THE INFLUENCE OF TRADITIONAL AND VALUE BASED PERFORMANCE MEASURES ON SHAREHOLDER'S VALUE CREATION OF MALAYSIAN LISTED CONSTRUCTION COMPANIES

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ABSTRACT

This thesis examines the relationship between performance measurement tools and shareholder's wealth in the context of Malaysian public listed construction companies. The question guiding this study is focused on whether the development of performance measures had any impact on shareholder's value. After more than one decade of the Asian financial crisis, Malaysian firms still focus on the conventional performance measures which are criticized due to general accepted accounting principles. Both traditional accounting measures and economic measures have failed in reflecting the company's true value due to lack of creating long term sustainability of business. Thus, this study investigates the long run causal relationship between the performance measurement tools and shareholder's wealth creation. The study exploits panel data analysis techniques particularly Error Correction Models (ECM) to test for the existence of a relationship of error terms. Using a sample of panel data of 280 observations over the period 2003-2012, this study finds compelling evidence that shareholder value is a function of performance measures. The evidence obtained from the study shows the existence of co-integration between the EPS, EVA, DPR MVA and CSV in the short as well as the long run. The study found a strong impact of EPS, EVA and management's dividend payout decisions on created shareholder's value. It was also evidenced that dividend paid to the shareholders and increase market price of shares have significant influence on long term market value of stocks which in turn increases shareholders wealth. EPS is still considered to be the strong factor for the shareholders to identify their value. EVA as a value based performance tool dominates shareholder's wealth. The more the managers produce EVA, the more shareholder's wealth maximization will be created. The finding showed significant support for EVA, but EVA was not reported by the companies and is not been used by investors for their investment decisions. EVA can be utilized as a reward system for increasing management performance. These results conclusively support the claims made by EPS, EVA and DPR proponents and further support the potential usefulness of the performance metric for internal and external performance. Furthermore, MVA was found to have negative relationship with CSV which was contradicting with the theory that shed light on the increase in shareholder value when there is increase in stock market value and efficiency. Thus it is highly recommended to focus for future research on this contradict finding.

ABSTRAK

Tesis ini mengkaji hubungan antara alat ukuran prestasi dan kekayaan pemegang saham dalam konteks syarikat pembinaan senarai awam di Malaysia. Persoalan yang memandu kajian ini menumpukan sama ada pembangunan ukuran prestasi mempunyai kesan ke atas nilai pemegang saham. Setelah lebih dari satu dekad krisis kewangan di Asia, pemegang saham di Malaysia masih bergantung kepada pengukuran prestasi konvensional yang mendapat kritikan disebabkan prinsip perakaunan umum yang dipakai. Kedua-dua ukuran perakaunan tradisional dan ekonomi gagal dalam memberi gambaran kepada nilai sebenar disebabkan kekurangan dalam mencipta perniagaan yang lestari untuk jangkapanjang. Oleh itu, sumbangan kajian ini memasukkan ukuran perakaunan berasaskan perolehan dan untung, pengukuran ekonomi berasaskan nilai pasaran, nilai semasa tunai dan keputusan bayaran dividen berasaskan perolehan sebelum kadar bunga dan cukai, perolehan setiap saham sebagai memaksimumkan pasaran nilai dalam sektor pembinaan Malaysia. Nilai tidak dicipta melalui sumbangan bebas faktor berasingan tetapi adalah dengan menyiasat kaitan antara factor-faktor tersebut. Alasan utama untuk memasukkan ukuran seperti EVA dan MVA untuk mengkaji nilai pemegang saham dimotivasikan oleh pengurus di dalam bentuk pembelajaran operasional yang dicipta melalui kerjasama antara pemegang taruh yang mungkin menyumbang kepada nilai ekonomi untuk pemegang saham dan perbadanan di masa hadapan. Kajian ini mengkaji hubungan penyebab jangkapanjang antara alat pengukuran prestasi dan penciptaan kekayaan pemegang saham. Dengan menggunakan sampel data panel sebanyak 280 pemerhatian sepanjang tempoh 2003-2012, kajian ini mendapati bukti yang menyerlah iaitu nilai pemegang saham adalah fungsi ukuran prestasi. Kajian ini mengekploitasi analisis teknik data panel khususnya, Error Correction Models (ECM) untuk menguji kewujudan hubungan dalam ralat. Bukti diperolehi dari kajian ini menunjukkan kewujudan intergrasi bersama antara EPS, EVA, DPR, MVA dan CSV untuk jangkamasa pendek dan panjang. Kajian mendapati kesan yang kuat antara EPS, EVA dan keputusan pembayaran pengurusan dividen ke atas nilai pemegang saham dicipta. Juga didapati dividen dibayar kepada pemegang saham dan meningkatkan harga saham mempunyai pengaruh signifikan ke atas nilai pasaran saham jangkapanjang yang akan meningkatkan kekayaan pemegang saham. EPS masih dianggap faktor yang kuat untuk pemegang saham untuk mengenalpasti nilainya. EVA sebagai alat nilai berasaskan prestasi mendominasi kekayaan pemegang saham. Semakin banyak pengurus menghasilkan EVA, semakin banyak memaksimumkan kekayaan pemegang saham dicipta. Dapatan menunjukkan sokongan yang signifikan bagi EVA, tetapi EVA tidak dilaporkan oleh syarikat dan tidak digunakan oleh pelabur-pelabur untuk keputusan pelaburan. EVA masih boleh digunakan sebagai system ganjaran untuk meningkatkan prestasi pengurusan. Keputusan ini menyokong pandangan yang dibuat melalui EPS, EVA dan DPR, dan seterusnya menyokong potensi kebergunaan metric prestasi untuk presatsi dalaman dan luaran. Sementara itu, MVA didapati mempunyai hubungan yang negative dengan CSV yang bertentangan dengan teori yang menunjukkan peningkatan nilai pemegang saham bila ada peningkatan dalam nilai pasaran saham dan efisiensi.

Dengan adanya dapatan bertentangan adalah disarankan untuk memberi tumpuan bagi penyelidikan masa depan.

LIST OF ABBREVIATIONS

ABET	Accreditation Board for Engineering and Technology
ADF	Augmented Dickey Fuller
APT	Arbitrage Pricing Theory
BNM	Bank Negara Malaysia
CAPM	Capital Asset Pricing Model
CA	Current Assets
CE	Capital Employed
CC	Capital Charge
Cd	Cost of Debt
Ce	Cost of equity
CIDB	Construction Industrial Development Board
CSV	Created Shareholders Value
CVA	Cash Value Added
DCF	Discounted Cash Flow
DPS	Dividend Per Share
DPR	Dividend Payout Ratio
EBIT	Earnings before Interest and Taxes
EBITDA	Earnings before Interest, Tax, Depreciation and Amortization
EC	Equity Capital
ECM	Error Correction Model
ECT	Error Correction Term
EMV	Equity Market Value
EPS	Earnings Per Share
EVA	Economic Value Added

FA	Fixed Assets
FCF	Free Cash Flow
GCE	Gross Capital Employed
IC	Invested Capital
JB	Jarque Bera
Ke	Rate of Cost of Equity
KLSE	Kuala Lumpur Stock Exchange
LIFO	Last in First Out
LR	Likelihood Ratio
MVA	Market Value Added
MM	Miller and Modigiliani
NI	Net Income
NPM	Net Profit Margin
NOPAT	Net Operating Profit After Taxes
NPV	Net Present Value
OLS	Ordinary Least Square
OPM	Operating Profit Margin
OS	Outstanding Shares
PAT	Profit After Taxes
PE	Price Earnings
PP	Phillips-Perron
Re	Rate of return on equity
ROCE	Return on Capital Employed
RONW	Return on Net Worth
ROA	Return on Assets
ROE	Return on Equity
ROI	Return on Investments

