RECENT MERGERS AND ACQUISITIONS IN MALTESE LISTED COMPANIES: A FINANCIAL PERSPECTIVE

By

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for the award of the Master in Accountancy degree in the
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ABSTRACT

Title: Recent Mergers and Acquisitions in Maltese Listed Companies: A Financial Perspective

Purpose: The purpose of this study is to assess the effectiveness of mergers and acquisitions (M&As) on acquirers' financial performance, to examine the market reaction to M&A announcements and to obtain further insights on the perceived value arising from M&A activity.

Design: The study's objectives were achieved by a review of acquiring companies' financial information, through an Event Study on acquirers' share price movements and through ten semi-structured interviews held with involved companies' representatives and with local stock brokers to obtain their perceived value.

Findings: The only financial aspect which improved after M&A activity was growth in *earnings before interest, tax, depreciation and amortisation.* Overall, there was no discernible impact on *return on assets, operating cash flow* or *financial gearing*, while *operating efficiency* declined. The market was generally non-reactive within relatively short timeframes around announcements. However, a positive reaction within longer estimation periods could be observed. Acquirers' and stock brokers' perceived value varied considerably, with the latter being more conservative and convergent to the researcher's financial result assessment.

Conclusions: This study concludes that the few M&A cases which improved their profitability also showed enhanced operational efficiency and sound financing decisions. However, the attainment of such results was believed to be quite challenging. Moreover, the local market was deemed not to be a reliable indicator of M&A success and its positive perception was likely to have reflected the shallow trading activity of the Maltese market. Key factors, namely effective due diligence and successful integration were perceived to contribute to M&A success.

Value: This study would particularly be useful to local stock brokers seeking to create clients' value by maximising returns on any investment. Investors are also expected to improve their understanding of M&As' performance implications. Furthermore, this study could provide corporate managers with insights into the dynamics of M&A activity.

Keywords: *Mergers and Acquisitions, Maltese Listed Companies, Financial Management, Event Study.*

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With love,

I dedicate this dissertation to my dear family and my boyfriend for their continuous encouragement and support.

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TABLE OF CONTENTS

DECLARATIONS BY POSTGRADUATE STUDENTS i

ABSTRACT ii

ACKNOWLEDGEMENTS.. iv

TABLE OF CONTENTS v

LIST OF FIGURES xii

LIST OF TABLES...xiv

LIST OF EQUATIONS xvi

LIST OF ABBREVIATIONS..xvii

Chapter 1 - Introduction 1

1.1 Background Information 2

1.1.1 Corporate restructuring... 2

1.1.2 Merger, Acquisition & Takeover.. 3

1.1.3 Listed Companies.. 4

1.2 Need for the Study 4

1.3 Objectives of the Study 5

1.4 Scope and Limitations... 6

1.5 Study Overview 7

Chapter 2 - Literature Review 9

2.1 Introduction 10

2.2 M&A Motives 10

2.3 Merger Waves 14

2.4 Approaches to Measure the Impact of M&A on Shareholder Value 15

2.4.1 Accounting-based Measures 16

2.4.2 Event Study 20

2.4.3 Use of a Combination of Measures 26

2.5 The M&A Process 27

2.5.1 Stage 1: Corporate Strategy 28

2.5.2 Stage 2: Organising for Acquisitions 29

2.5.3 Stage 3: Deal Structuring and Negotiation 30

2.5.4 Stage 4: Post-acquisition Integration 32

2.5.5 Stage 5: Post-acquisition Audit and Organisational Learning 33

2.6 Critical Success Factors 33

2.7 Local Scenario 35

2.8 Conclusion 36

Chapter 3 - Research Methodology 38

3.1 Introduction 39

3.2 Preliminary Research 40

3.2.1 Identification of Companies 40

3.2.2 Materiality and Significance 41

3.2.3 Excluding M&As Conducted for Internal Restructuring Purposes. 41

3.2.4 Relevant M&As Selected for Analysis 42

3.3 Secondary Data Collection Methods 42

3.3.1 Research Instrument 1 - Review of Companies' Published Financial Information 43

3.3.1.1 Scope 43
3.3.1.2 Key Financial Indicators 43
3.3.1.3 Data Analysis 45
3.3.1.4 Limitations 46

3.3.2 Research Instrument 2 - Event Study Method to Examine the Market Reaction to M&A Announcements 47

3.3.2.1 Scope 47
3.3.2.2 Abnormal Return (AR) Approach 48
3.3.2.3 Building the Model 49
3.3.2.4 AR Data Analysis 50
3.3.2.5 Testing the statistical significance of Average Cumulative ARs . 52
3.3.2.6 Limitations 52

3.4 Primary Data Collection Method 53

3.4.1 Research Instrument 3 - Conduct of the Interviews to Obtain the Perceived Value 53

3.4.1.1 Designing Interview Schedules 54
3.4.1.2 Data Analysis 55
3.4.1.3 Limitations 56

3.5 Conclusion 56

Chapter 4 - Research Findings 57

4.1 Introduction 58

4.2 Impact of M&As on the Acquiring Group's Financial Performance 59

4.2.1 Key Financial Indicators 59

4.2.2 Further Financial Indicators 66

4.3 The Market's Reaction to M&A announcements 68

4.3.1 Cumulative ARs across the (-1, +1) Time Window 69

4.3.2 Cumulative ARs across the (-5, +5), (-5, +10) and (-10, +10) Time Windows 70

4.3.3 Cumulative ARs across the (-5, +20), (-5, +30), (-20, +20) and (-30, +30) Time Windows 72

4.3.4 Average Cumulative ARs 76

4.4 Findings on the Perceived Value Created through M&A Activity 77

4.4.1 Level of M&A Activity 77

4.4.2 Strategic Factors related to M&A 77

4.4.3 Operational Considerations to M&A 81

4.4.4 Valuation Considerations to M&A 84

4.4.5 Perceived Impact on Financial Performance 87

4.4.6 Perceived Impact on Shareholder Value 92

4.5 Conclusion 95

Chapter 5 - Discussion on Findings 96

5.1 Introduction 97

5.2 Growth as the Main M&A Driver 99

5.2.1 Was Growth Reflected in Financial Statements? 99

5.2.2 Coreps' Views on Growth 99

5.3 Have Financial Results shown Improved Financial Performance post-M&A? 100

5.3.1 Profitability as the True Success Measure 101

5.3.2 Increased Operational Efficiency 102

5.3.3 Sound Financing Decisions 102

5.4 Was the Market's Reaction a good Indicator of M&A Success? 103

5.4.1 Weaknesses of the MSE's Small Size 104

5.4.2 Positive Reaction only appeared within Wider Time Windows 105

5.4.3 Tendency for the Market to be Off-track 106

5.5 Have the Perceived Value and Financial Results Converged? 107

5.6 Factors Contributing to the Success/Failure of M&A Activity 108

5.6.1 Traits in Value-enhancing M&As 108

5.6.2 Traits in Value-destroying M&As 111

5.7 Conclusion 112

Chapter 6 - Summary, Conclusion & Recommendations 113

6.1 Summary 114

6.2 Conclusion 115

6.3 Recommendations 116

6.4 Areas for Further Research 119

6.5 Concluding Remarks 119

Appendices A1.1-1

Appendix 1.1: MSE Listed Companies A1.1-1

Appendix 2.1: Advantages and Disadvantages on the Use of Accounting-Based Measures A2.1-1

Appendix 3.1: Ratios Applied to assess a credit institution's performance A3.1-1

Appendix 3.2: The Market Model (MM) A3.2-1

Appendix 3.3: Resulting Regressions estimated by EViews A3.3-1

Appendix 3.4: Testing the Statistical Significance of Average Cumulative ARs A3.4-1

Appendix 3.5: Interview Schedules A3.5-1

Appendix 3.6: Letter of Introduction and Invitation to Participate A3.6-1

Appendix 3.7: Statistical Data Analysis A3.7-1

Appendix 4.1: Computations of Financial Ratios A4.1-1

Appendix 4.2: Daily ARs A4.2-1

References **R-1**

Legislation List **L-1**

LIST OF FIGURES

Figure 1.1: Study Overview 8

Figure 2.1: Outline of Chapter 2 10

Figure 2.2: Companies' Share Performance pre versus post-deal (KPMG, 1999, p.8) 21

Figure 2.3: Factors affecting Acquirers' ARs 23

Figure 2.4: Acquiring Firms' Stock Values vs. Index Stock Values (Tortoriello *et al.*, 2016, p.1) 26

Figure 2.5: The M&A Process (Sudarsanam, 2003, p.3) 28

Figure 3.1: Outline of Chapter 3 39

Figure 3.2: Illustration of ARs 49

Figure 4.1: Outline of Chapter 4 58

Figure 4.2: Company E's ROA vs. Benchmark ROA 61

Figure 4.3: Cumulative ARs across the (-1, +1) Time Window 70

Figure 4.4: Cumulative ARs across the (-5, +5) Time Window 71

Figure 4.5: Cumulative ARs across the (-5, +10) Time Window 71

Figure 4.6: Cumulative ARs across the (-10, +10) Time Window 72

Figure 4.7: Cumulative ARs across the (-5, +20) Time Window 73

Figure 4.8: Cumulative ARs across the (-5, +30) Time Window 74

Figure 4.9: Cumulative ARs across the (-20, +20) Time Window 74

Figure 4.10: Cumulative ARs across the (-30, +30) Time Window 75

Figure 4.11: Motives behind M&A – Coreps' Schedule 78

Figure 4.12: Critical Success Factors – Coreps' Schedule 80

Figure 4.13: Challenges of Good Target Valuation – Coreps' Schedule 85

Figure 4.14: Factors of Low M&A Success – Brokers' Schedule 92

Figure 5.1: Outline of Chapter 5 98

Figure 5.2: Critical Success Factors through Financial Performance Analysis ....

....101

Figure 5.3: Coreps' Perceived Critical Success Factors 108

LIST OF TABLES

Table 2.1: M&A Motives 11

Table 2.2: Findings on Use of Accounting-based Measures 17

Table 2.3: Empirical Evidence on ARs in the short-term 22

Table 3.1: Measures for Financial Analysis 44

Table 3.2: Sections of Corep Interview Schedule 54

Table 3.3: Sections of Broker Interview Schedule 55

Table 4.1: ROA Results 60

Table 4.2: Growth Results 62

Table 4.3: OCF Results 63

Table 4.4: Method of Financing 64

Table 4.5: Financial Gearing Results 64

Table 4.6: Cost-to-Revenue Results 66

Table 4.7: Income Gearing Results 67

Table 4.8: Contribution of Target to Group Results 68

Table 4.9: Average Cumulative ARs 76

Table 4.10: Type of synergy analysis performed prior to the deal – Coreps' Schedule 79

Table 4.11: Indispensability of Financial Aspects – Coreps' Schedule 81

Table 4.12: Factors determining Revenue Synergy Realisation – Coreps' Schedule 82

Table 4.13: Factors determining Cost Synergy Realisation – Coreps' Schedule 83

Table 4.14: Difficulty of challenges to yield operational synergies – Coreps' Schedule 84
Table 4.15: Most Common Financing Method – Brokers' Schedule........ 86
Table 4.16: Financial Implications of M&A – Coreps' Schedule 88
Table 4.17: Reasons for Acquisitions' Success – Brokers' Schedule........ 89
Table 4.18: Reasons for Acquisitions' Failure – Brokers' Schedule 90
Table 4.19: Local Investor Sentiment – Brokers' Schedule........ 93
Table A1.1-1: Official List of MSE Listed Companies........ A1.1-1
Table A3.4-1: Presentation Format of Average Cumulative ARs A3.4-2
Table A3.7-1: Indispensability of Financial Aspects A3.7-2
Table A3.7-2: Difficulty of Challenges to yield Operational Synergies........ A3.7-3
Table A3.7-3: Financial Implications of M&A........ A3.7-4
Table A4.1-1: Computations of ROA........ A4.1-1
Table A4.1-2: Computations of Growth A4.1-3
Table A4.1-3: Computations of OCF Performance........ A4.1-5
Table A4.1-4: Computations of Financial Gearing........ A4.1-7
Table A4.1-5: Computations of Costs-to-Revenue Ratio A4.1-9
Table A4.1-6: Computations of the Contribution of Target Profit/Loss to Group Profit/Loss A4.1-11
Table A4.1-7: Computations of Income Gearing A4.1-12
Table A4.1-8: Computations of Benchmark ROA........ A4.1-13
Table A4.2-1: Daily ARs........ A4.2-1

LIST OF EQUATIONS

Equation 3.1: The MM Formula 50

Equation 3.2: AR Formula 51

Equation 3.3: Cumulative AR Formula 51

Equation A3.2-1: The Hypothesised MM A3.2-1

Equation A3.2-2: Fitted Regression Line of the MM A3.2-2

Equation A3.4-1 Average Cumulative AR Formula A3.4-1

Equation A3.4-2: Null Hypothesis of the Event Study A3.4-1

LIST OF ABBREVIATIONS

AR	Abnormal Return
Brokers	Stock Brokers
B.S.	Brokers' Schedule
CA 1995	Companies Act 1995
Coreps	Company Representatives
CoS	Cost of Sales
C.S.	Coreps Schedule
EBIT	Earnings Before Interest and Tax
EBITDA	Earnings Before Interest, Tax, Depreciation and Amortisation
M&A	Merger and Acquisition
MM	Market Model
MSE	Malta Stock Exchange
N	Number of Respondents
OCF	Operating Cash Flow
p.p	Percentage Point
R_{it}	Actual Return on stock *i* and time *t*
R_{mt}	Actual Return on the overall market at time *t*
ROA	Return on Assets
SPSS	Statistical Package for Social Scientists
US	United States
UK	United Kingdom

CHAPTER 1

INTRODUCTION

"M&A, by which two companies are combined to achieve certain strategic and business objectives are transactions of great significance not only to the companies themselves but also to all other stakeholders."

(Kumar, 2016)

1.1 BACKGROUND INFORMATION

Nowadays, it is common for firms to seek growth and they can do so both internally and externally. Internal growth may be achieved by enlarging one`s operations or by establishing new divisions, while external growth may involve merger and acquisition (M&A) deals, among other restructuring activities (Khan, 2011).

M&As have gained substantial prominence in the business scenario. More specifically, M&As may potentially contribute to transfer a firm`s resources to where they are most needed and thus avoid management underperformance (DePamphilis, 2011). Depending on the transaction, an M&A deal presents financial, legal, tax and even cultural implications to varying degrees which in turn affect major stakeholders.

One related key question is whether corporate management creates market value or shareholder value. Various studies involving M&As address this issue, but their results are varied, so the short-term and long-term performance of such deals remain a huge debate (Baker and Kiymaz, 2011).

1.1.1 Corporate restructuring

This is a general term to describe *“actions taken to expand or contract a firm`s basic operations or fundamentally change its asset or financial structure”* (DePamphilis, 2011, p.2). This includes a wide range of activities, including reorganising business units into M&As, takeovers, joint ventures, divestitures, spin-offs and equity carve-outs. According to Pike, Neale and Linsley (2015),

corporate restructuring remains an important tool by which management changes the ownership structure with the aim of increasing shareholder value.

1.1.2 Merger, Acquisition & Takeover

The term M&A refers to three types of corporate activity, known as, ‘merger’, ‘acquisition’ or ‘takeover’. These terms are defined as follows:

> *“In a **merger**, the corporations come together to combine and share their resources to achieve common objectives of the combined entity. An **acquisition** resembles more of an arm’s length deal, with one firm purchasing the assets or shares of another, and with the acquired firm’s shareholders ceasing to be owners of that firm…A **takeover** is similar to an acquisition and also implies that the acquirer is much larger than the acquired”* (Sudarsanam, 2003, pp. 2-3).

Throughout this study, the terms ‘acquiring company’, ‘acquirer’ or ‘bidder’ refer to the buying company while ‘the target’ is the company being acquired.

Throughout this context, an acquisition is considered to have been undertaken whenever an acquirer that is listed on the Malta Stock Exchange (MSE) undertakes a business combination as defined by IFRS 3 (Business Combinations). IFRS 3 defines a Business Combination as *“a transaction or other event in which an acquirer obtains control of one or more businesses*” (IASB, 2008, p. 23).

Any merger undertaken by any MSE listed company must be in accordance with The Companies Act 1995 (CA 1995) (Art. 343), as per the Article titled ‘Merger by formation of a new company.’

The applicable legislative frameworks for M&As in Malta are The CA 1995 and the General Law of Obligations governing contracts contained in the Civil Code

(Cap 16 of the Laws of Malta). For those acquisitions by companies whose equity is listed on the MSE, the take-over rules, found in the Chapter 18 of the Listing Rules apply (de Gabriele, 2008).

1.1.3 Listed Companies

This research is aimed at acquiring companies which are either equity or bond-listed on the MSE. Appendix 1.1 includes a list of all equity or bond listed firms on the MSE. According to the Listing Rules 2019, a listed company is one which has *"admission to listing or Trading on a Regulated Market in accordance with the provisions of Article 12 (2) of the FMA"* (Listing Authority, 2019, p. 3).

Seven companies from all MSE listed companies were involved in M&A deals between 2007 and 2016 and are subject to this analysis, these being pseudonymised as:

A. Company A
B. Company B
C. Company C
D. Company D
E. Company E
F. Company F
G. Company G

Two of such seven companies are bond-listed while the other five are equity-listed.

1.2 NEED FOR THE STUDY

Globally, there exists a vast array of literature which tackles post-M&A performance of acquirers. However, local research specifically attempting to evaluate the financial implications of M&As is very limited. Additionally, the

sustained move towards the liberalisation of the Maltese economy, spearheaded by Malta`s accession to the EU and to the Eurozone, and the consequent progress of the local regulatory and fiscal framework is pushing forward M&A activity in Malta (Zahra, 2016). Therefore, such a study should contribute to a deeper insight into the financial dynamics of M&A activity in Malta.

This study would particularly be useful to local stock brokers seeking to create value for their clients by making the best returns possible for any given investment. This improved insight into M&A would also allow investors to take more informed investment decisions and improve their understanding of the business and performance implications of M&A transactions. Furthermore, this study could provide corporate managers with insights into the dynamics of M&A activity.

1.3 OBJECTIVES OF THE STUDY

The study aims to seek the following objectives:

(i) To analyse the impact of M&A activity on the financial performance of acquiring companies;

(ii) To examine whether the local equity market's reaction to M&A announcements reflected a good indicator of M&A success/failure; and

(iii) To obtain insights on the perceived value, if any, arising from M&A activity.

In short, the proposed research aims to analyse the implications to shareholder value upon Maltese listed companies undertaking M&A activity. This study

attempts to determine whether acquiring firms succeed in making financial gains, which theoretically should be one of the motives for M&A.

1.4 SCOPE AND LIMITATIONS

This study focuses solely on M&As in which the acquirer is listed on the MSE. Financial and market analysis could not be extended to respective target companies since very often, targets did not have publicly available financial and market data.

Since the present study had to be completed within a specific timeframe, the study only considered those M&A deals which occurred within a relatively recent timeframe i.e. between 2007 and 2016.

Furthermore, the study only focuses on M&As in which the target accounts for a material proportion of the acquiring companies as it is believed that insignificant targets would render much of this analysis irrelevant. The process of selecting material M&A deals is further explained in Section 3.2.2.

Also, this dissertation excludes mergers under CA 1995 (Art. 358), titled *'Acquisition of one company by another which holds all its shares'.* Such deals are classified to have been undertaken for internal restructuring purposes and are therefore not subject to this analysis.

It was identified that few of the M&As in consideration occurred in 2016. Therefore, due to the delay incurred in issuing financial statements, the financial implications of such companies could only be analysed for a period of two years post-acquisition.

1.5 STUDY OVERVIEW

As shown in Figure 1.1, the study takes the following structure:

Chapter 1 includes some introductory background information on the subject being addressed, outlining the overall scope and objectives of the study.

Chapter 2 provides an overview of the literature gathered on the subject derived mainly from international sources.

Chapter 3 outlines the methodology of the study, setting out the basis upon which secondary and primary data sources were gathered, the research tools used as well as the statistical analysis undertaken.

Chapter 4 presents the research findings obtained from the study, mainly results on accounting measures of financial performance, findings on the market reaction to M&A announcements, as well as findings from interviews held.

Chapter 5 provides an in-depth analysis and discussion of the results presented in Chapter 4.

Chapter 6 concludes the study, provides recommendations emerging from this research and identifies areas for further research.

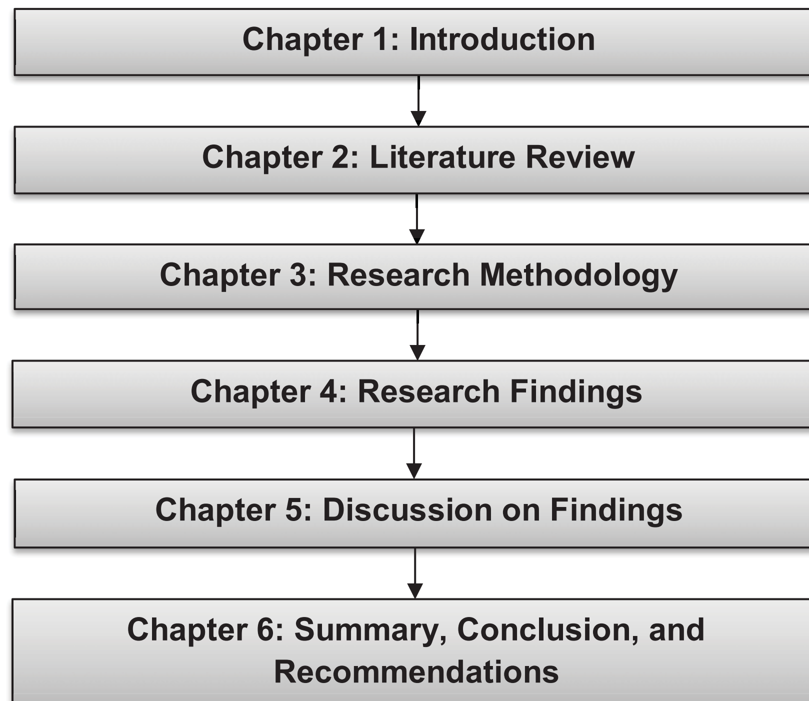

Figure 1.1: Study Overview

CHAPTER 2

LITERATURE REVIEW

"M&As have become an increasingly broad-based phenomenon, and their numbers are growing dramatically in the United States, Europe, and elsewhere throughout the globe. Still, research shows us that less than 50% of M&As succeed."

(Calipha, Tarba and Brock, 2010)

2.1 INTRODUCTION

As geographical and product markets became more integrated and as corporations increasingly resorted to M&A, interest by both practitioners and academics in this area of business increased exponentially. This chapter reviews a number of publications found in the M&A literature. An overview of the chapter is provided in Figure 2.1.

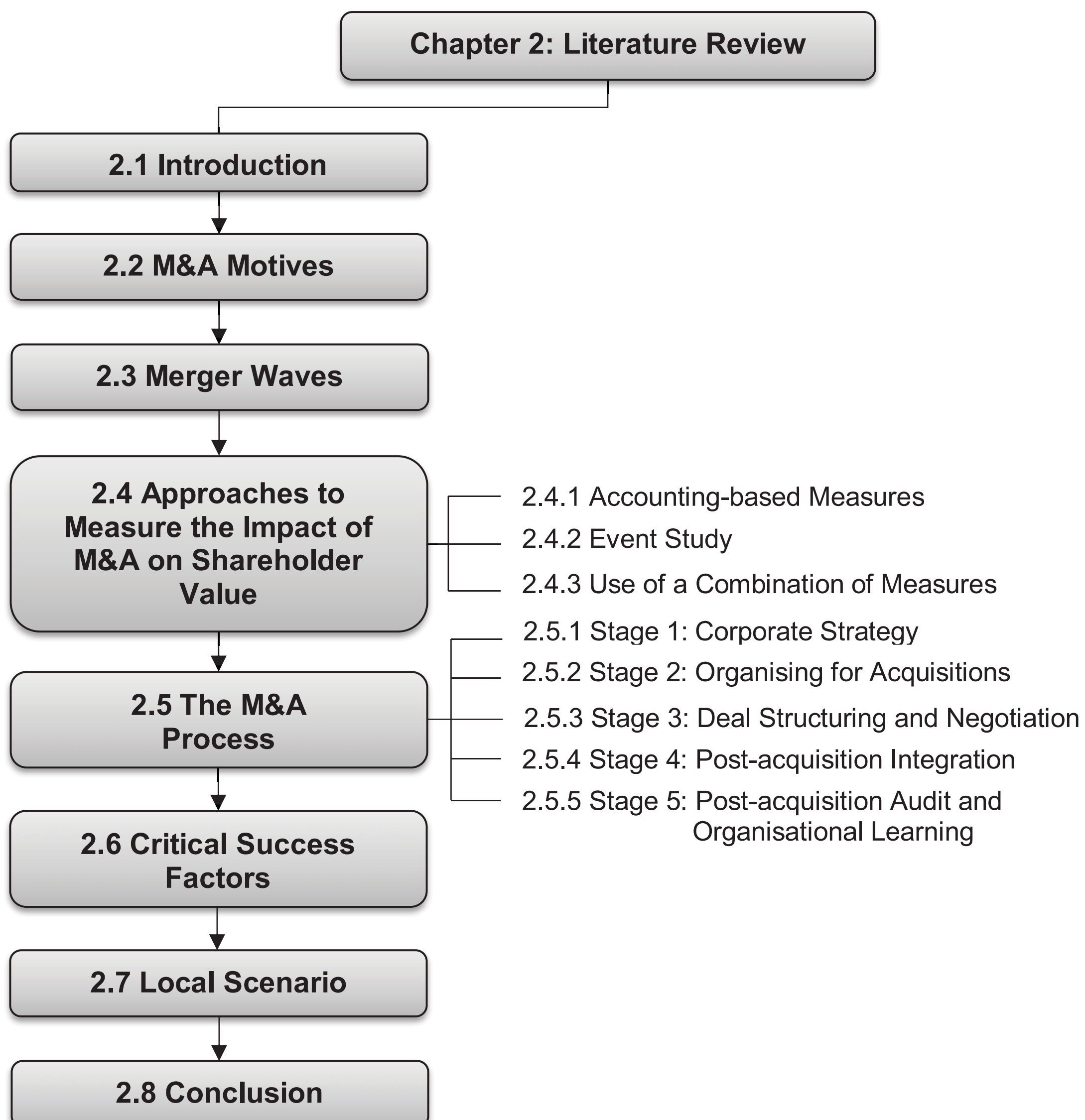

Figure 2.1: Outline of Chapter 2

2.2 M&A MOTIVES

According to Rappaport (1986), the basic objective of M&A is similar to that of investment activity pursued by any company, namely that it is a tool through which companies seek *"…to develop a value-creating sustainable competitive advantage"* (Rappaport, 1986, p.201). Ultimately, M&A activity should, through the restructurings it generates, create shareholder value.

Conversely, other factors such as hubris, agency costs or misvaluation, further explained in Table 2.1, may occur, paving the way for value-destroying M&As, especially if managers seek to further their own, rather than shareholders` interests (Dilshad, 2013). Table 2.1 lists some of the most prevailing motives dwelt upon in the literature and in the corporate world.

Table 2.1: M&A Motives

Theory	Motivation
Operating Synergy	Synergy refers to the *"ability of two or more units or companies to generate greater value working together than they could working apart"* (Goold and Campbell, 1998, p.133). Operating synergies occur when the businesses benefit from efficiency gains and manage to increase their operating income, thus reaping the benefits of economies of scale and economies of scope. This is most likely to occur when the merging/acquired businesses operate in closely related product markets (Rappaport, 1986).

