

**LONG-RUN PERFORMANCE OF CORPORATE RESTRUCTURINGS: EVIDENCE FROM THE JSE**

by

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## **ABSTRACT**

This research has investigated the long-run performance of corporate restructurings through unbundling transactions on the JSE between 2000 and 2012. The corporate unbundling transactions considered by the research are spin-offs and sell-offs. From the two unbundling transactions, four samples were derived, that is, 21 spin-offs, 14 parent-spin-offs, 14 sell-offs and 20 parent-sell-offs. The share price performance of these samples was investigated by a matching firm methodology under the buy and hold abnormal returns.

The research found that positive abnormal returns are present for both samples for up to four years after unbundling. Secondly, with the exception of parent-sell-offs, significant abnormal returns were experienced by both samples for up to four years after unbundling. It was also found that a spin-off is a preferable corporate unbundling strategy to a sell-off over a long-run period. This research implies that companies with heavy structures should unbundle in order to unlock shareholders' value.

## **KEYWORDS**

Corporate unbundling, spin-offs, parent-spin-offs, sell-offs, parent-sell-offs, divestitures, performance, matching firm, abnormal returns, mergers.

## **OPSOMMING**

Met hierdie navorsing is die langtermynprestasie van herstruktureerde maatskappye deur middel van ontbondelingstransaksies op die JSE Beperk tussen 2000 en 2012 ondersoek. Die korporatiewe ontbondelingstransaksies wat in oënskou geneem is, is newevoordeel- en afverkooptransaksies. Daar is vier steekproewe uit die twee soort ontbondelingstransaksies afgelei, naamlik 21 newevoordeeltransaksies, 14 moedernewevoordeeltransaksies, 14 afverkooptransaksies en 20 moederafverkooptransaksies. Die aandeleprysprestasie van hierdie steekproewe is ondersoek deur gebruik te maak van 'n metodologie van bypassende firmas aan die hand van die koop en hou van abnormale opbrengste. Daar is bevind dat daar nog tot vier jaar ná die ontbondeling positiewe abnormale opbrengste vir albei stelle steekproewe was. Hierbenewens is daar, tot vier jaar ná ontbondeling, beduidende abnormale opbrengste deur albei stelle steekproewe, uitgesonderd die moederafverkoopsteekproewe, ondervind. Daar is verder bevind dat 'n

newevoordeelstrategie oor 'n lang termyn die verkose korporatiewe ontbondelingstrategie bo 'n afverkoopstrategie is. Die aanbeveling op grond van hierdie navorsing is dat maatskappye met swaar strukture ontbondeling moet oorweeg om sodoende waarde vir hul aandeelhouers te ontsluit.

## **SLEUTELWOORDE**

Korporatiewe ontbondeling, newevoordeeltransaksies, moedernewevoordeeltransaksies, afverkooptransaksies, moederafverkooptransaksies, ontdoenings, prestasie, bypassende firma, abnormale opbrengste, samesmeltings

## **ISIFINYEZO ESIIKUKETHE UMONGO WOCWANINGO**

Ucwaningo luphenyisise ngokusebenza isikhathi eside kokuhlelwa kabusha kwama-corporate, ngokusebenzisa ama-transaction e-unbundling e-JSE phakathi konyaka ka 2000 kanye no 2012. Ama-transaction e-unbundling yama-corporate abhekwe wucwaningo ngama-spin-off noma ukubunjwa kwengxenyentsha yenkampani kanye nama-sell-off noma ukuthengiswa kwengxenyentsha yenkampani noma ingxenyentsha yenkampani. Kuma-transaction amabili e-unbundling, kusetshenziswe amasampuli amane angama spin-offs angu 21, kanye nama-parent-spin offs angu 14, ama-sell-offs angu 14 kanye nama-parent sell-offs angu 20. Ukusebenza kwentengo yamasheya yalama sampuli kuye kwaphenyiswa ngakho ngokumeshanisa i-methodology eqinile ngaphansi kwentengo kanye nama-hold abnormal returns. Ucwaningo luye lwathola ukuthi ama-positive abnormal returns akhona kuwo womabili amasampuli ukufinyelela iminyaka emine ngemuva kwe-unbundling. Okwesibili, kuye kwaba nama-abnormal return, ngaphandle kwama-parent-sell offs lapho lokhu okungenzekanga khona, lokhu kutholakale kuwo womabili amasampuli ukufinyelela kwiminyaka emine ye-unbundling. Kuye kwatholakala nokuthi ama-spin offs yilona lisu elithandwa kakhulu lapho kwenziwa i-unbundling kwi-sell-off esikhathini eside. Lolu cwaningo lusho ukuthi izinkampani ezinezakhiwo ezinzima (heavy structures), kumele zenze i-unbundling ukuze zikwazi ukuvula i-value yabanikazi bamasheya.

## **AMAGAMA ASEMQOKA**

I-unbundling yama-corporate, ama-spin-offs, ama-parent-spin-offs, ama-sell-offs, ama-parent-sell-offs, ukuthengiswa kwempahla yenkampani noma ama-divestitures, ukusebenza kahle ngokunomphumela (performance), ukumeshanisa amafemu, ama-abnormal returns, ukuhlanganiswa kwezinkampani nezinye (mergers).

## **TABLE OF CONTENTS**

DECLARATION.....	i
ACKNOWLEDMENT.....	ii
ABSTRACT.....	iii
KEYWORDS.....	iii
TABLE OF CONTENTS .....	v
LIST OF ABBREVIATIONS.....	vii
LIST OF TABLES .....	vii
LIST OF FIGURES .....	viii
<b>CHAPTER 1:INTRODUCTION .....</b>	<b>1</b>
1.1 Background .....	1
1.2 Unbundling in South Africa .....	2
1.3 Research Problem.....	3
1.4 Research Objectives.....	5
1.5 Research Questions .....	6
1.6 Research Hypotheses.....	6
1.7 Conclusion.....	8
1.8 Outline of Chapters .....	8
<b>CHAPTER 2:LITERATURE REVIEW.....</b>	<b>10</b>
2.1 Introduction.....	10
2.2 Background .....	11
2.2.1 Modes of Corporate Unbundling (Divestitures).....	12
2.2.2 The Reasons behind Corporate Unbundling .....	14
2.2.3 The Demerits of Corporate Unbundling.....	24
2.2.4 None-Corporate Unbundling.....	25
2.3 Empirical Evidence .....	27

2.3.1 Market Reaction around Unbundling Announcements .....	28
2.3.2 Post Unbundling Performance .....	37
2.3.3 Joint Studies .....	<b>Error! Bookmark not defined.</b>
2.4 Conclusion.....	<b>Error! Bookmark not defined.</b>
CHAPTER 3:RESEARCH DESIGN AND METHODOLOGY .....	55
3.1 Introduction .....	55
3.2 Event Study Background.....	56
3.2.1 The Market Model Approach under CAARs .....	58
3.2.2 The Matching Firm Approach under BHARs .....	60
3.3 Justification for the Adoption of the Matching Firm Approach under BHARs .....	<b>Error! Bookmark not defined.2</b>
3.4 Population and Sampling .....	<b>Error! Bookmark not defined.4</b>
3.5 Data Collection.....	71
3.6 Data Analysis.....	<b>Error! Bookmark not defined.2</b>
3.7 Conclusion.....	<b>Error! Bookmark not defined.3</b>
CHAPTER 4:PRESENTATION AND DISCUSSION OF RESEARTCH RESULTS.....	74
4.1 Introduction .....	<b>Error! Bookmark not defined.4</b>
4.2 Presentation of Research Result.....	<b>Error! Bookmark not defined.5</b>
4.2.1 Share Price Performance of Spin-offs: Parents and Spin-offs Returns.....	76
4.2.2 Share Price Performance of Selloffs: Parent-Sell-offs and Sell-offs .....	77
4.2.3 Share Price Performance Difference between Sell-offs and Spinoffs.....	79
4.3 Discussion of Research Result.....	80
4.3.1 The succession of Corporate Unbundling Performance.....	81
4.3.2 Sample Characteristics .....	<b>Error! Bookmark not defined.3</b>
4.3.3 Addressing Research Hypotheses .....	86
4.3.4 Addressing Research Problem, Objectives and Questions.....	88
4.3.5 Conclusion.....	<b>Error! Bookmark not defined.4</b>
CHAPTER 5:CONCLUSION .....	96
5.1 Introduction .....	96
5.2 Major considerations of the Research .....	97
5.3 Findings and implications of the study .....	98
5.4 Research Recommendations.....	101
5.5 Limitations of the Study .....	<b>Error! Bookmark not defined.4</b>
5.6 Areas of Future Studies.....	<b>Error! Bookmark not defined.5</b>

5.7 Summary of the Research .....	106
<b>REFERENCES.....</b>	<b>Error! Bookmark not defined.9</b>

## **LIST OF ABBREVIATIONS**

AA: Anglo America
AAR: Average Abnormal Return
AR: Abnormal Return
AT&T: American Telephone and Telegraph
BHAR: Buy and Hold Abnormal Return
BEE: Black Economic Empowerment
CAAR: Cumulative Average Abnormal Return
IPO: Initial Public Offering
JSE: Johannesburg Stock Exchange
LBO: Leverage Buy Out
M&A: Merger and Acquisition
MBO: Management Buy Out
MRR: Mean Raw Return
NYSE: New York Stock Exchange
ROCs: Regional Operating Companies
SENS: Securities Exchange News Service
USO: University Spin-Off