RRR	Required Rate of Return
RFR	Risk Free Rate
RI	Residual Income
SC	Schwarz Criterion
SR	Shareholder's Return
SVA	Shareholder's Value Added
t	Time interval
T	Tax rate
VAR	Vector Auto-Regression
VBM	Value Based Management
VECM	Vector Error Correction Model
WACC	Weighted Average Cost of Capital
YTM	Yield to Maturity

TABLE OF CONTENTS

DECLARATION OF THESIS AND COPYRIGHT i

SUPERVISOR'S DECLARATION ii

STUDENT'S DECLARATION iii

DEDICATION iv

ACKNOWLEDGEMENTS v

ABSTRACT vi

ABSTRAK vii

LIST OF ABBREVIATIONS ix

LIST OF FIGURES xvi

LIST OF TABLES xvii

1 INTRODUCTION **1**

1.1 INTRODUCTION 1
1.2 INDUSTRY OVERVIEW 4
1.3 PROBLEM STATEMENT 7
1.4 AIM OF THE RESEARCH 10
1.5 RESEARCH OBJECTIVE 10
1.6 RESEARCH QUESTION 11
1.7 SCOPE OF THE STUDY 12
1.8 SIGNIFICANCE OF THE STUDY 13
1.9 THEORETICAL BASE 14
1.10 MOTIVATION OF THE STUDY 17
1.11 OUTLINE OF THE THESIS 19
1.12 CONCLUDING REMARKS 20

2 PERFORMANCE MEASURES AND SHAREHOLDER'S VALUE: LITERATURE REVIEW **21**

2.1 INTRODUCTION 21
2.2 THEORIES UNDERLYING SHAREHOLDER'S VALUE AND PERFORMANCE MEASURES 24

2.2.1 Neoclassical economic theory 25
2.2.2 Stakeholder theory for value creation 27
2.2.3 Theoretical view on dividend policy 29
2.3 LITERATURE REVIEW ON TRADITIONAL PERFORMANCE MEASURES 35
2.3.1 Earnings Per Share (EPS) 38
2.3.2 Return on Assets (ROA) 39
2.3.3 Return on Equity (ROE) 41
2.3.4 Return on Capital Employed (ROCE) 43
2.3.5 Disadvantages of Traditional Measures 46
2.4 STUDIES RELATED TO TRADITIONAL PERFORMANCE MEASURES AND EVA 48
2.5 LITERATURE REVIEW ON DIVIDEND PAYOUT DECISIONS 51
2.6 STUDIES RELATING TO DPR AND CSV 54
2.7 LITERATURE REVIEW ON ECONOMIC VALUE BASED MEASURES 58
2.7.1 Economic Value Added (EVA) 59
2.7.2 Advantages and shortcomings of EVA 65
2.8 STUDIES RELATING TO EVA AND SHAREHOLDER'S VALUE CREATION 73
2.8.1 Market Value Added (MVA) 79
2.9 STUDIES RELATING TO MVA AND EVA 82
2.10 CREATED SHAREHOLDER'S VALUE (CSV) 87
2.11 CONCLUSIONS 91

3 RESEARCH DESIGN AND METHODOLOGY 93
3.1 INTRODUCTION 93
3.2 EMPIRICAL ECONOMETRIC ANALYSIS 94
3.3 RESEARCH DESIGN 97
3.4 RESEARCH METHODOLOGY 98
3.4.1 Sampling and Data Collection 98
3.4.2 Data Sources 100
3.4.3 Validity and Reliability of the Data 101
3.4.4 Measures of Traditional performance tools 102
3.4.5 Measures of Management's Dividend Decision 105
3.4.6 Measurement of economic performance tools 107
3.4.7 Measures of Created Shareholder's Value 120
3.5 CONCEPTUAL FRAMEWORK 123
3.6 HYPOTHESIS DEVELOPMENT 125

3.6.1 Hypothesis One 126
3.6.2 Hypothesis Two 126
3.6.3 Hypothesis Three 127
3.6.4 Hypothesis Four 128
3.6.5 Hypothesis Five 128
3.6.6 Hypothesis Six 129
3.6.7 Hypothesis Seven 130
3.7 PANEL DATA ANALYSIS 130
3.7.1 Pooled regression Model 132
3.7.2 Fixed Effects Model 133
3.7.3 Random Effects Model 134
3.8 STATISTICAL METHODS USED IN THE RESEARCH 135
3.8.1 Unit Root Tests 136
3.8.2 Johansen Co-integration Analysis 139
3.8.3 Error Correction Model 140
3.9 CONCLUDING REMARKS 142

4 RESULTS AND FINDINGS 143
4.1 INTRODUCTION 143
4.2 DEFINING THE VARIABLES 144
4.2.1 Independent variables 144
4.2.2 Dependent Variable 145
4.3 SUMMARY OF DESCRIPTIVE STATISTICS 146
4.4 RESIDUAL DIAGNOSTIC TEST 149
4.4.1 Histogram–Normality Test 149
4.4.2 Test for heteroscadasticity 152
4.4.3 Serial Correlation Test 155
4.5 UNIT ROOT TEST 157
4.6 JOHANSEN CO-INTEGRATION TEST 160
4.7 ERROR CORRECTION MODEL (ECM) 164
4.8 MODEL SPECIFICATION METHOD 165
4.8.1 Pooled OLS Regression Method 167
4.8.2 Fixed Effect Model 168
4.8.3 Random Effect Model 170
4.9 HYPOTHESIS TESTING 175
4.10 CHAPTER SUMMARY 180

5 SUMMARY, CONCLUSION AND RECOMMENDATIONS 181
5.1 SUMMARY AND CONCLUSION 181
5.2 CONTRIBUTION OF THE STUDY 187

5.2.1 Practical contribution to body of knowledge 188
5.2.2 Contribution to the industry 189
5.3 LIMITATION OF THE STUDY 191
5.4 RECOMMENDATION FOR FUTURE RESEARCH 192

REFERENCES 195

A ANNUAL REPORT DATA 225

B CALCULATED DATA 247

C CERTIFICATE OF PROOFREADING 308

LIST OF FIGURES

Figure		Page
1.1	Growth rate of Malaysian GDP and other sectors from 2003− 2014	6
2.1	ROCE using income statement and balance sheet items	44
2.2	Theoretical base on dividend policy	52
2.3	Flow from equity market value to created shareholder's value	89
2.4	Management decisions and Shareholder's equity	90
3.1	Portfolio of diversification	116
3.2	Conceptual Framework	124
4.1	Scatterplot of CSV with the independent variables	148
4.2	Histogram for normal distribution and descriptive statistics	150
4.3	Theoretical distributions of the variables CSV, EPS, EVA, DPR, MVA, ROA, ROE, ROCE and NOPAT	150
4.4	Actual, fitted, residual graph	153

LIST OF TABLES

Table		Page
1.1	Growth rate of Malaysian GDP by sector	6
2.1	Comparison of different traditional measures	37
3.1	List of Selected construction companies in Malaysian Capital Market	99
3.2	Description of the variables in the model	122
4.1	Summary statistics of the variables	147
4.2	Breusch-Pagan-Godfrey Test for Heteroskedasticity	154
4.3	Heteroskedasticity Test: White	155
4.4	Serial Correlation Test	157
4.5	Results of panel unit roots test	159
4.6	Johansen co-integration test	162
4.7	The error correction model-Dependent variable: CSV	165
4.8	Pooled OLS Regression Model	168
4.9	Fixed Effect Regression Model	169
4.10	Random Effect Regression Model	171
4.11	Hausman Test	173
A.1	Total assets	226
A.2	Total current assets	227
A.3	Total current liabilities	228
A.4	Total non current liabilities	229
A.5	Total Liabilities	230
A.6	Total Equity	231
A.7	Total Sales/Revenue	232
A.8	Costs of Goods Sold	233
A.9	Earnings before interest and taxes (EBIT)	234
A.10	Administrative expenses	235
A.11	Interest expenses	236
A.12	Profit Before Taxes (PBT)	237
A.13	Income Tax paid	238
A.14	Net income of the year	239
A.15	Earnings per share (EPS)	240
A.16	Dividend per share	241