Table 2.1: M&A Motives - Continued	
Financial Synergy	Theoretically, when the acquired or merged firms have varying growth opportunities or uncorrelated cash flows, this would allow such firms to benefit financially through a lower perceived financial risk, which would in turn reduce the cost of capital for the firms (DePamphilis, 2011). Ghosh and Jain (2000) show that financial leverage increases considerably after M&A as firms benefit from financial synergy.
Diversification	Diversification allows a firm to expand through new products or markets which have growth potential, even ones unrelated to its current operations (DePamphilis, 2011).
Strategic Realignment	This suggests that firms react to exogenous changes related to regulation, technological innovation or economic shocks (Baker and Kiymaz, 2011). Jensen (1993) hints that many mergers in the 1980s occurred due to the energy price shocks during that period.
Hubris	According to Dilshad (2013) managers overpay the target firm as they overvalue the potential synergies that could be gained. In instances where managers’ compensation is related to the firm’s size, managers have a perverse incentive to engage in M&A activity that does not create value.

Table 2.1: M&A Motives - Continued	
Agency Theory	M&A motives reflect attempts by managers to further their personal interests rather than those of shareholders. Managers are assumed to be rational, unlike the case of Hubris, where they are considered non-rational (Dilshad, 2013). Jensen and Meckling (1976) assert that agency problems arise since some managers do not own a shareholding that is large enough to incentivise them to monitor their own shares.
Misvaluation	According to this theory, overvalued acquirers use stock to buy targets (Nguyen, Yung and Sun, 2012). Dong *et al.*, (2006) claim that bidding firms are generally more overvalued than the targets, and such acquirers are more likely to pay using stock.
Tax Considerations	Acquirers have found net operating loss carry-forwards of the target as attractive since it impacts the buyers` cash flow favourably (Rappaport, 1986).
Market Power	Firms may merge to improve their market share to set prices prevalent in monopolistic markets (DePamphilis, 2011).
Buying Undervalued Assets	DePamphilis (2011) considers acquiring assets when equity of existing companies is less than assets` replacement cost as another key motive.

A survey conducted by KPMG (2016) has shown that 2015 contained a record-breaking M&A count in the US (United States). The top drivers of such deals were found to be linked to motives related to the push to enter new lines of business, expand customer base and expand geographic growth.

However, often it is difficult to determine the exact motivation behind each M&A deal because value-increasing motives may coexist with value-decreasing ones. Nguyen, Yung and Sun (2012) estimated that 73% of acquisitions in the US were due to misvaluation, 59% were linked to agency motives or hubris while 3% reacted to strategic realignment. The study, however, emphasised that most of the M&As under analysis had been driven forward by more than one single motive.

2.3 MERGER WAVES

One cannot study M&A motives and related theory without analysing the time period or the industry-level merger activity. In fact, the occurrence of M&A deals in clusters has been observed in the US for at least a hundred years, in the UK (United Kingdom) from the early 1960s and, more lately in Europe (Sudarsanam, 2003). DePamphilis (2011) states that while different M&A activities are characterised by different profitability, all waves tend to occur during high activity levels in the economy, low interest-rate periods and a bullish stock market.

There are two opposing theories which attempt to explain such clusters, widely known as *“merger waves”.* These theories are known as the neoclassical hypothesis, and behavioural hypothesis. The first theory states that:

> *"Takeover activity occurs as a result of external economic, technological, financial, regulatory, and political shocks. When takeovers are a response to such shocks and managers take the shareholders' interests at heart, M&A activity is expected to lead to profit optimisation and shareholder value creation"* (Martynova and Renneboog, 2008, p. 2171).

The second theory, known as the behavioural hypothesis, revolves around the misvaluation motive, and argues that managers, whose stock is thought to be overvalued, use stock to buy targets which are believed to be undervalued (Shleifer *et al.*, 2003).

Harford (2005) analysed these two theories and concluded that merger waves better supported the neoclassical model, as it captures the push which enhanced capital availability and low cost of capital can give to the level of M&A activity.

2.4 Approaches to Measure the Impact of M&A on Shareholder Value

Creating or Destroying Shareholder Value?

The critical question is whether M&As actually manage to exploit synergistic effects to repay the premium paid for the target and generate greater shareholder returns. This is an empirical question which has resulted in a great deal of research evidence.

Several empirical approaches have been used to measure post-acquisition performance. At the outset, it is to be remarked that different approaches developed over the past years do not necessarily give consistent conclusions, as they at times diverge in the judgement each seem to support as far as the

effectiveness and efficiency of M&As are concerned. As stated by DePamphilis (2011), the two most common methods of analysing M&As are:

A. **Accounting-based Measures**
B. **Event Study**

According to Zollo and Meier (2008) the most common method used in the literature is the short-term event study. Next comes the use of accounting measures and the long-term event studies respectively. Other methods of analysing M&A include assessments of synergy realisation, while others assess M&As by referring to the integration processes that follow each specific M&A event. Where objective measures of performance are not possible, Krishnakumar and Sethi (2012) find that the questionnaire method captures perceptions and attitudes which are difficult to measure.

2.4.1 Accounting-based Measures

The accounting-based approach, conversely, does not focus on share price performance. Rather, it approaches the question of empirically measuring the impact of an M&A event by resorting to an analysis of the companies' financial statements and accounting ratios. Implicit in this approach is the belief that the overall performance and financial soundness of the entity during pre versus post-M&A periods is best analysed through financial data, not through market data as captured by share price and share index performance.

At the outset, it is to be remarked that the findings of numerous accounting-based studies are inconsistent, mainly because:

A. there is no agreement on a definite set of financial indicators/ratios that are to be included in such studies,

B. the outcome of the accounting approach seems to be dependent on the number of years included in the study.

According to Thanos and Papadakis (2011), the three most common categories of accounting measures applied globally consist of profitability measures (e.g. *return on assets*), growth measures (*sales, profits or asset growth*) and operating cash flow measures (e.g. $\frac{Cashflow}{Total\ Assets}$).

Table 2.2 includes findings of some of the studies grouped geographically.

Table 2.2: Findings on Use of Accounting-based Measures

Location	**Results**
US	Healy, Palepu and Ruback (1992) used cash flow indicators and measures to conclude that operating performance of merged firms improved significantly post-acquisition. Cash flow improvements also resulted in good long-term performance since firms sustained capital expenditure and R&D as their industry peers. Linn and Switzer, (2001) supported Healy, Palepu and Ruback`s (1992) findings, namely that post-acquisition performance improved. However, the former also concluded that mergers financed by cash were more likely to improve pre-tax cash flows than mergers financed by equity.

Table 2.2: Findings on Use of Accounting-based Measures - Continued	
Australia	Sharma and Ho (2002) used accrual and cash flow measures including *return on assets, return on equity* and *operating cash flows before tax* to conclude that there were no noteworthy improvements in the operating performance after M&A. Also, the type of acquisition (either conglomerate or non-conglomerate) and the method of financing (through cash, shares or a combination) did not impact such performance. Lau, Proimos and Wright (2008) conducted a more recent study, whereby they also utilised a number of accounting operating performance measures to study Australian M&As. This study found some evidence of improved operating performance post-merger, since profitability, cash flow, efficiency and financial leverage/gearing measures were higher after the M&A.
Europe	Martynova, Oosting and Renneboog, (2006) investigated the long-term operating performance of European acquisitions. After accounting for industry-specific factors, it was concluded that the decrease in profitability post-event was insignificant. However, it was found that hostile takeovers and deals made by tender offers significantly underperformed friendly takeovers and negotiated deals. Furthermore, the acquirer`s leverage did not impact post-merger performance.

Table 2.2: Findings on Use of Accounting-based Measures - Continued	
UK	Burt and Limmack (2003) rather focused their study upon a sample of companies involved in acquisitions in the UK retail sector. This research analysed the operating cash flow of acquiring companies, whereby it was concluded that the operating performance of post-merger firms was higher than the pre-bid performance.
Emerging Capital Markets	Grigorieva and Petrunina (2015) used $\frac{EBITDA}{Sales}$ and economic profit measures to study a sample of M&As in developing countries. They concluded that accounting performance deteriorates post M&A. Thus, merged firms in such countries were unable to exploit expected synergies or to integrate successfully to achieve shareholder value.

Other studies look at patterns of M&As across different countries rather than focus on particular geographic locations. Gugler *et al.* (2003) analysed post-merger operating performance in various countries including the US, UK, Europe, Japan and Australia. They used measures of changes in revenue and changes in profitability to conclude that M&As resulted in decreases in sales but increases in profits. According to the authors, these results were an indication of increases in market power.

According to Thanos and Papadakis (2012), the methodology of accounting-based measures causes a number of advantages and disadvantages. These are explained in Appendix 2.1.

The question why many M&As still occur at excessively high premia despite high rates of failure is a source of never-ending debates in academic and business circles. Magi Tarasovich (2014) investigated the impact of acquisition premia on financial performance of companies in the pharmaceutical and biotechnology industry and concluded that premia are positively correlated to long term underperformance.

2.4.2 Event Study

A merger or acquisition is deemed to create shareholder value if stock returns on the acquiring and target firms increase at the M&A announcement. Under market efficiency conditions, the impact of any event is immediately reflected in its respective stock price (Sitthipongpanich, 2011). The Event Study looks into abnormal returns (ARs) attributed to shareholders of acquirers or targets around the M&A announcement date. ARs are shareholder gains which exceed the expected return for a specific level of risk. This approach tries to eliminate stock price fluctuations unrelated to the acquisition by calculating the discrepancy between the actual return and the *“theoretical”,* or expected, return which is estimated by the Capital Asset Pricing Model or by a stock index (Khanal, Mishra and Mottaleb, 2014).

In a global innovative study, KPMG (1999) attempted to assess companies` share performance before and after the deal. The results shed light on the importance

of carefully designing and implementing M&A activity, as the results of corporate restructuring activities are not necessarily positive. The results can be summarised in Figure 2.2.

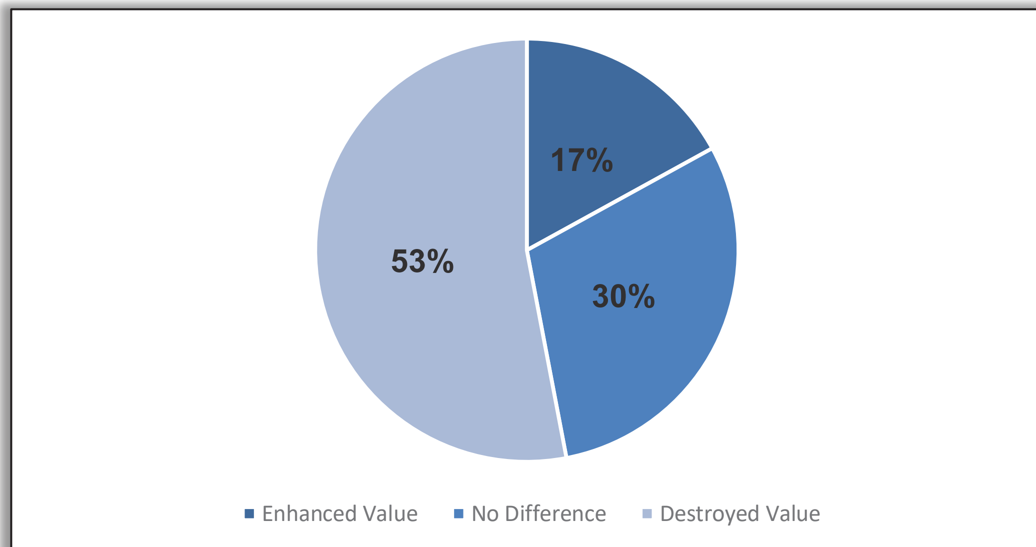

Figure 2.2: Companies' Share Performance pre versus post-deal (KPMG, 1999, p.8)

It was deemed that the failure rate was so high since companies focus too much on financial issues and ignore those related to personnel.

Sudarsanam (2003) states that the minimum return required by shareholders upon an acquisition is equal to the cost of capital of the acquirer. Vast amounts of studies on ARs attributable to both the target, the bidder and to takeovers (sum of target and bidder returns) have taken place, some of which are generalised in Table 2.3.

Table 2.3: Empirical Evidence on ARs in the short-term

Takeovers	**Target Shareholders**	**Bidder Shareholders**
Combined market value of merged firms increased post-merger. Target shareholders earned greater returns.	Returns for a two-week period round the announcement date varied from 14% - 44%.	ARs for a two-week period round the announcement date were negligible when target was public.
Largest gains occurred at the beginning of a takeover wave.	Hostile bids experienced higher returns than friendly bids.	In the US, all-equity financed bids underperformed all-cash financed bids.

Adapted from (Martynova and Renneboog, 2008).

The conclusion emerging from Table 2.3, which indicates that target companies experience statistically significant wealth gains, is also supported by literature published in the US and UK (Sudarsanam, 2003).

Conversely, the assessment of the returns for bidder firms` shareholders seems to be more ambiguous. Subeniotis *et al.* (2011) conclude that ARs of the target are significantly positive, while those of acquiring firms are insignificant and negative. However, there are also studies which report increases in the shareholder value of acquiring firms around M&A announcements. One such study is that by Khanal, Mishra and Mottaleb (2014), whereby results show that positive financial gains were realised by acquiring firms within four days, ten days as well as sixty days around M&A announcements.

Furthermore, one notes that the question whether acquirers` ARs are positive or negative seems to depend on the factors in Figure 2.3:

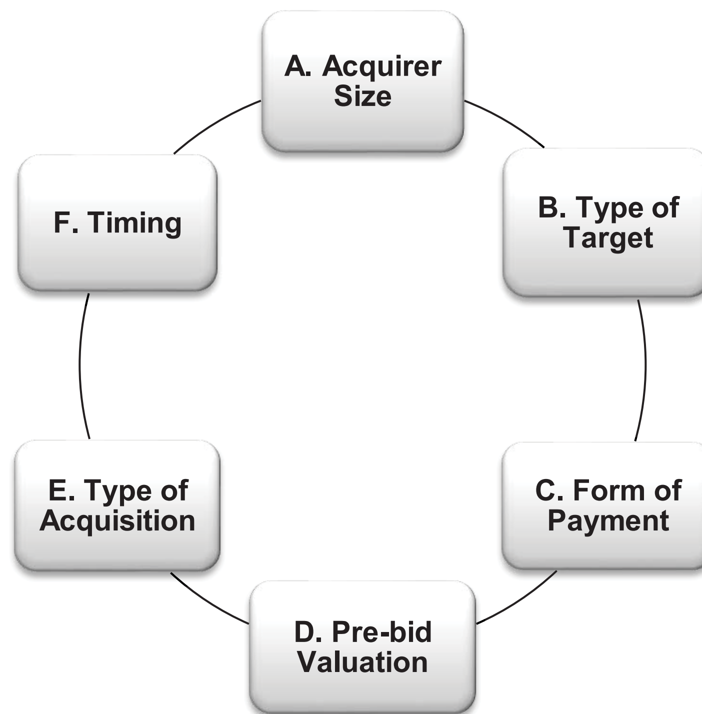

Figure 2.3: Factors affecting Acquirers' ARs

A. Acquirer Size

According to Moeller, Schlingemann and Stulz, (2004) large acquirers attain lower ARs than small acquirers irrespective of the means of payment. The reasoning behind this evidence is that large acquirers overpay the target firms because of management`s hubris motives.

B. Type of Target

Draper and Paudyal (2006) examined a sample of public and private UK targets and concluded that acquirers of private targets were associated with positive excess returns. Acquirers were normally less inclined to overpay private targets

due to limited information and less bidders. Thus, targets were sold at a discount, enabling bidder shareholders to accomplish higher synergies.

C. Form of payment

Generally, management finances M&As through equity when it believes that stock is overvalued. Nowadays, investors tend to decipher this overvaluation, so they *“sell their shares when the new equity issue is announced, causing the firm`s share price to decline”* (DePamphilis, 2011, p.39). In contrast cash-financed deals exhibit better long-term performance.

D. Pre-bid valuation (Glamour or Value Acquirers)

Glamour firms are those which are highly valued due to successful stock performance and large stock growth, measured by Price-to-Earnings ratios. Value stock is characterised by low Price-to-Earnings ratios as it is undervalued. Rau and Vermaelen (1998) convey sufficient evidence that stock prices of glamour firms increase in the short run but in contrast also cause long-term underperformance. This is because

> *“both the market and the management overextrapolate the bidder`s past performance…when they assess the desirability of an acquisition”* (Rau and Vermaelen, 1998, p.223).

Thus, there is an indication of management`s hubris motive. On the other hand, in value firms, management generally is more careful before approving major deals which could worsen share performance.

Mahate and Sudarsanam (2003) also observed these patterns of behaviour where, in the short run, glamour acquirers had higher proportion of ARs.

However, in the longer term, the latter significantly underperformed value acquirers.

In addition, Mahate and Sudarsanam (2003) provided evidence that glamour firms whose shares were believed to be overvalued were more associated with equity financing rather than cash.

E. Type of acquisition

Rau and Vermaelen (1998) concluded that stock bidders underperformed those making cash offers three years after the acquisition.

F. Timing

Mahate and Sudarsanam (2003) explored whether differences in ARs existed between the short and long-term performance of UK companies. They concluded that generally ARs in the short term are negative and returns are further worsened, resulting in long-term significant underperformance.

Zaremba and Płotnicki (2016) also studied the short-term and the long-term effects of European M&As. Results have shown increasing and statistically significant ARs gained within two days after the M&A announcement. However, when capturing a longer time span, ARs decreased though they did not fall in negative territory.

Loderer and Martin (1992) specifically studied long-term post-acquisition market performance of a sample of US acquisitions. On average, acquirer stock performance did not underperform the expected return over 5 years following the acquisition, but it simply earned the required rate of return. Specifically, they

found that during the first three years it slightly underperformed. However, larger gains were made in the following two years.

2.4.3 Use of a Combination of Measures

Some studies make use of both event studies and accounting measures to analyse post-M&A shareholder value. Tortoriello *et al.* (2016) show that between the years 2001 and 2016, acquirers which are included in the Russell 3000 index underperform those firms within the index not undertaking M&A. The former is represented by the label named Russell 3000 M&A Universe in Figure 2.4, while the latter is denoted by the label Russel 3000 Equal Weight in the same figure.

Figure 2.4: Acquiring Firms' Stock Values vs. Index Stock Values (Tortoriello *et al.*, 2016, p.1)

Apart from analysing share performance of acquirers, Tortoriello *et al.*, (2016) address a number of key accounting ratios such as profit margins, EBIT Margin, EPS growth, return on equity and cash flow trends.

One significant finding was that Return on Equity declined relative to the industry following an acquisition, partly because of increased interest expense. Return on

Invested Capital also decreased due to increased debt of acquirers compared to the overall industry, as was evidenced by the increased Debt to Assets and increased Interest Expense to EBIT post-acquisition.

Overall, the study links the most prominent measures of performance to conclude that

> *"poor post-acquisition stock performance directly reflects deteriorating post-acquisition fundamentals in terms of profitability, return on capital, and earnings growth"* (Tortoriello et al., 2016, p.2).

2.5 THE M&A PROCESS

The evidence shown above signifies that a good proportion of M&A deals fail to deliver shareholder wealth. This raises important questions about acquisition failure, but first one needs a good grasp of the M&A process and its stages since each of these stages is vital in contributing to M&A success. Sudarsanam (2003) emphasises the need to understand the interconnected nature within each stage as he formulates a five-stage model shown in Figure 2.5:

Figure 2.5: The M&A Process (Sudarsanam, 2003, p.3)

2.5.1 Stage 1: Corporate Strategy

According to PwC (2016) M&As have become an integral instrument of any firm's corporate strategy toolkit. The role of M&As in corporate strategy depends on the industry of the firm, its market position and its strategy for value creation.

Generally firms react to Porter`s five forces to set their corporate strategy objectives, and subsequently engage in M&A activity to achieve such objectives which may vary from gaining market power, economies of scale and scope or incorporate vertical operations to cut down costs (Sudarsanam, 2003).

According to DePamphilis (2010), corporate strategy may take the form of:

A. **Growth Strategy** – aims at expanding a firm`s consolidated revenue, profit and cash-flow.

B. **Diversification Strategy** – involves entering new lines of business which are either related or unrelated to the existing business operations.

C. **Operational Restructuring** – usually called defensive strategy, incurred to downsize by selling of unprofitable units.

D. **Financial Restructuring** – Changing a firm`s debt-equity structure to better utilise idle cash through share repurchase programmes or to reduce a firm`s cost of capital by increasing leverage.

According to the National Center for the Middle Market (2018), most companies believe that M&As are critical to their growth strategy.

2.5.2 Stage 2: Organising for Acquisitions

At this stage, the firm sets out criteria for potential targets in line with its corporate strategy objectives. For an organisation to be successful, it must be equipped with sufficient organisational resources and capabilities.

According to Doherty Rebecca, Ferrer Cristina and Rinaudo Eileen Kelly (2016) one explanation why firms fail to tackle integration and cultural differences successfully is due to lack of resources and formalisation. Their survey shows that just over 50 percent believe their companies have the adequate people and organizational resources to meet M&A requirements, and only 49 percent have standardised deal teams.

An understanding of the M&A decision process is the minimum requirement to be able to guarantee post-acquisition integration success and ultimately, value

creation. Some global firms have a separate M&A function which undertakes deals on behalf of the whole firm. This function:

> *"provides the strategic direction, organises the resources for teams responsible for deal making, directs those teams and ensures that deal making leads to acquisitions that deliver the firm's strategic objectives and shareholder value"* (Sudarsanam, 2003, p.5).

2.5.3 Stage 3: Deal Structuring and Negotiation

Negotiation is an interactive process carried out to reach an agreement on the deal. It is conducted at times when both the bidder and the target reserve some private information to themselves and this may be used to one`s advantage to deal favourably. This is one of the more challenging phases within the sequence of steps underpinning any M&A activity, since it involves

A. **Target Valuation**
B. **Deal Structuring**
C. **Due Diligence**
D. **Developing a Financing Plan** (DePamphilis, 2010).

A. Target Valuation

This is the process of *"determining the consideration to be offered to the target shareholders"* (Sudarsanam, 2003, p.333). This represents the stand-alone value of the target along with an added value the bidder expects to gain. According to JP Weber (2016), there are four approaches to company valuation in M&A:

i. ***Property oriented approach:*** considers the market value of its assets net of the market value of its liabilities.

ii. ***Comparative Approach:*** includes comparing an enterprise value to similar ones which have been subject to acquisitions.

iii. ***Revenue oriented Approach:*** based on the assumption that a company is worth the sum of future economic benefits it generates, discounted at the present value. One popular method used is the Discounted cash flows technique.

iv. ***Unconventional Approach:*** In the case of companies characterised by a high level of business risk e.g. start-ups, the real options method has become popular to account for the company`s high risk level.

B. Deal Structuring

> *"Deal structuring is the process of identifying and satisfying as many of the highest priority objectives of the parties involved in the transaction subject to their tolerance for risk"* (DePamphilis, 2010, p.178).

This involves identifying potential sources of disagreements, such as the means of payment, as well as highlighting possible conflicts of interest between the parties.

C. Due Diligence

Prior to finalising a deal, it is important for the acquirer to conduct a thorough review of the financial, operational, legal, environmental, cultural and strategic areas of the target. The key areas identified should then help management to confirm sources of target valuation, negotiate the deal and provide a basis for integration considerations (Galpin and Herndon, 2007).

This task is widely viewed as quite challenging since acquirers' skills are required and external sources are often employed to assist.

D. Developing a Financing Plan

This involves developing balance sheet, income and cash flow statements of the merged firms, as well as estimating the financing cost. PwC (2016) emphasise that financing the M&A with too much debt may create very serious pitfalls to the acquirer. Furthermore, sound financing plans should provide the possible impact on company solvency and credit rating as well as a scenario analysis on the impact of adverse events.

2.5.4 Stage 4: Post-acquisition Integration

The success of M&As effectively depends on this phase, yet, according to the National Center for the Middle Market (2018), it is one of the most challenging tasks throughout the process.

Sudarsanam (2003) considers post-acquisition integration to revolve around the task of achieving the expected synergies and value creation which motivated the M&A in the first place. However, this requires capable project managers having *"well-defined goals, teams, communication plans, deadlines and performance benchmarks"* (Sudarsanam, 2003) . Executives of the acquired firm are a key resource base in this process and their retention in the merged firm is crucial to success. Similarly, KPMG (2016) concluded that cultural fit and HR issues remain the most challenging tasks in integration.

2.5.5 Stage 5: Post-acquisition Audit and Organisational Learning

This final stage involves acquirers assessing the success of M&As to determine if the deal has met the expectations and choose any corrective actions which help to improve future deals. This is the most over-looked phase as there may be lack of focus on learning. Organisational learning needs more emphasis given the high failure rate of acquisitions and if done correctly, M&As become more effective, thereby obtaining competitive advantage and creating value (Sudarsanam, 2003). During this stage, management must motivate the integrated workforce to achieve improved performance. If the previous integration phase is well-managed, the newly-combined workforce should be highly motivated in order to maximise the long-term value of the organisation and foster M&A success (Galpin and Herndon, 2007).

2.6 CRITICAL SUCCESS FACTORS

In view of the apparent mixed impacts of M&A activity, it becomes relevant to identify the critical factors that can contribute towards the creation of a value-enhancing M&A. In fact, there are various literature sources which seek to identify the key factors for such deals to be a success. KPMG (1999) did innovative global research which found that 83% of corporate mergers and acquisitions failed to safeguard shareholder value. Interviews with executives highlighted six key factors that make any M&A transaction a success, namely:

A. **Synergy evaluation**
B. **Integration planning**

C. **Due diligence**

D. **Management team selection**

E. **Cultural issues**

F. **Communications with employees, shareholders and vendors**

According to KPMG (1999), all of these must be evaluated before the deal is closed. The first three are crucial for determining whether shareholders could benefit financially while the last three are “soft keys” which emphasise the importance of human resources element that will allow a proper execution of the deal.

KPMG (2010) associated M&A success factors, measured by normalised share returns, with certain deal characteristics. The main emerged conclusions were that the most successful acquisitions were deals financed by cash as well as cases whereby acquirers had low Price-to-Earnings ratios.

In a more recent survey, KPMG (2016) identified a well-executed integration plan as the most important critical success factor of M&A, which, along with effective due diligence, makes it more probable that the deal meets its strategic objectives and improves shareholder return.

According to Rahman and Lambkin (2015) the main contributory factor to low M&A success is acquirers having to pay too high a premium for the target. Other reasons, provided by Burnie, Hurtt and Langsam, (2005) include executives rushing through the M&A process to make the deal; managers overpaying since assumptions about synergistic effects might be overoptimistic; high key employee

turnover and major cultural differences between the two firms especially when physical and psychological space exist in cross-border M&A.

2.7 LOCAL SCENARIO

Among the very limited local publications, de Gabriele (2008) explains why M&A activity in Malta has been pushed forward in 2006/2007:

> *"Fresh from accession to the European Union in May 2004, and fueled by the favourable economic and market conditions prevalent for the best part of 2006 and 2007, not least of which the relatively cheap and easy access to credit available on international markets, combined with the attractive corporate law and regulatory environment, Malta has seen the M&A market flourish"* (de Gabriele, 2008, p.1).

Focusing on the situation in the local market, Rizzo (2010) speaks on whether shareholder value was created or destroyed by M&A in Malta. He argues that at times companies aiming to acquire one specific target company compete until the acquirer ends up paying an excessively high price for the target. This normally results in a fall in the share price of the acquirer after the deal is closed. On the other hand, the share price of the target would experience sharp rises in the share price because shareholders eventually gain from the premium that must be paid by the acquirer. Given Malta`s limited market size, an acquisition remains one of the most common ways by which companies aim to increase their market share and diversity.

Rizzo (2010) identifies a few M&A deals by locally listed companies which were harmful to shareholder value, the most prominent of which is *the "ill-fated acquisition of Progress Assicurazioni SpA in 2001."* According to this study, the

massive losses of the target created detrimental consequences for Middlesea`s shareholders.

Nonetheless, he further mentions other deals which proved to be successful along the years through increases in share price and gains in operating profitability. A case in point mentioned is the acquisition of MaltaPost plc by Lombard Bank. MaltaPost had been loss-making prior to the M&A, but since it was acquired, it started being profitable and its share price rose significantly. As Rizzo (2010) stated,

> *"Lombard shareholders should therefore look at such acquisition as representing an excellent deal for shareholders"* (Rizzo, 2010, p.11).