## **LIST OF TABLES**

Table 1: Studies on Long-Run Performance of Spin-off and Sell-off Transactions in Africa .....	65
Table 2: Studies on Long-Run Performance of Spin-off and Sell-off Transactions outside of Africa.....	65
Table 3: Spin-off Transactions between 2000 and 2012 on the JSE.....	66
Table 4: Sell-off Transactions between 2000 and 2012 on the JSE .....	67
Table 5: Final Sample Statistics from 2000-2012 .....	69
Table 6: Share Price Performance of 14 Parent-Spin-offs for the Period 2000-2012 .....	76
Table 7: Share Price Performance of 21 Spin-offs for the Period 2000-2012 .....	77
Table 8: Share Price Performance of 20 Parent-Sell-offs for the Period 2000-2012 .....	78



Table 9: Share Price Performance of 14 Sell-offs for the period 2000-2012 .....	78
Table 10: Performance Difference between Sell-offs and Spin-offs for the Period 2000 to 2012 .....	79
Table 11: Four Samples Characteristics .....	85
Table 12: A Two Sample and One Sample Characteristics .....	86

## **LIST OF FIGURES**

Figure 1: Average Monthly Abnormal Returns for Sell-offs and Spin-offs for the Period 2000-2012 .....	80
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# CHAPTER 1

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## INTRODUCTION

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### 1.1 Background

Corporate unbundling is an area of great interest in finance literature. According to Hagel III and Singer (2000), corporate unbundling is a process of separating a large business into its smaller components. In another definition by Moschieri and Mair (2005), corporate unbundling is an operation where the parent corporation initiates an action of disposing of and selling assets, facilities, product lines, subsidiaries, divisions or business units. This process of separating a corporation into individual entities is the notion that information related to a particular business entity is easily analysed and understood by the manager. On the other hand, Merger and Acquisition (M&A) is a strategy undertaken by companies to acquire both related and unrelated businesses with the aim of increasing returns, reducing risk and increasing the market capitalization. Haleblian, Devers, McNamara, Carpenter and Davison (2009) described M&A as a strategy to create value through market power, efficiency, resource redeployment and market discipline.

Among the different corporate unbundling strategies, spin-offs and sell-offs are the most commonly used by corporations when refocusing. A spin-off is a pro-rata distribution of the shares of a firm's subsidiary to the shareholders of the firm and after the distribution the operations and management of the subsidiary are separated from those of the parent (Bhana, 2004). On the other hand, a sell-off involves the disposal of divisions, business units, product lines or subsidiaries to other firms in exchange for cash (Menon, Balachandran, Faff and Love, 2004). However, the knowledge behind the different corporate unbundling strategies including spin-offs and sell-offs has been vividly provided in chapter two.

Corporate restructurings through unbundling transactions have been highly focused in a typical corporate environment and the issue of whether value can be uplifted through non-corporate unbundling activities has been thinly discussed in finance literature. Notwithstanding, the only non-corporate unbundling strategy that some debates have been

provided is a University Spin-Off (USO) also called academic spin-off. According to Pirnay, Surlemont, and Nlemvo (2003), USO is a new firm created to exploit knowledge, technology or research results developed in a university environment. The introduction of this spin-off is a direct implementation of university knowledge into economic value (Martínez Sánchez and Pérez Pérez, 2003). Thus, finance literature should provide a wide discussion and the mechanics behind non-corporate unbundling through USOs.

## **1.2 Unbundling in South Africa**

In South Africa the corporate landscape has adopted similar changes undertaken by developed countries, particularly unbundling activities. This was sparked in 1993 with the unbundling of Gencor into five independent firms (Ferreira, 1997). Unbundling was not considered a wealth-creating strategy by investors in pre-democracy South Africa and, according to Castle and Kantor (2000) the JSE was dominated by conglomerates. A possible explanation is that South African listed corporations had very few alternatives due to isolation, sanctions and strict exchange control policies. As such, the only alternative on the JSE was M&A (Gostner, 2002). But later on, post-democracy South Africa made unbundling transactions more attractive as corporations were readmitted to the international markets. Corporations entered into unbundling activities and previously-acquired, non-core businesses were disposed of in the same way as their international counterparts (Bhana, 2000 and Gostner, 2002). Also, for listed corporations, democratic South Africa provided an opportunity for large and previously-induced conglomerates to unbundle and expand internationally (Hattingh, 2007). The listing of AngloGold on the New York Stock Exchange (NYSE) in 1998 was a source of pride (Coldwell *et al.*, 2015).

According to Jordan (2012), one attraction resulting from this opportunity was for corporations to take advantage and utilize their resources to become dual-listed. That is, corporations could focus their business in a global scale by unbundling. This could also be a means to boost the opportunity to acquired overseas capital for home investments. Gostner (2002) stated that dual listing has more positives than negatives and that becoming dual-listed would increase a corporation's liquidity. The author also affirmed that the negative view of dual listing was due to a lack of faith in South Africa. Today some corporations use unbundling as a way to escape certain South African government policies. One such policy is the proposed nationalization of the South African mines.

Unbundling transactions are speeding up in South Africa as part of the widely accepted restructuring of the corporate landscape (Bhana, 2006). The unbundling era was set in motion by Barloworld. In 1993 Barlow Rand took an unbundling strategy which let go of CG Smith, Rand Mines and Reunert. After this, in 1999, CG Smith unbundled its only two assets: stakes of 57% in Illovo Sugar and 56% in Tiger Brands. Tiger Brands itself became an unbundler, which let go Spar in 2004 and Adcock Ingram in 2008 (Thomas, 2013).

Furthermore, Hattingh (2007) found that political change in South Africa since 1994 has led to the selling-off of divisions that are not part of a corporation's core activities. Bhana (2006) also supported that, sell-off transactions are rapidly increasing, and the need to refocus by creating shareholder value was dramatically illustrated by the October 2005 announcement by Anglo American (AA). The author also supported that Black Economic Empowerment (BEE) has contributed to the acceleration of unbundling activities. Respective BEE codes allow corporations to achieve BEE ownership recognition through the disposal of businesses and assets. This presents an opportunity for local conglomerates to dispose of their non-core assets while earning valuable BEE points. Conversely, Coldwell, Joosub, King and McClelland (2015) considered BEE to be an impediment to the South African corporate environment. According to the authors, the 1994 election and the subsequent changes in government policy with the promulgation of the BEE Act of 2003 represent clear shifts in the institutional environment that allow a natural experiment in order to examine both the removal and subsequent imposition of constraints on corporate structuring. With BEE, companies are limited to sell part of their business to qualifying groups (Coldwell *et al.*, 2015). Thus, this will result in lower prices which will further impact the unbundling process negatively.

An introduction to the main focus of the research is the constitution of a research problem, research objectives, research questions and the possible hypotheses which must be tested to justify the results.

### **1.3 Research Problem**

Prior to 1994, there were artificial restrictions on South African corporations as a result of isolation and sanctions (Hattingh, 2007) and as such, the JSE was dominated by conglomerates (Castle and Kantor, 2000). But following the democratisation South Africa, the lifting of such sanctions motivated the conglomerate organisations to emulate the overseas style of refocusing (Bhana, 2000 and Gostner, 2002). However, research conducted on the

performance of corporate unbundling in South Africa, such as Blount and Davidson (1996), Bhana (2005), Bhana (2006), Jordan (2012), Coldwell *et al.* (2015), have been focused around unbundling announcements. Thus, studies on the long-term performance of unbundling are very limited since South Africa is still emerging from pressure exerted prior to 1994.

The major long-term studies conducted in South Africa include Bhana's (2004) research on spin-offs and Majoni, Mukanjari, Nichols and Rosenberg's (2014) research of spin-offs and sell-offs. According to Bhana (2004), there are positive returns for up to three years following spin-offs. But Majoni *et al.* (2014) reported negative cumulative abnormal returns for up to 250 days and 500 days following the spin-off announcements. At this level it becomes difficult to admit if unbundling transactions in South Africa are accompanied by positive returns for years after the events as is the case with Europe and USA.

However, the international literature on unbundling provides that long-term studies on unbundling are investigated for at least two years and above before a proper conclusion can be arrived at. Some of these studies are Woo, Willard and Daellenbach (1992), Cusatis, Mile and Woolridge (1993), Dasai and Jain (1999), McConnell and Ovtchinnikov (2004) and Bates (2005). But the study by Majoni *et al.* (2014) was not conducted for up to 2 years after the refocusing events. Before two years it is considered that the firms are still trying to adapt themselves in a new business environment and with time such firms are expected to experience greater positive returns.