A.17 Total number of shares 242
A.18 Yearly dividend per share 243
A.19 Cash flow from operations 244
A.20 Cash flow from investing 245
A.21 Cash flow from financing 246

B.1 Total revenue of the Construction companies 248
B.2 Dividend paid in MYR by the construction companies 249
B.3 EPS in percent of the construction companies 250
B.4 Net income of the construction companies 252
B.5 Shareholder's Equity of the construction companies 253
B.6 ROE in percent of the construction companies 254
B.7 Total asset of the construction companies 255
B.8 ROA of the construction companies 256
B.9 ROCE of the construction companies 257
B.10 Amount of debt capital for the construction companies 260
B.11 Cost of Interest before tax of the construction companies 262
B.12 Rate of interest before tax for the companies 263
B.13 Interest rate post tax of the construction companies 264
B.14 Cost of Debt for the construction companies 265
B.15 Total Shareholder's Equity of the companies 268
B.16 Beta of Construction companies 270
B.17 Rate of cost of equity for the construction companies 271
B.18 Cost of equity capital for the construction companies 272
B.19 Total assets for the construction companies 274
B.20 Current Liabilities for the construction companies 275
B.21 Capital Employed for the construction companies 277
B.22 WACC for the construction companies 278
B.23 Cost of capital employed for the construction companies 280
B.24 PAT for the construction companies 282
B.25 NOPAT for the construction companies 283
B.26 EVA for the construction companies 285
B.27 Number of shares issued for the construction companies 287
B.28 Market Share price of the construction companies 288
B.29 Equity market value of the construction companies 289
B.30 Market Value Added of the construction companies 291
B.31 MVA per share for the construction companies 292
B.32 Yearly change in share price of the construction companies 294
B.33 Shareholder's value added for the construction companies 296

B.34 Shareholder's return for the construction companies 298
B.35 Ke of the construction companies 300
B.36 Shareholder's return Ke for the construction companies 301
B.37 Created Shareholder's Value of the construction companies 303
B.38 Created Shareholder's value per share of the construction companies 304
B.39 Rate of return on Created Shareholder value per share 306

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

The real value of corporations is one of the most important things that shareholders and investors care about (Lin and QIAO, 2009). The primary goal of most firms is to maximize shareholder value (Brigham and Ehrhardt, 2005). Likewise, McTaggart et al. (1994) also believed that shareholder's value maximization allows managers and board of directors to resolve any conflicts to all stakeholder's long term benefits. Shareholder's value creation has been an important issue for managers as it is the driving force behind strategic and operational decisions. Shareholder's value means meeting the expectation of shareholders at the heart of the management decisions. Value based management is a management process that links strategy, measurement and operational processes towards creating shareholder's value. In other words shareholder's value is the sum of all strategic decisions that affect the firm's ability to efficiently increase the amount of free cash flow over time (Bontis et al., 1999; Gamba and Triantis, 2008).

In a market driven economy many companies will create value and many other companies, however, will undoubtedly destroy it (Grant, 2003). For corporate managers, value creation is fundamental to the economic survival of the company. No company will be able to continue to exist if it fails to create sufficient value for their shareholders. In other words the company not generating value addition in their wealth will struggle to survive and over a period of time will be either a subject of takeover or liquidation. According to (Worthington and West, 2001): "Shareholder's value is traditionally assessed by either standard accounting magnitudes such as profits, earnings and cash flows from operations or financial statements ratios such as earnings per share,return on assets or capital employed" (p.76).

The linkage between the value based performance measures and creation of shareholder's value has been the debatable issues for academicians and practitioners in the last decade. Corporate managers and executives have engaged in the debate on whether the new value based economic measures are highly significant for shareholder's value creation than the old traditional performance measures. The main goal of managers is to attempt to maximize the shareholder's value. However, the manager's decisions favor the interest of non-shareholders or stakeholders at the expense of shareholders (Brigham and Ehrhardt, 2013). Furthermore, Irala et al. (2006) mentioned that managers are encouraged to undergo projects that could increase shareholder's value using measurement tools like economic value added (EVA).

According to Lee (1996), for years, investors and corporate managers have been seeking a timely and reliable measurement of shareholder's value. With such a measure, investors could spot over-or under- priced stocks, lenders could gauge the security of their loans and mangers could monitor the profitability of their factories, divisions and firms.

It has been a traditional goal for the managers of the corporate level to maximize shareholder's value. In the economy that is market driven many firms create value for their shareholders whereas some of them certainly destroy it. The managers that fail to identify the importance of shareholders in an open economy, do so for their own careers and the peril of the firms (Grant, 2003). According to Stern Stewart Company, the following fundamental conditions are necessary for increasing the shareholder's value:

- A solid understanding of how the business is valued by the market
- A management system that drives market-based decisions about resource allocation and management deep into the organization
- An incentive structure that makes managers think and act like owners
- A commitment to continuous improvement rather than short-term goals

In the past few years it has been an ultimate goal of an organization to make a revolutionary change in the measurement of performance from the traditional profit based measures like Earning per Share (EPS), Return on Capital Employed (ROCE), Return on Equity (ROE), Net Profit Margin (NPM), Operating Profit Margin (OPM)and Net Operating Profit After Tax (NOPAT) to the new modern economic value based performance measures like Market value Added (MVA), Shareholder's Value Added (SVA), Cash Value Added (CVA), Equity Market Value (EMV), Created Shareholder's Value (CSV), Economic Value Added (EVA). Out of the value based measures, EVA has received high attention as an important performance measurement tool for the corporate performance and shareholder's value maximization. EVA helps the entity to focus on how to use capital and how to generate cash from it. Managers are able to care about managing assets and income and help in bringing up balance between them through EVA.

There are traditional measures like EPS, ROE, ROA and ROCE have been used by the shareholders to measure performance appraisals. Such traditional measures have been criticized due to not inclusive of the cost of capital resources of the firm (Hasani and Fathi, 2012). Nevertheless, the traditional profit measures of the net income include depreciation costs (Historical fixed cost and long term assets) and interest cost (Cost of Debt). However, the net income does not include the equity cost that determines the return of investors. In addition, the performance measures based on the net income and operating income promote and help managers in short term decision making. Furthermore, in order to overcome such issues economic value based measures like the economic value added (EVA), Market Value Added (MVA) and Shareholder's Value Added (SVA) were proposed (Al Mamun et al., 2012; Erasmus, 2008).

1.2 INDUSTRY OVERVIEW

Construction industry is a major consumer of capital resources due to its magnitude, complexity and nature of the work it executes. The construction industry is considered to be those companies involved in the physical construction of house building, infrastructure, industrial construction, commercial construction and building materials (Chan et al., 2005). However, the cost management strategies in the construction industry worldwide still remain a chronic challenge (Chigara et al., 2013). Thus there is a need for suitable tool to control the operations and all aspects of costs including the opportunity cost of capital and taxes. Construction industry in Malaysia is divided into two main categories: i.e. general construction and Special Trade Works (CIDB, 2007).