The effectiveness of the M&A process in Malta is another area which has been analysed by Vella (2012). It was found that no acquisition strategy to look for potential targets was in place by Maltese listed companies. Acquirers found limited potential targets, mostly due to Malta`s small market, thus making acquisitions less effective.

2.8 CONCLUSION

Studies published internationally feed the intellectual and academic appetite to build further on what has already been done by local academics and practitioners in a bid to understand better the extent to which the theoretical and pragmatic lessons developed from the international business environment apply to the domestic scenario.

This process of the contributing to the further development of the existing body of research on the domestic M&A sector involves also the use of international literature about the measurement of the impact of M&A activity. As explained above, theoretical as well as case-focused studies about the motives pushing acquisitions, about the preparations that must accompany any M&A process as well as the measurement of the impact of acquisitions on the underlying businesses are available. Based on this research work, this analysis intends to build some metrics that should help one understand more objectively the impact of acquisition events by MSE listed companies. The ultimate result is, one hopes, an improved understanding of the M&A phenomenon in Malta.

CHAPTER 3

RESEARCH METHODOLOGY

“Without data, you’re just another person with an opinion.”

(Deming, n.d.)

3.1 INTRODUCTION

This chapter presents the research methodology applied in achieving the study's objectives. Figure 3.1 presents an outline of this chapter. For each objective which was tackled, separate research tools/instruments were used. These are explained in Sections 3.3.1, 3.3.2 and 3.4.1.

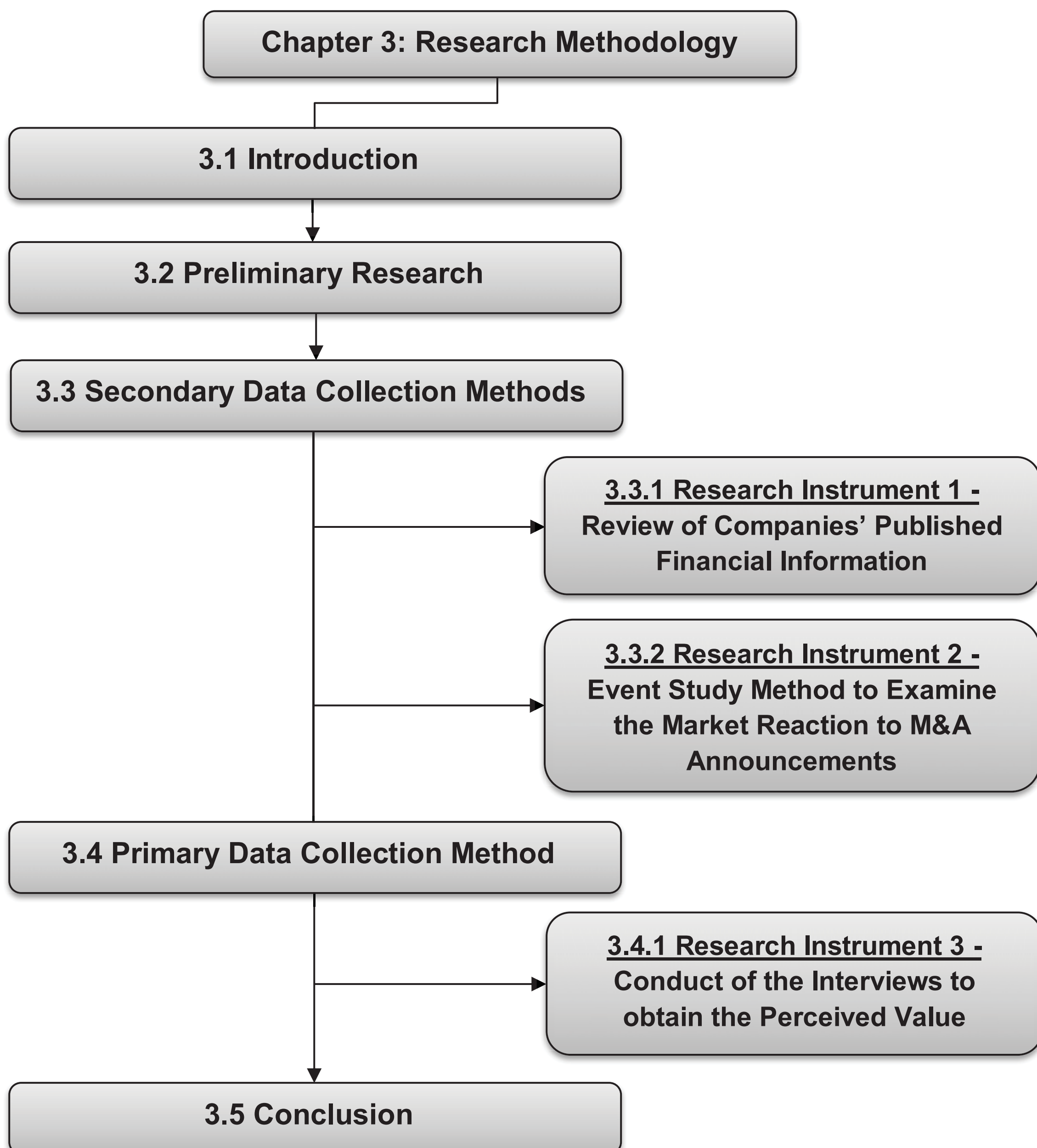

Figure 3.1: Outline of Chapter 3

3.2 PRELIMINARY RESEARCH

Before setting up the research objectives, preliminary research on the topic was conducted. Subsequently, discussions with the dissertation supervisor and other professionals, along with a comprehensive review of literature enabled the formulation of the research objectives.

3.2.1 Identification of Companies

To identify the companies being involved in M&As and which were deemed subject to this analysis, a thorough process was undertaken.

Financial reports of all Maltese listed entities between 2011 and 2016 were reviewed. Company announcements as required by LR 2019 s 5.16.7 and published between 2011 and 2016 were also reviewed from the MSE website.

Most M&A deals had occurred between 2011 and 2016, except for one case which had occurred in 2007. The latter was not identified through financial reports or company announcements. However, it was included in the analysis given that such M&A had been one of the most significant and largest acquisitions undertaken locally and had been given high prominence within the Maltese market. It was also included in view of the materiality and significance of the target company's size in relation to the acquiring company. The target firm's turnover accounted for a very material proportion of the acquiring firm's turnover, and it was deemed to meet the test of materiality which companies included in the analysis of this study had to meet *(Vide Section 3.2.2).* M&A activity in the local market is not as predominant as that found in larger economies. Considering that

the selected sample for this study was quite small, this acquisition was believed to render added valuable information to this research.

3.2.2 Materiality and Significance

There were various identified M&As where the target companies' turnover accounted for an extremely small proportion of the acquiring firms' turnover. Such a small proportion was deemed to be a prima facie indication that any positive or negative impact of the acquisition was expected to be diluted away from the acquiring firm's financial statements. This would render any financial analysis, which also forms part of the research findings, as irrelevant.

To eliminate insignificant M&As from this analysis, the financial statements of the target and the acquirer of each identified M&A were examined. A cut-off benchmark for the proportion of a target company's revenue in the acquiring firm's or group revenue was set at 10%. Where revenue attributable to the target was not publicly available, the cut-off rate was applied to the fair value of net identifiable assets as a proportion to the acquirer's net assets. Any acquired firm which did not reach this benchmark was excluded from our sample of firms.

3.2.3 Excluding M&As Conducted for Internal Restructuring Purposes

For the purposes of determining the sample of companies to be analysed, it was decided that those M&As involving the transfer of shares between companies included in the same group of companies are to be excluded from the sample of companies the present study analyses. These M&As meet the definition of CA 1995 (Art. 358). There was one such M&A activity amongst companies falling

within one group and it took place in 2013. In line with the criterion described in this section, this M&A was excluded from our sample.

3.2.4 Relevant M&As Selected for Analysis

This whole process identified seven companies subject to this study. One of the companies was involved in two relevant M&A deals. Therefore, in total eight M&A deals, all of which specifically being acquisitions, were deemed relevant for this analysis. All eight M&A cases were studied for the purpose of analysing the effects on the financial performance. However, only five M&A cases were utilised to apply the Event Study Method, further explained in Section 3.3.2.

Upon identifying the relevant M&As, company announcements of each M&A were noted to identify the announcement date. Such date was used as a basis on which the Event Study Method was adopted.

3.3 SECONDARY DATA COLLECTION METHODS

Secondary data sources such as text books, journal articles and research papers were used to obtain an intensive review of the literature. Additionally, in an attempt to reach the first two objectives of this study[1], secondary data sources were used. Objective (i) was tackled through a review of companies' published financial information while objective (ii) was achieved by conducting an Event Study. Both research instruments make use of quantitative research methods and are further explained in Sections 3.3.1 and 3.3.2 respectively.

[1] Vide Section 1.3, p. 5

3.3.1 Research Instrument 1 - Review of Companies' Published Financial Information

3.3.1.1 Scope

All eight M&A cases deemed relevant for this study were subject to this methodology. However, only six cases were considered for the purposes of calculating average measures of financial indicators *(Vide Section 3.3.1.3).* It is to be noted that Company A had undertaken two M&A transactions and then registered very negative corporate results. However, upon further investigation, it transpired that such negative results were registered in response to very company-specific management and strategic challenges faced by the company. It was therefore decided that since such results could not be attributed to the acquisitions, the inclusion of the company's financial results in the data sets under analysis would have left a distortionary impact on the overall performance of all acquiring companies under analysis. As a result of this reasoning, the data sets for company A have been omitted from those tables that estimate average performance for all the M&A transactions.

3.3.1.2 Key Financial Indicators

Upon determining the methodology to conduct a review of companies' published financial information, a review of the literature provided the most common measures to analyse M&A's financial impact. As already mentioned in Chapter 2, according to Thanos and Papadakis (2011), the most common measures used globally are profitability measures, growth measures and cash flow measures. The methodology takes this approach but additionally, the financial gearing and

an efficiency measure were also applied, as according to Lau, Proimos and Wright (2008), these five categories are deemed to be key measures to assess financial soundness. Table 3.1 presents the ratios applied in this study to assess each of the key measures of financial performance. Appendix 3.1 includes alternative measures applied to one acquiring firm being a credit institution.

Table 3.1: Measures for Financial Analysis

Measure	Ratios applied to assess Measure
Profitability	Return on Assets (ROA) = $\frac{Profit\ after\ tax}{Total\ assets} * 100\%$
Growth	Earnings before Interest, Tax, Depreciation and Amortisation (EBITDA) Growth.
Operating Cash Flow (OCF)	$\frac{Pre-tax\ \text{OCF}}{Opening\ book\ values\ of\ operating\ assets} * 100\%$ Where: Pre-tax OCF was calculated as operating profit adjusted for non-cash elements within operating assets. Operating assets are defined as *"the total of net fixed assets plus current assets, less cash and marketable securities"* (Burt and Limmack, 2003, p.152).
Financial Gearing	$\frac{Total\ Long-term\ Liabilities}{Shareholders'\ Funds + Total\ long-term\ Liabilities} * 100\%$
Operational Efficiency	The proportion of cost of sales (CoS) and administrative costs to revenue: $\frac{CoS + Administrative\ Costs}{Revenue} * 100\%$

3.3.1.3 Data Analysis

For each M&A, all the above measures were computed, starting from one year pre-acquisition till 2017, the latter being the latest year for which financial statements were publicly available until the publication of the study.

For each M&A from the year of acquisition onwards, average yearly changes in *ROA, OCF performance, financial gearing* and *operational efficiency* were recorded and presented as average yearly percentage point (p.p) changes. By definition, *growth* measures already presented the p.p change from one year to the next, so for each firm, growth results from the year of acquisition onwards were averaged to obtain the average growth per year.

Ultimately, for each measure, the average yearly changes for each M&A were further averaged across firms to come up with the average yearly movement in each measure post-acquisition.

Moreover, to make such financial analysis more meaningful, further assessments were made upon which, one could better evaluate the impact of M&As on the acquiring group's financial performance more reliably. The following additional considerations were made when such information was available to determine M&A's financial success:

A. Target's profit contribution to total group profit:

$$\frac{\boldsymbol{Target\ Profit}}{\boldsymbol{Group\ Profit}} * \mathbf{100}\%$$

B. Measure of *income gearing* for those acquisitions financed by debt. The term is defined by Pike, Neale and Linsley (2015) as *"the proportion of EBIT [Earnings Before Interest and Tax] pre-empted by prior interest commitments:"*

$$\frac{\boldsymbol{Interest\ Expense}}{\boldsymbol{EBIT}} * \mathbf{100\%}$$

C. Comparison of results with another business within the same industry

3.3.1.4 Limitations

A. Unrelated factors affecting companies' Financial Performance

Financial ratios may have captured issues not influenced by the M&As but which still affected companies' performance. Related to this limitation was the case of one company which registered outlier results post-acquisition and was consequently excluded for the purposes of developing average measures across all M&As *(Vide Section 3.3.1.1).*

B. Alternative Measures applied to one Company being a Credit Institution

Moreover, as there was one acquiring firm which was a credit institution, alternative measures were used to evaluate its performance.

3.3.2 Research Instrument 2 - Event Study Method to Examine the Market Reaction to M&A Announcements

To examine whether the local equity market's reaction to M&A announcements reflected a good indicator of M&A success/failure, the Event Study approach adopted by Khanal, Mishra and Mottaleb (2014) was used. This method determines the impact of any announcement, in this case that of the M&A, on shareholder returns and expected profitability.

3.3.2.1 Scope

From the eight relevant M&A deals, only five cases were considered for this methodology. This occurred since two companies from the selected sample only had bond listings on the MSE and therefore, such methodology could not be applied. Moreover, another M&A case was subject to this methodology but was excluded for analysis since results attributed to such case were deemed to be outliers. As referred to in Section 3.3.1.1 above, such outlier results were likely to be attributed to the specific management challenges that faced the acquiring company and these challenges existed independently of the acquisition transactions. Thus, they were judged to be irrelevant to the present analysis. Including such outlier results within overall results would have distorted the assessment of the present analysis on the M&A transactions taking place in the Maltese setting.

3.3.2.2 Abnormal Return (AR) Approach

This method assessed whether the share price of the company involved in the M&A moved in an abnormal manner vis-à-vis the trend established by the equity market during the period preceding and following the M&A announcement. Movements in MSE Equity Index were taken as a proxy for price movements of the overall local market registered in the periods before and after each M&A announcement. The comparison of the company's share price with that of the MSE Equity Index in general sought to eliminate price fluctuations which may be attributed to systemic conditions affecting the whole equity market and are therefore unrelated to M&A announcements. Consequently, the approximate impact of the M&A announcement on the company's share price could be estimated.

Methodologically, event studies involve estimation time windows that capture the point in time when an announcement was made, and over which ARs are calculated. In this study, the impact of each event was evaluated using different time windows around the announcement date with the widest window being of 60 days around the announcement date, denoted by (-30, +30). Additionally, the 61-day time window was tightened to capture a shorter time frame before and after the announcement. This was done to trace how the impact of the announcement on the share price evolved over time.

Figure 3.2 includes a diagrammatical illustration of AR analysis. The underlying data did not reflect actual values which were found from secondary data sources and used in the model. Such example has only been included to explain the method adopted graphically.

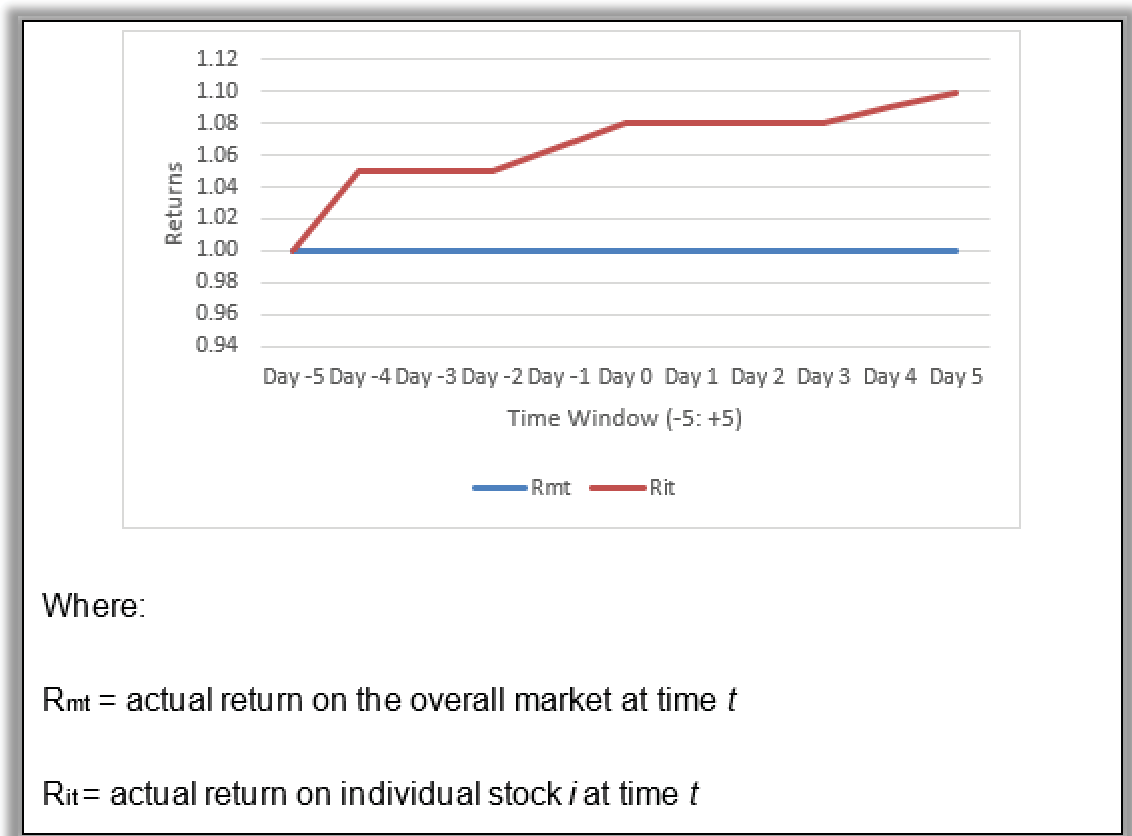

Figure 3.2: Illustration of ARs

ARs are calculated as the difference between the market returns (R_{mt}) and individual stock returns (R_{it}) over a specified time window, in this case being (-5, +5). Positive returns are represented by positive market price fluctuations. In this example, stock *i* experienced significantly positive ARs. ARs were analysed on a company-by-company basis according to different time windows.

3.3.2.3 Building the Model

In order to calculate ARs over different estimation periods, the Market Model (MM) was adopted. This model provides a useful way of correlating the individual price movements to overall market index movements through regression estimation. The concept of MM is further explained in Appendix 3.2.

Equation 3.1: The MM Formula

$$R_{it} = \alpha_i + \beta_i R_{mt} + AR_{it}$$

where:

R_{it} =actual return on individual stock *i* at time *t*

α_i and β_i = parameters to be estimated

R_{mt} = actual return on the overall market *i.e.* of the index

t = each day of the time window in consideration

AR_{it} = residual to the regression i.e. AR of stock *i* at time *t*

This model implies that the main determinant of any change in R_{it} from t to t+1 is R_{mt}. Such relation is expressed through β. According to equation 3.1, the AR is the difference between the actual return of stock i at time t (R_{it}) and actual market return at time t (R_{mt}).

3.3.2.4 AR Data Analysis

To come up with estimations of ARs, data for R_{it} and R_{mt} had to be imported in the model. R_{it} represented all historic share price data for each of the five firms under analysis, while R_{mt} represented the corresponding MSE index data. For each company involved in M&A, daily share price observations were downloaded from the MSE website. Such observations went back to five years before each M&A and up to two years after the said event. For each respective share price reading, the MSE Equity Index of each corresponding date was also recorded.

This seven-year timespan was taken to enable the model to be as accurate as possible in the estimations of α_i, β_i and AR_{it}.

All readings representing R_{it} and R_{mt} were imported into EViews program, a statistical package for Windows, mainly utilised for time-series econometric analysis. Subsequently, five regressions in the form of $R_{it} = \alpha_i + \beta_i R_{mt}$ were estimated for each firm where α_i and β_i were estimators to each regression. Appendix 3.3 includes each of the five resulting regressions which were estimated by EViews for each firm.

AR_{it} represented the residual for each company share price observation. Subsequently, for each observation within the seven-year timespan, daily ARs were estimated by EViews. However, the only ARs taken for consideration were those attributed to the maximum estimation period of each M&A i.e. (-30, +30).

In summary, Equation 3.1 can be modified to Equation 3.2, making AR_{it} subject of the equation.

Equation 3.2: AR Formula

$AR_{it} = R_{it} - \alpha_i - \beta_i R_{mt}$

ARs on day t can be aggregated to get a cumulative AR "CAR_{iT}" over an entire time window, as specified between "t" and "T" in equation 3.3.

Equation 3.3: Cumulative AR Formula

$CAR_{iT} = \sum_{t=1}^{T} AR$

Cumulative ARs for each time window were obtained to better trace the behaviour of the AR variable over different timeframes. In fact, among the time windows

taken for estimation were (-1, +1), (-5, +5), (-10, +10), (-20, +20,), (-30, +30), (-5, +10), (-5, +20) and (-5, +30).

3.3.2.5 Testing the statistical significance of Average Cumulative ARs

To represent the overall impact of all M&A announcements on their respective stock returns, cumulative ARs were aggregated across firms, resulting in average cumulative ARs. Thus, results gave out average cumulative ARs for each time window in consideration and were tested for statistical significance. This process is explained in further detail in Appendix 3.4.

3.3.2.6 Limitations

A. Assumption of Market Efficiency

This methodology assumes that any new information is immediately reflected in the share price. However, market inefficiency may have potentially limited this ability for prices to reflect new market information.

B. Other company-specific factors influencing ARs

There was the concern that the wider the time window applied, the higher the likelihood that more factors specifically attributed to the company but unrelated to M&A could have influenced individual share price movements. In fact, upon checking on whether there were any other material announcements made around the 61-day period considered, it was identified that in two instances, companies also published their financial statements during that time period. Therefore, such limitation was inherently present within the model.

When considering the ARs attributable to all six M&A cases eligible for this methodology, one specific M&A showed excessively negative ARs which could

not be specifically attributable to M&A activity. To overcome such limitation, that case was excluded from further analysis, and ultimately five cases were deemed relevant *(Vide Section 3.3.2.1).*

C. Determination of Estimation Periods

Precise estimation periods within which ARs were estimated were also difficult to determine because different research papers used variations of estimation periods. To overcome this limitation, varying time windows around the announcement were applied within which ARs were calculated.

3.4 PRIMARY DATA COLLECTION METHOD

Primary data sources were used, whereby the research instrument constituted of face-to-face interviews.

3.4.1 Research Instrument 3 - Conduct of the Interviews to Obtain the Perceived Value

To achieve objective (iii)[2], primarily, to obtain insights on the perceived value arising from M&A activity, interviews with two respondent groups, being company representatives (coreps) and stock brokers (brokers) were held. Ten semi-structured interviews were held. Two sets of interview schedules, attached in Appendix 3.5, were prepared: one addressed to coreps of acquiring companies and another one to local brokers. Getting brokers' opinion enabled a more objective and external view on M&A's perceived value. Both interview schedules consisted of quantitative and qualitative research methods.

[2] Vide Section 1.3, p. 5

As from April 2018, a letter of introduction and an invitation to participate, attached in Appendix 3.6, was sent to eligible respondents. Among these, five companies and five brokers accepted to be interviewed for the purposes of this study. Among the five companies having accepted to be interviewed, two were related on a group level. Therefore, these two interviews conducted with two related companies were held with one corep representing both companies.

The interview schedule together with a brief overview on the study were sent to each respondent via email prior to the meeting. All respondents were contacted by email to set a meeting date. Ethical considerations were highly respected since prior to each interview, respondents were asked to sign a consent form which specified that data was to be used strictly for research purposes only.

3.4.1.1 Designing Interview Schedules

The interview schedule was designed after a thorough review of M&A literature mainly from international sources. The main sections of coreps' schedule (C.S.) are shown in Table 3.2:

Table 3.2: Sections of Corep Interview Schedule

Strategic Factors related to M&A	Identifying the main corporate strategy objectives behind M&A.
Operational Considerations to M&A	Assessing the extent of synergy realisation in company operations.
Valuation Considerations to M&A	Evaluating considerations in determining a target valuation.
Impact of M&A on Financial & Market Performance	Mainly assessing any perceived impact as measured by profitability, OCF, growth, efficiency and financial gearing.

Moreover, the brokers' schedule (B.S.) was structured using the headings presented in table 3.3.

Table 3.3: Sections of Broker Interview Schedule	
Level of M&A Activity	Evaluating general opinions on the local M&A market.
Valuation Considerations to M&A	Assessing effectiveness of target valuation.
Impact of M&A on Financial Performance	The researcher's findings obtained from the review of published companies' financial information were presented to respondents during the interviews. Discussions were based in light of such findings.
Impact of M&A on Shareholder Value	Obtaining information on perceived shareholder value from observers' point of view.

The interview schedule was made up of both open-ended and close-ended questions. Open-ended questions permitted respondents to delve deeper into the subject and express their opinions on practical issues.

3.4.1.2 Data Analysis

Interviews were voice recorded and all information was transcribed in order to get a better view of the data to be analysed. Data obtained from open-ended questions was analysed using the Grounded Theory of Corbin and Strauss (2008) which makes use of open coding, axial coding and selective coding. Open coding was used to separate collected data into categories or themes. Subsequently, axial coding was applied when establishing a pattern or relationship between

these emerging categories of data. Finally, selective coding was used to identify the principal theme on which the main findings were based (Saunders, Lewis and Thornhill, 2009).

Analysis for close-ended questions was carried out using Statistical Package for Social Scientists (SPSS), where the Friedman Test was applied to scaled questions. Statistical data analysis is included in Appendix 3.7.

3.4.1.3 Limitations

The small sample size of the study limited the extent of statistical tests which could be performed.

3.5 CONCLUSION

Chapter 3 described the research methodology applied to seek each objective of this study as set out in section 1.3. Research methods incorporating both primary and secondary data sources were described from their design stage to the data analysis stage. Chapter 4 sets out the main findings emerging from this research.

CHAPTER 4

RESEARCH FINDINGS

"Research is to see what everybody else has seen, and to think what nobody else has thought."

(Szent-Gyorgyi, n.d.)

4.1 INTRODUCTION

This chapter presents the main findings emerging from this research. Figure 4.1 presents an overview of the chapter.