In a study by Kleinman and Sahu (1990) on long term performance of spin-off, it was found that after one month of trading, the average market-adjusted return for the 40 spun-off firms was -1.7%. After three, six, nine, and twelve months of trading, the average market-adjusted return for the 40 spun-off firms was 4.8%, 14.6%, 22% and 22.7% respectively. This evidence is comprehensive enough to show that after a corporate unbundling event, returns tend to become more positive with time. If research by Majoni *et al.* (2014) had examined spin-off performance for two years and above, everything else being equal, positive or significant positive results should have been reported. In these authors' work, it was clearly stated that while returns remain negative, 20.5% improvement in shareholder value was experience for a 500 day window after unbundling when compared to a 250 day window after unbundling.

Nonetheless, Bhana's (2004) study within the period 1988 and 1999 is a typical study that monitored the presence and the lifting of trade sanctions on the JSE and that of Majoni *et al.* (2014) from the period 1995 to 2011 should have updated Bhana's (2004) research but failed to investigate performance for at least two years.

Therefore, to properly conclude if South Africa is consistent with the overseas trend of unbundling today, it is important to adopt the study period (2000 to 2012) and investigate performance for up to four years following unbundling announcements. This will serve as an amendment to the findings of Majoni *et al.* (2014) and an update for Bhana's (2004) research.

## **1.4 Research Objectives**

The aim of this research is to provide an analysis of the long-run performance of corporate restructurings through unbundling transactions on the JSE. This research has adopted the study period 2000 to 2012. Firstly, this study period is considered in order to update Bhana's (2004) study while providing an amendment to Majoni *et al.* (2014). Secondly, the study period is considered because it cuts across periods of both economic stability and turbulence in South Africa. A close look at the South African economic cycle reveals that from 2000, the economy was relatively stable before the 2007/2008 global financial crisis. But after the 2007/2008 crisis, the South African economy gained some stability with a strong Rand. But from 2012, there were many labour strikes in South Africa which led to low production in the industrial and mining sectors. This resulted in a weaker Rand.

The long study period on an average represents the overall behavioural pattern or the nature of the country's corporate environment. Therefore, the results should provide a robust evidence to justify if South African corporations enjoy the benefits of unbundling in the long-run as do their international peers. Therefore, the following objectives are considered for the purpose of the research.

- To provide a discussion on the background of unbundling.
- To review prior studies carried out on unbundling transactions in South Africa and the rest of the world.
- To verify if there are significant abnormal returns for years following unbundling. Performance will be investigated for up to four years. The significance of the returns will be tested by adopting a T-test.

- To reveal which unbundling strategy provides superior wealth to shareholders over a long-run period. That is, comparison between spin-offs and sell-offs.
- To test the market efficiency of share price response to spin-offs and sell-offs over a long-run period.
- To compare the overall result with other studies and provide a relevant conclusion.
- To verify major sectors undertaking corporate unbundling on the JSE.

## 1.5 Research Questions

The following questions are considered for the purpose of the study.

1. What are the wealth effects on shareholders following unbundling events?
2. Is South Africa consistent with the international trend of unbundling?
3. Do sell-offs outperform spin-offs for up to four years following the events?
4. What is the explanation behind this performance?
5. Is unbundling a viable strategy for South African corporations?
6. Is unbundling related to share price appreciation?

## 1.6 Research Hypotheses

Studies conducted on long-run performance of unbundling such as Dasai and Jain (1999), Bhana (2004) and many others have been focused on the matching firm approach with the Buy and Hold Abnormal Return (BHAR) considered as a performance measure. BHAR is the difference between the event firm and the matched firm return. Singh (1993) recommended that corporate restructuring is associated with a significant and rapid change in a firm's assets. Thus, the research expects that the performance of both the parent firms and the divested divisions should significantly improve after unbundling for all the holding periods. The following hypotheses will test the significance of the results for up to four years before any conclusion is arrived at.

### Hypothesis 1

This hypothesis only tests the performance of the parent firms following unbundling events. Long-run studies have proven that the parent firms are always accompanied by a significant share price increase following the events. These studies include Cusatis *et al.* (1993), McConnell, Ozbilgin and Wahal (2001), Hillier, McColgan and Werema (2005) among others.

According to the alternative hypothesis, the BHARs for the parent firms are statistically different from zero following the events. The null hypothesis states that the BHARs for the parent firms are not statistically different from zero following the events.

$$H_a: BHAR_{sparent} \neq 0$$

$$H_0: BHAR_{sparent} = 0$$

### **Hypothesis 2**

This hypothesis tests for the statistical significance of the BHARs for the unbundled divisions. Unbundled subsidiaries are expected to show a strong positive result for years after their separation from conglomerates. This expectation is due to managers' motivation to perform better so as to avoid a possible takeover.

According to the alternative hypothesis, the BHARs for unbundled divisions are statistically different from zero following the events. The null hypothesis states that the BHARs for unbundled divisions are not statistically different from zero.

$$H_a: BHAR_{sunbundled D} \neq 0$$

$$H_0: BHAR_{sunbundled D} = 0$$

### **Hypothesis 3**

This hypothesis tests the difference in the BHARs between spin-offs and sell-offs. Prezas and Simonyan (2012) suggested that spin-offs are better candidates around announcements than sell-offs. But in a long-run they reported that sell-offs shows better performance than spin-offs. Also, the study on the JSE by Majoni *et al.* (2014) on sell-offs and spin-offs considered sell-offs as best candidates for companies which are restructuring with a long-term investment plan. Hence, the research anticipates sell-offs to show a similar trend as supported by the authors.

The alternative hypothesis states that the difference in the BHARs between sell-offs and spin-offs for all holding periods is statistically significant. According to the null hypothesis this difference is not statistically different from zero.

$$H_a: BHAR_{selloff} - BHAR_{spinoff} \neq 0$$



$$H_0: BHAR_{sell-off} - BHAR_{spinoff} = 0$$

All the statistical tests above are based on a two-tailed T-test. Hence, the result can be significantly positive, significantly negative or not different from zero (neutral).

## **1.7 Conclusion**

Corporate unbundling activity which began in the 1980s has today become one of the major strategies unlocking value used by conglomerate organisations. Therefore, M&A which was fashionable around the 1960s should be given little attention today. But this is conflicting since some CEOs of conglomerates still emulate the old idea of acquiring many businesses and making themselves indispensable at the expense of shareholders. It will worth more if corporate unbundling is put in a broader context by vividly following the contention of various authors ideas in the literature related to unbundling and laying more emphasis at the level of their empirical studies. The introduction of non-corporate unbundling is an impetus to the continuous implementation of unbundling as a viable asset refocusing strategy.

## **1.8 Outline of Chapters**

The rest of the dissertation comprises the following chapters.

### **Chapter 2: Literature Review**

It discusses the controversy around the various corporate unbundling strategies and the reasons why conglomerates refocus their businesses through unbundling. It also provides the demerits of corporate unbundling and the importance of non-corporate unbundling. The last part of this chapter constitutes empirical studies conducted on corporate unbundling. These studies consist of the various authors' research around unbundling announcements and research conducted for years after the finalization of unbundling events.

### **Chapter 3: Research Design and Methodology**

It describes the methodology employed for the study. It also discusses the methodological approaches adopted by other authors on the long-run performance of corporate unbundling. The methodology provides the population of the study and elucidates the sampling technique. Secondly, it describes the data collection procedure and the data analysis technique of the study.

#### **Chapter 4: Presentation and Discussion of Research Results**

This is the outcome of the data analysis technique of the research. The results are first of all presented followed by a discussion which interprets the meaning of the results.

#### **Chapter 5: Conclusion**

This chapter is simply a narrowed scale of the whole thesis. It provides the past trend of corporate unbundling and the major considerations by the research. It also brings the research findings and provides areas of future research. This chapter also provides some recommendations and the research limitations. It will be concluded by a summary of the research.

---

## **CHAPTER 2**

---

### **LITERATURE REVIEW**

---

## 2.1 Introduction

Corporate unbundling is a process of separating a large business into its smaller components (Hagel III and Singer, 2000) with the sole motive to create shareholder value. Shareholder value creation is now such a dominant, driving objective in global business that most companies must evaluate their portfolios on a regular basis to access the benefits that exist between businesses and to estimate the value of individual businesses to themselves and to other potential owners, in the process identifying new ways to unlock value (Pearson, 1998: 32). As such, over time Merger and Acquisition (M&A) activities and other forms of expansion have declined and conglomerate organisations have resorted to downsizing and focusing their businesses on their core competence (Tanawal and Tumiwa, 2014). Despite the prominent position occupied by M&A in strategic management research, corporate unbundling has attracted more and more research attention recently (Johnson, 1996). Unlike M&A transactions which are complex and difficult to understand, Beckner and Gopinath (2000) conceded that procedural justice is higher for transactions with clear and understandable rationale.

However, debate on corporate unbundling as one of the ways to unlock shareholder value can only be conducted well if the diversification strategy of M&A is understood. M&A activity which over crowded the 1960s tended to lose its popularity in the 1980s due to the presence of many unused assets which were acquired (Bhana, 2006). The unused assets resulted from poor integration of the acquired assets with those of the parents, and consequently, shareholder value was locked and the efficient use of resources was questioned. However, the specialisation strategy of unbundling was the escape route for companies to unlock shareholder value. Again, Laamanen and Keil (2008) suggested that firms required specific capabilities in order to successfully acquire and integrate a target firm, and in an initiative by Comment and Jarrell (1995), a steady effort by companies to downsize their businesses during the 1980s was noted.