The Oxford Business Group (Group, 2008) highlighted a range of issues that the Malaysian construction industry suffered from. There is deep concern that the Malaysian construction industry as a whole is under achieving in the following areas as reported by (Alfan and Zakaria, 2013):

- It has a low rate of profitability;
- The construction industry has remained a very fragmented industry where different activities in the entire value chain of the construction processes are being

undertaken by different parties, often undertaken in isolation, thus resulting in inefficiencies;

- The segregation of design and construction activities which is widely practiced does not encourage consideration for factors like savings in labour utilisation, ease of maintenance, construction safety and the practicality of construction methods

- Due to the problem of escalating costs, construction companies are therefore striving to reduce and control their cost related activities.

Prior to the 1997 Asian financial crisis, Malaysia had attained robust economic growth since the 1980s. However, following the 1998 crisis and its protracted negative impact, the economic growth has moderated. An economic decline in demand and a reduction in the real estate had greatly influenced the monetary policy of Malaysia. The construction industrial sector is an important part of the Malaysian economy. Construction industry contributes 5% of GDP and employs 3% of the workforce all over the world. For the Malaysian market, the construction industry contributes 11.4% of GDP for year 2010 and 18.9% in 2012 (Malaysian Economic Report 2012 and 2014) as shown in figure 1.1.

The 1997 Asian financial meltdown resulted in many economic casualties, including Malaysia. The construction industry consequently contracted significantly due to the plunge in private investment, with its contribution to GDP sliding from RM 9,552 million in 1997 to RM 7,241 million in 1998. With prudent initiatives put in place, the economy was lifted out of the doldrums, registering an impressive GDP growth of 6.1% in 1999 and 8.3% in 2000, far surpassing the - 7.4% in 1998. Since the financial crisis in 1998, the construction sector growth rate has not reached anywhere near the pre-1998 growth rates reaching its highest at 2.1% in 2001 and declining to 2.0% in 2002, 1.5% in 2003 and into a contraction of -1.5% in 2004 estimated to improve to -1.1% in 2005. However, from the year 2007 till 2014, the

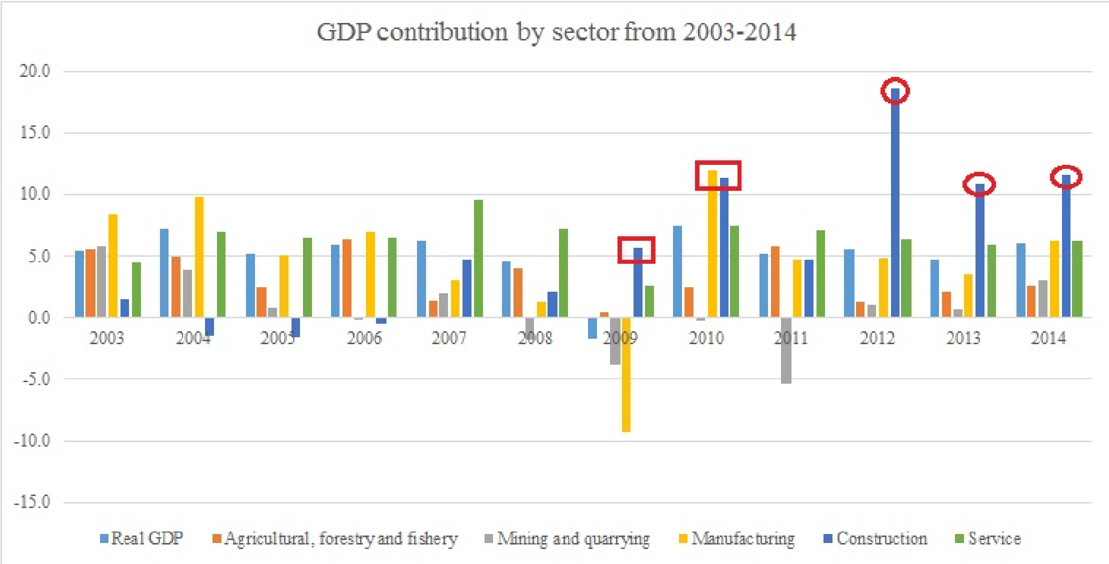

Figure 1.1: Growth rate of Malaysian GDP and other sectors from 2003– 2014
Source: *Malaysian Economic Report (2003-2014)*

construction sector showed consistent growth and contributed to the economy of Malaysia. During the ninth and tenth Malaysia plan, the issue of falling private investment, falling productivity rates, inefficient use of resources and substantial pool of skilled labor have been targeted. The construction industry gave itself ten years, from 2006 until 2015, to rectify the weaknesses and improve the industry performance as well as its image. Thus it is viable to study the growth rate of the construction industry and evaluate the key performance indicators influencing the financial performance and shareholder's value in this sector.

Table 1.1: Growth rate of Malaysian GDP by sector

SECTORS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Real GDP	5.4	7.2	5.2	5.9	6.2	4.6	-1.7	7.4	5.2	5.6	4.7	6.0
Agricultural, forestry and fishery	5.6	5.0	2.5	6.4	1.4	4.0	0.4	2.4	5.8	1.3	2.1	2.6
Mining and quarrying	5.8	3.9	0.8	-0.2	2.0	-1.8	-3.8	-0.3	-5.4	1.0	0.7	3.1
Manufacturing	8.4	9.8	5.1	7.0	3.1	1.3	-9.3	11.9	4.7	4.8	3.5	6.2
Construction	1.5	-1.5	-1.6	-0.5	**4.7**	**2.1**	**5.7**	**11.4**	**4.7**	**18.6**	**10.9**	**11.6**
Service	4.5	7.0	6.5	6.5	9.6	7.2	2.6	7.4	7.1	6.4	5.9	6.3

The construction sector in the fiscal year 2009 was expanded by 5.7% as compared to other economic sectors in Malaysia as shown in Table 1.1. The strong growth of this sector reflected in 2010 where the growth remained to 11.4% dropping down o 4.7% in 2011 due to the decline in demand. Further, in 2012 the construction sector bounced back with its highest contribution to the Malaysian economy by

18.6%. This strong growth of the sector contributed heavily in the economic stimuli of the country. In addition, Esa et al. (2006) mentioned that the construction industry has played a key role in the socio- economic development of Malaysia. However, Ariff and Lopez (2008) uttered that Malaysian companies have been investing abroad since mid of 1970s. With the formation of ASEAN Free Trade Area in 1992, Malaysian companies were to invest abroad in the ASEAN countries. Likewise, Esa et al. (2006) also acknowledged that the globalization of construction market not only brings along competition and challenges but also provides opportunities by opening new markets.

As customer's needs and expectations intensify, construction companies needs to strive to construct highest quality with minimal cost. This move would help the construction companies to get projects that are crucial in order to sustain their market share. The focus of the study is to provide financial strategy matrix based on generating profit exceeding the cost of capital and manage sales growth of the construction companies listed in the main board of the Bursa Malaysia stock exchange.

1.3 PROBLEM STATEMENT

Financial statement failure in determining the firm's true value has drawn wide research focus in investigating the broadened gap between the firm's market and book value (Othman et al., 2012). Furthermore, studies like (Lev and Radhakrishnan, 2003; Lev and Zarowin, 1999; Vijayalakshmi, 2014) mentioned that in reality traditional accounting measures and economic measures have failed in reflecting the company's true value due to lack of creating long term sustainability of business and their issue of distortion. One of the key obstacles for the shareholders is in identifying the key performance tools that can help them getting the company's accurate profit information. For managers, it has been a great challenge to increase their earnings keeping in view of the shareholder's return as they both reflects historical performance (Bhunia, 2012). According to Baker (2002) it is not the performance measures that have been criticized in the past three decades but its distortion. Performance measures derived from accounting profits like profit, earnings, cash flow can be easily distorted and manipulated by the managers for their own benefits. Likewise, Stewart (1991) suggested EVA as an economic measure for the solution to accounting distortion. However, even this measure is not left without criticism as EVA still uses accounting information for its calculation. EVA has also been criticized for explaining the firm's short term indicator of value (Geyser and Liebenberg, 2003; van der Poll et al., 2011). Thus it is confirmed that despite of long success, EVA still has a number of issues in use. Thus a much debated question is how can the shareholder's value be maximized?