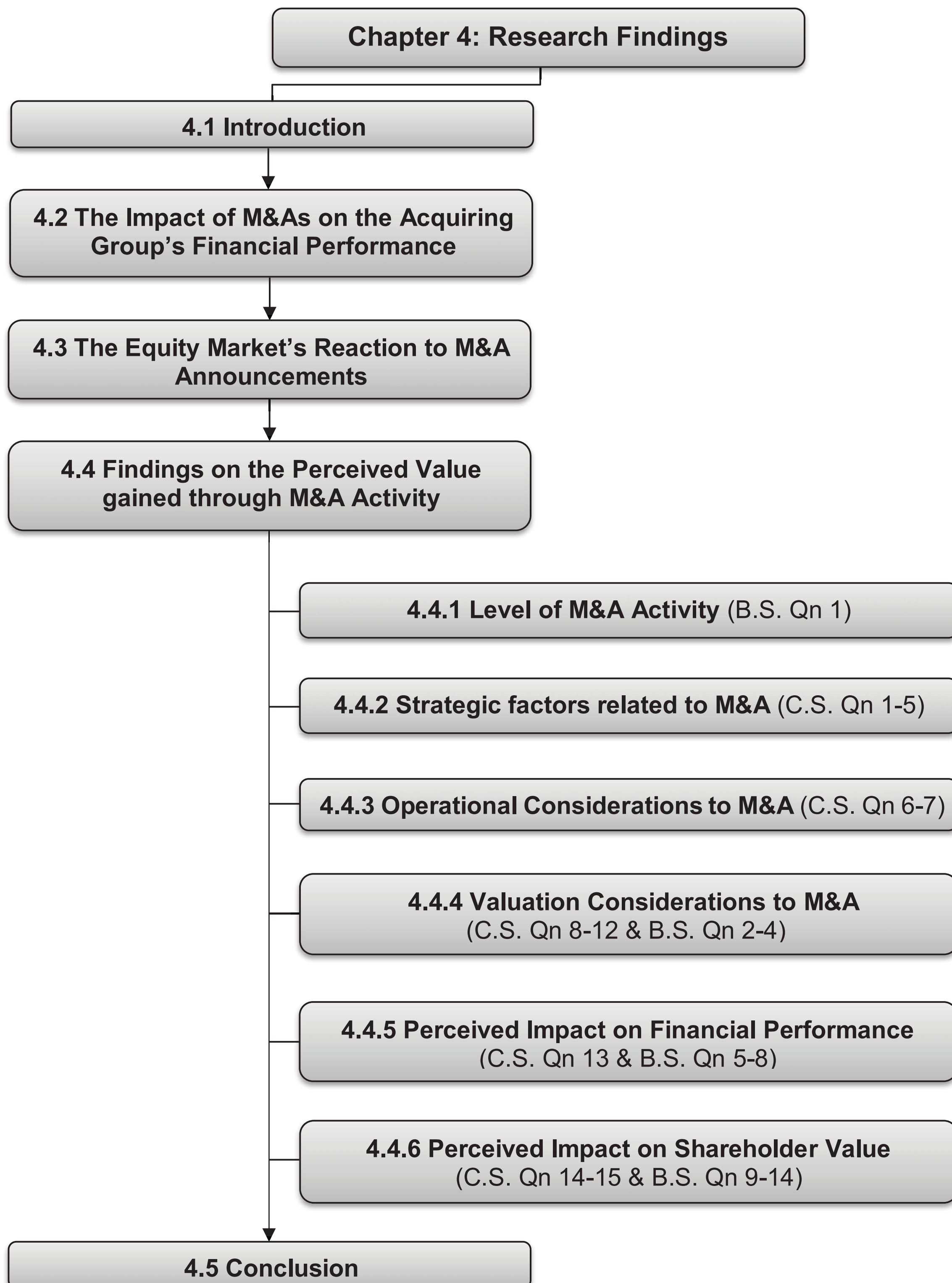

Figure 4.1: Outline of Chapter 4

4.2 Impact of M&As on the Acquiring Group's Financial Performance

This section analyses the actual financial performance of acquiring companies as reflected in the financial results registered from the year of M&A onwards. Results on key and other financial indicators achieved by the acquiring companies pre and post-acquisition are presented. Computations of the following resulting findings can be found in Appendix 4.1. The highlighted cells in all tables within this section indicate the year of acquisition of each respective M&A.

4.2.1 Key Financial Indicators

A. ROA

Table 4.1 includes annual ROA estimations for each company under analysis. The yearly average p.p change in ROA for each company following M&A is also shown. Section 3.3.1.1 outlines why Company A was not considered in the computation of average measures.

Three companies present improvements in ROA while another three companies experienced yearly declines in their ROA position from the year of acquisition onwards.

It is to be noted that on average, ROA declined by 0.53 p.p each year from the year of acquisition onwards, implying that the average ROA position of the companies concerned slightly worsened and so did shareholders' return. In an attempt to shed more light on the drivers of a similar aggregate deterioration in average shareholders' returns, a more detailed analysis of costs and revenues was made and this is shown in Table 4.6.

Table 4.1: ROA Results

ROA: $\frac{Profit\ after\ Tax}{Total\ Assets} * 100\%$							
	Companies						
	A	**B**	**C**	**D**	**E**	**F**	**G**
2006					1%		
2007					1%		
2008					2%		
2009					2%		
2010	-6%				2%		
2011	-5%				1%		
2012	6%				1%		
2013	8%				1%		
2014	-2%		1%	-2%	1%		
2015	-30%	13%	2%	0%	1%	6%	2%
2016	-154%	8%	2%	-1%	1%	3%	6%
2017	-94%	7%	2%	1%	1%	-5%	10%
Yearly Average p.p Change in ROA for each M&A							
	-	-3 p.p	+0.33 p.p	+1 p.p	0 p.p	-5.5 p.p	+4 p.p
Yearly Average p.p Change in ROA: -0.53 p.p							

Comparison to Benchmark Results

In an attempt to delve deeper into financial analysis, companies' financial results were compared to those of other local businesses operating within the same sector whose results were publicly available. Company E's ROA was compared to a local competitor, the latter being a relevant industry benchmark for Company

E's results. As seen in Figure 4.2, Company E outperformed the benchmark results during the first post-acquisition years (2007 – 2011)[3].

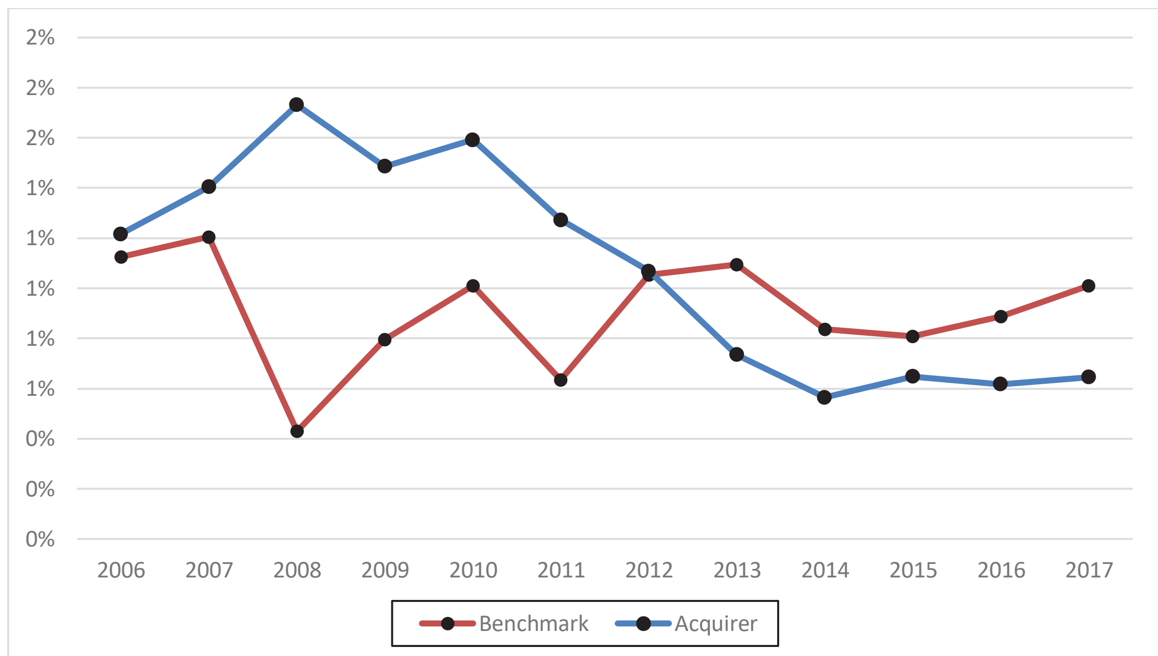

Figure 4.2: Company E's ROA vs. Benchmark ROA

B. Growth

Table 4.2 above presents the yearly *growth* registered by each firm during the period under analysis. The table also presents yearly average growth measures registered by each company from the year of acquisition onwards. The results of the latter were averaged across firms to obtain an overall yearly growth measure experienced by companies.

Clearly, most companies experienced positive and considerable growth measures post-acquisition, except for Companies A and F. On average, one can generalise that growth was impacted positively post-M&A.

[3] Vide Appendix 4.1, Table A4.1-8 for the computations of Benchmark ROA.

Table 4.2: Growth Results

EBITDA GROWTH							
	Companies						
	A	B	C	D	E	F	G
2006					5%		
2007					14%		
2008					38%		
2009					-9%		
2010	-123%				8%		
2011	38%[4]				-19%		
2012	-619%[5]				-17%		
2013	40%				-25%		
2014	-42%		N/A	-18%	-11%		
2015	-405%	5%	201%	11%	26%	74%	7%
2016	362%[4]	19%	13%	18%	5%	-47%	216%
2017	-66%	6%	43%	69%	9%	-18%	7%
Yearly Average p.p Growth for each M&A							
	-	+12.5 p.p	+86 p.p	+32.7 p.p	+1.73 p.p	-32.5 p.p	+112 p.p
Yearly Average p.p Growth: +35.3 p.p							

C. OCF

Table 4.3 shows results on the cash flow position of companies under analysis. Three companies, being Companies B, D and G have registered average yearly p.p improvements in their OCF performance while Companies C, E and F have deteriorated their cash flow position.

[4] This figure is only positive because both the denominator and the numerator are negative.
[5] This figure is negative because the numerator is positive while the denominator is negative

Table 4.3: OCF Results

OCF: $\frac{Pre\text{-}tax\ OCF}{Opening\ book\ values\ of\ operating\ assets} * 100\%$							
	Companies						
	A	**B**	**C**	**D**	**E**	**F**	**G**
2006					36%		
2007					27%		
2008					12%		
2009					13%		
2010	9%				17%		
2011	-1%				22%		
2012	8%				22%		
2013	16%				25%		
2014	N/A		3%	3%	34%		
2015	N/A	18%	3%	3%	40%	11%	12%
2016	23%	31%	1%	2%	35%	9%	42%
2017	44%	24%	1%	5%	31%	4%	19%
Yearly Average p.p Change in OCF for each M&A							
	-	+3 p.p	-0.67 p.p	+0.67 p.p	-0.45 p.p	-3.5 p.p	+3.5 p.p
Yearly Average p.p Change in OCF: +0.43 p.p							

D. Method of Financing & Financial Gearing

Table 4.4 shows the *method of financing* of each M&A in consideration. Such information was obtained from published financial statements.

Table 4.4: Method of Financing

Companies						
A	**B**	**C**	**D**	**E**	**F**	**G**
2011: Cash & Rights Issue **2015**: Bond Issue	Converting Loan to Equity	Bank Borrowing	Share Issue & Cash	Internal Cash Reserves	Loan Issue & Rights Issue	Loan Issue & Cash

Table 4.5 presents results on the *financial gearing* for all companies under analysis. Results in Tables 4.4 and 4.5 shed light on the implications of the method of financing M&A on the capital structure of each company. M&As being wholly financed by debt, namely, those undertaken by Company A in 2015 and by Company C considerably impacted the respective companies' financial gearing. Conversely, an M&A financed by equity as in Company B resulted in a more resilient capital structure post-acquisition.

Table 4.5: Financial Gearing Results

Financial Gearing: $\frac{Total\ Long-term\ Liabilities}{Shareholders'\ Funds + Total\ long-term\ Liabilities} * 100\%$

	Companies						
	A	**B**	**C**	**D**	**E**	**F**	**G**
2006					91%		
2007					89%		
2008					88%		
2009					87%		
2010	14%				87%		
2011	10%				86%		
2012	8%				86%		

Table 4.5: Financial Gearing Results – Continued							
2013	7%				86%		
2014	9%		57%	37%	87%		
2015	103%	35%	69%	43%	88%	84%	67%
2016	-489%	36%	70%	43%	88%	77%	70%
2017	421%	32%	70%	42%	88%	81%	63%
Yearly Average p.p Change in Financial Gearing for each M&A							
	-	-0.67 p.p	+4.33 p.p	+1.67 p.p	-0.27 p.p	-0.67 p.p	-2 p.p
Yearly Average p.p Change in Financial Gearing: +0.40 p.p							

E. Cost-to-Revenue Ratio

Table 4.6 shows the *cost-to-revenue* proportions pre and post-acquisition. Three companies have registered yearly average reduction in cost proportions post-acquisition, and such companies are the same ones experiencing positive ROA movements, as seen in Table 4.1. The remaining three companies have registered increased proportions. Companies E and F experienced significant increases, implying substantial cost inefficiencies and these results have outweighed any positive outcomes of cost efficiencies seen in Companies C, D and G. On average, the *cost-to-revenue* ratio increased yearly by 2.30 p.p from the year of acquisition onwards.

This analysis shows that it may be very challenging for the acquiring group to immediately register and benefit from cost synergies post-acquisition. In fact, only Companies C and G hint elements of operational efficiency in the year of acquisition, while Company D has not effectively gained from lower *cost-to-revenue* proportions before the third year after the acquisition.

Table 4.6: Cost-to-Revenue Results

Cost-to-Revenue Ratio: $\frac{CoS+Administrative\ Costs}{Revenue} * 100\%$							
Companies							
	A	**B**	**C**	**D**	**E**	**F**	**G**
2006					36%		
2007					37%		
2008					62%		
2009					62%		
2010	111%				61%		
2011	108%				66%		
2012	93%				70%		
2013	92%				68%		
2014	97%		46%	75%	71%		
2015	92%	79%	38%	76%	72%	82%	96%
2016	248%	84%	39%	77%	74%	102%	91%
2017	179%	83%	33%	73%	78%	117%	91%
Yearly Average p.p Change in Measure for each M&A							
	-	+2 p.p	-4.33 p.p	-0.67 p.p	+3.82 p.p	+17.5 p.p	-2.5 p.p
Yearly Average p.p Change in Measure: +2.30 p.p							

4.2.2 Further Financial Indicators

F. Income Gearing

To further analyse the impact of increased debt on companies' performance, for those acquisitions partly or wholly financed by debt, shown in Table 4.4, the *income gearing* was computed. Results appear in Table 4.7.

It is found that those companies whose financial performance deteriorated post-M&A, namely Companies A and F, also weakened their position in terms of

income gearing, as their interest payments rose more significantly than EBIT. It is noteworthy that the two companies that registered improvements in Income Gearing, namely Companies C and G also showed improved results in terms of ROA and cost containment, as seen in tables 4.1 and 4.6 respectively.

Table 4.7: Income Gearing Results

Income Gearing: $\frac{Interest\ Expense}{EBIT} * 100\%$				
	Companies			
	A	**C**	**F**	**G**
2014	309%	90%		
2015	-10%	46%	20%	58%
2016	-22%	48%	724%	21%
2017	-16%	60%	-122%	18%

G. Contribution of Target to Group Results

As seen in Table 4.8, in most M&As under consideration, the target contributed positively to group profits, apart from Company F, whose target contributed to losses in both years post-acquisition.

Table 4.8: Contribution of Target to Group Results

Profit Contribution of Target to Group Profits: $\frac{Target\ Profit}{Group\ Profit} * 100\%$						
	Companies					
	B	**C**	**D**	**E**	**F**	**G**
2007				15%		
2008				21%		
2009				24%		
2010				23%		
2011				27%		
2012				22%		
2013				28%		
2014				46%		
2015		24%	-91%[6]	43%		
2016	9%	N/A	7%	39%	110%[7]	75%
2017	4%	N/A	N/A	35%	39%[7]	71%

4.3 THE MARKET'S REACTION TO M&A ANNOUNCEMENTS

Section 4.3 presents the market's reaction in terms of investors' expectations on the likelihood of success of M&As in question as reflected in share price performance around the M&A announcement. As outlined in the preceding chapter, the Event Study Methodology was applied to the following time windows:

[6] The result is negative since the target reported a loss while the acquiring group reported a profit.
[7] Results are only positive since both the target and the acquiring group reported a loss. Therefore, a negative figure in both the numerator and the denominator implies a positive result.

A. (-1, +1)

B. (-5, +5)

C. (-5, +10)

D. (-10, +10)

E. (-5, +20)

F. (-5, 30)

G. (-20, +20)

H. (-30, +30)

Sections 3.3.2.3 and 3.3.2.4 explain how five equations were estimated, one for each firm. The structure of each equation was based on the MM, as explained in equation 3.1:

$$R_{it} = \alpha_i + \beta_i R_{mt} + AR_{it}$$

For each M&A, daily ARs were aggregated across different time windows. Appendix 4.2 includes daily ARs between the time windows (-30, +30) which were taken into consideration for this dissertation. Results are presented according to different estimation periods starting from the shortest time window. A, B, D, E and F represent the five M&As under analysis. Section 3.3.2.1 explains why only five M&A cases from the eight subject to this study were included for the scope of the Event Study Methodology.

4.3.1 Cumulative ARs across the (-1, +1) Time Window

Figure 4.3 displays the cumulative ARs each M&A experienced from one day prior till one day post the announcement. Clearly, all cases except Company B's M&A experienced negative ARs, implying that in the very short term, there were hardly any positive reactions by the market in response to the announcements.

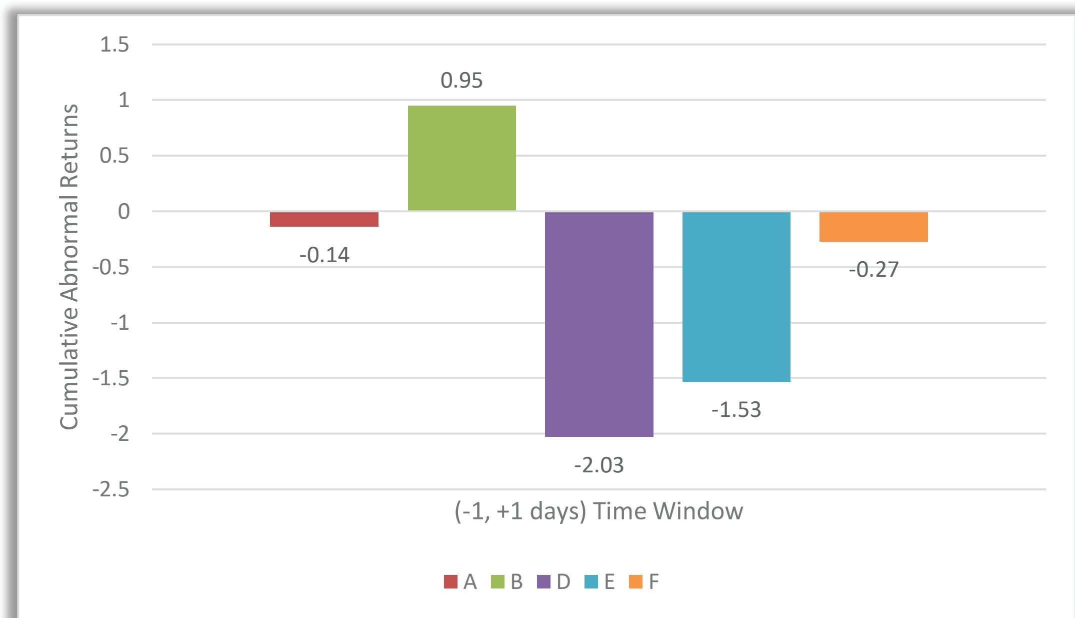

Figure 4.3: Cumulative ARs across the (-1, +1) Time Window

4.3.2 Cumulative ARs across the (-5, +5), (-5, +10) and (-10, +10) Time Windows

As presented in Figure 4.4, as the time horizon is slightly widened to a ten-day period around the announcement, relatively more cases exhibit positive ARs.

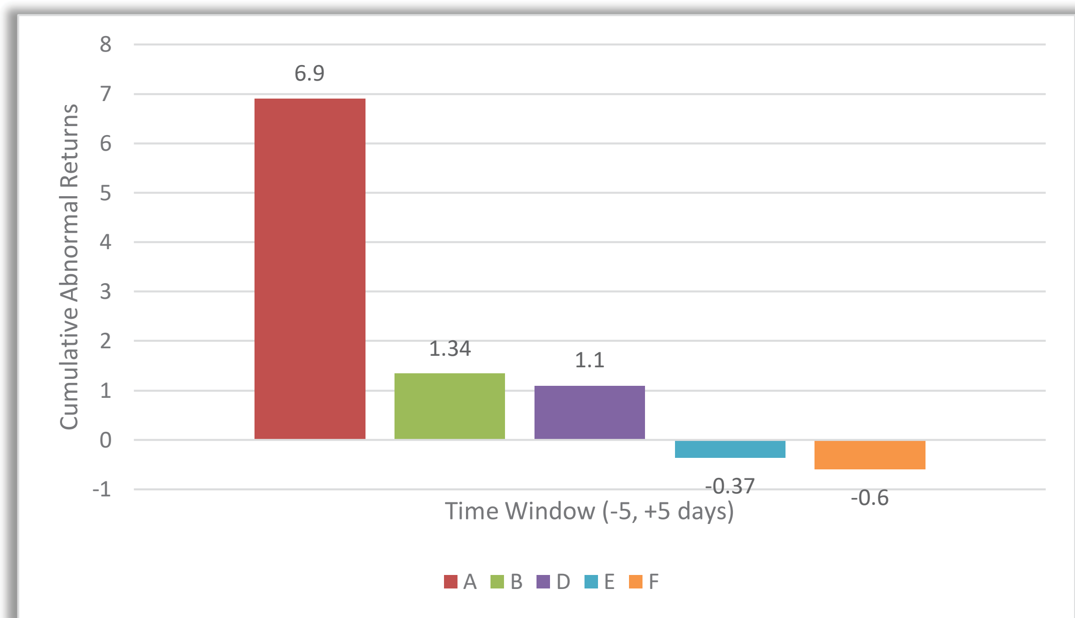

Figure 4.4: Cumulative ARs across the (-5, +5) Time Window

Figure 4.5 shows cumulative ARs occuring within a 16-day timespan. Results are similar to those in Figure 4.4, whereby only Companies A, B and D present positive market perceptions.

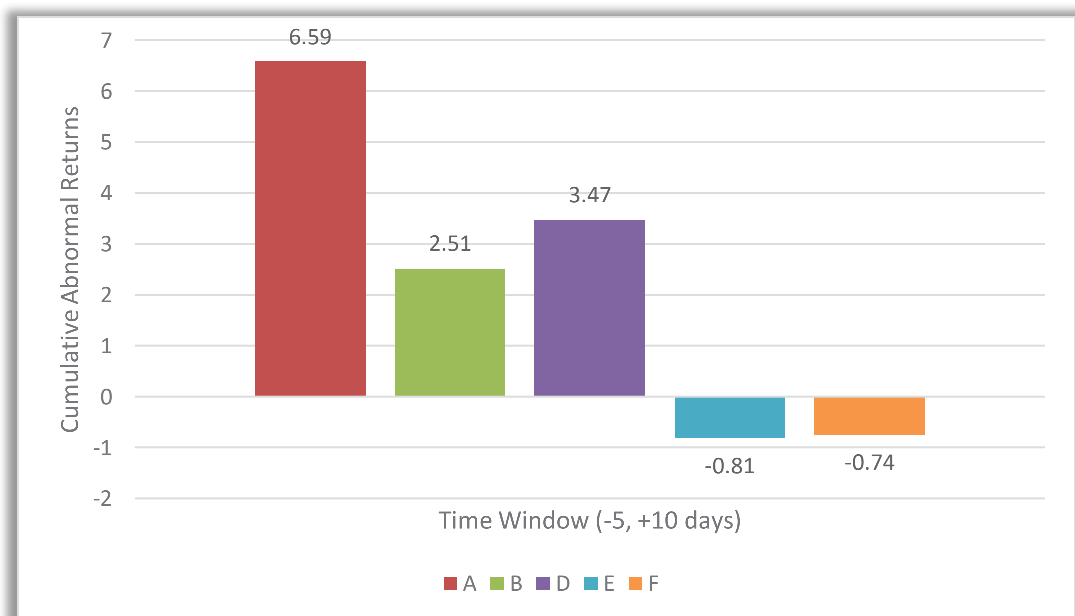

Figure 4.5: Cumulative ARs across the (-5, +10) Time Window

Figure 4.6 shows cumulative ARs over a 21-day period around the announcement. Again, results are similar to ARs presented in Figures 4.4 and 4.5.

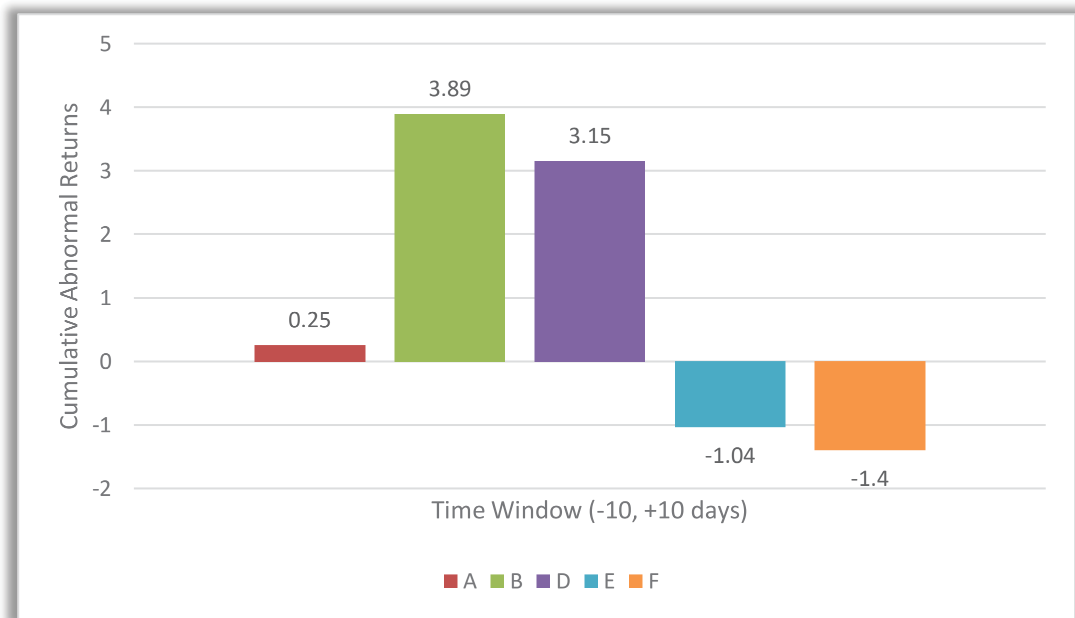

Figure 4.6: Cumulative ARs across the (-10, +10) Time Window

4.3.3 Cumulative ARs across the (-5, +20), (-5, +30), (-20, +20) and (-30, +30) Time Windows

Across a 26-day assessment shown by Figure 4.7, Company F exhibited positive cumulative ARs, along with Company A, B and D. Interestingly, Figure 4.7 also gives evidence that as the time horizon around the announcement date is widened, those cases perceived positively by the market start showing higher ARs than in narrower time horizons. more substantial positive reactions.

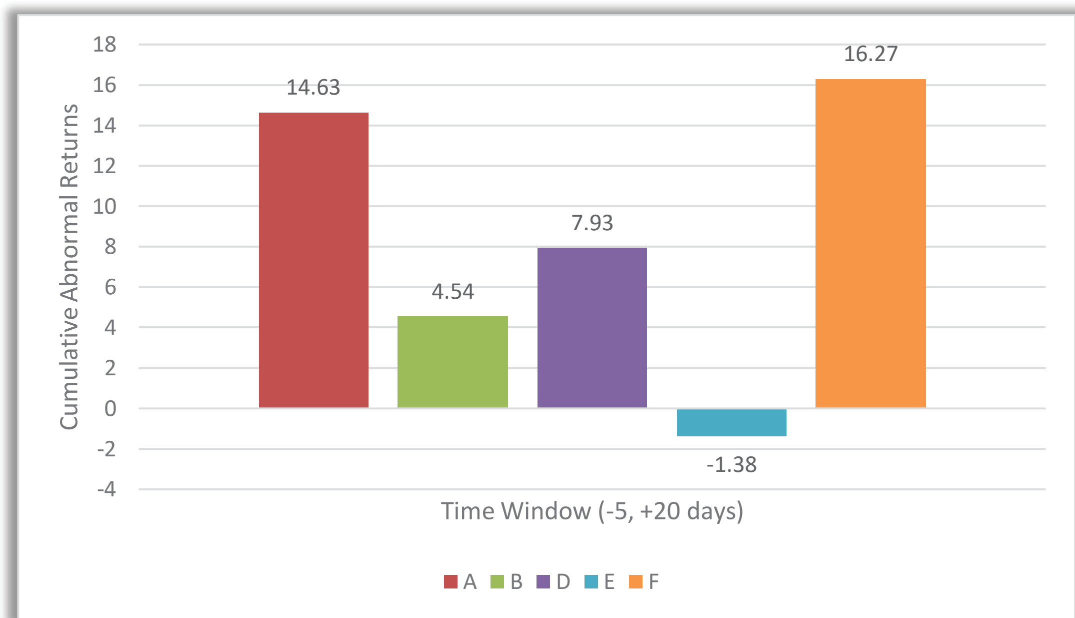

Figure 4.7: Cumulative ARs across the (-5, +20) Time Window

Results in Figure 4.8 show cumulative ARs across a 36-day estimation period. Results show similar trends to a 26-day period, namely that positive ARs are higher than within tighter estimation periods.

