sup>1</sup> For a detailed mathematical reconciliation between shareholder value creation and EVA, refer to the article "Free Cash Flow, Economic Value Added and Net Present Value: A Reconciliation of Variations of Discounted-Cash-Flow Valuation" by Ronald Shrieves and John Wachowicz (Shrieves and Wachowicz May 1999).

a measure of performance compared with other complex cash flow methods.

4. Applicable to all aspects of financial management of an organisation from annual budgeting, capital budgeting, strategic planning, acquisition and disposal. This results in a more unified and consistent performance measure.

The benefits have resulted in the wide spread application of EVA in the United States. Below are some examples of EVA usage in the United States: -

**Table 1.1: Examples of EVA usage in United States**

Usage	American Examples
Strategic Direction	I.B.M
Acquisition	AT&T's acquisition of McCaw Cellular
Operational Improvements	Briggs & Stratton
Product Line Discontinuation	Coca-Cola
Cost of Capital Focus	Dow Chemical, Deere Company
Incentive Compensation	Transamerica

(Source: Shaked et. al. 4Qtr 1997, p. 44)

Despite the appeared superiority of EVA and its widespread adoption, it does have some inherent weaknesses. The weaknesses stem from the fact that no exact indication of the accounting adjustments required. This leads to the problem of direct comparability of EVA figures between companies or divisions within a company. In addition, companies can also pick and choose the type of adjustments that suit them. This opens EVA to opportunity for abuse and manipulation (Shaked et. al. 4Qtr 1997, p.46).

#### **1.4 ORGANISATION OF STUDY**

This study consists of five chapters. The first chapter is the Introduction. It outlines the weakness of current popularly used performance measures in detecting wealth destruction and the reason for increase interest in EVA. In this section, the concept of EVA and its relationship with shareholder wealth creation was also explained. The next chapter is the Literature Review. In this section, four past studies were reviewed. This was to build upon findings from these studies by making inferences on possible results and general application of their methodology to the Malaysian data. Chapter three is a detail description of selected sample and methodology. In this section, the variables used were identified and their computation methods were discussed in detail. The fourth chapter is a presentation and analysis of the research results. In this chapter, the correlation between the variables and stock returns were determined. The explanatory ability of EVA and accounting measures were also compared. In the last chapter, implications from this research on Malaysian capital market, research limitation and further possible studies were discussed.