A study performed by Ab Razak et al. (2008) suggested that the reason of poor performance of Malaysian organization may be attributed to agency problem. Most of the public listed companies in Malaysia are still using traditional performance measures that consider accounting profits or ratios for measuring shareholder's return. Traditional method uses accounting profit or ratios like earnings per share or return on the shareholder's equity. Over the years financial indicators like ROA, ROE, EPS and many others are being strongly criticized as they are not able to measure the cost of capital owned. Similarly,Nahar Abdullah (2004) argued that in Malaysia, ratios are widely used by the companies in order to measure firm value, may not be able to measure and capture firm's performance which is created over the period. Furthermore,Al Mamun et al. (2012) mentioned that after more than one decade of the crisis Malaysian firms still stick with the conventional performance measures which are criticized due to general accepted accounting principles. Malaysia is suffering from having a suitable performance measurement tool which can help the investors to assess value created on their investment (Ismail, 2011). Moreover, Vijayalakshmi (2014) mentioned that there are varieties of measures to show the value creation for shareholders, but none of the traditional measures are able to explain the variation in the shareholder's value. In addition, the earnings per share that is known to be as profit based measure is criticized due to its absence in the balance sheet. EPS disregards the value of assets used to generate the balanced sheet.

To illustrate, Abdullah et al. (2005) pointed out that dividend payment is a signal of performance of firms. If dividend increases, share price will also increases, which leads to the creation of shareholder's value. In addition, Appannan and Sim (2011) mentioned that Malaysia as a developing country still lack of research on dividend policy and its determinants for the public listed companies. Nevertheless, in reality, most of companies focused more on making profit rather than maximizing the shareholder's value. Even in Malaysia particularly, most of the companies do not emphasis so much on dividend and do not have a proper dividend policy except for several large, well-established companies. Furthermore, Zakaria et al. (2012) also supported the findings that in Malaysia, since there is no standard policy or procedure governing dividend payments, companies therefore decides freely on how much dividend to pay to its shareholders. Ideally, companies should give or distribute profits earned on a particular year in the form of dividend to the shareholders as satisfied shareholders will have confidence in the companies and ultimately contribute more to the company to support its growth. This is actually increasing the value of the company's shares, which will lead to the maximization of shareholder's value.

According to Kapoor (2011) shareholder's value maximization is the sum of all strategic decisions in increasing earnings, dividend and market value, but no previous study has investigated it all together. The use of earnings that is explained by traditional measures, economic profits explained by economic measures like EVA and MVA and dividends that is crucial strategic management decision have not been investigated theoretically and empirically. Similarly, de Wet (2005) supported the traditional accounting indicators like EPS and ROE along with EVA in driving shareholder's value. Thus a combination of traditional measures, economic measures and management's dividend payout decisions can play an important role in addressing the issue of shareholder value maximization. Finding the best companies in the market place is of primary importance for the investment managers and shareholders. With proper financial tools, portfolio managers may be able to enhance their active performance over and above the returns available on similar risk indexed passive strategies. The present study fills a gap in the literature and provides an important opportunity to advance the understanding on the firms' strategic decisions within the aspects of earnings, market value and dividend based measures as the benchmark in determining shareholder's value.

1.4 AIM OF THE RESEARCH

The main aim of this study is to investigate all the aspects of shareholder's value creation empirically by determining the influence of traditional measures like EPS, ROA, ROE and ROCE, economic measures like EVA and MVA and dividend payout decisions for the period of 2003 to 2012 for construction companies listed in the Bursa Malaysia stock exchange. A further aim would be to determine if there is any relationship between traditional, economic and dividend payout measures within the respective sector.

1.5 RESEARCH OBJECTIVE

The primary objective of this research is to empirically testing the assertion that the combination of earnings, market value and dividend payout is highly associated with shareholder's value creation. The main objective of the research is to provide investors a strategic approach that can evaluate the performance of construction companies effectively and assist them to use the economic strategies in order to maximize shareholder's value. This research work is particularly aimed to accomplish the following objectives:

- To study and analyze the impact of traditional accounting measures (EPS, ROA, ROE, ROCE) on the shareholder's value creation in Malaysian construction listed companies.

- To study the relationship between economic value based measures (EVA and MVA) and shareholder's value creation in Malaysian construction listed companies.

- To investigate the relationship between management's dividend payout decisions and shareholder's value creation.

1.6 RESEARCH QUESTION

The research questions to be tested are derived from the notion that the combination of earnings, market value and dividend payout decisions is more likely associated with shareholder's value creation. Thus this study poses the following questions:

1. To what extent the traditional performance measures creates the shareholder's value of Malaysian listed construction companies?
   This research question aimed (i) to develop a framework of the drivers of shareholder's value creation and (ii) to identify how a particular traditional measures affects it. Various traditional measures like EPS, ROA, ROE and ROCE were examined to study their impact on shareholder's value creation.

2. Does economic value based measures dominate in explaining shareholder's value creation of Malaysian listed construction companies?

   In order to obtain a comprehensive answer, the study tried to identify the most significant predictor among traditional and economic value based measures that explains the shareholder's value creation of Malaysian listed construction sector.

This study tries to explain the application and advantage of EVA and MVA principles for the evaluation of shareholder's value of the Malaysian listed construction companies. The main purpose was to interpret economic realities of the selected organizations. Thus the second question involves a series of computations to reach the numbers of EVA and MVA.

3. Is there any statistical relationship between dividend payout decisions and shareholder's value creation?

These three research questions form the foundation of this study. Whilst the first research question explores the direction and strength of the relationship between EPS, ROA, ROE, ROCE and CSV; the second research question investigates the effect of EVA and MVA on CSV and finally; the third one investigates the influence of dividend payout decisions in predicting shareholder's value. The study compared the traditional performance measures, economic value based measures and dividend payout of the Malaysian listed construction companies on the basis of their background indicators and financial performance measures.

1.7 SCOPE OF THE STUDY

This research is based on the published financial reports of the construction companies and all the information published in financial reports would be considered while doing this research. Financial decisions taken by the managers reflects the long term strategies of the companies. Therefore the financial reports of at least 10 years would be taken into consideration for studying performance measures and shareholder's value creation. The study covers the construction companies which are listed in Bursa Malaysia stock exchange. As per the statistical reports of Construction Industry Development Board (CIDB), construction industry in Malaysia is a major consumer of capital resources. However, this sector has remained a very isolated industry as different activities in the construction process are being undertaken by different entities resulting to inefficiencies. Even then the construction industry has the highest contribution to Malaysia's GDP. This is the rationale reason to select Construction Industry in order to examine implications of performance measures in relation to shareholder's value creation.

The financial years, 2003 to 2012, have been taken into consideration for the purpose of the study and for testing the hypothesis. This study consists of seven hypotheses and in order to support the results of the panel data set, unit root test, causality test, co-integration test, OLS regression analysis and Hausman test for confirming fixed or random OLS regression model were performed.