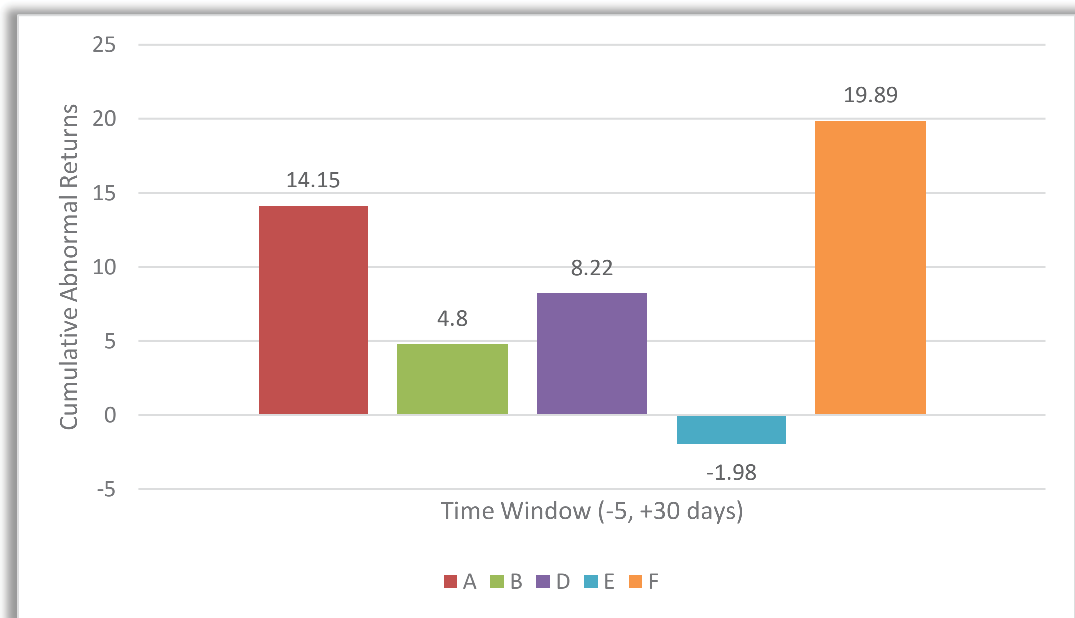

Figure 4.8: Cumulative ARs across the (-5, +30) Time Window

When a 41-day estimation period is taken, as shown in Figure 4.9, results also indicate positive ARs for Companies A, B, D and F.

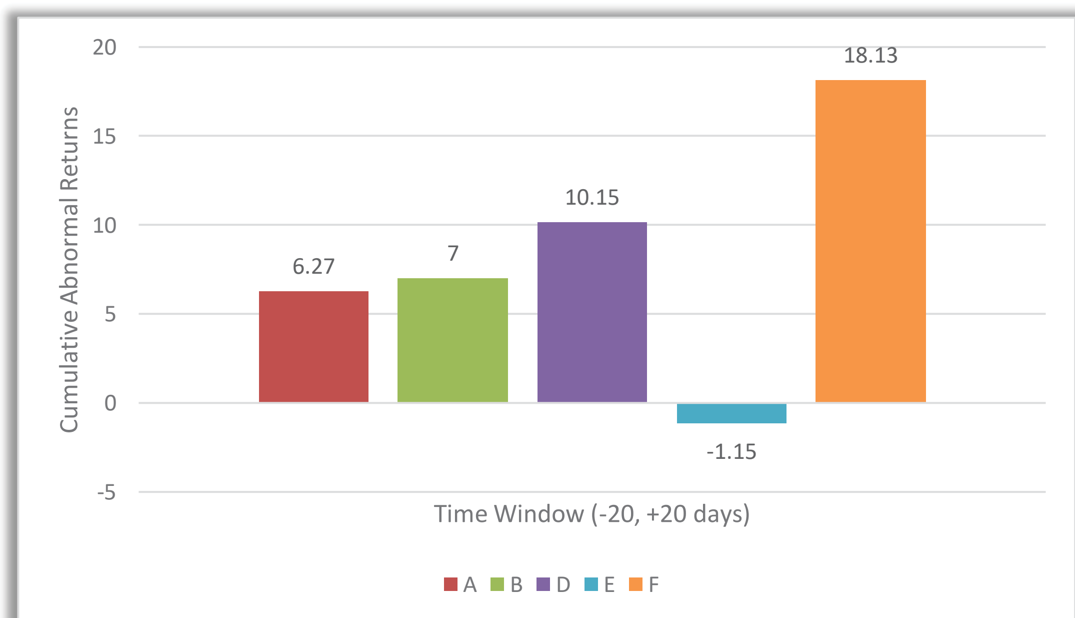

Figure 4.9: Cumulative ARs across the (-20, +20) Time Window

Figure 4.10 presents cumulative ARs across a 61-day period. Even throughout a relatively long timeframe, all cases exhibit similar trends to tighter periods, namely that all companies experience positive cumulative ARs, except Company E.

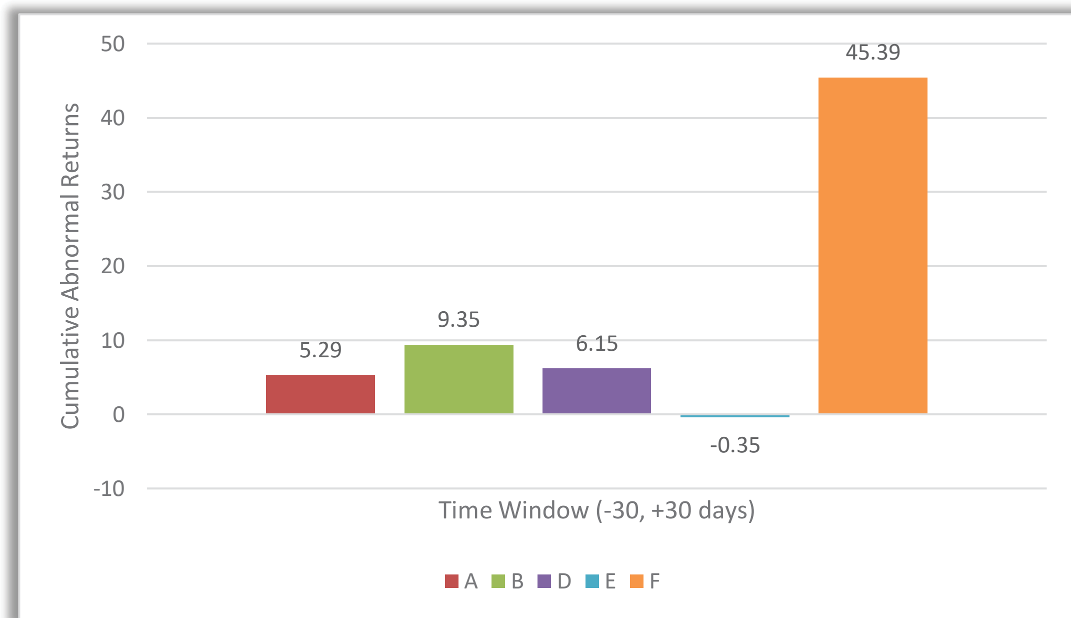

Figure 4.10: Cumulative ARs across the (-30, +30) Time Window

Companies A, D and F experience similar AR behaviour across different timeframes. Immediate short-term ARs (-1, +1) are found to be negative from Figure 4.2, while ARs captured in wider timeframes are positive.

Interestingly, Company B is the only case which exhibits positive ARs within all time windows. Results clearly indicate that this M&A is perceived positively by the market throughout the whole 61-day period under evaluation. On the other hand, Company E's results hint a negative market perception within all respective time windows.

4.3.4 Average Cumulative ARs

After calculating cumulative ARs for each M&A across different time windows, the average cumulative ARs (represented by GR_{NT}) for each separate time window was estimated[8]. Table 4.9 presents GR_{NT} of five M&As into consideration.

The computed Z score and P-value determine those GR_{NT} values which are statistically different from zero. These reported Z scores indicate that GR_{NT} values are statistically significant when calculated within the following time windows:

- **(-5, +20)**
- **(-5, +30)**
- **(-20, +20)**
- **(-30, +30)**

Table 4.9: Average Cumulative ARs

Average Cumulative ARs & their Statistical Significance			
Days	GR_{NT}	Z Score	P-Value
-1, +1	-0.60	-0.25	0.80
-5, +5	1.68	0.70	0.48
-5, +10	2.20	0.92	0.36
-10, +10	0.97	0.41	0.68
-5, +20	8.40	3.50	0.00
-5, +30	9.01	3.76	0.00
-20, +20	8.08	3.37	0.00
-30, +30	13.17	5.49	0.00

[8] Vide Appendix 3.4 for the explanation on the calculation of GR_{NT}.

Average cumulative ARs are not statistically different from 0 over relatively short-term periods. These results seem to imply that the market does not, in general, react to M&A announcements in the short term. Statistical significance of abnormal positive returns is recorded over a longer time span, specifically within and beyond the 26-day event window.

4.4 FINDINGS ON THE PERCEIVED VALUE CREATED THROUGH M&A ACTIVITY

Section 4.4 centres around results on the perceived value arising from M&A activity. Such perceived value was obtained through coreps' and brokers' views in an attempt to shed as much light as possible on the degree of success and to identify perceived critical success factors of M&As involved in this study.

4.4.1 Level of M&A Activity

When brokers were asked on the level of domestic M&A activity[9], it was deemed to be extremely contained by all respondents (5/5). Two Respondents further pointed out that M&As mostly occur within private companies because the number of Maltese listed companies is limited.

4.4.2 Strategic Factors related to M&A

The first question to coreps[10] was to identify the corporate strategy chosen by the firm which led to M&A. All M&A cases (5/5) aimed for a *growth strategy*.

[9] Vide B.S., Qn 1, p. A3.5-7
[10] Vide C.S., Qn 1, p. A3.5-1

The next question in the coreps' schedule[11] delved into the main motives behind M&A. This question enabled respondents to choose more than one response and was based on elements from an international survey by KPMG (2016). As seen in Figure 4.11, the most common motives were to *expand customer base* (4/5), followed by the need to *respond to shareholders' investor appetite* (3/5), while the motives to *enter new lines of business* (1/5), *widen the supply chain* (1/5) and *benefit from cost synergies* (1/5) were not highly considered.

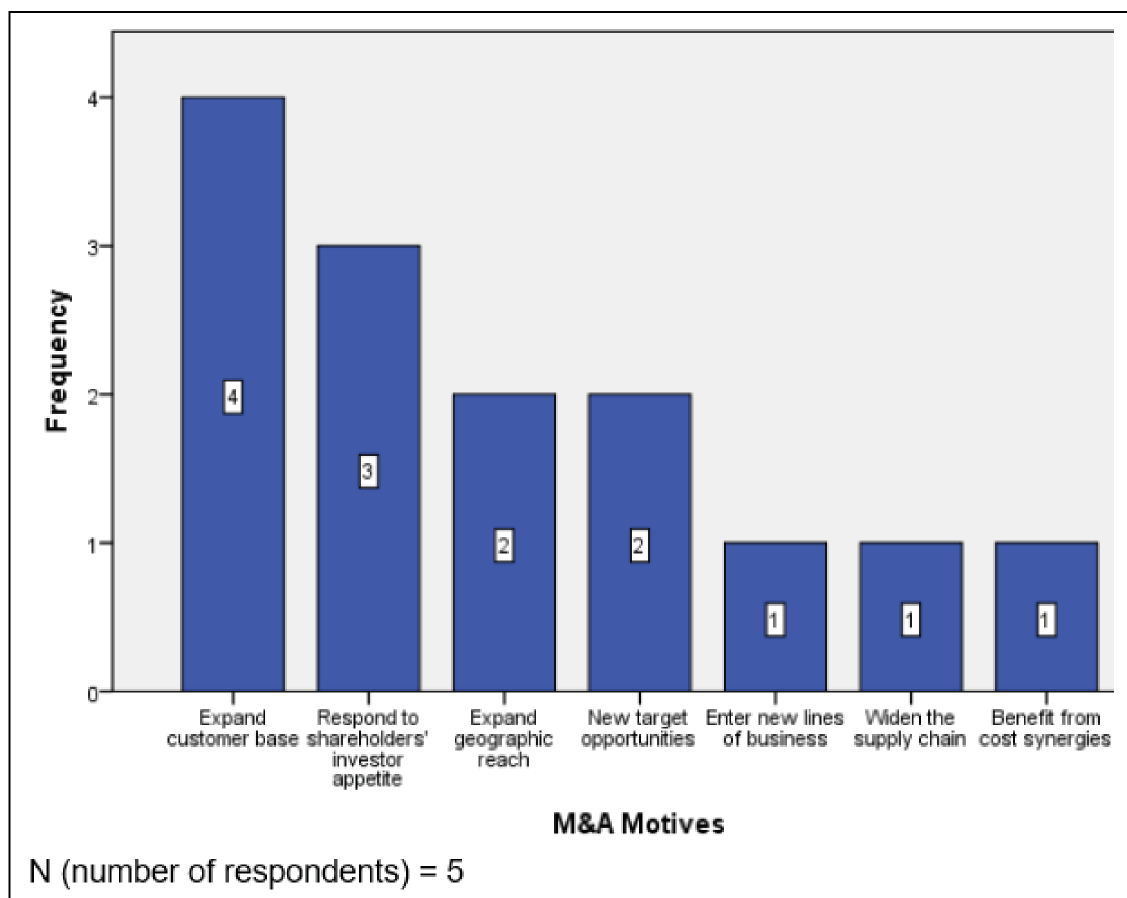

Figure 4.11: Motives behind M&A – Coreps' Schedule

[11] Vide C.S., Qn 2, p.A3.5-1

The following question in the coreps' schedule[12] asked on the type of synergy analysis performed prior to the deal. Table 4.10 shows that the majority of firms performed some type of synergy analysis. Three respondents (3/5) further commented that this was done as part of their due diligence exercise. The only respondent whose firm performed no synergy analysis claimed that the two companies are very distinct and they are not managed together.

Table 4.10: Type of synergy analysis performed prior to the deal – Coreps' Schedule

	N=5
Combination of the above synergies	3
Revenue & Cost synergies	1
None	1
Financial synergies	0

Next question in the coreps' schedule[13] asked about the most critical M&A success factors. Respondents could choose more than one response. Results are presented in Figure 4.12, emphasising the need for a *well-executed integration plan* (3/5) and *effective due diligence* (3/5). None of the respondents (0/5) considered positive economy-wide conditions as a critical success factor.

[12] Vide C.S., Qn 3, p. A3.5-2
[13] Vide C.S., Qn 4, p. A3.5-2

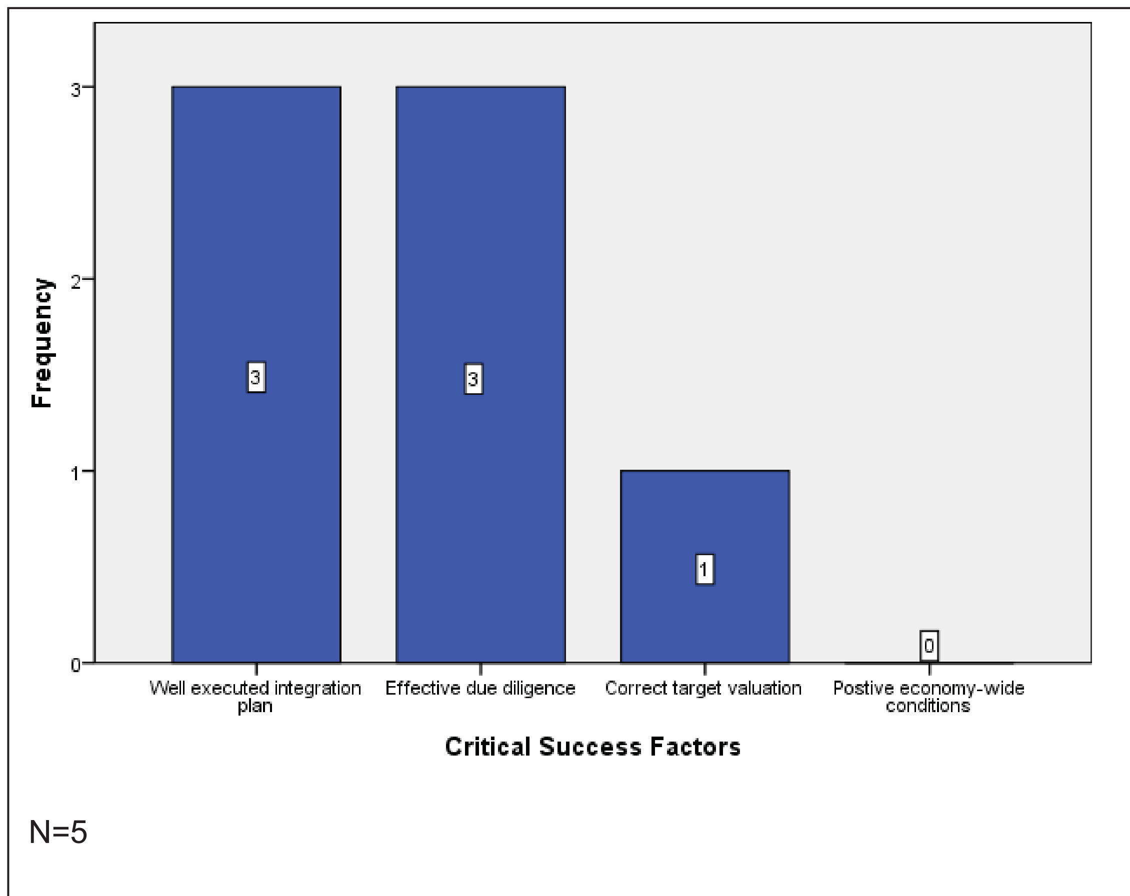

Figure 4.12: Critical Success Factors – Coreps' Schedule

Coreps were asked[14] to rate the indispensability of certain financial aspects to M&A success. Results are reproduced in Table 4.11. Although all elements ranked above moderate indispensability, importance was given significantly more (p=0.009) [15] to *access to credit from external sources* (m= 4.80), *access to internal cash reserves* (m= 4.60) and *stable macroeconomic environment* (m= 4.40) than to *low interest rate environment* (m=3.20).

[14] Vide C.S., Qn 5, p. 3.5-2

[15] Vide Appendix 3.7 – Test 1, p. A3.7-2

Table 4.11: Indispensability of Financial Aspects – Coreps' Schedule

	Mean	Std. Deviation	Minimum	Maximum
Access to Credit from External Sources	4.80	0.447	4	5
Access to Internal Cash Reserves	4.60	0.548	4	5
Stable Macroeconomic Environment	4.40	0.548	4	5
Low Interest Rate Environment	3.20	1.095	2	4

Where mean score of 1 = very low and 5 = very high
N=5
P-value=0.009

4.4.3 Operational Considerations to M&A

When coreps were asked[16] whether the acquisition provided opportunities for operational synergy to be effective, it was found that the majority reported scope for operational synergy (4/5), especially on overheads such as IT. However, one respondent (1/5) indicated that operational synergy was *"difficult to achieve when the target is cross-border."*

[16] Vide C.S., Qn 6, p. A3.5-3

Impact on Revenues

Revenue Synergy realisation seemed to depend upon the nature of the industry and type of acquisition. Three respondents (3/5) found revenue synergy to be effective. Table 4.12 shows respondents' view on the main factors contributing to revenue synergy.

Table 4.12: Factors determining Revenue Synergy Realisation – Coreps' Schedule	**N=5**
Where the acquisition was revenue-generating, revenue synergies were impacted positively	3
The industry in which the firm operates is project-based, therefore, revenue synergy was time-consuming.	1
It was not the intention to benefit from revenue synergies, especially given that the acquisition was cross-border, so revenue synergies were difficult to achieve.	1

Impact on Costs

Cost Synergy realisation was also reported to be dependent on the type of acquisition. The majority of coreps (3/5) found cost synergies to be effective. Synergies were effective within Human Resources in terms of competency sharing, purchasing costs in terms of bulk buying and alignment of certain departmental functions to the group such as Marketing, Public Relations, Legal, Internal audit and Finance. Table 4.13 includes findings on the main determining factors of cost synergy realisation.

Table 4.13: Factors determining Cost Synergy Realisation – Coreps' Schedule	**N=5**
Where the acquirer became involved in target operations, operational synergies were effective.	3
Cost synergies were quite low where the acquisition's aim was financial, namely *"…to accumulate a net asset value of the portfolio…"* rather than to manage operations	1
Cost synergies were not effective since the acquisition was cross-border	1

Coreps were asked[17] about the challenges to yield operational synergies. As seen in Table 4.14, *cultural/organisation integration* was found to be difficult (m=3.60), while the mean rating scores of the remaining factors varied from neither easy nor difficult in *others* (m=3.20) to easy in both *industrial relations* (m=2.20) and *IT resources*[18] (m=2.20).

[17] Vide C.S., Qn 7, p. A3.5-3
[18] Vide Appendix 3.7 - Test 2, p. A3.7-3

Table 4.14: Difficulty of challenges to yield operational synergies – Coreps' Schedule

	Mean	Std. Deviation	Minimum	Maximum
Cultural/Organisational Integration	3.60	1.517	1	5
Others	3.20	1.304	1	4
Human resources Rationalisation	2.40	1.342	1	4
Industrial Relations	2.20	1.643	1	4
IT Resources	2.20	1.304	1	4

Where mean score of 1 = very easy and 5 = very difficult
N=5
P-Value = 0.119

4.4.4 Valuation Considerations to M&A

All coreps (5/5) considered *target profitability, target growth* and *target business risk* as critical factors when establishing a target valuation but none (0/5) considered *demand by other acquirers*[19].

Coreps were also asked in a multiple-response question[20] on correct target valuation challenges. As Figure 4.13 indicates, all respondents (5/5) considered

[19] Vide C.S., Qn 8, p. A3.5-4
[20] Vide C.S., Qn 9, p. A3.5-4

management over/under enthusiasm as a major challenge, followed by *shareholder pressure* (4/5), while *lack of information* was the least perceived valuation challenge (1/5).

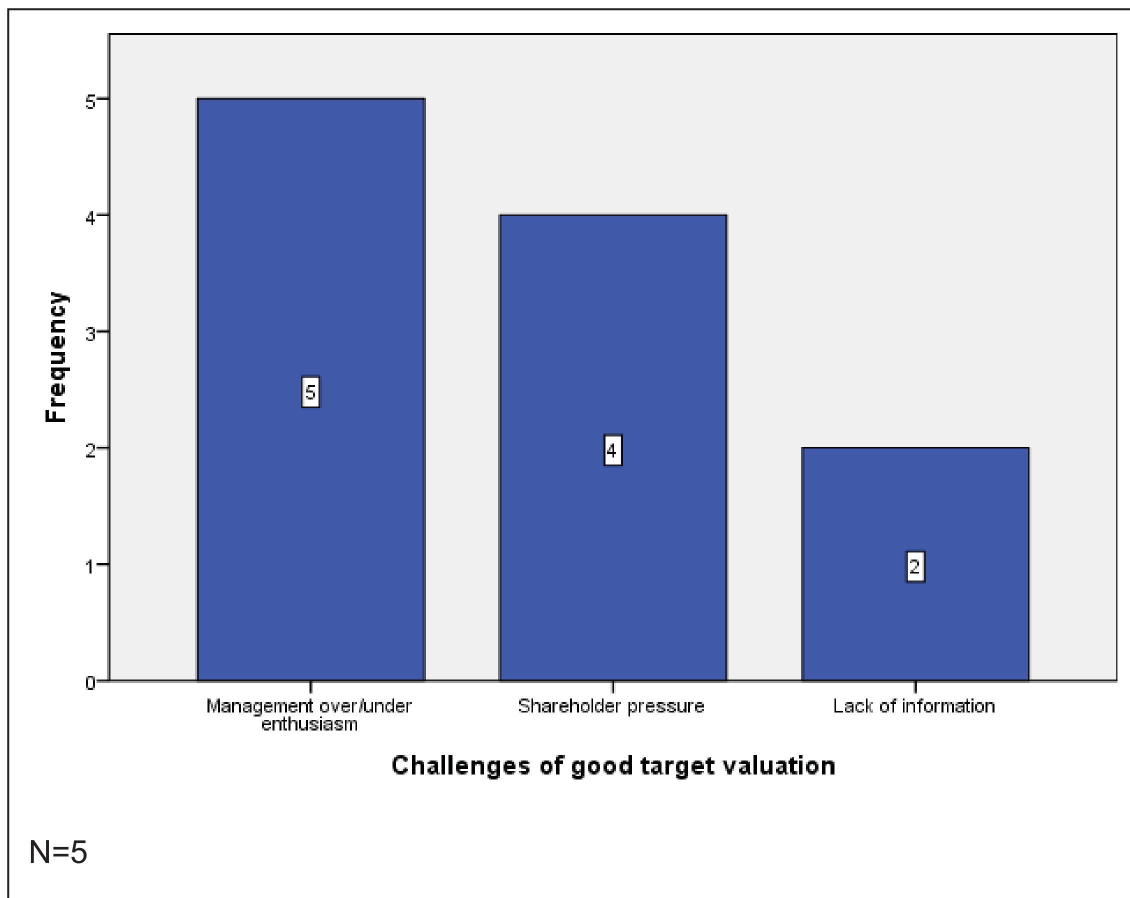

Figure 4.13: Challenges of Good Target Valuation – Coreps' Schedule

When coreps were asked[21] about the critical factors to an accurate target valuation, three respondents (3/5) stressed on the importance of analysing the target's growth strategy and growth potential. Respondents also mentioned the importance of accurate estimation of risk factors (1/5) and a valid analysis of corporate culture and clientele (1/5).

[21] Vide C.S., Qn 10, p. A3.5-5

The next question in the coreps' schedule asked[22] what element they would alter to the target valuation. Respondents gave out various suggestions, namely, comparing other potentials and values (1/5), identifying management over-enthusiasm (1/5) and getting more information on macroeconomic conditions the target operates in (1/5).

Coreps were also asked[23] how to ascertain that the right target price is paid. They highlighted important factors, such as having a benchmark value of a similar local business (1/5), having professional valuers giving independent opinion (1/5), relying on one's own judgement (1/5), gaining experience in the business world (1/5) and ensuring one is not carried away with over-enthusiasm (1/5).

Brokers were also asked on Valuation considerations. When asked whether they were familiar with any target mis-pricing[24], all respondents (5/5) replied in the affirmative. Two respondents (2/5) specifically mentioned one domestic M&A as mis-priced.

The next question in the brokers' schedule[25] asked on the most common method of financing M&A. Responses are found in Table 4.15.

Table 4.15: Most Common Financing Method – Brokers' Schedule	**N=5**
Combination of equity/debt	2
Bonds/Loan Issue	2
Combination of debt/Internal cash reserves/Equity	1

[22] Vide C.S., Qn 11, p.A3.5-5
[23] Vide C.S., Qn 12, p. A3.5-5
[24] Vide B.S., Qn 2, p. A3.5-7
[25] Vide B.S., Qn 3, p. A3.5-7

Clearly, as can also be confirmed from analysis of published financial statements, Maltese M&As tend to be financed by a combination of methods.

Moreover, brokers were asked[26] about any particularly successful financing method. Two respondents (2/5) considered equity as most successful while another two (2/5) believed in combinations of debt and equity. The other broker (1/5) claimed that the financing method does not have weighting on M&A's success, it only *"…depends on how they are going to manage it and the results they will achieve going forward. "*

4.4.5 Perceived Impact on Financial Performance

Coreps were asked to rate the impact of M&A as measured through various financial aspects[27]. Results are presented in Table 4.16. Respondents expressed positive views on the M&A impact on each financial aspect, with all mean rating scores exceeding 3. However, the highest impact is found to be on *growth* (m= 5) while *efficiency* scored lowest (m= 3.20). Mean scores differ significantly[28]. This is in line with findings of the financial analysis included in Section 4.2.1, where *growth* was shown to have benefitted in most companies, while a more diverse pattern emerged from *cost-to-revenue* Ratios.