However, unbundling can be corporate or non-corporate. Finance literature has provided more knowledge on corporate unbundling leaving behind non-corporate unbundling which is another wealth creating-strategy. Understanding these two concepts should boost researchers' knowledge in the field of unbundling. This chapter finds it necessary to add to finance discussions the knowledge and controversy behind non-corporate unbundling as a wealth creating strategy. This initiative is among the few authors that have also considered non-

corporate unbundling in finance debates. According to the various authors, university spin-off, also called academic spin-off, is the only form of non-corporate unbundling that attention has been given to. A University Spin-Off (USO) is a particular spin-off company which is initiated with the sole reason to commercially utilise knowledge, technology, or research results developed from a university (Pirnay, Surlemont, and Nlemvo, 2003).

In order to put a solid background for the concept “unbundling” to be understood, it is necessary to review the background of unbundling and empirical studies conducted on the performance of unbundling. Under the background, this chapter will provide an understanding for modes of corporate unbundling, reasons behind corporate unbundling, the demerits of corporate unbundling and lastly a detail discussion under non-corporate unbundling will be provided. At the level of empirical evidence, this chapter considers studies around unbundling announcements, studies on post unbundling events and joint studies. This chapter strategically places studies under post unbundling in to six categories, that is, mergers related studies, spin-offs, sell-offs, carve-outs, leverage and management buy-outs and the performance of South African companies. This chapter will be ended by a conclusion.

## **2.2 Background**

Corporate unbundling can be voluntary or involuntary. Unbundling is voluntary if a firm intentionally unbundles its business as a means to create value for its shareholders. But involuntary unbundling occurs as a response to legal or regulatory difficulties (Hite and Owers, 1983). But finance literature has not concentrated on involuntary unbundling since it is not motivated as a means to create wealth. However, the concept “unbundling” is very wide in finance literature. Companies can unbundle by using different modes of unbundling. Some authors refer these different modes as divestitures. As such, in a refocusing exercise the unbundling companies can be called the divesting companies and the unbundled divisions termed divested divisions. If the knowledge behind these different modes is well communicated, then the better one can understand the concept “unbundling”

### **2.2.1 Modes of Corporate Unbundling (Divestitures)**

The different unbundling modes include spin-offs, sell-offs, spin-outs, carve-outs, split-offs, leverage buy-outs and management buy-outs. A spin-off is a pro-rata distribution of the stocks of a firm’s subsidiary to the shareholders and after the distribution the operations and management of the subsidiary are separated from those of the parent (Bhana, 2004). Here the

parent maintains control over the new company. Consistently, in a spin-off, the existing stockholders of the firm are awarded new stocks which represent separate ownership rights in the division that was divested (Brigham and Houston, 2010: 58). A spin-off may be a method for the parent to reduce agency cost and create a tax shield (John, 1993). Again, spinning-off assets is undertaken by companies who are willing to enter a new line of industry without the dilution of equity or a transfer of ownership from the current shareholders (Garvin, 1983). Cox, Kleinman and Sahu (1992: 10) stated that, like Initial Public Offerings (IPOs), spin-offs are issues which are new to the public capital market, but unlike IPOs, spin-offs do not involve an underwriter that determines the offering price of the security. Unlike spin-offs, sell-offs are completely incorporated into the buyer's business and the parent has no control after the sell-off (Rosenfeld, 1984). According to Menon, Balachandran, Faff and Love (2004), a sell-off occurs when a firm sells a division, business unit, product line or a subsidiary to another firm for cash. Sell-off divisions are generally low-value assets and operate in industries different from that of the parent (Powers, 2001).

In a carve-out, a new independent company is created by detaching part of the parent's business and selling the shares of the new company in a public offering (Moschieri and Mair, 2005). According to Powers (2001), Schill and Zhou (2001) and Colla, Ippolito and Talamanco (2008), an equity carve-out is an initial public sale of a stake in the stock of a subsidiary by a larger corporation. In the view of Klein, Rosenfeld and Beranek (1991), carve-outs are used to showcase a subsidiary to a prospective buyer, and according to Allen and McConnell (1998), the parent undertakes a carve-out in order to raise funds in a capital market. Hence, Powers (2001) considered carve-outs to be high value assets. While sell-offs are used to raise funds through a complete cash sale transaction, carve-outs are used to raise funds through equity distribution to the public. Nevertheless, spin-outs and split-offs have also been given attention in finance literature. Spin-outs are entrepreneurial ventures founded by an employee of an incumbent firm leaving the parent (Moschieri and Mair, 2005). This seems to be a trait to the parent firm as competition may spark with the new venture formed since the employee knows the internal control mechanism of the parent firm. Split-offs occur when the parent shareholders receive shares of the new company in exchange for parent company shares. With the split-off, the parent company ceases to exist while the divested unit remains in the market (Moschieri and Mair, 2005). This mode is common with companies willing to pursue a new brand name.

Leverage and management buy-outs are all financed by debt. In a Leverage Buy-Out (LBO), a group of private investors purchase a corporation by the complete use of debt financing (Moschieri and Mair, 2005). According to Pelepu (1990), the main characteristics of an LBO are high leverage, management ownership, active corporate governance and investors' loss of access to liquid public equity market. Management Buy-Outs (MBOs) are transactions by which the managers, with the support of other investors, replace public stock holding of the parent company (Moschieri and Mair, 2005). MBOs bring about a change in status of the management team from employee to owner (Laing and Weir, 1998: 261). Efficient contracting is one of the characteristics of MBOs. It involves the ability and the efficient use of knowledge by managers to buy a subsidiary which will overall create more value to their advantage. Efficient contracting is to the detriment of the parent firm shareholders since more of the wealth in the course of the transaction is transferred to managers without the knowledge of the parent firm shareholders (Hanson and Song, 1997). Management access to inside information enables them to time the buyout process, thereby expropriating wealth from shareholders (Seyhun, 1986, and Dann, Masulis and Meyers, 1991).

However, firms unbundling through MBOs may be successful due to the high degree of management ownership. Thus, Jensen and Meckling (1976) contend that the higher level of managerial ownership will lead to alignment effects which will subsequently improve the firm's value. Therefore, since MBOs are incorporated with incentives such as ratchets (Sudarsanam, 1995), the management are motivated to work harder in order to avoid the dilution of the management shareholding by the venture capitalists (Laing and Weir, 1998). Hence, in the process the management will maximise more wealth for the firm. On the contrary, Stulz (1988) argued that firm value will decrease at sufficiently high levels of management ownership due to the desire for managers to protect themselves from a takeover through entrenchment. Generally, buyouts appear as oddities in the corporate world making it difficult for both shareholders and managers to arrive at a conclusion which is beneficial in equal terms to both parties. Several months of hard work, and at times frustration, are involved in the process of achieving the legal completion of an MBO (Pearson, 1990: 62).

However, the knowledge behind the technicality of unbundling modes has played a big role in finance literature. This has help knowledge seekers to understand the motives following an unbundling exercise as well as the setbacks.

## **2.2.2 The Reasons behind Corporate Unbundling**

A general view of broad business strategy patterns points out that the conglomerate diversification that began in the 1960s started to focus on their core business in the 1980s (Bhana, 2006). Subsequently, the highly publicized mergers and acquisitions boom of the 1980s have receded dramatically, and restructuring by divesting business units has become increasingly popular (Gordon, 1992: 61). As such, corporate unbundling has gained popularity as an effective strategy for diversifying companies to streamline and refocus their businesses with the overall goal of creating shareholder wealth (Majoni *et al.*, 2014). Thompson (1991) conceded that over the years a previously unrecognised oddity has become not only commonplace but a major force in restructuring the private sector as well as privatising public companies. However, the general idea behind the following reasons is to create shareholders' wealth.

### **To Reduce the Degree of Diversification**

Over-diversification is a prominent antecedent of divestitures (Brauer, 2006). At first, corporations saw Merger and Acquisition (M&A) as a means to increase their market capitalisation. But due to the excess capacity created by M&A, companies can no more manage all their acquired businesses in an efficient manner. Hence, more unutilised assets lead to a loss of shareholder wealth. This shareholder wealth can be unlocked by unbundling transactions. Jensen (1993) suggested that, conglomerates started considering unbundling during the 1980s due to overcapacity and a lack of internal control mechanism caused by M&A. Veld and Merkoulova (2003) proposed that after unbundling, the simpler nature of the firm may lower monitoring and coordinating costs. The author also stated that cross subsidisation of less efficient divisions can be reduced through unbundling. From this idea, holding companies should sell their poor performing divisions whose costs outweigh benefits. These less efficient divisions are noted to be those whose operations are not related to the central business. They were just acquired to pursuit growth with no fit into the original business structure.

Moreover, when there is an M&A activity and the acquirer lacks an in-depth knowledge about the target business, the detection of the problems faced by the target business in terms of its operation efficiency is difficult (Ravenscraft and Scherer, 1987). In this case the acquirer will certainly add a burden to its business without its knowledge. This situation is known as a latent problem which describes the presence of a difficulty faced by the target firm but not

understood by the acquiring firm. To avoid this latent problem, many corporations have adopted a down-scoping strategy through unbundling rather than a diversification strategy through mergers and acquisitions.