1.8 SIGNIFICANCE OF THE STUDY

The significant of the study becomes more evident when considering Malaysian companies that contemplate competing in the global market. When competing in the global market, investors will have the ease of options to put their investment where they can best achieve the highest returns. All this will further pressure companies to maximize shareholder's value. This study will be a significant endeavor in the corporate decision making and internal strategy enhancement of the managers favoring corporate stakeholders. This study will further benefit the investors and financial analysts for evaluating and monitoring the organization and their performance. This study will also be helpful to the students, academicians and practitioners in the corporate finance and business management when they employ effective and critical analysis in their workplace and research modeling. By understanding the needs of the shareholders and benefits of the performance measures, managers will be assured of a competitive advantage and shareholder's confidence. Moreover, this research will provide recommendation on how to evaluate the performance of a certain corporate in accordance to the corporate finance and management perspective. Also it is of interest to see if companies in Malaysia use dividend policy as a tool in giving value to shareholders. In addition to the dividend aspects of firm's overall financial policy, this research will also try to discover if any traditional or economic measures exists to maximize shareholder's value.

Moreover, this study will be helpful to the industry and business practitioners in the area of understanding performance measurement tools, objectives and strategies for the shareholder's value maximization. It will also serve as a future reference for researchers on the subject of shareholder's value creation and corporate performance. And importantly, this research will educate investors in deciding on whether an industry is really fulfilling its responsibility to the value creation or just showing off to attract the investors for its business.

1.9 THEORETICAL BASE

From the past decades, creating firm value and shareholder's value has been a debatable issue in the literature of corporate finance and economics. By appropriate allocation of resources by the managers the target of value creation can be achieved. Extant theoretical and empirical researches in financial economics also accept shareholder's value maximization as the primary and ideal goal on which organization decision should be based.

According to the agency theory, managers or top management must use their efforts for maximizing the value of shareholders instead of the corporation as shareholders are considered to be the true owners of the firm. However, the duty of care and loyalty towards the corporation can still be found in many guides provided by the top management but the responsibility towards shareholders are not addressed. Shareholders who are considered as the true owners of the company are prioritized after all other stakeholders like suppliers, debt holders, government agencies, paying taxes and other obligations under state and federal securities laws are satisfied. Thus the agency theory for shareholder's value is still questionable.

According to the recent article published by Smith (2013) a share is very weak legal promise. Shareholders are considered as outsiders for the company and no information like the company judgment in future prospects, future acquisition and plan for new products can be shared with them due to its competitive sensitiveness. The only thing shareholders can do is to trust the accounting information disclosed by the managers and take their investment decisions. Shareholders due to their voting rights play a crucial role in monitoring performance of the managers. Agency theory links shareholder's value with managerial incentives in order to avoid conflict of interest between managers and the shareholders (Roth and O'Donnell, 1996).

Stakeholder theory was put forward by (Freeman, 1984) with the perspective of strategic management and has been adopted by many market based organizations as a means of management. The main weakness of the stakeholder theory is that it is not focused on the goal of the shareholder's value maximization only and is bound to serve all the stakeholders in the corporation and has been criticized too due to its vagueness and ambiguity. Furthermore, the stakeholder theory argues that managers must take decisions in favor of all the stakeholders. Thus such theory is more attractive to the self-interest of the managers and directors due to their multiple stakeholders and goals. Firm value cannot be maximized by ignoring the value of stakeholders (Jensen, 2001). While it is difficult to present a widely accepted and well-defined form of the stakeholder theory, the essential message conveyed by nearly all of the stakeholder theorists is the rejection of the primacy of the shareholders. In other words, the stakeholder theory challenges the basic premise built into the corporate finance theory, teaching and practices. While the theory has its origins in academic work relating to business ethics and business and society, it is finding much broader audience and a general, perhaps conditional, acceptance and respectability in business disciplines such as strategy. Thus both the agency theory and stakeholder theory were facing critiques that made this research to reconcile the paradigm of agency theory and stakeholder theory favoring the shareholder's value maximization. Due to such criticism of the stakeholder and agency paradigm, confidence level of the shareholders on the corporation has been diminished in the past decades. Therefore there is a need of additional measures to address the loss of confidence.

Performance measures help the shareholders to increase their confidence level on the corporation. The concept of economic and traditional measures as a performance measurement tool is central to the shareholder's value. EVA is a dominant feature of economic measures whereas; traditional measures are based on accounting profits like EPS, earnings, profit, cash flows and other financial ratios. According to previous studies (Chen and Dodd, 1997; Lehn and Makhija, 1997; Rogerson, 1997) unfortunately none of the traditional measures like net profit, earnings, cash flow and other financial ratios can be relied for explaining the value of shareholders. EVA in the form of economic based performance measures suggested by (Stewart, 1994) was a good approach as it includes economic profit and net present value of the firm. The main advantage of EVA is it includes the opportunity cost of capital by the firm. Even this measure (EVA) is not left without criticism.. Due to its reliance on economic profit apart from accounting profit, EVA is downgraded during high inflation period (De Villiers, 1997).

The efficiency of EVA has also been criticized by studies like (Biddle et al., 1997; Chen and Dodd, 1997; Fernandez, 2002; Tortella and Brusco, 2003). The main reason to criticize EVA was its lack of analyzing stock market reaction by the firms when adopting EVA. EVA has also been criticized due to its lack of adoption by the corporates. According to Fernandez (2002) a low correlation was observed between EVA and MVA whereas NOPAT and WACC were having high level of correlation with MVA. Biddle et al. (1997) after examining the EVA data provided by Stern Stewart it was found that the operating cash flow performs better than EVA for the shareholder's value. In response to these claims an emerging literature has addressed on the issue whether EVA is more highly associated with shareholder's value than the accounting based measures. After analyzing the literature on EVA it was noticed that there is a mixed result for its role on the shareholder's value. From such mixed results there can be theoretical argument on the properties of EVA. There have been many studies that discussed on the characteristics of EVA, but they also questioned on its utility. Thus it can be said that there is a research gap on identifying measurement tool for shareholders value creation.

1.10 MOTIVATION OF THE STUDY

This study is motivated to fill the theoretical gap identified in the above section of the theoretical framework. Shareholder's value is the sum of all strategic decisions that is delivered to shareholders due to the management's ability to increase earnings, dividends and market value that increase free cash flow over time (Kapoor, 2011). Previous studies like (Issham et al., 2008; Lin and QIAO, 2009; Vijayalakshmi, 2014)also claimed that earnings, cash flow and market value increase the firm ability and performance, but so far all the studies reviewed, have suffered from the fact that dividend payout to shareholders is a major value for them. Even though it is evidenced from the theoretical concept that strategic decisions of the firms must be towards earnings, dividends and market share price but there is still lack of studies that focus on all the aspects. This study contributes by including the accounting measures based on earnings and profits, economic measures based on market value of the present cash flow and dividend payout decisions based on earnings before interest and taxes and earnings per share as the shareholder's value maximization in the Malaysian construction sector.

This study investigates the influence of economic and accounting measures on the shareholder's value maximization. Variable proportional influence of the performance measures and dividend payout decisions with the shareholder's value is an academic contribution of the study. Contribution related to economic measures, traditional measures and dividend payout decisions by the leading studies of Chen and Dodd (1997), Rogerson (1997);Lehn and Makhija (1997) and Kapoor (2011) is indeed worth mentioning, but none of these studies has employed interactive relationship of variables related to the shareholder's value maximization of the construction sector. The investigation on the interactive relationship between the variables was suggested by (Freeman et al., 2004) who mentioned that value is not created by the independent contribution of isolated factors but by investigating the cooperation among the factors. The main reason to include economic measures like EVA and MVA for investigating shareholder's value was motivating managers in the form of operational learning that is created by managers probably with the cooperation of other stakeholders that may contribute to create the economic value for the shareholders and corporations in the future.