[26] Vide B.S., Qn 4, p. A3.5-7
[27] Vide C.S., Qn 13, p. A3.5-6
[28] Vide Appendix 3.7 - Test 3, p. A3.7-4

Table 4.16: Financial Implications of M&A – Coreps' Schedule

	Mean	Std. Deviation	Minimum	Maximum
Growth	5.00	0.000	5	5
Operating cash flow	4.60	0.548	4	5
Profitability	4.40	0.548	4	5
Financial gearing	3.80	0.837	3	5
Efficiency	3.20	0.837	2	4

Where mean score of 1 = very low and 5 = very high

N=5

P-value=0.009

Brokers were asked[29] to classify those acquisitions which, in their opinion, have been successful. Upon putting forward this question, the main findings on the review of each company's financial information, also presented in Section 4.2.1, were shown to each respondent.

In this assessment, there was a degree of convergence between the researcher's findings and the brokers' opinion on the perceived success of each M&A. In fact, it was determined that all brokers $_{(5/5)}$ agreed with the researcher's assessments made to classify unsuccessful M&As. With respect to the remaining M&As being classified as successful during the financial analysis, the majority of brokers $_{(4/5)}$

[29] Vide B.S., Qn 5(A), p. A3.5-7

agreed with these companies' success. The only respondent (1/5) who expressed scepticism on the perceived success of one particular company explained that the target acquired still needed major refurbishment and investment, so it is still premature to confirm the success of this venture.

Moreover, brokers were asked[30] to comment on the acquisitions' overall financial performance. Respondents delved into the main reasons for the success or failure of the acquisitions under study, with the main findings presented in Tables 4.17 and 4.18 respectively.

Table 4.17: Reasons for Acquisitions' Success – Brokers' Schedule	**N=5**
Foreign targets were acquired by three companies under analysis, where the main motive was growth. Since the local market is already saturated, such companies were given an immediate boost in growth.	3
Where acquisitions are treated as revenue streams and a way to cross-sell services and reach more customers, performance automatically thrives.	2
Whenever the targets' nature is operationally cash flow generating, any improvement in the group's financial performance is immediately reflected in financial statements.	1

[30] Vide B.S., Qn 5(B), p. A3.5-7

Table 4.18: Reasons for Acquisitions' Success – Brokers' Schedule – Continued	
Where the two companies operate in the same sector, probably better cost and revenue synergies can be achieved. Such economies of scale in turn lead to better performance.	1

Table 4.19: Reasons for Acquisitions' Failure – Brokers' Schedule	N=5
Some failed acquisitions occur because of the nature of the industry they operate in, being highly affected by exogenous shocks. One respondent claimed that one particular *target "is still facing difficulties and until last year, it was still a cash drain on the whole group."* Such exogenous factors cause substantial risks, which according to another respondent should have been factored in the acquisition cost.	3
One particular company did not perform sufficient due diligence to identify the target's weaknesses. Consequently, *"the acquirer ended up paying excessive amounts for the target."* Moreover, issues of internal control in the company were identified and continued to deplete performance.	2
The strategy of some acquisitions is set in the long term. Therefore, any impact takes time to be reflected.	1

Next question in the brokers' schedule asked[31] whether one can distinguish between the short-term and the long-term impact of M&A. Three brokers (3/5) replied that the short-term impact is rather determined by the cash generating ability of the target and the ability to realise synergies between the target and acquirer, which depends on the industry one operates in. On the other hand, acquiring assets which only enhance the productivity of other assets normally takes time for any impact to be effective. The other two respondents (2/5) agreed that the long-term impact should reflect better the return on investment undertaken.

Brokers were asked[32] to determine whether M&As between related firms perform significantly different from M&As between unrelated firms. Three brokers (3/5) believed that it depends on the ability to successfully integrate the two companies. One respondent specifically replied: *"This can be done even between unrelated firms as long as there is commitment by management on the corporate strategy chosen"* e.g. by cross selling each others' products. The other two brokers (2/5) replied that conceptually, there are advantages since the market is already known, so it is far easier to acquire a gain after a relatively short period.

Brokers were asked[33] on the main contributory factors of low M&A success, where they could choose more than one response. As seen in Figure 4.14, the most popular factor was *cultural differences between the two firms* (4/5), followed by *paying excessive premiums for targets* (4/5). The factor named Others (1/5)

[31] Vide B.S., Qn 6, p. A3.5-7
[32] Vide B.S, Qn 7, p. A3.5-8
[33] Vide B.S., Qn 8, p. A3.5-8

included the lack of free float within the local market as well as the substantial restrictions and regulations companies have to abide by upon becoming listed.

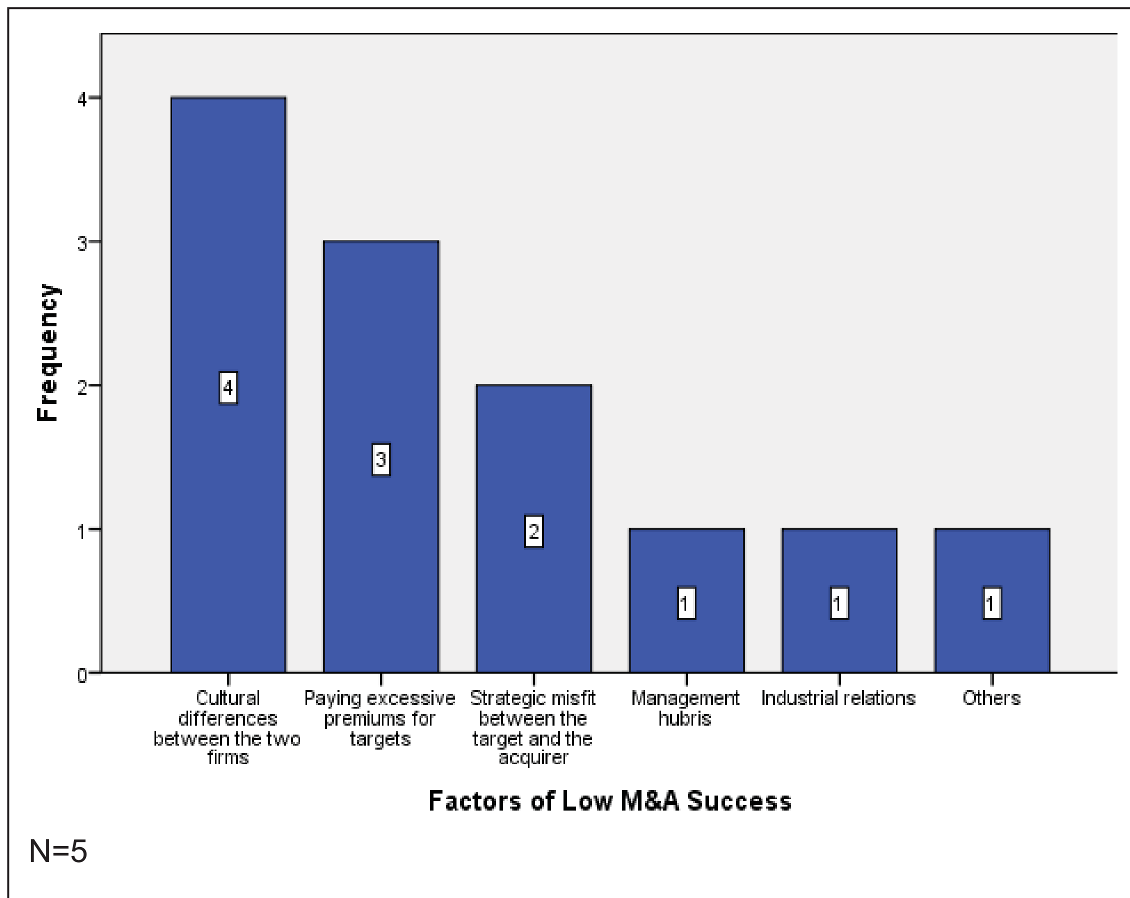

Figure 4.14: Factors of Low M&A Success – Brokers' Schedule

4.4.6 Perceived Impact on Shareholder Value

The first question to brokers from this section asked[34] about the local investor sentiment upon announcement of an acquisition. All brokers (5/5) indicated a generally positive investor sentiment. However, respondents questioned the validity of such assessment by comments presented in Table 4.19.

[34] Vide B.S., Qn 9, p. A3.5-8

Table 4.20: Local Investor Sentiment – Brokers' Schedule	**N=5**
Share prices still generally do not increase because of local market inefficiency and asymmetric information	2
Not all announcements cause positive reactions, mainly because of Malta's small and inefficient market	2
Many local investors are not sophisticated	1

In a related question asked to coreps[35], only three (3/5) respondents were eligible in answering this question as the other two acquirers were not equity-listed. Two (2/3) respondents claimed that the stock market reaction was positive.

The next question from the brokers' schedule asked[36] whether share price movements are a good indicator of M&A success. Most respondents (3/5) answered in the negative. Two respondents (2/5) stated that share price movements are only a good indicator in the longer term, once financial results are published. Another respondent commented: *"Share price movements may include excessive hype through overestimation of synergies communicated by management."*

Brokers were asked[37] whether short-term share prices in an acquiring firm over react to M&A announcements. Three respondents (3/5) agreed upon over reaction to certain M&A announcements while the remaining two (2/5) were not aware of any market over reactions.

[35] Vide C.S., Qn 14, p. A3.5-6
[36] Vide B.S., Qn 10, p. A3.5-8
[37] Vide B.S., Qn 11, p. A3.5-8

When brokers were asked[38] whether longer-term share price fluctuations are a better indicator of M&A's success than short-term fluctuations, all respondents (5/5) answered in the affirmative. A further comment by one respondent was: *"Long-term fluctuations are a better indicator than short-term ones, but still, M&A success is best measured through its financial statement results."*

In fact, when brokers were asked on the better gauge for M&A success[39], all brokers (5/5) deemed that an analysis of financial results is superior to share price fluctuation analysis.

The last question to brokers[40] asked whether local M&As signify positive shareholder value. Most brokers (4/5) answered that positive shareholder value is created if supported by good figures and if M&A coincides with a positive vibe of the general market. One particular broker specifically commented that the only issue locally is that it takes time for prices to react to M&A as *"the market does not internalise new information in the share price immediately".*

Similarly, coreps were asked[41] to describe the long-term impact of the acquisition. Three respondents (3/5) claimed that the long-term impact is positive. However, further investment needs to be undertaken for the M&A to realise shareholder value. Two respondents (2/5) highlighted that long-term value has already materialised through higher cash flows and increased asset appreciation.

[38] Vide B.S., Qn 12, p. A3.5-9
[39] Vide B.S., Qn 13, p. A3.5-9
[40] Vide B.S., Qn 14, p. A3.5-9
[41] Vide C.S., Qn 15, p. A3.5-6

4.5 CONCLUSION

This chapter has presented all results obtained from both primary and secondary data sources. Key findings originating from this research shall be discussed in the following chapter.

CHAPTER 5

DISCUSSION ON FINDINGS

"The aim of argument, or of discussion, should not be victory, but progress."

(Joubert, n.d.)

5.1 INTRODUCTION

This chapter provides a closer look at important findings emerging from this research.

The discussion starts off by identifying the appetite for market growth in acquiring companies both as shown in the financial results as well as from coreps' point of view. The discussion then seeks to evaluate whether such positive growth was accompanied by an improvement in acquirers' profitability and financial performance. Subsequently, the discussion delves into the extent to which short-term equity market fluctuations predict the success of M&As. The following section then undertakes an analysis of whether the perceived value and the actual financial results converge.

Finally, the discussion is rounded off by identifying traits that can explain both value-creating as well as value-destroying M&As, with specific reference to the companies that feature in this research work.

An outline of Chapter 5 is provided in Figure 5.1.

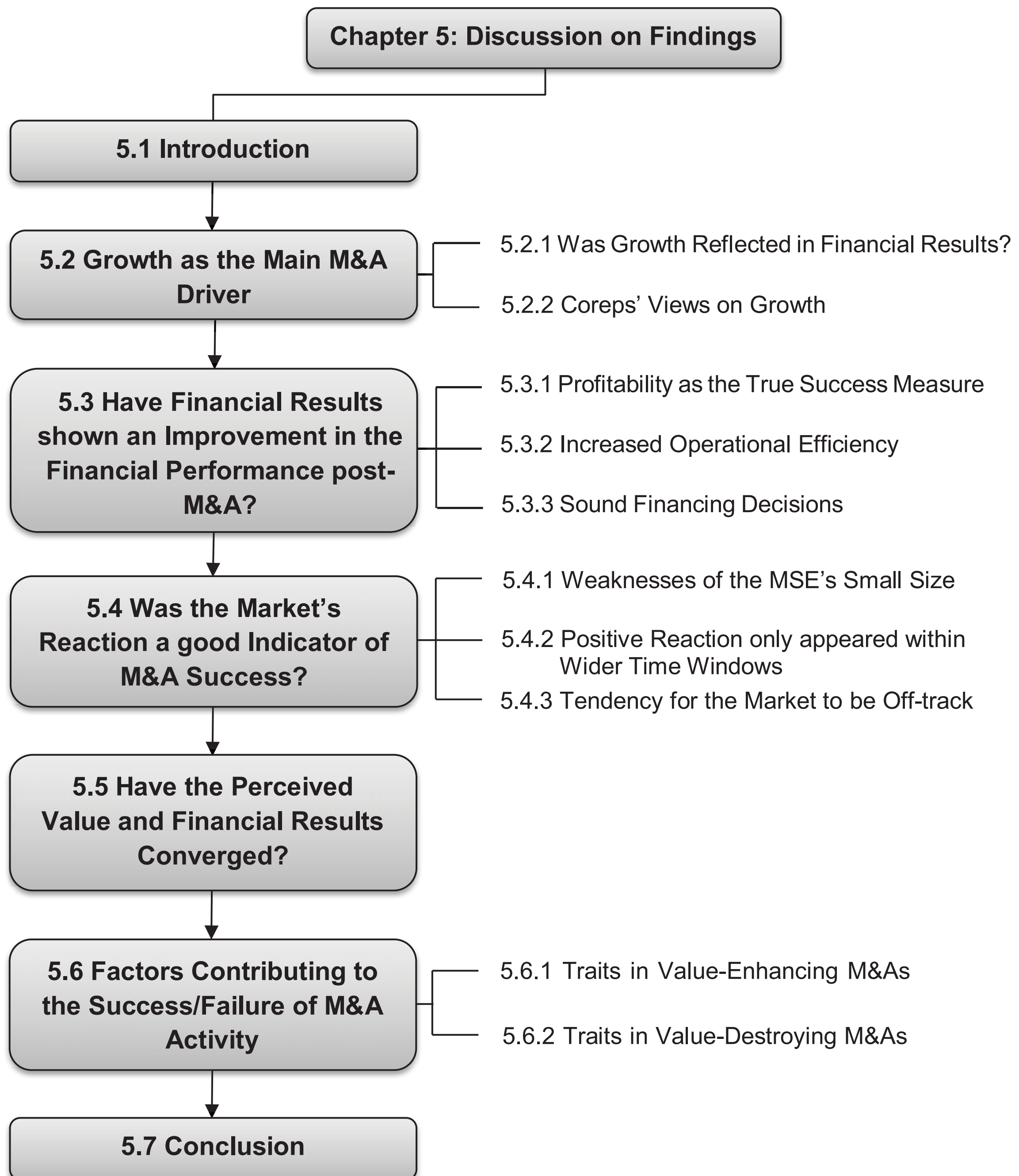

Figure 5.1: Outline of Chapter 5

5.2 GROWTH AS THE MAIN M&A DRIVER

All M&As were undertaken with a specific objective in mind. All interviewed coreps identified[42] the attainment of a growth strategy as their main objective behind M&A. This is in line with findings published by the National Center for the Middle Market (2018)[43] which found out that companies believed that M&As are critical to corporate growth strategy.

5.2.1 Was Growth Reflected in Financial Statements?

Companies' goal to increase their market size and reach new customers seemed to have been reflected in financial results as worked out by the researcher. In fact, as revealed by the research findings in Chapter 4[44], M&As made a considerable impact on their respective companies' EBITDA Growth.

5.2.2 Coreps' Views on Growth

Furthermore, growth was also perceived by coreps to benefit more from M&A activity than other aspects of corporate performance[45].

This correlation of results across the researcher's workings and coreps' perceptions on growth highlights the significance of the growth implications on acquiring companies. This could be the result of the principle of the materiality, as set out in Section 3.2.2, of the target to the acquiring firm which was followed when determining those firms that were to be included in the present analysis.

[42] Vide Section 4.4.2 p. 77
[43] Vide Section 2.5.1, p. 29
[44] Vide Section 4.2.1 Growth, p. 61-62
[45] Vide Section 4.4.5 p. 87-88

The fact that most acquired targets were foreign might indicate that the local market poses constraints to further growth by the acquiring local company. Therefore, growing inorganically and overseas through M&A was an effective vehicle through which companies expand their operations and register actual growth measures in their financial statements.

5.3 Have Financial Results shown Improved Financial Performance post-M&A?

The question on whether M&A activity has improved acquirers' financial performance is best answered by assessing its effect on companies' financial aspects. Section 4.2.1 revealed that although the overall impact on Growth was considerable, very few firms actually experienced improvements in ROA, OCF and Cost-to-Revenue measures. Such findings are contrary to those by Lau, Proimos and Wright (2008)[46] who found post-M&A improvements in profitability, cash flows, efficiency and financial gearing amongst acquiring firms.

Results show that there is no one single trend that explains the financial performance of all the considering acquiring companies' post-acquisition. It is to be argued that those firms which performed successfully had certain common characteristics, represented in Figure 5.2. Those companies which managed to achieve higher profitability were also the ones showing effective operational cost control as well as sound financing strategies.

[46] Vide Section 2.4.1, p. 18

Figure 5.2: Critical Success Factors through Financial Performance Analysis

5.3.1 Profitability as the True Success Measure

The average ROA position of the companies in this analysis slightly worsened[47] after the M&A. In fact, the simple average increase in profits for all companies did not keep pace with the increased capital employed by the business ventures under analysis. This highlights the challenge to improve or even maintain asset utilisation post-acquisition. An increase in ROA is crucial to prove to shareholders that their financial resources are being used in the best way possible to maximise their own wealth. As long as shareholders' return is not maintained or improved, questions arise on whether management is employing shareholders' funds in the best way possible. The achievement of higher ROA post-acquisition seems to be time-consuming and several years may have to pass for the combined assets to start operating as efficiently as possible and realise higher profitability.

[47] Vide Section 4.2.1 ROA, p. 59-60

Similar to ROA, the simple average yearly change in OCF stands very close to zero[48], which might prima facie imply that no clear impact upon cash flow position can be noted as a result of M&A activity. However, this estimation involved a number of offsetting improvements and deteriorations in cashflow positions across the different companies. This indicates that a number of companies have witnessed material challenges to their respective cash management operations during the period following an M&A.

5.3.2 Increased Operational Efficiency

Research findings also revealed[49] that companies experiencing lower Cost-to-Revenue ratios from the year of acquisition onwards, implying improved operational efficiency, were the same ones which achieved higher ROA measures during the same periods in consideration. This indicates that improved cost containment might be one key factor for improved shareholders' return. Similar to ROA, it is very challenging for cost control to be evident in the first post-acquisition years since it could take a number of years until the two combined firms benefit from any shared costs and realise operational synergies. Moreover, such synergies may potentially be more challenging whenever the target is located overseas.

5.3.3 Sound Financing Decisions

M&A success also seems to depend on management's ability to determine the best financing method of acquisition for the benefit of the company. Debt

[48] Vide Section 4.2.1 OCF, p. 62-63
[49] Vide Section 4.2.1 Cost-to-Revenue Ratio, p. 65-66

financing is not necessarily a wrong decision, as long as the company earns enough operating income to be able to make interest payments. Indeed, as shown in Section 4.2.2[50], when considering those companies being financed by debt which improved their income gearing, in spite of their reliance on a higher gearing, they also managed to improve their *ROA* and *Cost-to-Revenue* dynamics. In such successful cases, income gearing improved because EBIT grew substantially. It is management's role to identify the respective companies' most ideal financing method and be confident that interest payments arising from debt financing will not deteriorate EBIT. Otherwise, as proven by results, debt financing is detrimental to the financial performance if no sufficient EBIT is earned from which interest payments have to be made.

However, one must still not ignore the fact that, as findings revealed, a considerable number of companies were already highly geared[51]. Caution with further debt financing must therefore be exercised, since increasing the gearing ratio even further poses adverse implications upon a company's ability to manage risks that a decline in demand for a firm's output might generate.

5.4 Was the Market's Reaction a good Indicator of M&A Success?

Upon the announcement of an M&A, investors reveal their sentiment regarding the expected M&A success through the company's share price, which may not always be in line with financial results actually achieved. Such market reaction

[50] Vide Section 4.2.2 Income Gearing, p. 66-67
[51] Vide Section 4.2.1 Financial Gearing, p. 64-65

may potentially incorporate investor over/under-enthusiasm, which may nevertheless contrast with any shareholder value registered in the financial statements years after the M&A.

5.4.1 Weaknesses of the MSE's Small Size

Results indicated that investors did not show any statistically significant market reaction within the short-term[52]. This is probably attributed to elements of illiquidity and inefficiency which characterise the equity market in a small economy like Malta's. Contrary to market efficiency assumptions posed by Sitthipongpanich (2011)[53], the MSE is limited in terms of size and depth. Indeed, observed stock prices may not fully and immediately reflect all information available to investors.

This market limitation was also mentioned by brokers[54] when they were asked about local investor sentiment upon announcement of an M&A. One particular respondent further commented: *"Many Maltese listed companies are family owned, thus only a small proportion of shares are traded in a free-float manner."* This makes it even more difficult for the market to internalise any new public information in the share price.

[52] Vide Section 4.3.4, Table 4.9, p. 76
[53] Vide Section 2.4.2, p. 20
[54] Vide Section 4.4.6, p. 92-93

5.4.2 Positive Reaction only appeared within Wider Time Windows

Positive financial gains over the wider time windows[55] indicate that investors took the new public information with positive sentiment, but it took a considerable number of days, specifically 26 days around the announcement, for that positive response to be reflected in the share price.

This finding is not completely in line with the conclusion established by Khanal, Mishra and Mottaleb (2014)[56], who found out that average cumulative ARs within a four-day estimation period as well as within relatively longer timeframes are positive. It is well established that the US market on which the latter literature source was based is highly liquid and sophisticated, and therefore is more likely to present significant investor reactions immediately following the announcements. On the other hand, the lack of local equity market reaction probably occurred due to the domestic market's limitations in relaying changes in any firm's economic prospects on to the firm's share price.

The general positive sentiment might imply that since the local market is quite inactive, M&A announcements are perceived as a major event around which period, prices tend to overreact. In fact, one stockbroker suggested that the shallow level of daily trading tends to push the domestic equity market to overshoot share price rises.

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[55] Vide Section 4.3.4, Table 4.9, p. 76
[56] Vide Section 2.4.2, p. 22

Positive market perceptions of M&A's are not a prevailing belief in the literature. M&A literature provides a vast array of studies on shareholder wealth arising from M&A, the results of which seem inconsistent. Among the studies indicating shareholder loss of value upon M&A are those by Subeniotis *et al.* (2011)[57].

5.4.3 Tendency for the Market to be Off-track

It is noteworthy that positive ARs exhibited over wider time windows contrasts with the actual shareholder value registered in the financial statements. Local investors may have raised expectations of future financial gains resulting from M&A activity. Yet, financial results may have failed to prove that added value in every financial aspect is invariably achieved through M&A. This is because financial indicators including ROA, OCF and Cost-to-Revenue ratios have not shown added company value pre vs post-acquisition.

These findings highlight the possibility that the market may not always be a good indicator of the actual value registered in the financial statements. Indeed, as brokers rightly pointed out[58], share price movements may not reflect true measures of M&A success since the former may include excessive market sentiment hype generated through overestimated synergy expectations.

[57] Vide Section 2.4.2, p. 22
[58] Vide Section 4.4.6, p. 93

5.5 Have the Perceived Value and Financial Results Converged?

Chapter 4 revealed that coreps' positive perceptions of the synergy potential[59] and the impact on the financial performance[60] are more optimistic than the researcher's workings of actual financial performance. Moreover, brokers' assessment[61] of acquiring firms' financial performance generally converged with those of the researcher. This indicates a high degree of objectivity exercised by both the brokers and by the researcher in their assessments.

Most probably, this divergence between coreps' perceived value and actual performance emerged due to coreps' intrinsic bias in favour of their respective companies' M&A activity. Alternatively, there might have been other qualitative characteristics attributed to M&A activity which were not revealed to the public, but which elevated coreps' opinion as they were beneficial to the overall corporate strategy. Such factors could include the attainment of diversification, the capture of a wider client base, the enhancement of the company's HR expertise and/or improved quality standards.

[59] Vide Section 4.4.3, p. 81-83
[60] Vide Section 4.4.5, p. 87-88
[61] Vide Section 4.4.5, p. 88

5.6 FACTORS CONTRIBUTING TO THE SUCCESS/FAILURE OF M&A ACTIVITY

Respondents' views shed light on the most critical factors contributing to M&A's success or failure.

5.6.1 Traits in Value-enhancing M&As

Coreps identified the main success factors, these being grouped under three main headings as shown in Figure 5.3.

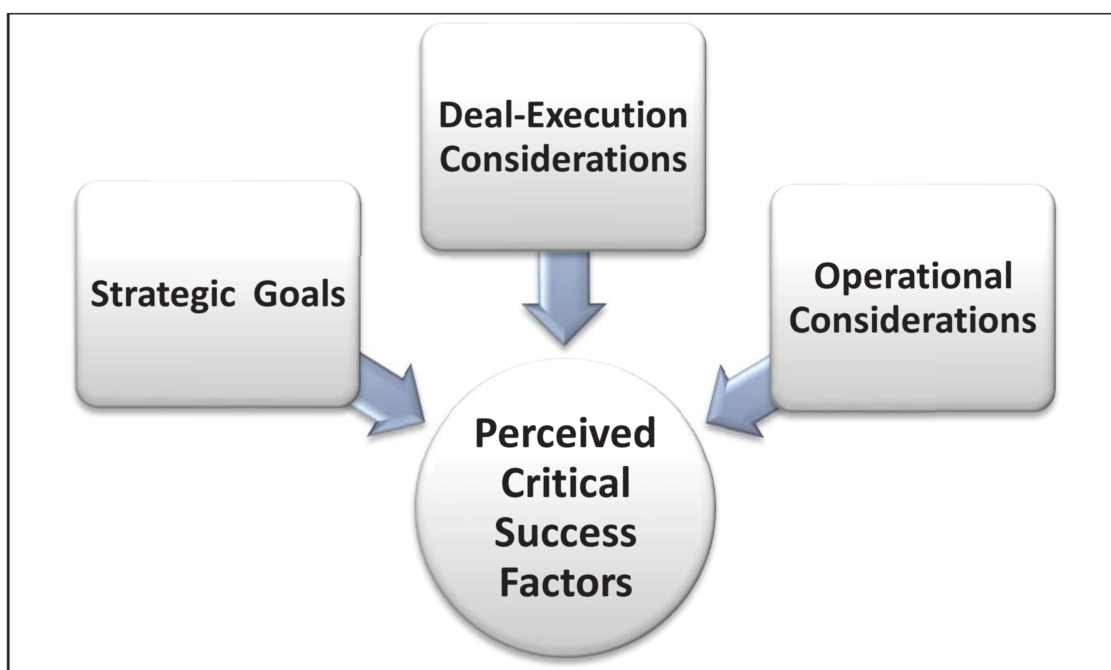


Figure 5.3: Coreps' Perceived Critical Success Factors

A. Strategic Goals

The most important M&A objective in line with companies' corporate strategy is found to be expansion of customer base[62]. Among those respondents opting for

[62] Vide Section 4.4.2, p. 78

this response were coreps whose firms were determined to be successful according to the review of financial information. The latter further commented that the alignment of M&A objectives to the overall corporate strategy was a critical step for success to be achieved.