Schlingemann, Stulz, and Walking (2002) argued that corporate unbundling is purposely undertaken to cut down the degree of diversification. The culture of M&A in the 1960s created a difficult corporate environment which led to the buying of dissimilar assets. This kept some of the assets unutilised thereby locking shareholder wealth. There could be recourse through asset sales by downsizing the conglomerates and improving efficiency. Over-diversification is the reason behind the increasing borrowing attitude of conglomerates. Such organisations always borrow in order to sustain the financing of their poorly performing divisions, which should have performed better if they were run as independent entities. Thus, management buy-outs are usually set in motion when the senior executives of a company feel the selling of a division or subsidiary which has become peripheral to the group's main business activities will make good financial and trading sense and reduce the parent company's borrowing (Brooke, 1984: 6).

### **To Focus on Core Competence**

Devogelaer (2003) argued that, over time rapid expansion of a firm's product line reduces its competitive ability and as such, one of the drivers of refocusing is the need to focus on core competences. The author still asserted that, if a company finds itself in a hyper-competitive environment, there can be a need to unbundle and concentrate on a few industries where it holds a clear global competitive advantage while abandoning unprofitable assets which were acquired when diversification was profitable. Gordon (1992) suggested that when companies divest their businesses, the stand-alone entities tend to gain more recognition from analysts and investors than when they were still part of the parent company. Again, growth opportunity awaits the parents and the divested units following unbundling (Canina and Klein, 1998).

Managers of large corporations should evaluate the advantages of unbundling to access its benefits and to focus on what is best for their business (Moschieri and Mair, 2005). Releasing shareholder value and concentrating on core activities is the sole reason why corporations overlook unbundling, and according to Hellerman and Jones (2000), a typical motivation for divestitures is for the parent company to focus its business or unlock unrealised value for its shareholders. This is consistent with Dittmar and Shivdasani's (2003) discussion, which



suggested that assets sales lead to a corporate focus and thus improve efficiency of the remaining business units. In another argument, Schlingemann *et al.* (2002) stated that underperforming companies force management to sell non-core assets to improve profitability.

However, Doukas and Kan (2004) admitted that a lack of investment focus results in a post-acquisition cash flow decline. Therefore, downsizing a business should insure future cash flow. Most importantly, the size of a company's board determines the operational efficiency of the company and the degree to which the managers can be monitored. Thus, according to Singh (1990) the driving force behind companies restructuring through buyouts is a more focused board. Boards of directors are the premise by which shareholder interests can be protected (Fama and Jensen, 1983) by monitoring how managers operate and making sure they focus towards the maximisation of company value (Zahra and Pearce, 1989). The over-accumulation of assets makes it difficult for managers to be properly monitored and most often the managers tend to make decisions for their personal interest and thus have an agency problem, which automatically results in a high agency cost. Companies may have assets with no strategic fit with the parent company core business (Watson, 2011). Therefore, corporate downsizing which eliminates unwanted assets and concentrates on the company's core business will improve the monitoring ability of shareholders towards managers, hence reducing agency cost. Subsequently, the most efficient form of organisation should constitute the direct reduction of agency cost.

### **As a Response to an Error by Mergers and Acquisitions**

Porter (1987) considered unbundling as a reaction to correct the error made by managers during the original acquisitions to increase the company's economic value and competitive position. In the same light, Hayes (1972) looked at unbundling to be the inverse of M&A by suggesting that, if the previous purchase is reversed, then the firm will make up if the acquisition was unsuccessful. Thus, the main motivation behind an unbundling strategy like a sell-off is to reverse value-destroying diversification of M&A (Clubb and Stouraitis, 2002). It is important to note that, there is a likelihood that dis-economies of scale or negative synergies will always exist within conglomerates organisations. This idea is based on the fact that, the presence of many unrelated business units or product lines in a conglomerate make it difficult

for any product line to acquire any operational advantage from another. In this light, Kirchmaier (2003) provided that, a de-merger is a sensible option if negative synergies or diseconomies of scale exist that can be thwarted by separating the firm into two or more independent entities. According to the author, in the past unbundling was undertaken to dismantle conglomerates after it became known that the costs of running such structures outweighed the benefits. By so doing inefficient organisational structures and negative synergies are eliminated.

Furthermore, Ravenscraft and Scherer (1987) argued that corporations can initiate an unbundling transaction due to an initial poor decision to merge, under-utilized assets and personnel. According to Berger and Ofek (1995), over-investment in poorly performing segments results in pyramid structures, giving dominant shareholders more voting rights resulting in inefficiency. If a non-core business has unutilised assets which are more valuable to another business, then these unutilised assets will sell at an inflated price there by creating more value for the seller. Hence, according to Maksimovic and Phillips (2001) the market for corporate assets facilitates the redeployment of assets from firms that are less capable of exploiting them to firms more capable of doing so. Thus, according to De Swardt (2012), asset sales offer a feasible alternative to mergers and acquisitions to create shareholder value for both the buying and selling companies.

### **To Resolve Internal Capital Market Problems on Conglomerates**

The background against which M&A was seen as a safe haven is the presence of an internal capital market. An internal capital market is a constitution of all the agents and mechanisms within a firm that influence the intra-firm allocation of capital and the monitoring of capital productivity (Francoeur and Niyubahwe, 2009). Internal capital market was used to ease capital budget constraints. Conversely, in a discussion by Scharfstein and Stein (2000), internal capital markets may lessen the incentives that keep divisional managers at top performance and allow managers of less profitable divisions to expropriate rents from successful ones, thus leading the firm to misallocate capital by subsidising slow-growing divisions when they would have otherwise been forced to restructure or liquidate. According to the authors, when firms are made up of many divisions, those with poor prospects will engage in rent-seeking behaviour. The authors' work is consistent with the diversity argument of Rajan, Servaes and Zingales (2000). These authors proposed that divisions that contribute to diversity in investment opportunities are likely candidates for rent-seeking and, as such,

unbundling transactions that reduce the diversity of investment opportunities should be associated with improvements in investment efficiency. From the above discussions, unbundling is an appropriate strategy to solve the rent-seeking problem caused by M&A since slow-growing divisions can be completely sold out to other companies.

### **To Improve Liquidity**

Liquidity problems are common phenomena in many economies. Today many stock exchange organisations witness low liquidity since only a few shares are traded. A more focused business may improve access to the capital market thereby attracting new sets of investors (Kirchmaier, 2003). According to Woo, Willard and Beckstead (1989), one primary motivation for divestitures is to enhance the firm's economic value in capital markets. Consistently, Gordon (1992) supported that spin-off firms have the advantage of gaining access to additional capital in the public equity and debt markets. Considering the power of unbundling, Venkiteshwaran (2014) stated that even asset sales driven by credit constraint could result in improved financial liquidity. From the above background, it can be argued that unbundling transactions improve liquidity within an economy (Kirchmaier, 2003). This is because when companies unbundle, the unbundled units whose operations are independent from the parents issue shares to the public which in turn attract many investors. The more shares are issued in a stock exchange market, the more the liquidity. Collaet *al.* (2008) emphasised that the main reason for an equity carve-out is to raise capital independently at a cost which is priced uniquely on the carved-out division risk and return profile. In another view, Frank and Harden (2001) asserted that carve-outs are financing mechanisms for parents in need of capital. Accordingly, the transaction enables the parent to raise new capital for itself and its subsidiary by selling primary shares to the public (Schill and Zhou, 2001).

As a whole the difficulties faced by holding companies to raise capital can be cut down through unbundling exercises. This notion is supported by the fact that unbundled divisions are perceived as high-value assets by investors. Furthermore, conglomerates under liquidity problems can transform themselves in to more solvent financial entities through buyouts (Alkhafaji, 1991) since companies undergoing buyouts in the form of LBOs have the ability to remunerate the funds made available by investors and lenders (Desbrières and Schatt, 2002a). Subsequently, LBOs are important organisational structures which expand managerial judgment to maximize entrepreneurial opportunities (Wright, Hoskisson, Busenitz and Dial,

2001). Generally, liquidity problems are striking for firms whose ability to remunerate capital is limited.

However, the case of buyouts revealed that more debts are used to finance the purchase of corporate assets than equity. As such, as the magnitude of the buyout increases, the dependency on debt financing increases, pushing up the debt to equity ratio (Pogue, 1991). This outcome will motivate the managers to keep their creditors happy by avoiding any financial insolvency and a possible takeover. Before buyout, firms are faced with significant agency cost in the form of free cash flows, mostly because managers' and shareholders' interests and goals are not in line (Braun and Latham, 2007). Post-buyout, however, free cash flows are diverted towards debt repayment, thus curtailing managers' inefficient use of firm resources. Furthermore, inside equity increases thereby aligning interest between shareholders and managers towards shareholder value maximisation (Braun and Latham, 2007: 867).