However, there is an inconsistency with this argument that economic and traditional measures are effective as performance measurement tool for the shareholders; this study contributes by focusing on the cost of capital formulated based on CAPM model. CAPM model is the most dominant model used by practitioners to estimate the cost of equity. The components of EVA calculation are taken into account differently than other studies explaining the shareholder's value and contributing most to variation in EVA. Furthermore, this research aims to propose an alternative and additional performance tool for shareholders and managers to gain their internal strategy of handling cost of operational, capital and future developments. The introduction of key performance measures will have the following benefits:

1. It will increase the awareness of the construction industry to a new way of measuring the success of their organization;

2. It will be a constant reminder for the construction companies that their continued existent is reliant on generating value for their shareholders which can be

better achieved through the introduction of an effective performance measures;

3. The result of this study should serve as an indication that managers ought to take into account the opportunity cost of capital in their business activity.

The anticipated contribution that will come out from the findings of this study is to establish a different way of analyzing the data and representing shareholder's value. Therefore, it is suggested that this different way should provide an improved alternative to existing accounting practice in the industry since it will take into account the opportunity costs of all capital and it corrects for potential distortions inherent in the adoption of GAAP. Consequently, a better measure of the value that a company has created for the shareholders in the period of accounting can be achieved.

This study is motivated by the controversial results of the previous researches that appeared in different variations. If companies and strategic decision makers employ this model, they will have better understanding on maximizing shareholder's value from this segment perspective than if they use the existing traditional accounting measures.

1.11 OUTLINE OF THE THESIS

The study is organized as follows:
Chapter 2 highlights review of literatures based on the value based management techniques like traditional measures, economic measures and dividend policies for the creation of shareholder's value. Furthermore, this chapter highlights the key theoretical underpinnings considered to make the empirical study more focused. In chapter 3, empirical research design along with research hypothesis and data analysis techniques are described. In chapter 4, the results of empirical statistical investigation are presented to test each hypotheses and interpreted in detail. Finally, chapter 5 summarizes, concludes and recommends for future studies by taking into consideration additional aspects.

1.12 CONCLUDING REMARKS

Over the last three decades or so, there has been a growing concern among business analysts, academics, and professional managers that traditional accounting measures of performance are no longer appropriate for the purpose of strategic decisions and control. The EVA and MVA which is a residual income that subtracts the cost of capital has been a real improvement over the traditional accounting measures. However both traditional and economic measures have been criticized for identifying the value of shareholders. This study explores the assertion that a combination of earnings, market value and dividend payout would improve identifying shareholder's value creation. In the following chapters this issue will be thoroughly investigated and examined empirically.

CHAPTER 2

PERFORMANCE MEASURES AND SHAREHOLDER'S VALUE: LITERATURE REVIEW

2.1 INTRODUCTION

The creation of shareholder's value is one of the important goals in the organization. The importance of company valuation has been increasing eventually over the past decades. In the capital market the valuation of company plays a crucial role and shows dynamic growth of the company transactions (Hillman and Keim, 2001). The concept of company valuation includes investment, operational and financial decisions. When focusing on the valuation of company question arises of who might be interested in the resulting numbers. A more specific and general answer would be all the stakeholders (Jensen, 2001).

Stakeholders are the group of people who are affected by or can affect the organization's activities such as shareholders, debt holders, customers, employees, suppliers or management. In order to identify the value of stakeholders, there are many accounting based and economic based measurement tools that work in the goal of maximizing shareholder's value. Economic Value Added (EVA) as a value based measure is used to measure the performance of organization by calculating the shareholder's value (Sharma and Kumar, 2010). According to Brigham and Houston (2011), "EVA has been widely adopted by management to make effective financial decisions and increase profitability and productivity in assisting to invest in new capital and which under performing assets to liquidate" (p.223). In addition, EVA also assists investors to measure company performance and decide which share to invest in. Traditional accounting measures rely on earnings to calculate and identify shareholder's value. Shareholders heavily considered traditional accounting measures as the best measures for maximizing shareholder's value. However, there has been growing awareness on the traditional measures to be non-reliable to risk and inflation (Che and Li, 2011; Venanzi, 2012). Other reasons for the failure of earnings to measure the economic value of the business are:

1. Employment of an alternative accounting methods
2. Dividend policy is not considered
3. Ignorance of time value of money

According to Sundaram and Inkpen (2004) an organization that treats its stakeholders unethically will not be able to create long run business. Furthermore, Freeman et al. (2004) suggested that managers must prioritize stakeholders' interests, but added further that such sentiments are not guided for decision making. This study has reviewed many previous studies that provide information in the area of EVA and shareholder's value. Different resources have been used by the researcher to compile the information on the research area. Performance measurement has been used previously by organizations to control and ensure their organizational strategies in order to achieve organizational goals.

Performance measurement is defined as how well organization is managed and the value they deliver for customers and other stakeholders. Performance measurement is the ongoing monitoring and reporting program accomplishment, towards pre-established goals. Performance measurement is used for the improvement in the process by monitoring the operation, planning and forecasting by serving as a progress check, meeting the competition by identifying weak areas and addressing them to sharpen their competitive edge, rewarding and motivating employees who have excelled in achieving goals, to help the organization in complying with the government regulations and standards. According to Richard et al. (2009) "there are many performance measurement tools available, but which tool would be useful to meet the organization goals is the main issues for the organizations"(p.67). Maximizing shareholder's value is always being criticized and is inconsistent with the firm's other constituencies. This study examines the influence of management decision of construction industry on shareholder's value using dividend payout decisions examined by the dividend payout ratio, value based measures like EVA, MVA and traditional measures like Earning per Share (EPS), Return on Capital Employed (ROCE), Return on Equity (ROE), and Return on Assets (ROA). The next section highlights the underlying theories that have been focused upon in order to investigate the theme of shareholder's value maximization.

It is still not clear, whether shareholders have enough knowledge to pick a company's new direction accurately. Thus it becomes the responsibility of the managers or company's decision makers to provide accurate information about company's future directions. Having made an investment in a business, shareholders are concerned with assessing the profitability of their investment. The decisions made by managers determine what they can expect both in terms of dividends, or profits, and capital growth, both of which are reflected through the share price.

Neely et al. (2002) in their book mentioned that companies must play an important role in delivering value to their shareholders. Strategies, processes and capabilities need to be linked to each other in order to understand how they fit together towards satisfying shareholder's and organization's wants and needs. It is critical to ensure that they are aligned and integrated with one another if the organization is to be best positioned to deliver real value to all of its stakeholders. Below are the five elements that the shareholders look in the business to perform:

1. **Raising Financial Performance**

   In order to meet company's objective of delivering superior returns and take measures to meet financial targets.

2. **Sharpening the culture**

   To become an organization where all its employees are more accountable, aggressive, and adaptive in pursuit of goals.

3. **Value based management**

   Analyzing the business, the market in which it operates, its strength and weaknesses with those of its competitors to maximize returns for shareholders.

4. **Leadership capability**

   Leadership in managers is must to ensure company achieves its goals. Company need to identify leaders who are capable of motivating their teams, achieving objectives and delivering results in their outlook.

5. **Rewards**

   Company must align the interests of employees as closely as possible with the interests of shareholders. This can be done by rewarding employees for the creation of value and encouraging them for future goals.

Finally, managing for value has realigned the company with the interests of its shareholders. The move towards a value based culture would renew vigor and momentum in the company. Next section highlights some important theories that is crucial for the investigation on shareholder's value creation.