As many say*: "A Goal without a Plan is just a wish."* Indeed, Stage One of the M&A process by Sudarsanam (2003) [63] should be taken seriously by management such that well-developed strategic plans specify how to widen the product/service portfolio. Such strategies help the firm act proactively to any changes in the business segment in which it operates.

It also follows that the M&A plan must also incorporate how resources, mainly financial and those related to HR, will be utilised in the most efficient and effective manner. For a combined firm to operate effectively, it may need to adopt new strategies regarding HR deployment. However, such firms may be discouraged from making employees redundant. Given that firms under analysis are publicly listed, they may face higher public scrutiny by employees' unions and by the public in general.

B. Deal-Execution Considerations

Coreps also considered due diligence to be crucial for M&A success[64]. Effective due diligence can identify potential issues just before the deal closes so that any issue which affects target valuation is identified. In fact, inadequate due diligence

[63] Vide Section 2.5, p. 28-29
[64] Vide Section 4.4.2, p. 80

was also identified by brokers as one of the reasons for target overvaluation and consequently, M&A failure[65].

During this execution stage, coreps highly regarded the importance for management to act rationally when planning an M&A, as over-enthusiastic approaches tend to destroy the prospects of M&As[66]. It can be quite a common tendency for management to overestimate the potential synergies from the deal. Whenever this happens, there is greater likelihood that the deal renders losses for shareholders.

C. Operational Considerations

Successful M&As require attention for operational challenges. Coreps highly considered a well-executed integration plan that target the attainment of strategic objectives through the acquired company to be crucial for the success of a deal[67]. KPMG (2016) also identified the former to be the most critical success factor.

Similar to findings by the National Center for the Middle Market (2018)[68], among the most challenging tasks perceived by both coreps[69] and brokers[70] is organisational integration. For M&As to yield the desired synergies, business functions such as Purchasing, IT, Finance and Marketing should be integrated with those of the acquirer. However, that might be challenging since knowledge attributed to each function may remain embedded within the firm.

[65] Vide Section 4.4.5, Table 4.18, p. 90
[66] Vide Section 4.4.4, p. 84-85
[67] Vide Section 4.4.2, p. 79-80
[68] Vide Section 2.5.4, p. 32
[69] Vide Section 4.4.3, p. 83-84
[70] Vide Section 4.4.5, p. 91

Among the implementation barriers throughout the integration process, managing cultural differences was also perceived as challenging among brokers[71]. Burnie, Hurtt and Langsam (2005)[72] also consider major cultural differences to be one key factor for low M&A success. Such cultural gaps are more likely to exist in cross-border deals, as a result of which, business relations may suffer. As stated by one respondent: *"When the target is run by people of a different culture and work ethic across different time zones, cultural shock will occur."* Human resources can be one of the most unpredictable elements of an M&A, and in these circumstances, there is the risk that people from different cultures do not bond well together.

5.6.2 Traits in Value-destroying M&As

A. Factors beyond Companies' Control

From the review on companies' financial information and from brokers' feedback[73], it was revealed that the failure of one particular M&A occurred because around the period of the acquisition, the sector was severely hit by adverse market conditions. This highlights that at times where the nature of the industry is highly sensitive to the international economic climate, M&A success is sometimes determined by factors which are beyond the control of management capability. In such cases, M&A effectiveness could be better assessed during times when the company is no longer hit by adverse market conditions.

[71] Vide Section 4.4.5, p. 91-92
[72] Vide Section 2.6, p.34
[73] Vide Section 4.4.5, Table 4.18, p. 90

One could also emphasise the importance of scenario analysis when devising M&As. In this specific case, the acquiring company could have systematically assessed how an unexpected change in the price of a commodity that is critical for the functioning of any modern economy could have hit the prospects of the combined company.

B. Target Mispricing

Moreover, inappropriate due diligence was also regarded by brokers to have been the main cause of target mispricing involved in one of the M&As that were analysed in this study, and which eventually turned out to be a remarkably unsuccessful M&A[74]. In this case, it should have been management's role in taking the necessary steps to prevent such failures. This view is similar to that of Magi Tarasovich (2014)[75] who concluded that acquisition premiums are positively correlated to long-term underperformance. Even literature from local sources, such as that of Rizzo (2010)[76] mentions the existence of target overvaluation which can lead to the failure of M&As.

5.7 Conclusion

This chapter has discussed the main findings from this study. Discussions focused on the different viewpoints obtained when analysing both the actual and perceived shareholder value arising from M&A activity. Additionally, the critical success factors identified from this research were also discussed.

[74] Vide Section 4.4.5, Table 4.18, p. 90
[75] Vide Section 2.4.1, p. 20
[76] Vide Section 2.7, p. 35

CHAPTER 6

SUMMARY, CONCLUSION & RECOMMENDATIONS

"It is good to have an end to journey toward; but it is the journey that matters, in the end."

(Le Guin, n.d.)

6.1 SUMMARY

This study seeks to establish whether M&A activity constitutes an effective vehicle through which corporations add value. More specifically, this research aims to analyse the impact of M&A activity on the financial performance of acquiring companies, to examine the equity market's reaction to companies' M&A announcements and to obtain company representatives' as well as brokers' perceptions on M&A value creation.

Prior to embarking on such empirical assessments, a thorough analysis of literature sources on the subject was made. Subsequently, a review on acquiring companies' financial information was undertaken, an Event Study on acquirers' share price movements was conducted and ten semi-structured interviews with company representatives and stock brokers were held.

The analysis of actual financial results found that for most companies covered by this study, *growth in EBITDA* was the only financial aspect which experienced considerable impact from the year of acquisition onwards. With respect to remaining financial aspects, different results were obtained by the analysed M&As. However, overall, there was no discernible impact on *return on assets*, *operating cash flow* or *financial gearing*. *Operating efficiency* witnessed a yearly decline post-M&A.

The Event Study showed that within relatively short timeframes around M&A announcements, the market overall showed no statistically significant abnormal reaction to the news. However, when assessing timeframes within and beyond 26 days, it was found that the reaction was significantly positive.

Materially different perceptions of the acquirers' financial performance were registered by coreps and brokers, with the latter's opinion generally tending to be more conservative and more convergent to the picture coming out of the researcher's financial result analysis. Coreps' positive views might indicate a certain degree of subjectivity in their responses.

6.2 CONCLUSION

The study concludes that while each M&A differed in terms of its effects on companies' financial performance, the ones that exhibited evidence of value creation possessed certain common characteristics. Companies which have registered increases in shareholders' rate of return in fact tended to be accompanied by enhanced operational efficiency, measured through improved *cost-to-revenue* dynamics, and sound financing decisions. However, considering that only a small proportion of companies accomplished this degree of success, one can conclude that the attainment of improved results following M&A is proved to be quite challenging and time consuming to realise in practice. Overall, although M&As managed to achieve growth potential, operational efficiency suffered, indicating that the attainment of a smooth consolidation process seemed to consume a considerable management effort. In other words, the theoretical positive impact of M&As on shareholder value tends to be elusive for the larger number of companies analysed in this study. This could easily be the case if target companies need major enhancements before being integrated with the acquiring company.

Furthermore, it was concluded that the local equity market reaction around M&A announcements was not a good indicator of M&A success. Indeed, initial market reactions, which tended to be positive, contrasted with less optimistic actual results registered yearly. It is likely that this positive market sentiment could have originated from the shallow level of trading in the MSE, causing prices to overshoot upon such announcements.

It also turned out that certain key factors, namely the need for a focused strategic plan, the importance of an effective due diligence and a strong management that can push successful integration, add the likelihood of M&A success. It all depends on managerial expertise to recognise the importance of these issues while avoiding exertion of any over-enthusiasm upon the deal.

6.3 RECOMMENDATIONS

This study recommends that acquirers:

A. Critically evaluate ways on how Profitability can be maximised through M&A for the Ultimate Benefit of the Shareholder

Although M&A activity has rendered sufficient growth, improving profitability post-M&A has proved to be a major challenge and a time-consuming exercise, especially if further restructurings of the target were needed *(Vide Section 5.3.1).* If the M&A activity does not achieve higher shareholder value, doubts arise on whether funds are being employed in the best way possible. This may be done by critically evaluating whether other expansion strategic plans apart from M&A can and should be resorted to. Such plans might constitute of organic corporate

growth, either through an expansion of the existing customer base or by engaging in new product development, which may result in higher, sustained and more immediate shareholder value creation.

B. Assess whether Operational Efficiency could be better Achieved by Exerting Managerial Decisions over the Target

This study revealed that it may also be challenging for synergies to be reflected in higher operational efficiency as captured in the financial statements *(Vide Section 5.3.2).* This task is perceived as even more challenging when the target is located overseas. However, acquirers should still take the opportunity to make the most of two newly merged firms by aligning the target's managerial functions within its various departments to that of the acquirer, thereby benefiting from operational synergy.

Such move should make M&A activity more conducive to shareholder value creation than merely considering it as another financial investment opportunity for the acquiring firm. Moreover, for business functions to be merged successfully, the acquirer needs to obtain a thorough understanding of the target operations.

C. Acknowledge the Weaknesses of the Maltese Market in Predicting the level of M&A success

It is a well-known fact that the market performance of acquirers around M&A announcements are only based on investors' rather subjective perceptions of the likelihood of success. Coreps must remain aware of the reality that if the market reaction around announcements are positive, that does not necessarily imply that

companies' market performance will not deteriorate after the M&A takes place. In the long-term, the market will only thrive if the M&A activity translates into promising financial results.

In fact, this study has shown that actual financial results have diverted away from initial positive market reactions *(Vide Section 5.4.3).* This implies that management must remain focused on the fact that good financial results are a key element for investor sentiment to remain positive in the long-term.

D. Keep Certain Critical Success Factors in Mind upon undertaking M&A and Avoid any Management Over-Enthusiasm during the Preparation for the Deal

Like any other corporate activity, M&As incorporate a level of risk. Thus, it is of crucial importance that management is competent enough to exert adequate caution during various M&A stages *(Vide Section 5.6).* Prior to undertaking the deal, the acquiring firm should be aware of other available targets on the domestic or international market in order to be more confident that the right target is acquired. Following the deal execution, the challenge of organisational and cultural integration will feature high on management's agendas. However, most importantly, management cannot be carried away by over-enthusiasm because such attitude could lead to target mispricing, and ultimately, M&A failure.

6.4 AREAS FOR FURTHER RESEARCH

Areas for further academic research which emerge from this study include:

A. Recent European M&As in Quoted Companies: A Financial Perspective

This study could be applied to M&A acquirers being listed in foreign stock exchanges. Consequently, the main findings emerging from such European deals could be compared to the findings of this study.

B. Recent M&As in Maltese Listed Entities: The Perspective of Target Companies

This study focused solely on Maltese Listed acquiring entities. One could also analyse the financial implications of Maltese Listed companies after being acquired by other firms.

C. A Replication Study

A further study can be carried out a few years down the line to evaluate whether there were any changes in the impact of M&As on the financial and market performance of acquiring companies.

6.5 CONCLUDING REMARKS

M&As, like any other type of corporate restructuring, constitute one important vehicle in management's toolkit through which value can be created for the benefit of shareholders and other stakeholders. However, M&As are not riskless activities. Therefore, it follows that shareholder value creation is not so simple to

achieve. Although the level of domestic M&A activity is still fairly low, companies have become aware of the Maltese saturated market and have started to highly regard M&As as an effective instrument to expand operations both domestically and overseas.

In fact, this is in line with one of the comments made by Roger Altman, Evercore Executive Chairman, in reply to a *Wall Street Journal* article, who focused on the opportunities presented by corporate restructurings effected through M&As, when he stated that:

> *"Reasonable mergers generate substantial synergies, so that provides for earnings and cash-flow growth even if it doesn't provide for revenue growth, and I think that's a big driver"* (Yahoo Finance, 2015).

APPENDICES

APPENDIX 1.1: MSE LISTED COMPANIES

The following is the official list of MSE listed Companies for 24 September 2018.

Table A1.1-1: Official List of MSE Listed Companies

Equity	Bonds
Bank of Valletta plc	1923 Investments plc
FimBank plc	6pm Holdings plc
Go plc	AX Investments plc
Grand Harbour Marina plc	Bank of Valletta plc
HSBC Bank Malta plc	Bortex Group Finance plc
Lombard Bank plc	Central Business Centres plc
Loqus Holdings	Corinthia Finance plc
Malita Investments plc	Dizz Finance plc
Malta International Airport	Eden Finance
MaltaPost plc	GAP Group plc
Malta Properties Company plc	Gasan Finance Company plc
Mapfre Middlesea plc	GlobalCapital plc
Medserv plc	Grand Harbour Marina plc
MIDI plc	Hal Mann Vella Group plc
PG plc	Hili Properties plc

Table A1.1-1: Official List of MSE Listed Companies - Continued	
Plaza Centres plc	HSBC Bank Malta plc
RS2 Software	Hudson Malta plc
Santumas Shareholdings plc	Izola Bank plc
Simonds Farsons Cisk plc	Mariner Finance plc
Tigne' Mall p.l.c.	Medirect Bank plc
Trident Estates plc	Mediterranean Investments Holding plc
Tumas Investments plc	Mediterranean Maritime Hub Finance plc
	Medserv plc
	MIDI plc
	Pendergardens Developments plc
	Plaza Centres plc
	Premier Capital plc
	SD Finance plc
	Simonds Farsons Cisk plc
	Stivala Group Finance
	United Finance plc
	Virtu Finance plc
	Von Der Heyden Group Finance plc.

APPENDIX 2.1: ADVANTAGES AND DISADVANTAGES ON THE USE OF ACCOUNTING-BASED MEASURES

Thanos and Papadakis (2011) presented some advantages of the use of accounting-based measures over other measures.

A. Firstly, such measures *“measure actual, realised performance as reported in the annual financial statements,”* implying objectivity.
B. Furthermore, different accounting-based measures capture different characteristics of M&A performance, being profitability, growth, efficiency or liquidity.
C. By measuring the actual financial performance, one could also evaluate whether potential synergies between the two merged firms were reflected in the operating performance.

However, the use of accounting-based measures may pose some limitations.

A. Firstly, aspects of non-financial performance are not captured by accounting measures. Thus, basing M&A performance solely on such measures may result in incomplete facts.
B. Motives like hubris and agency theory cannot be evaluated by accounting-based measures, thus this measure assumes that the sole motive for M&As is profit realisation
C. Accounting measures can only assess the overall firm performance. It is very difficult to measure the performance of specific M&As. This is

especially evident in cases where the acquirer takes over multiple M&As in a short period of time.

D. The wide variety of accounting measures applied in the literature makes it difficult to compare outcomes across different studies.

APPENDIX 3.1: RATIOS APPLIED TO ASSESS A CREDIT INSTITUTION'S PERFORMANCE

This section explains the ratios used to assess the measures of financial performance for one particular firm being a credit institution.

Key Measures

A. **Profitability**:

$$\text{Return on Assets} = \frac{Profit\ after\ Tax}{Total\ Assets} * 100\%$$

This measure is the same as the remaining firms being analysed.

B. **Growth:**

Operating Profit Growth

C. **Operating Cash Flow Performance:**

$$\text{Liquid Assets Ratio} = \frac{Total\ Cash\ Resources}{Total\ Assets} * 100\%$$

Where Total Cash Resources = treasury bills + placements with banks + cash. According to Sree Rama Murthy (2004), the Liquid Assets Ratio is the proportion of assets kept by a bank to meet any cash shortages which may arise.

D. **Financial Gearing:**

$$\frac{Total\ Liabilities}{Shareholders'Funds + Total\ Liabilities} * 100\%$$

E. Proportion of Costs to Revenue

Moreover, among measures to assess further factors to M&A success, the proportion of costs to revenue was calculated. The following ratio was applied to the credit institution:

$$\frac{Employee\ Compensation + Other\ Operating\ Costs}{Total\ Revenue}$$

Where revenue = Net Income + Commission Fee Income + Target Revenue.

APPENDIX 3.2: THE MARKET MODEL (MM)

According to Pike, Neale and Linsley (2015), the MM is *"a device relating the expected (in practice, actual) return from individual securities to the expected/actual return from the overall stock market."*

It takes the form of a hypothesised regression line of Equation A3.2-1:

Equation A3.2-1: The Hypothesised MM

$R_j = \alpha_j + \beta_j R_m$

where

- α is the return of security when the market return is zero.
- β is a correlation coefficient which measures the extent to which return on security j (R_j) moves in line with the market return (R_m).

Variations in a security's return may originate both from systemic risk factors as well as from non-systemic factors. The former are market-related factors which systematically affect the risk and thus the return of all securities while the latter are risk factors specifically attributed to each company. The systemic relationship is captured by β. β implies how the individual stock return is expected to vary given variations in the overall market return.

However, in practice it is difficult to base the MM on expected returns. Thus β is measured by plotting actual share returns of individual companies and actual returns for the overall market i.e. R_j and R_m respectively. The fitted regression line now takes the form of Equation A3.2-2:

Equation A3.2-2: Fitted Regression Line of the MM

$R_j = \hat{\alpha}_j + \hat{\beta}_j R_m + \mu$

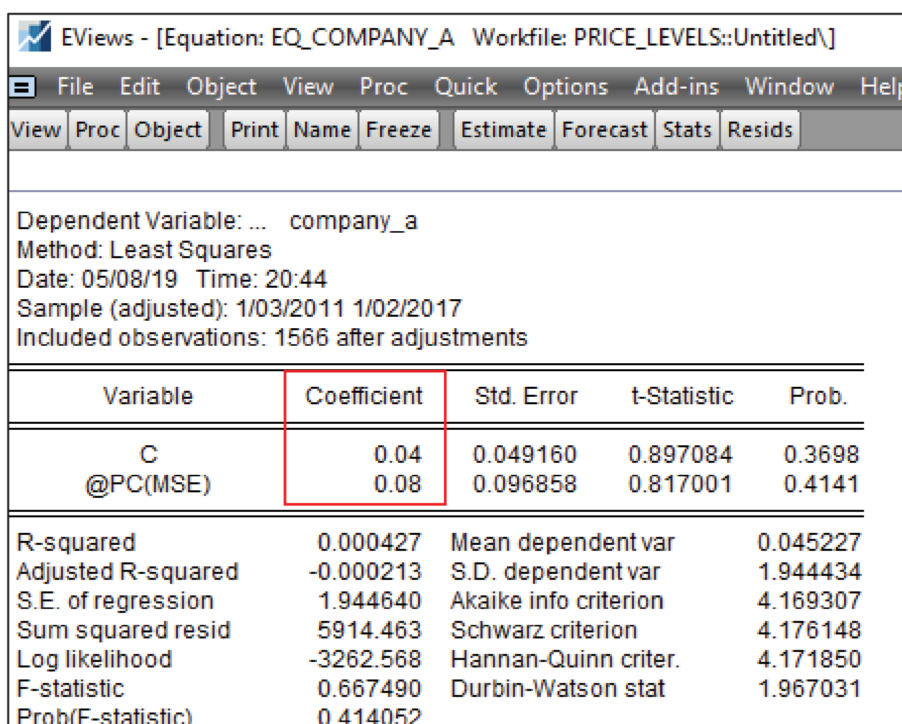
When this model is applied to the Event Study referred to in Section 3.3.2, μ is interpreted as the ARs i.e. the difference between actual and theoretical returns.

APPENDIX 3.3: RESULTING REGRESSIONS ESTIMATED BY EVIEWS

The following snapshots are representations of the estimation outputs of each of the five regressions in line with the MM which were estimated by EViews. Each regression takes the form of: $R_{it} = \alpha_i + \beta_i R_{mt}$ where the numbers labelled "coefficient" (outlined by red) represent the estimating parameters α_i and β_i respectively. After the estimation of each regression, the residual for each daily share price observation, i.e. AR_{it} could be viewed by selecting the *view* tab which is visible in each snapshot. However, it is to be noted that the only AR_{it} readings which were taken in consideration for this study were those of the estimation period (-30, +30).

Each snapshot underneath is also accompanied by the resulting regression.

(i) Regression of Company A: $R_{it} = 0.04 + 0.08R_{mt}$



EViews - [Equation: EQ_COMPANY_A Workfile: PRICE_LEVELS::Untitled\]

File Edit Object View Proc Quick Options Add-ins Window Help

View Proc Object Print Name Freeze Estimate Forecast Stats Resids

Dependent Variable: ... company_a
Method: Least Squares
Date: 05/08/19 Time: 20:44
Sample (adjusted): 1/03/2011 1/02/2017
Included observations: 1566 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.04	0.049160	0.897084	0.3698
@PC(MSE)	0.08	0.096858	0.817001	0.4141

R-squared	0.000427	Mean dependent var	0.045227
Adjusted R-squared	-0.000213	S.D. dependent var	1.944434
S.E. of regression	1.944640	Akaike info criterion	4.169307
Sum squared resid	5914.463	Schwarz criterion	4.176148
Log likelihood	-3262.568	Hannan-Quinn criter.	4.171850
F-statistic	0.667490	Durbin-Watson stat	1.967031
Prob(F-statistic)	0.414052		

(ii) Regression of Company B: $R_{it} = 0.03 + 0.49R_{mt}$

EViews - [Equation: EQ_COMPANY_B Workfile: PRICE_LEVELS::Untitled\]

File Edit Object View Proc Quick Options Add-ins Window Help

View | Proc | Object | Print | Name | Freeze | Estimate | Forecast | Stats | Resids

Dependent Variable: ... company_b
Method: Least Squares
Date: 05/08/19 Time: 20:44
Sample: 1/05/2010 12/29/2017
Included observations: 2084

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.03	0.029806	0.940348	0.3471
@PC(MSE)	0.49	0.056106	8.698233	0.0000

R-squared	0.035065	Mean dependent var	0.034827
Adjusted R-squared	0.034602	S.D. dependent var	1.384359
S.E. of regression	1.360197	Akaike info criterion	3.454095
Sum squared resid	3851.983	Schwarz criterion	3.459510
Log likelihood	-3597.167	Hannan-Quinn criter.	3.456079
F-statistic	75.65925	Durbin-Watson stat	2.099025
Prob(F-statistic)	0.000000		

(iii) Regression of Company D: $R_{it} = -0.02 + 1.85R_{mt}$

EViews - [Equation: EQ_COMPANY_D Workfile: PRICE_LEVELS::Untitled\]

File Edit Object View Proc Quick Options Add-ins Window Help

View | Proc | Object | Print | Name | Freeze | Estimate | Forecast | Stats | Resids

Dependent Variable: ... company_d
Method: Least Squares
Date: 05/08/19 Time: 20:44
Sample: 1/05/2010 12/29/2017
Included observations: 2084

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.02	0.036360	-0.520977	0.6024
@PC(MSE)	1.85	0.068443	27.04749	0.0000

R-squared	0.260014	Mean dependent var	0.006848
Adjusted R-squared	0.259659	S.D. dependent var	1.928435
S.E. of regression	1.659285	Akaike info criterion	3.851610
Sum squared resid	5732.219	Schwarz criterion	3.857025
Log likelihood	-4011.378	Hannan-Quinn criter.	3.853594
F-statistic	731.5666	Durbin-Watson stat	2.068134
Prob(F-statistic)	0.000000		

(iv) Regression of Company E: $R_{it} = 0.05 + 0.15R_{mt}$

EViews - [Equation: EQ_COMPANY_E Workfile: PRICE_LEVELS::Untitled\]

File Edit Object View Proc Quick Options Add-ins Window Help

View | Proc | Object | Print | Name | Freeze | Estimate | Forecast | Stats | Resids

Dependent Variable: ... company_e
Method: Least Squares
Date: 05/08/19 Time: 20:44
Sample (adjusted): 2/08/2002 12/30/2009
Included observations: 2059 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.05	0.025217	1.991236	0.0466
@PC(MSE)	0.15	0.032445	4.545455	0.0000

R-squared	0.009944	Mean dependent var	0.053611
Adjusted R-squared	0.009463	S.D. dependent var	1.149203
S.E. of regression	1.143752	Akaike info criterion	3.107477
Sum squared resid	2690.905	Schwarz criterion	3.112945
Log likelihood	-3197.147	Hannan-Quinn criter.	3.109482
F-statistic	20.66116	Durbin-Watson stat	1.806364
Prob(F-statistic)	0.000006		

(v) Regression of Company F: $R_{it} = 0.06 + 0.34R_{mt}$

EViews - [Equation: EQ_COMPANY_F Workfile: PRICE_LEVELS::Untitled\]

File Edit Object View Proc Quick Options Add-ins Window Help

View | Proc | Object | Print | Name | Freeze | Estimate | Forecast | Stats | Resids

Dependent Variable: ... company_f
Method: Least Squares
Date: 05/08/19 Time: 20:44
Sample: 1/01/2014 12/29/2017
Included observations: 1043

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.06	0.045933	1.277034	0.2019
@PC(MSE)	0.34	0.104036	3.301260	0.0010

R-squared	0.010361	Mean dependent var	0.065631
Adjusted R-squared	0.009410	S.D. dependent var	1.488895
S.E. of regression	1.481874	Akaike info criterion	3.626407
Sum squared resid	2285.983	Schwarz criterion	3.635899
Log likelihood	-1889.171	Hannan-Quinn criter.	3.630007
F-statistic	10.89832	Durbin-Watson stat	1.809584
Prob(F-statistic)	0.000995		

APPENDIX 3.4: TESTING THE STATISTICAL SIGNIFICANCE OF AVERAGE CUMULATIVE ARS

This process was done to determine whether average cumulative ARs over different time windows, denoted by GRi_{T}, were statistically different from zero, or otherwise. Cumulative ARs for individual M&As were aggregated and averaged across firms by calculating the average cumulative ARs as specified in Equation A3.4-1:

Equation A3.4-1 Average Cumulative AR Formula

$GR_{NT} = \frac{1}{N} \sum_{i=1}^{N} CR_{IT}$

where:

GR_{NT} is the average cumulative ARs for N M&As, in this case amounting to five, calculated over each time window in consideration.

Equation A3.4-2: Null Hypothesis of the Event Study

H_0: $GR_{NT} = 0$

In this study, the null hypothesis, specified by Equation A3.4-2, was that average cumulative ARs of M&A announcements over various time windows is equal to zero, which implied that no cumulative ARs are registered upon announcements of M&A events. Rejecting the null hypothesis implied significant influence on firms' value upon M&A announcements.

Each result of GR_{NT} established for each event window was tested for statistical significance at 95% confidence level. This was done by representing a Z statistic and a p value respectively, in the format of Table A3.4-1:

Table A3.4-1: Presentation Format of Average Cumulative ARs

Days	GR_{NT}	Z Statistic	P value
(-1, +1)			
(-5, +5)			
(-10, +10)			
(-20, +20)			
(-30, +30)			
(-5, +10)			
(-5, +20)			
(-5, +30)			

A computed Z statistic greater than 1.96 implies that one is confident at 95% level of significance that GR_{NT} is statistically different from zero and therefore, H_0 is rejected. Accordingly, the p value needs to be 0.05 or less.

APPENDIX 3.5: INTERVIEW SCHEDULES

Interview Questions to Company Representatives

A. Strategic Factors related to M&A

1. Upon making the acquisition, what was the main objective for the setting up of the company`s corporate strategy? Please elaborate on the chosen answer.

growth strategy

diversification strategy

operational restructuring

Financial restructuring

---

2. What were the main motives behind M&A? Please elaborate.

	Yes	No
Enter New Lines of Business		
Expand Customer Base		
Expand Geographic Reach		
Enhance Intangible Property/Acquire New Technology		
New Target Opportunities		
Widen the Supply Chain		
Respond to Shareholders' Investor appetite		
Defend against Competition		
Benefit from Cost Synergies		

3. What type of Synergy analysis was performed prior to the deal? Please elaborate on the process undertaken.

   Revenue & Cost Synergies

   Financial Synergies

   Combination of the above synergies

4. In your opinion, which is the most critical success factor for an acquisition? Please state why you think so.

   Well executed integration plan

   Correct target valuation

   Effective Due Diligence

   Positive Economy-wide Conditions

5. From a scale of 1 to 5 (1: Very Low, 2: Quite Low, 3: Moderate, 4: Quite High and 5: Very High) how indispensable do you think that each of the following is for acquisition success?