### **To Seek for Cash or Equity**

Divesting company assets to acquire cash or have access to another company's assets through equity is controversial in finance literature. By accepting equity as payment for an asset, the seller signals the market that the future benefits of the assets are more than the present value of the asset (Slovin, Sushka and Polonchek, 2005). The authors explain that the seller has the knowledge on how the buyer intends to integrate the asset and signals to the market the buyer will be able to obtain greater synergies with the asset and will therefore utilise the asset more efficiently, deriving greater profitability from the asset. From the buyer's perspective, the authors argued that equity payment reduces the buyer risk since the selling company absorbs any overpayment by the buyer and bears post-sale revaluation risk of the buyer. Conversely, with a cash sale, the entire burden of any overpayment is incurred by the buyer. Most often companies used cash sales in order to dispose of unwanted assets. Yet, the latent problem states that the seller has much knowledge about the asset and at the in time of purchase there might be gullible buyers. However, in this case buyers are advised to think rationally before such a transaction.

In the case of cash sales, the use of the proceeds to re-invest, to pay for debts or to distribute to shareholders is still a topic of debate. Lang, Poulsen and Stulz (1995) suggested that there should be some gains when the proceeds are paid out and when these proceeds are retained for re-investment there should be a loss. Jensen (1986) argued that free cash flow increases

the opportunity for managers to waste funds through organisational inefficiencies that yield subnormal returns in an effort to maintain or increase power, and secure employment by making themselves indispensable. According to the author's theory, by distributing cash flow to equity holders, shareholder value may be maximized. Consistently, Burson and Lippert (1996: 67) supported that managers may have the incentive to hoard cash flow in order to implement personal agendas and reduce employment risk. On the contrary, Francoeur and Niyubahwe (2009) considered that companies retaining sell-off proceeds for re-investment enjoy the benefits of flexibility and efficiency in financing their growth opportunities without the need to finance them externally.

On the whole the decision to re-invest or pay out proceeds to shareholders should not be generalized, as each firm consists of a different corporate structure. Reinvestment as a profitable option for a firm with a long-term investment plan may not be profitable for a firm with a short-term investment plan. The use of proceeds from assets sales to pay for debts should also be considered attractive. Steiner (1997) and Schlingemann, Stulz, and Walking (2002) suggested that unbundling is motivated by the creation of cash to pay for debts thereby reducing the company's debt-to-equity ratio. It is important to note that irrespective of the above debate by the various authors on how cash created from asset sales should be used, such funds can be used for any reason as long as the usage is intended to promote the company. Consequently, a carve-out IPO provide funds that can be used to retire debt, or to pay special dividends to their parent, to increase cash for investment or to cash-out insiders (Thompson, 2013: 570).

Nonetheless, due to the egoistic nature of managers, the sold-out assets are those which the management considered not possessing any future profit potentials and as such the only advantage is to sell them and reserve some cash. As such, Lovejoy (1971) argued that a sell-off decision is often an admission of defeat by management that the asset could no longer operate in the most efficient manner. The selling of such assets at a premium or discount will depend on how the buyers perceive the potential value of the assets and previous knowledge under the parents' management. On the whole, when equity or a cash transaction is beneficial to both participants, future share price appreciation is expected for both the selling and the buying companies.

Furthermore, equity carve-out seems to possess a unique characteristic that is not common with other modes of unbundling. Collaet *al.* (2008) looked at carve-outs to be a primary phase of restructuring which is later followed by either a spin-off or a sell-off. Since carved out divisions are high value assets, when the parent is in need of cash, a second event may take place by selling-off such divisions to any buyer at a premium. At this level one can see that the carve-out was undertaken with the secondary motive of selling it should the parent go bankrupt.

### **To Reduce Information Asymmetry**

The issue of whether information asymmetry within a conglomerate can be improved through unbundling is an area of debate in finance literature. Krisnaswami and Subramaniam (1999) supported that a popular press and practitioners consider the reduction of information asymmetry as the motive behind spin-offs. According to the authors, the CEOs of most firms involved in spin-offs claim that the spin-offs improve the firm's market value because investors are able to perceive value more clearly after the spin-off. The authors asserted that, spin-offs are a clear disclosure of all the individual profit and cost information of the separated divisions. This is because after a spin-off shares are traded separately and can be tracked by different analysts. The discussion by Colla *et al.* (2008) shows that following the initial public offering of a carved out division there exists more transparency in the capital raising process since the new firm is subject to a high level disclosure and the parent operations are clearly separated from those of the carved-out division. This high level of transparency makes carved out divisions more valuable assets.

### **As a Response to Changes in the Corporate Environment**

In the United Kingdom (UK) and the United States of America (USA) the rapid growth of corporate unbundling from the early twentieth century has been observed as a wide spread restructuring strategy of the corporate landscape (Gadad and Thomas, 2005). This trend of expansion of the concept “unbundling” is anathema in Europe and the USA. However, it is important to find out if this restructuring strategy is used in Africa as a wealth creating exercise considering the present corporate environment. First of all, corporate unbundling is one strategy that is greatly used by competitive economies. In this view, Africa is generally less competitive locally and internationally and most often the few holding companies tend to be dictators of the whole economy. Again, the governments also instruct these holding companies on how to operate. Subsequently, there will be no need for such companies to think of any

possible strategy to improve on wealth creation since they perceive no pressure from any potential competitor. This has made unbundling a topic of thin debate in Africa. Nonetheless, South Africa appears to be the major African country that is in line with the western countries in terms of downsizing through unbundling.

It is important to note that the number of unbundling transactions per year may be influenced by the current economic condition. For example, in pre-democratic South Africa, the number of unbundling transactions per year was very limited. But as institutions evolve by shifting social views and changing regulatory policies, corporate restructuring through unbundling could be seen by shareholders as a desirable strategy and accordingly, could be seen in a positive light (Gadada and Thomas, 2005). This is a typical characteristic of South Africa which was observed by the rampant increase in unbundling activities when restrictions and sanctions were lifted following the apartheid era.

#### **For Legal, Strategic and Market Motives**

According to Moschieri and Mair (2005), organisations refocus for legal, strategic and market reasons. Their work gains benefits in finance literature since the corporate world could see whether a motive is legally oriented, strategically oriented or market oriented.

From a legal perspective, unbundling can be voluntary or involuntary (Montgomery, Thomas & Kamath, 1984). Voluntary unbundling can take place for strategic, financial or organisational reasons. Firstly, the strategic reason implies that, a company can unbundle to take a position of specialisation in the market. Secondly, the financial reason suggests that, companies unbundle to generate cash which is used to meet a debt obligation. Lastly, the organisational reason states that companies unbundle to solve the problem of bad governance. Bad governance always results when a business is made up of several divisions which are interfering. On the other hand, involuntary unbundling is most often influenced by the government, by forcing enterprises to response to some regulations.

According to the strategic perspective, firms decide to unbundle for corrective or proactive reasons (Moschieri and Mair, 2005). Corrective unbundling is intended to correct previous errors and to focus more on the core business (Moschieri and Mair, 2005). In this situation, the company tries to correct over-diversification problems created by M&A by focusing on its core business area. Proactive unbundling can be used as a means of restructuring a

company's asset portfolio. Restructuring a company's asset portfolio through unbundling implies exiting unwanted businesses while adapting to changing market opportunities. As such, the main motive behind buy-outs is that it enables the management to take the company in to private ownership, gain access to ultimate control and decision making responsibility and directly take part in the profits which the company generates (Alkhafaji, 1991). Consequently, most often the majority of the equity stake is accorded to the management after an MBO (Green, 1992; Laing and Weir, 1998).

At the market level, unbundling can be aggressive or defensive (Moschieri and Mair, 2005). Hopkins (1991) argued that acquisition can be a defensive reaction to weak or deteriorating industry conditions and competitive positions and that the attractiveness and concentration of the firm's home industry are positively related to unbundling decisions. The general view here is that, when a business is highly focused the possibility of a takeover is limited. Dann and DeAgelo (1988) suggested that sell-offs are motivated to prevent a possible takeover by selling key divisions in which hostile parties are interested. More so, a pure equity carve-out will act as a defence against a possible takeover (Vijh, 2000). In the same light, unbundling by a spin-off transaction protects the spin-off from a hostile takeover more than the parent (Daines and Klausner, 2004).

However, the review of the different motives of corporate unbundling provides that corporations have enjoyed a myriad of advantages through corporate downsizing. Despite these advantages, it is important to take cognizance of the fact that unbundling is accompanied by some setbacks, and, notwithstanding, before considering the advantages present in an unbundling transaction, both the parent firm and the unbundled units must make sure they have enough potentials and the ability to stand on their own without being pressurised by giant corporations (Thomas, 2013).

### **2.2.3 The Demerits of Corporate Unbundling**

Corporations willing to undertake any unbundling transaction should meticulously examine their business structure with robustness in order to reduce the potential defects of unbundling. The following demerits of unbundling are the main advantages enjoyed by companies undertaking M&A activities.