2.2 THEORIES UNDERLYING SHAREHOLDER'S VALUE AND PERFORMANCE MEASURES

Various studies dealing with the theoretical applications of traditional performance measures, economic based performance measures and dividend payout

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

The real value of corporations is one of the most important things that shareholders and investors care about (Lin and QIAO, 2009). The primary goal of most firms is to maximize shareholder value (Brigham and Ehrhardt, 2005). Likewise, McTaggart et al. (1994) also believed that shareholder's value maximization allows managers and board of directors to resolve any conflicts to all stakeholder's long term benefits. Shareholder's value creation has been an important issue for managers as it is the driving force behind strategic and operational decisions. Shareholder's value means meeting the expectation of shareholders at the heart of the management decisions. Value based management is a management process that links strategy, measurement and operational processes towards creating shareholder's value. In other words shareholder's value is the sum of all strategic decisions that affect the firm's ability to efficiently increase the amount of free cash flow over time (Bontis et al., 1999; Gamba and Triantis, 2008).

In a market driven economy many companies will create value and many other companies, however, will undoubtedly destroy it (Grant, 2003). For corporate managers, value creation is fundamental to the economic survival of the company. No company will be able to continue to exist if it fails to create sufficient value for their shareholders. In other words the company not generating value addition in their wealth will struggle to survive and over a period of time will be either a subject of takeover or liquidation. According to (Worthington and West, 2001): "Shareholder's value is traditionally assessed by either standard accounting magnitudes such as profits, earnings and cash flows from operations or financial statements ratios such as earnings per share,return on assets or capital employed" (p.76).

The linkage between the value based performance measures and creation of shareholder's value has been the debatable issues for academicians and practitioners in the last decade. Corporate managers and executives have engaged in the debate on whether the new value based economic measures are highly significant for shareholder's value creation than the old traditional performance measures. The main goal of managers is to attempt to maximize the shareholder's value. However, the manager's decisions favor the interest of non-shareholders or stakeholders at the expense of shareholders (Brigham and Ehrhardt, 2013). Furthermore, Irala et al. (2006) mentioned that managers are encouraged to undergo projects that could increase shareholder's value using measurement tools like economic value added (EVA).

According to Lee (1996), for years, investors and corporate managers have been seeking a timely and reliable measurement of shareholder's value. With such a measure, investors could spot over-or under- priced stocks, lenders could gauge the security of their loans and mangers could monitor the profitability of their factories, divisions and firms.

It has been a traditional goal for the managers of the corporate level to maximize shareholder's value. In the economy that is market driven many firms create value for their shareholders whereas some of them certainly destroy it. The managers that fail to identify the importance of shareholders in an open economy, do so for their own careers and the peril of the firms (Grant, 2003). According to Stern Stewart Company, the following fundamental conditions are necessary for increasing the shareholder's value:

- A solid understanding of how the business is valued by the market
- A management system that drives market-based decisions about resource allocation and management deep into the organization
- An incentive structure that makes managers think and act like owners
- A commitment to continuous improvement rather than short-term goals

In the past few years it has been an ultimate goal of an organization to make a revolutionary change in the measurement of performance from the traditional profit based measures like Earning per Share (EPS), Return on Capital Employed (ROCE), Return on Equity (ROE), Net Profit Margin (NPM), Operating Profit Margin (OPM)and Net Operating Profit After Tax (NOPAT) to the new modern economic value based performance measures like Market value Added (MVA), Shareholder's Value Added (SVA), Cash Value Added (CVA), Equity Market Value (EMV), Created Shareholder's Value (CSV), Economic Value Added (EVA). Out of the value based measures, EVA has received high attention as an important performance measurement tool for the corporate performance and shareholder's value maximization. EVA helps the entity to focus on how to use capital and how to generate cash from it. Managers are able to care about managing assets and income and help in bringing up balance between them through EVA.

There are traditional measures like EPS, ROE, ROA and ROCE have been used by the shareholders to measure performance appraisals. Such traditional measures have been criticized due to not inclusive of the cost of capital resources of the firm (Hasani and Fathi, 2012). Nevertheless, the traditional profit measures of the net income include depreciation costs (Historical fixed cost and long term assets) and interest cost (Cost of Debt). However, the net income does not include the

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

The previous chapter discussed empirical studies and theoretical aspects about performance measures and shareholder's value creation. This chapter outlines and describes the research design and methodology using in confirming the hypotheses. It also introduces the data sources and the specific regression models that link different performance measures and the dependent variable CSV. This chapter is structured as follows: Section 3.2 with empirical econometric analysis followed by the types of research design in Section 3.3. Section 3.4 highlights research methodology that includes Subsection 3.4.1 explaining sampling and data collection, 3.4.2 investigating data sources, Subsection 3.4.3 highlights reliability and validity of the data, and finally Section 3.4.4, 3.4.5, 3.4.6 and 3.4.7 provides measurements of traditional measures, economic measures, dividend payout ratio and created shareholder's value. Section 3.5 explains conceptual framework whereas; Section 3.6 highlights hypothesis development. In addition, Section 3.7 provides panel data analysis followed with subsections explaining pooled regression model, fixed effect model and random effect model. Section 3.8 evidenced statistical methods used in the research. Finally, concluding remarks are provided at the end of the chapter.

3.2 EMPIRICAL ECONOMETRIC ANALYSIS

Econometrics is based upon the development of statistical methods for estimating economic relationships, testing economic theories, and evaluating and implementing government and business policy. The most common application of econometrics is the forecasting. Econometrics has evolved as a separate discipline from mathematical statistics because the former focuses on the problems inherent in collecting and analyzing non-experimental economic data. Non-experimental data are not accumulated through controlled experiments on individuals, firms, or segments of the economy. Non-experimental data are sometimes called observational data, or retrospective data, to emphasize the fact that the researcher is a passive collector of the data (Wooldridge, 2012).

An empirical analysis uses data to test a theory or to estimate a relationship emphasizing that the first step in any empirical analysis is the careful formulation of the question of interest. The question might deal with testing a certain aspect of an economic theory, or it might pertain to testing the effects of a government policy. Under general assumptions, an equation describing the shareholder's value as a function of various performance measurement factors can be represented as:

$$y = f(x_1 + x_2 + x_3 + x_4 + x_5 + x_6 + x_7 + x_8 + x_9), \tag{3.1}$$

where,

y = created shareholder's value

x_1 = Earnings per share

x_2 = Economic value added

x_3 = Dividend payout ratio

x_4 = Market value added

x_5 = Return on assets

x_6 = Return on Equity

x_7 = Return on capital employed

x_8 = Net operating profit after tax

x_9 = Equity market value

In this study, an economic model consisting of mathematical equation that describes various relationships and describing a vast array of behaviors was described. After specifying economic model, there is a need to turn the equation 3.1 to an econometric model. Then such economic model of created shareholder's value was specified with a particular econometric model:

$$\begin{aligned} \text{CSV} = \beta_0 + \beta_1 EPS + \beta_2 EVA + \beta_3 DPR + \beta_4 MVA + \\ \beta_5 ROA + \beta_6 ROE + \beta_7 ROCE + \beta_8 NOPAT + \mu \end{aligned} \tag{3.2}$$

where,

CSV = Created shareholder's value

EPS = Earnings per share

EVA = Economic value added

DPR = Dividend payout ratio

MVA = Market value added

ROA = Return on assets

ROE = Return on Equity

ROCE = Return on capital employed

NOPAT = Net operating profit after tax

The dependent variable here is the created shareholder's value (CSV) for firm i in period t. The explanatory variables in this model are: earnings per share (EPS), economic value added (EVA), dividend payout ratio (DPR), market value added (MVA), return on assets (ROA), return on equity (ROE), return on capital employed (ROCE) and net operating profit after tax (NOPAT). Positive and signif-