	1	2	3	4	5
Access to credit from external sources					
Access to internal cash reserves					
Low interest rate environment					
Stable macroeconomic environment					

B. Operational Considerations to M&A

6. A) Has the acquisition deal provided opportunities for operational synergy to be effective?

   Yes

   No

   B) If Yes, please explain the impact which the acquisition had on the following:

- company's revenues
- line operations such as HR, product line management and general management?

7. From a scale of 1 to 5 (1: Very Easy, 2: Easy, 3: Neither Easy nor Difficult, 4: Difficult and 5: Very Difficult) were the following considered as key challenges for an M&A to yield operational synergies?

	1	2	3	4	5
Cultural/Organisational Integration					
Industrial Relations					
Human Resources Rationalisation					
IT Resources					
Others					

C. Valuation Considerations to M&A

8. Which factors were considered in determining a target valuation?

	Yes	No
Target Profitability		
Target Growth		
Target Business Risk		
Demand by other Acquirers		

Others. Please Specify

____

9. Are the following considered as key challenges that hinder a good valuation of the target?

	Yes	No
Lack of Information		
Management over/under enthusiasm		
Shareholder Pressure		

Others. Please Specify

____

10. In your opinion, are there any requirements which are essential when establishing a value for the target?

11. What would you advise your company to do differently if the valuation of the acquisition is to be done all over again?

12. Are there any generic lessons to be stressed to ascertain that a company pays the right price for its target?

D. Impact of M&A on Financial & Market Performance

13. From a scale of 1 to 5 (1: Very Low, 2: Quite Low, 3: Moderate, 4: Quite High and 5: Very High) please rate the impact of the acquisition on:

	1	2	3	4	5
Profitability					
Operating Cash Flow					
Growth					
Efficiency					
Financial Gearing					

14. Can you describe the stock market reaction upon announcement of acquisition?

15. Can you describe the long-term impact of the acquisition on overall shareholder value?

Interview Questions to Stockbrokers

A. Level of M&A Activity

1. How active do you consider the domestic M&A market to be?

B. Valuation Considerations to M&A

2. In your opinion, have there been any indications of target mis-pricing?

3. What is the most common method of financing M&A locally?

4. Are you aware of any particular successful financing method for a specific M&A with which you might be familiar?

C. Impact of M&A on Financial Performance

5. A. Which acquisitions subject to this study do you consider them as ‘successful’ when measured by their impact upon the acquirer`s financial performance?

   B. For each acquisition subject to this study, what was the impact of M&A on the acquirer’s overall financial performance?

6. From your experience, can one distinguish between short-term and long-term impact of any acquisition you are informed about?

7. Do firms undertaking M&A of firms producing related products perform significantly different from M&A across unrelated firms?

8. Which of the following do you consider as main contributory factors of low M&A success?

   Paying excessive premiums for targets

   Executives rushing through the deal

   Management Hubris

   High employee turnover

   Cultural differences between the two firms

   Industrial Relations

   Strategic Misfit between the target and the acquirer

   Others. Please Specify

D. Impact of M&A on Shareholder Value

9. Generally, what is the local investor sentiment upon announcement of an acquisition?

10. Are share price movements of acquiring firms a good indicator of an M&A success?

11. In your experience, do short-term share prices in an acquiring firm over react to M&A announcements?

12. Are longer term share price fluctuations a better indicator of an M&A's success than short-term fluctuations?

13. In your opinion, which is the better gauge for merger's success?

    Share price fluctuations or

    An analysis of financial results obtained through an examination of accounting ratios?

14. Generally, do local M&As signify positive shareholder value?

APPENDIX 3.6: LETTER OF INTRODUCTION AND INVITATION TO PARTICIPATE

Faculty of Economics, Management & Accountancy
University of Malta
Msida MSD 2080, Malta
Tel: +356 2340 2720
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DEPARTMENT OF ACCOUNTANCY
LETTER OF INTRODUCTION AND INVITATION TO PARTICIPATE IN RESEARCH

11/04/18

Dear Sir / Madam,

This is to introduce Anna Rapa, a Master in Accountancy student at the Faculty of Economics, Management and Accountancy at the University of Malta.

The student is undertaking research within the Department of Accountancy regarding Financial Management / Corporate Finance. This research aims to explore the financial implications of mergers and acquisitions on acquirer companies.

In this regard, the said student would like to invite you to contribute on this research project by participating in an interview covering aspects of this topic/providing relevant information at your convenience.

This research is important and valuable in enhancing understanding of the subject area and helping practicing professionals and practitioners like yourself, as well as informing policy and support initiatives. The student would be happy to share with you general findings ensuing from this research.

The student is to ensure that any information provided will be treated in confidence, also in line with general Faculty research requirements and ethical obligations. A consent form will be separately provided. You are, of course, entirely free to discontinue your participation at any time or to decline to answer particular questions.

While I thank you beforehand for your consideration as well as your possible kind support and involvement in this important research, should you have any queries on this research please feel free to contact me via email at: accountancy.fema@um.edu.mt.

Yours sincerely,

Dr. Peter J Baldacchino
Head, Department of Accountancy
Faculty of Economics, Management and Accountancy

APPENDIX 3.7: STATISTICAL DATA ANALYSIS

Questions structured in 5-point Likert scale were analysed through a Friedman test.

The Friedman test was applied to determine whether mean rating scores of some related aspects differed significantly from each other. These mean rating scores rate from 1 to 5 where 1 resembles the response *very easy / very low* and 5 corresponds to *very difficult/very high*. So the larger the mean rating score, the higher is the difficulty/impact/indispensability. All Friedman tests were carried out using 95% confidence interval.

The **Null Hypothesis (H_0)** states that the mean rating scores provided to the related aspects vary marginally and it is accepted if the p-value exceeds the 0.05 level of significance.

The **Alternative Hypothesis (H_1)** specifies that the mean rating scores vary significantly, and it is accepted if the p-value is less than the 0.05 criterion.

Test 1: Indispensable aspects for M&A

The Friedman Test was carried out to determine whether indispensability of certain aspects differed significantly.

Table A3.7-1: Indispensability of Financial Aspects	**Mean**	**Std. Deviation**	**Minimum**	**Maximum**
Access to credit from external sources	4.80	0.447	4	5
Access to internal cash reserves	4.60	0.548	4	5
Stable macroeconomic environment	4.40	0.548	4	5
Low interest rate environment	3.20	1.095	2	4

$X^2(3) = 9.15$, $p = 0.027$

The mean rating score provided to *Access to credit from external sources* $_{(m=4.80)}$ is the largest indicating highest indispensability. This is followed by *Access to Internal cash reserves* $_{(m=4.60)}$, *Stable macroeconomic environment* $_{(m=4.40)}$ and *Low Interest rate environment* $_{(m=3.20)}$. Although all rating scores exceed 3, indicating considerable impact, the p-value of 0.027 is less than the 0.05 level of significance. This indicates that these mean rating scores vary significantly. Hence, we can generalise that access to credit from external sources, access to internal cash reserves and stable macroeconomic environment are significantly more indispensable than a low interest rate environment.

Test 2: Rating the difficulty of M&A challenges to yield operational synergies

The Friedman Test was carried out to determine whether the difficulty of the following challenges differed significantly.

Table A3.7-2: Difficulty of Challenges to yield Operational Synergies	Mean	Std. Deviation	Minimum	Maximum
Cultural/organisational integration	3.60	1.517	1	5
Others	3.20	1.304	1	4
Human resources rationalisation	2.40	1.342	1	4
Industrial relations	2.20	1.643	1	4
IT resources	2.20	1.304	1	4

$X^2(4) = 4.00$, $p = 0.119$

The mean rating provided to *industrial relations* (m=2.2), *human resources rationalisation* (m=2.40) and *IT resources* (m=2.20) are less than 3, indicating that these challenges encountered while attempting to yield operational synergies are easier than *cultural/organisational integration* (m=3.60) and *other aspects* (m=3.20). However, it should be noted that these mean scores do not vary significantly because the p-value (p=0.119) exceeds the 0.05 level.

Test 3: Impact of M&A on Financial Performance

The Friedman Test was carried out to determine whether the impact on related aspects differed significantly.

Table A3.7-3: Financial Implications of M&A	**Mean**	**Std. Deviation**	**Minimum**	**Maximum**
Growth	5.00	0.000	5	5
Operating cash flow	4.60	0.548	4	5
Profitability	4.40	0.548	4	5
Financial gearing	3.80	0.837	3	5
Efficiency	3.20	0.837	2	4

$X^2(4) = 13.41$, $p = 0.009$

The mean rating score provided to *growth* (m=5.00) is the largest, indicating highest impact. This is followed by *operating cash flow* (m=4.60), *profitability* (m=4.40), *financial gearing* (m=3.80) and *efficiency* (m=3.20).

Although all rating scores exceed 3, indicating considerable impact, the p-value of 0.009 is less than 0.05 level of significance. This indicates that these mean rating scores vary significantly. Hence, we can generalise *that growth, operating cash flow* and *profitabilit*y have a significantly higher impact of the acquisition than efficiency and financial gearing.

Appendix 4.1: Computations of Financial Ratios

This appendix consists of the computations necessary to carry out the financial analysis of the subject entities. All figures represent the presentation currency of their respective financial statements. A definition of the financial ratios used can be found in Section 3.3 of this study. The explanation of the alternative ratios applied to one firm being a credit institution may be found in Appendix 3.1.

Table A4.1-1: Computations of ROA

Company A			
	Profit after Tax	**Total Assets**	**ROA**
2010	-293,057	5,116,239	-6%
2011	-354,888	7,470,976	-5%
2012	526,536	9,156,332	6%
2013	742,551	9,303,091	8%
2014	-200,000	11,027,000	-2%
2015	-4,800,000	16,080,000	-30%
2016	-12,661,000	8,207,000	-154%
2017	-5,845,000	6,191,000	-94%
Company B			
	Profit after Tax	**Total Assets**	**ROA**
	‘000	**‘000**	
2015	26,411	207,578	13%
2016	20,292	249,752	8%
2017	18,002	251,817	7%
Company C			
	Profit after Tax	**Total Assets**	**ROA**
2014	188,772	36,768,112	1%
2015	2,082,383	90,866,679	2%
2016	1,907,513	97,041,590	2%
2017	3,362,785	135,879,359	2%

Table A4.1-1: Computations of ROA - Continued			
Company D			
	Profit after Tax	**Total Assets**	**ROA**
	‘000	**‘000**	
2014	-16,286	1,012,040	-2%
2015	-3,747	1,159,643	0%
2016	-7,658	1,220,254	-1%
2017	14,897	1,602,317	1%
Company E			
	Profit after Tax	**Total Assets**	**ROA**
	‘000	**‘000**	
2006	2,505	205,820	1%
2007	3,041	216,566	1%
2008	9,083	524,734	2%
2009	8,064	542,841	1%
2010	9,040	567,800	2%
2011	7,227	567,954	1%
2012	6,148	575,244	1%
2013	4,482	609,841	1%
2014	3,907	691,517	1%
2015	5,037	777,543	1%
2016	5,330	862,731	1%
2017	5,703	882,746	1%
Company F			
	Profit after Tax	**Total Assets**	**ROA**
2015	4,491,777	81,141,029	6%
2016	2,977,095	121,453,408	2%
2017	-7,633,559	153,273,143	-5%
Company G			
	Profit after Tax	**Total Assets**	**ROA**
2015	1,325,605	72,208,156	2%
2016	9,336,845	193,351,103	5%
2017	15,889,980	161,128,497	10%

Table A4.1-2: Computations of Growth

Company A		
	EBITDA/Operating Profit	**% Change**
2009	497,266	
2010	-115,191	-123%
2011	-158,699	38%
2012	824,065	-619%
2013	1,152,309	40%
2014	671,755	-42%
2015	-2,047,681	-405%
2016	-9,456,000	362%
2017	-3,210,000	-66%
Company B		
	EBITDA/Operating Profit	**% Change**
	‘000	
2014	49,200	
2015	51,633	5%
2016	61,633	19%
2017	65,574	6%
Company C		
	EBITDA/Operating Profit	**% Change**
	‘000	
2013	N/A	
2014	917,478	N/A
2015	2,760,322	201%
2016	3,132,226	13%
2017	4,478,863	43%
Company D		
	EBITDA/Operating Profit	**% Change**
	‘000	
2013	34,981	
2014	28,850	-18%
2015	32,117	11%
2016	37,785	18%
2017	63,895	69%

Table A4.1-2: Computations of Growth - Continued		
	Company E	
	EBITDA/Operating Profit	**% Change**
	'000	
2005	8,539	
2006	8,996	5%
2007	10,270	14%
2008	14,140	38%
2009	12,927	-9%
2010	13,941	8%
2011	11,325	-19%
2012	9,437	-17%
2013	7,032	-25%
2014	6,240	-11%
2015	7,837	26%
2016	8,200	5%
2017	8,974	9%
	Company F	
	EBITDA/Operating Profit	**% Change**
2014	5,877,913	
2015	10,250,713	74%
2016	5,401,429	-47%
2017	4,434,014	-18%
	Company G	
	EBITDA/Operating Profit	**% Change**
2014	9,697,068	
2015	10,360,185	7%
2016	32,743,363	216%
2017	35,062,459	7%

Table A4.1-3: Computations of OCF Performance

Company A			
	Pre-tax OCF/Total Cash Resources	**Opening book values of Operating Assets/Total Assets**	**OCF Performance**
2010	467,819	5,246,408	9%
2011	-38,558	4,900,815	-1%
2012	531,085	7,053,016	8%
2013	1,369,507	8,677,834	16%
2014	N/A	N/A	-
2015	N/A	N/A	-
2016	3,272,000	14,370,000	23%
2017	3,285,000	7,543,000	44%
Company B			
	Pre-tax OCF/Total Cash Resources	**Opening book values of Operating Assets/Total Assets**	**OCF Performance**
2015	36,777	204,765	18%
2016	63,815	204,882	31%
2017	57,047	240,024	24%
Company C			
	Pre-tax OCF/Total Cash Resources	**Opening book values of Operating Assets/Total Assets**	**OCF Performance**
2014	932,381	37,250,000	3%
2015	1,076,924	36,676,075	3%
2016	664,635	89,738,610	1%
2017	962,394	94,134,271	1%
Company D			
	Pre-tax OCF/Total Cash Resources	**Opening book values of Operating Assets/Total Assets**	**OCF Performance**
	‘000	**‘000**	
2014	30,016	1,082,424	3%
2015	29,502	992,560	3%
2016	27,635	1,140,780	2%

Table A4.1-3: Computations of OCF Performance - Continued			
2017	60,013	1,190,872	5%
	Company E		
	Pre-tax OCF/Total Cash Resources	**Opening book values of Operating Assets/Total Assets**	**OCF Performance**
2006	74,826	205,820	36%
2007	58,726	216,566	27%
2008	64,900	524,734	12%
2009	69,543	542,841	13%
2010	95,664	567,800	17%
2011	125,039	567,954	22%
2012	126,562	575,244	22%
2013	150,909	609,841	25%
2014	233,967	691,527	34%
2015	308,789	777,543	40%
2016	305,422	862,731	35%
2017	273,976	882,746	31%
	Company F		
	Pre-tax OCF/Total Cash Resources	**Opening book values of Operating Assets/Total Assets**	**OCF Performance**
2015	8,824,980	79,720,701	11%
2016	7,349,649	80,104,213	9%
2017	4,525,382	115,235,626	4%
	Company G		
	Pre-tax OCF/Total Cash Resources	**Opening book values of Operating Assets/Total Assets**	**OCF Performance**
2015	7,780,223	66,177,056	12%
2016	28,209,088	67,845,441	42%
2017	24,652,096	131,237,786	19%

Table A4.1-4: Computations of Financial Gearing

Company A			
	Long-term Liabilities/Total Liabilities	**Equity + Long-term Liabilities/Total Liabilities**	**Financial Gearing**
2010	405,466	2,825,132	14.4%
2011	511,998	5,174,130	9.9%
2012	461,180	5,475,764	8.4%
2013	432,140	5,949,864	7.3%
2014	469,000	5,334,000	8.8%
2015	16,557,000	16,080,000	103.0%
2016	11,455,000	-2,343,000	-488.9%
2017	26,087,000	6,191,000	421.4%
Company B			
	Long-term Liabilities/Total Liabilities	**Equity + Long-term Liabilities/Total Liabilities**	**Financial Gearing**
	‘000	**‘000**	**‘000**
2015	50,487	142,584	35%
2016	62,469	171,671	36%
2017	52,938	168,049	32%
Company C			
	Long-term Liabilities/Total Liabilities	**Equity + Long-term Liabilities/Total Liabilities**	**Financial Gearing**
2014	18,282,793	32,015,626	57%
2015	57,154,467	83,469,683	69%
2016	64,447,467	92,670,186	70%
2017	89,396,575	127,754,224	70%
Company D			
	Long-term Liabilities/Total Liabilities	**Equity + Long-term Liabilities/Total Liabilities**	**Financial Gearing**
	‘000	**‘000**	
2014	354,402	948,804	37%
2015	451,356	1,059,644	43%

Table A4.1-4: Computations of Financial Gearing - Continued			
	‘000	**‘000**	
2016	487,851	1,134,673	43%
2017	627,964	1,512,596	42%
Company E			
	Long-term Liabilities/Total Liabilities	**Equity + Long-term Liabilities/Total Liabilities**	**Financial Gearing**
	‘000	**‘000**	
2006	434,906	479,437	91%
2007	449,630	504,462	89%
2008	463,605	524,695	88%
2009	474,639	542,841	87%
2010	491,757	567,800	87%
2011	488,295	567,954	86%
2012	492,678	575,244	86%
2013	525,440	609,841	86%
2014	603,220	691,527	87%
2015	682,045	777,543	88%
2016	762,383	862,731	88%
2017	779,872	882,746	88%
Company F			
	Long-term Liabilities/Total Liabilities	**Equity + Long-term Liabilities/Total Liabilities**	**Financial Gearing**
2015	56,719,862	67,842,162	84%
2016	86,684,115	113,092,109	77%
2017	115,711,127	143,809,911	81%
Company G			
	Long-term Liabilities/Total Liabilities	**Equity + Long-term Liabilities/Total Liabilities**	**Financial Gearing**
2015	35,792,087	53,531,168	67%
2016	98,291,351	139,920,929	70%
2017	82,078,246	129,685,300	63%

Table A4.1-5: Computations of Costs-to-Revenue Ratio

Company A			
	Costs	**Revenue**	$\frac{Costs}{Revenue}$
2010	3,402,359	3,067,602	111%
2011	5,723,068	5,321,108	108%
2012	6,627,859	7,160,364	93%
2013	8,510,958	9,254,365	92%
2014	8,647,700	8,880,463	97%
2015	7,702,770	8,331,515	92%
2016	17,659,000	7,122,000	248%
2017	12,277,000	6,874,000	178%
Company B			
	Costs	**Revenue**	$\frac{Costs}{Revenue}$
	‘000	**‘000**	
2015	97,460	123,700	79%
2016	131,935	156,972	84%
2017	137,997	166,301	24%
Company C			
	Costs	**Revenue**	$\frac{Costs}{Revenue}$
2014	766,872	1,678,040	46%
2015	1,557,491	4,126,241	38%
2016	1,867,643	4,840,719	39%
2017	2,097,740	6,337,456	33%
Company D			
	Costs	**Revenue**	$\frac{Costs}{Revenue}$
	‘000	**‘000**	
2014	86,894	116,379	75%
2015	101,903	134,074	76%
2016	120,911	157,901	77%
2017	178,115	242,413	73%

Table A4.1-5: Computations of Costs-to-Revenue Ratio - Continued

Company E			
	Costs	**Revenue**	$\frac{Costs}{Revenue}$
	'000	**'000**	
2006	4,782	13,396	36%
2007	6,730	17,947	37%
2008	22,785	36,482	62%
2009	22,401	36,140	62%
2010	23,324	38,166	61%
2011	24,139	36,645	66%
2012	25,367	36,309	70%
2013	25,833	38,091	68%
2014	28,082	39,666	71%
2015	29,816	41,140	72%
2016	33,175	45,013	74%
2017	44,640	57,236	78%

Company F			
	Costs	**Revenue**	$\frac{Costs}{Revenue}$
2015	35,129,043	42,721,728	82%
2016	33,386,406	32,822,270	102%
2017	33,531,439	28,777,143	117%

Company G			
	Costs	**Revenue**	$\frac{Costs}{Revenue}$
2015	95,980,157	99,937,813	96%
2016	209,205,117	230,160,794	91%
2017	240,808,036	263,420,463	91%

Table A4.1-6: Computations of the Contribution of Target Profit/Loss to Group Profit/Loss

Company B			
	Target Profit	**Group Profit**	**Profit Contribution**
	‘000	**‘000**	
2016	1,824	20,292	9%
2017	782	18,002	4%
Company C			
	Target Profit	**Group Profit**	**Profit Contribution**
2015	926,861	3,901,435	24%
2016	N/A		
2017	N/A		
Company D			
	Target Profit	**Group Profit**	**Profit Contribution**
2015	3,425,068	-3,747,000	-91%
2016	-558,000	-7,658,000	73%
2017	N/A		
Company E			
	Target Profit	**Group Profit**	**Profit Contribution**
2006	402,858	5,816,000	7%
2007	1,091,235	7,084,000	15%
2008	1,881,000	9,083,000	21%
2009	1,974,000	8,064,000	24%
2010	2,112,000	9,040,000	23%
2011	1,928,000	7,227,000	27%
2012	1,327,000	6,148,000	22%
2013	1,258,000	4,482,000	28%
2014	1,799,000	3,907,000	46%
2015	2,189,000	5,037,000	43%
2016	2,063,000	5,330,000	39%
2017	2,013,000	5,703,000	35%
Company F			
	Target Loss	**Group Loss**	**Loss Contribution**
2016	-2,696,770	-2,454,232	110%
2017	-3,134,438	-8,036,987	39%

Table A4.1-6: Computations of the Contribution of Target Profit/Loss to Group Profit/Loss - Continued

Company G			
	Target Profit	**Group Profit**	**Profit Contribution**
2016	17,486,981	23,388,115	75%
2017	18,880,015	26,556,408	71%

Table A4.1-7: Computations of Income Gearing

Company A			
	Interest Expense	**EBIT**	**Income Gearing**
2014	147,735	47,735	309%
2015	285,000	-2,907,000	-10%
2016	2,312,000	-10,348,000	-22%
2017	852,000	-5,201,000	-16%
Company C			
	Interest Expense	**EBIT**	**Income Gearing**
2014	686,639	762,327	90%
2015	1,697,053	3,652,131	46%
2016	2,491,773	5,242,884	48%
2017	3,047,126	5,056,771	60%
Company F			
	Interest Expense	**EBIT**	**Income Gearing**
2015	1,507,827	7,524,316	20%
2016	2,847,780	393,548	724%
2017	4,419,299	-3,617,687	-122%
Company G			
	Interest Expense	**EBIT**	**Income Gearing**
2015	2,364,848	4,061,147	58%
2016	4,413,908	20,873,692	21%
2017	4,333,930	24,298,896	18%

Table A4.1-8: Computations of Benchmark ROA

Benchmark ROA of Company E			
	Profit after Tax	**Total Assets**	**ROA**
	'000	**'000**	
2006	26,193	2,326,049	1%
2007	29,423	2,441,503	1%
2008	26,782	6,231,168	0%
2009	49,415	6,216,414	1%
2010	63,972	6,335,192	1%
2011	42,054	6,622,870	1%
2012	74,276	7,045,026	1%
2013	79,473	7,257,958	1%
2014	69,384	8,296,791	1%
2015	79,944	9,901,962	1%
2016	95,198	10,722,851	1%
2017	119,498	11,820,630	1%

APPENDIX 4.2: DAILY ARS

Table A4.2-1 presents daily ARs from time windows (-30, +30) for each acquisition. Results are presented up to 2 decimal places.

Table A4.2-1: Daily ARs					
Days	**Company A**	**Company B**	**Company D**	**Company E**	**Company F**
-30	-0.04	-1.89	-1.74	-0.01	-0.06
-29	-0.05	0.13	-1.62	0.02	5.34
-28	-0.04	0.08	-0.91	-0.06	-0.03
-27	-0.04	1.82	1.05	-0.17	15.82
-26	-0.04	0.57	-0.70	-0.03	1.53
-25	-0.06	-0.43	0.83	0.36	-0.04
-24	-0.02	0.35	-0.28	0.59	-0.02
-23	-0.08	-0.09	1.02	-0.01	-0.22
-22	-0.05	1.41	-1.95	0.77	-0.06
-21	-0.07	0.14	0.02	-0.05	1.37
-20	-0.08	0.20	1.31	-0.13	-0.25
-19	-0.03	-0.03	-0.24	-0.01	0.04
-18	0.02	-0.03	1.64	-0.04	-0.14
-17	-0.04	-0.14	-0.37	1.08	1.55
-16	-0.07	0.09	3.72	-0.08	0.02
-15	-0.08	0.47	0.55	-0.01	-0.04
-14	-1.51	-0.03	0.07	-0.13	-0.14
-13	-0.06	-0.03	-0.79	-0.07	-0.06
-12	-0.11	-0.23	-1.37	-0.05	1.36
-11	-0.06	0.81	-1.98	-0.10	0.20
-10	-0.10	0.69	0.77	-0.11	-0.18
-9	-1.55	-0.13	0.02	-0.05	-0.23
-8	-0.07	-0.52	0.02	-0.02	0.03
-7	-4.55	0.43	0.02	0.03	-0.12
-6	-0.06	0.91	-1.14	-0.07	-0.16
-5	-0.09	0.12	4.16	-0.01	-0.20
-4	-0.10	-0.38	0.02	-0.03	-0.06
-3	-0.13	0.04	0.02	-0.08	0.12
-2	-0.20	0.15	0.02	-0.01	0.11
-1	-0.04	-0.37	-2.73	-0.11	-0.09
0	0.00	1.56	-0.17	-0.07	-0.11
+1	-0.10	-0.24	0.87	-1.35	-0.08

Table A4.2-1: Daily ARs - Continued					
+2	7.65	-0.01	0.59	-5.85	-0.24
+3	0.01	0.25	-0.56	6.89	0.03
+4	-0.03	-0.12	0.58	-0.02	-0.14
+5	-0.05	0.34	-1.69	0.27	0.06
+6	-0.08	1.38	0.85	-0.16	-0.06
+7	-0.04	-0.20	-0.23	-0.08	-0.07
+8	-0.06	0.24	-0.21	-0.06	-0.13
+9	-0.09	-0.30	1.74	-0.06	-0.06
+10	-0.04	0.05	0.21	-0.09	0.19
+11	-0.04	-1.30	3.60	-0.09	-0.18
+12	0.02	0.59	4.07	-0.05	-0.01
+13	0.06	0.78	0.32	-0.05	1.58
+14	-0.06	0.16	-0.31	-0.01	-0.17
+15	4.17	-0.03	-1.52	-0.10	-0.05
+16	-0.05	-0.03	-2.62	-0.02	0.00
+17	2.70	1.48	0.07	-0.06	-0.42
+18	0.01	0.51	-0.17	-0.08	-0.12
+19	-0.05	-0.35	1.07	-0.04	8.40
+20	1.27	0.20	-0.06	-0.06	7.97
+21	-0.03	-0.08	-0.05	-0.04	4.46
+22	-0.06	-0.02	-0.66	-0.05	0.61
+23	-0.02	0.62	0.12	-0.13	-0.01
+24	-0.03	-0.27	-0.12	-0.06	-1.02
+25	-0.04	-0.08	0.02	0.06	0.12
+26	-0.04	0.10	0.00	-0.05	-0.06
+27	-0.06	-0.03	0.03	-0.10	0.00
+28	-0.09	0.00	-0.45	-0.12	-0.05
+29	-0.07	-0.21	-0.10	-0.09	0.02
+30	-0.04	0.23	1.52	-0.03	-0.46

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