#### **Lack of Synergy Benefits and Economies of Scale**



Synergy is an additional value which can be derived when firms merge together. Hunt (2004) considered synergy as leveraging the combined strengths of two parties such that by adding the individual capabilities of the two companies, their sum is greater than their parts. From the author's argument it is clear that conglomerate organisations benefit from inter-division use of facilities and knowledge. Economies of scale exist when the marginal cost is less than the average cost, hence reducing the unit cost as quantity increases (Besanko *et al.*, 2010). According to Clarke (1998), there exist economies of scale for enterprises undertaking M&A transactions. The non-collective nature of individual corporations prohibits them from achieving synergy benefits and economies of scale.

### **Absence of Diversification Benefits**

Diversification is a very important tool of profit maximization which involves reducing volatility and increasing returns. When a merger and acquisition is vertical it means a company acquires a supplier or distributor who is either forward or backward within the firm's value chain. In this situation there is a reduction in distribution and transport cost but with increase in returns. Firms which restructure through unbundling transactions always incur high transport costs since they are independent and share no common facilities with suppliers or distributors. Additionally, mergers and acquisitions are viable means to avoid bankruptcy, to intensify pressure on smaller firms and reduce losses during an economic downturn (Mukherjee, Kiyamaz and Baker, 2003). This notion seems to send a poor signal to single segment firms during periods of economic crisis. Moreover, diversification permits the acquiring firm to enter the market and to offer products or services with growth opportunities within the industry (Hunt, 2004). This element is a blow to single segment firms since they cannot contest conglomerates in terms of growth prospects.

### **Lack of Competitive Advantage**

When a corporation is unbundled neither the parent nor the unbundled divisions can compete with bigger corporations operating a similar line of business with them due to their small capitalization. If the competition is intense, it can lead to the closing down of the parent and its unbundled divisions. Also, the potentials present within an organisation appear to be absent when such organisations are unbundled. Most often the pressure from giant corporations becomes a path to a possible takeover of either the parent or the divested divisions. The main reason behind acquiring more assets is to increase market power. Haleblan *et al.* (2009) related market power to the ability of a company to appropriate more value from customers.

Such ability is not common with stand-alone enterprises. In analysing competitive advantage or market power, it is clear that bigger organisations will always overshadow smaller ones, hence detecting and overpowering the whole economy at the expense of smaller organisations.

Finance literature has over emphasized the presence and technicality of corporate unbundling. Thus, the existing knowledge behind non-corporate unbundling is very limited due to little attention given to this concept. Unbundling can be well understood if one clearly understands unbundling in the corporate and non-corporate environment. The presence of university capacities today in the form of research work which is underexploited is the birth of non-corporate unbundling in the form of university spin-offs. Like corporate spin-off, university spin-off management remains independent from the university but the gains are enjoyed by the university and a few outsiders involved.

#### **2.2.4 Non-Corporate Unbundling**

Over time, authors have provided much discussion on corporate unbundling as a wealth creating vehicle with little or no effort to add to the finance literature the existence of non-corporate unbundling. However, the only non-corporate unbundling activity that has been recently discussed by a few authors is a university or academic spin-off. The commercialisation of knowledge and technology from universities has been a point of focus (Madsen, Oust, Sørheim and Widding, 2011), with the European universities already following the USA trend (Lockett and Wright, 2005). Accordingly, in the past few decades, universities have progressively included, among their traditional activities, a new one, namely technological transfer consisting of a series of processes and instruments aimed at transferring knowledge, scientific discoveries and ideas produced within the universities to the external world, often through the means of the market (Pittino and Vissintin, [sa]: 173). This knowledge transfer from the university to the market is done through a university spin-off. Through this instrument, professors, researchers and students get involved in business and research outcomes are being marketed (Pittino and Vissintin, [sa]). This is of vital importance to the university as the revenue generated from the research can be used to advance the research centres and provide for other financial obligations of the university.

Nevertheless, creating a spin-off through a university will provide a low-cost platform for the founders to accumulate knowledge (Feldman and Klofsten, 2000) and market it in an efficient manner since the activities involved are highly focused. Markman, Phan, Balkin and Gianiodis

(2005b) support that University Spin-Offs (USOs) created with the intention to exploit academic research have become a significant economic phenomenon. According to Haase, Kratzer and Lautenschläger (2014), USOs are expanding and becoming more popular as a source of regional economic development, facilitating the implementation of new knowledge into economic value. The catalytic role of the spin-offs in knowledge creation and transfer place them as promising channels to move research results from academia to industry (Martínez Sánchez and Pérez Pérez, 2003).

The ability to create USOs and their performance are the major topics of debate. Stankiewicz (1994) affirmed that the frequency by which USOs are created is highly influenced by the parent university's Research and Development (R&D) strength and the existence of an entrepreneurial culture within the university and its closest environment. Thus, Gübeli and Doloreux (2005) support that the host university plays a dominant role in the spin-off process, especially in its early stage of development. USOs are common in areas where high technology starts-up are common because the components necessary to create the spin-offs such as customers, experienced managers, supplies and highly established research laboratories tend to be present in those areas (Beraza-Garmendia and Rodríguez-Castellanos, 2015). However, universities report financing as the main barrier to USOs creation, leaving valuable inventions un-commercialised (Madsen *et al.*, 2011: 58). This difficulty is due to the fact that investors are not certain about the outcome of university research project and sometimes the research is even left unaccomplished. According to Blair and Hitchens (1998) some universities consider USO as a shift from academic work and as such prioritise the university's reputation and fear of any possible mishap that can emanate from the commercialisation of the institution's research outcome. Nonetheless, USOs require a longer investment period, continuous monitoring and several rounds of funding (Madsen *et al.*, 2011). These factors also hinder the creation of such spin-offs.

Contributions as per the performance of USOs has concentrated on the characteristics of the universities, their spin-off policies, the nature of technology transfer offices, the availability of funds from universities and venture capitalists (Chang, Phil and Chen, 2009). It is important to note that USOs are expected to perform better with time since the investment universe will tend to gain more confidence following their past performance. It is normal that most wealth-creating strategies which today are welcomed by investors were oddities just like USO.

The link between corporate unbundling and USO should be carefully examined. USOs today may tend to be corporate structures tomorrow. Clarysee, Heirman and Degroof (2001) argue that during the post-founding stage of a USO, the spin-off activities will slowly shift away from the host university and build up stronger links with external contacts. To some extent these spin-offs can be fully integrated in to the corporate environment by completely selling-off such structures to corporate buyers. Thus, the creation of a USO may not be limited only to the university environment.

Generally, research on unbundling is limited as compared to the broad study on M&A activities. However, studies provide that in the 1980s, corporations started refocusing their assets due to the diversification discount which resulted from over-acquisition of assets around the 1960s. Therefore, significant returns should be expected for firms downsizing through unbundling.

## **2.3 Empirical Evidence**

Empirical studies have proven that shareholders' wealth is created around announcement of unbundling events (pre and post announcement). Further research on unbundling has even proven that significant abnormal returns are present for a number of years after the unbundling transaction is finalised. Mergers and acquisitions are activities of power, differing perceptions and culture and as such are potentially conflictual (Cartwright and Cooper, 1992), but unbundling activity which is motivated by unlocking shareholder wealth, investment efficiency, market focus and reducing agency cost should be accompanied by significant wealth effects around announcements of the event and for years after the finalisation of the event.

### **2.3.1 Market Reaction around Unbundling Announcements**

Market reaction around unbundling announcements has been well documented. At this level emphasis is put on investors' reaction pre-and post-unbundling announcements. The response of security prices to the announcement of divestiture intentions by listed companies has been the subject of a growing amount of empirical research (Bhana, 2005: 19). One of the earliest studies conducted on divestiture performance around announcement is that of Boudreux (1975). The author studied 138 voluntary divestitures announcements in the USA within the period 1965 to 1970. According to the author, the announcement of such events is followed

by positive wealth effects. But the author did not specify the divestiture types that were considered for the sample under investigation.

However, Jongbloed (2004) suggested that corporate spin-off is an important restructuring strategy to create wealth at the announcement. Thus, Dasilas, Leventis, Sismanidou and Koulikidou (2011) investigated the wealth effects of 239 spin-off announcements that occurred between January 2000 and December 2009 in the USA and Europe. A strong positive market reaction of 3.47% on the spin-off announcement date was reported. Secondly, the USA spin-offs indicated a stronger response from investors than the European spin-offs. A possible explanation may be because the USA corporate environment is more mature to accommodate unbundling transactions than that of Europe. But the point of focus here is that even though the USA appears superior to Europe in terms of reaction to unbundling events, the authors indicated that Europe also enjoys significant abnormal returns around unbundling announcements. Similar research carried out by Murray (2000) in the UK by investigating the wealth effects of spin-offs around announcements for the parent firms from 1992 to 1998 reported positive Cumulative Average Abnormal Return (CAAR) around announcements. But the CAAR was not statistically significant. This insignificant result may be due to the announcement of minor unbundling events. Managers are advised to refrain from piecemeal divestiture behaviour lacking clear strategic focus (Brauer and Schimmer, 2010: 84), that is, divestiture announcements which are not intended to greatly refocus company assets. Consequently, this will not be enough to trigger response from investors. It should be noted that the size of the spin-off announcement is strongly related to the degree by which the parent company intends to focus.

However, research conducted before and after Murray (2000) seems to confirm the above argument that larger unbundling events should yield greater returns than minor ones. Among these studies Miles and Rosenfelt (1983) on 55 voluntary spin-offs from 1963 to 1980. The results indicated significant average returns of 3.3%, with larger returns for relatively larger spin-offs. Also, Johnson, Brown and Johnson (1994) analysed the effect of announcement on 113 voluntary spin-offs from 1980 to 1991. They reported the existence of positive announcement effects of 3.4% related to the size of the spin-off. Consistently, Veld and Veld-Merkoulova (2003) carried out a study on the wealth effects for 156 spin-offs from fifteen different European countries that were announced between January 1987 and September 2000. CAAR of 3.57% was revealed for companies that increase their industrial focus and 0.76%

was achieved by non-focus-increasing companies. The difference between the two sample results was proven statistically different from zero. A study conducted on an emerging market has also confirmed the above relation of spin-off size and wealth. This involves Chung Sin and Ariff's [Sa] study of spin-off decisions in addition to the determinants of share price movement for the Malaysian market. The authors considered 85 spin-offs announcements for listed companies between 1986 and 2002. Firstly, the results indicated that both the spin-offs and the parents benefitted from a positive announcement effect on share prices. Secondly the authors supported that the impact of the returns is determined by the size of the companies involved. The above studies give evidence that unbundling activities should be looked at on a larger scale in order to achieved strong positive abnormal returns.

Even though the presence of significant abnormal returns around unbundling announcements have been documented, the sources of these gains are not clear. Hite and Owers (1983) examined security price reactions around the announcement of 123 spin-offs by 116 firms from 1963 to 1981. The authors reported that voluntary corporate spin-offs have positive effects on a firm's share price but the sources of the gain are not understood. In the same light, Schipper and Smith (1983) studied the effect of voluntary corporate spin-offs announcement on shareholder value between 1963 and 1981. A significant positive response from investors was reported. The authors emphasized that the shareholder gains do not appear to come wholly at the expense of bondholders. According to them, it is shown that gains to shareholders may arise from tax, regulatory advantages and improved managerial efficiency resulting from the spin-offs.

Furthermore, De Vroom and Van Frederikslust's (1999) study on the effect of initial spin-off announcement on shareholder value for 210 worldwide spin-off announcements occurring between 1990 and 1998 provided a three day cumulative abnormal return of 2.6%. The authors considered improved focus, the tax-status of the transaction and relative size of the spin-off as predictors for the wealth gain from spin-offs. Nonetheless, Desai and Jain (1999) conducted a study on whether an increase in focus is an explanation for stock market gains associated with spin-offs for a sample of 155 spin-offs between the period 1975 and 1991. Announcement period excess returns for focus-increasing firms were significantly larger than those of non-focus-increasing firms. They assigned focus to be the source of gain. Additionally, future growth prospect of the spun-off units as anticipated by investors can explain part of the gains.

Most investors are more certain about the future performance of a spin-off since the small size of the business will provide a better platform for easy mastery of operations by management.

However, the results achieved by spin-offs are always in line with those of sell-offs. Part of these studies tries to investigate announcements effects on the seller's and the buyer's point of view while some concentrate on only parent performance around announcements. In a study of the announcement effect of voluntary sell-offs on shareholder wealth from 1964 to 1973, Alexander, Benson and Kampmeyer (1984) found out that sell-offs generate positive cumulative abnormal returns for both acquiring and selling firms' shareholders. According to them when a sell-off operation is considered as a means of restructuring, both firms involved receive reasonable returns. They also found out that sell-offs convey favourable information about the investment decision which results in share price gains on the announcement date.

Consistent with Alexander, Benson and Kampmeyer (1984), Kiyamaz (2006) studied the impact of sell-off announcements on both the buying and the selling firms from 1989 to 2002 and reported that both the buying and the selling firms experience statistically significant wealth gains during sell-off announcements. Furthermore, the author revealed that wealth gains are higher for financially distressed firms and firms with higher bank loans around sell-off announcements, supporting both bankruptcy avoidance and lender monitoring arguments. In a similar study on a sample of 179 corporate asset sales in Taiwan within the period 1993 and 2003, Sun and Chen (2009) found that corporate asset sales in Taiwan improve parent firm value with Cumulative Abnormal Returns (CARs) of 1.7715 percent for the pre-announcement five-day period and 0.6086 percent for the two-day announcement window.

Nevertheless, Tehranian, Travlos and Waegelein (1987) examined the association between long-term performance plans and wealth effects accruing to stockholders of divesting firms at announcement of sell-offs between 1974 and 1982. Their findings reported that firms with long-term performance plans experienced a more favourable stock market reaction at the announcement of sell-offs relative to firm with short-term performance plans. They later asserted that by putting in place long-term performance plans, managers are best motivated to take better decisions. These best decisions are taken due to the egoistic nature of managers to always remain at the executive level. More so, Menon *et al.* (2004) examined the effects of announcement of voluntary sell-offs on shareholder wealth for both sellers and buyers between January 2000 and December 2002. The authors documented significant positive

returns for both sellers and buyers involved. It can be argued that the authors' result is biased since only a three year study period was considered. A long study period will include many companies with different corporate structures as well as different motives for sell-offs.

It is important to note that returns generated by a sell-off during the announcement can be lost if the sell-off is not finalised. This is supported by Hite, Owers, and Rogers (1987), who investigated the sources of sell-off wealth effects from 1963 to 1981. They found that gains generated at the announcement are lost when the transaction is not finalised.

While some unbundling transactions are carried out by financially distressed firms, in other cases the firms are financially healthy but used unbundling as a tool for pro-active reasons. In this sense, Lasfer, Sudarsanam and Taffler (1996) examined the differing response from the stock market to divestments by financially distressed and healthy firms, and the effect of lender monitoring on that response between 1985 and 1986. For the UK parent firms they found statistically significant excess returns at the time of sell-off announcements. The authors asserted that the returns were even higher for financially distressed firms. They further explained that the higher returns are due to the reduction in financial distress cost. According to the authors, this is consistent with efficient lender monitoring which states that, significant higher returns are associated with higher level of debts. Their conclusion was that at least in the UK, the main benefit from divestitures comes from the resolution of financial distress.

The study by Lasfer *et al.* (1996) was foreshadowed by Lang, Poulsen, and Stulz (1995) who took a look at synergy argument from 1984 to 1989. They found a significantly positive reaction to a sell-off when the proceeds are used for the payment of debt. But when the proceeds are retained in the firm, the abnormal returns are not significantly different from zero. The conclusion was that the results support Jensen's (1986) free cash flow argument and cast doubt on the operating efficiency view of asset sales since the efficiency argument would predict a positive share price reaction regardless of how the proceeds are used. The authors work is consistent with Gadad and Thomas's (2005) study of 74 firms refocusing through assets sales from 1985 to 1991 in the UK. The authors reported the presence of a significant average abnormal return for the event day of up to 0.81%. The authors explained that these abnormal positive returns could result from the relaxation of credit constraints achieved by reducing the level of debt. However, positive abnormal returns may be achieved by firms which are financially healthy but refocused for proactive reasons.



Other studies have tried to compare the announcement effects of sell-off for companies listed within the country and their overseas peers. Cao, Owen and Yawson (2006) investigated the abnormal returns generated by the announcement of asset sales made by UK multinationals between 1992 and 2003. Firstly, they reported positive abnormal returns for shareholders around announcements. Secondly, the announcement of UK sell-offs generated significantly larger positive market reaction than the announcement of an overseas sell-off. In their later study, Cao *et al.*(2010) analysed divestiture announcements effects for UK multinational corporations accounting for the location of the unit sold within the same period 1992 to 2003. CARs for UK sell-offs were positive and statistically significant for all the event windows considered. Furthermore, the authors compared UK units sold in the USA with those of Europe and Asia-Pacific region. The authors found out that US sales generated larger returns than those in Continental Europe or the Asia-Pacific region.

The importance of profitability as a player in explaining part of the gains around sell-off announcements has not been fully investigated. In attempt to address this issue, Clubb and Stouraitis (2002) investigated the significance of sell-off profitability in explaining the market response to divestiture announcements between 1984 and 1994. The authors found that sell-off profitability explains a major portion of selling firm abnormal returns and it is one of the most significant determinants of the market reaction to divestiture announcements. The consistency of the authors' work today must be checked since their result is applicable for early divestitures announcements.

Corporate unbundlings which occur in a free takeover environment are expected to outperform those undertaken as a strategy to thwart a takeover offer. Unbundling in a free takeover environment means the company is not under pressure to focus its assets but as a means to improve performance of the core business. Bezjak, Loh and Toms (1995) examined investors' response to the use of corporate sell-off as an anti-takeover device between 1980 and 1987. It was found that firms subject to takeover speculations before the sell-off announcement showed insignificant changes in share prices while firms that had no takeover bid reported significant wealth increases.

Like other unbundling modes, carve-out announcements are accompanied by significant wealth effects. Vijh (2002) examined whether the positive announcement-period returns of

equity carve-outs reflect the resolution of information asymmetry concerning the parent and subsidiary stock values. The authors analysed a sample of 336 carve-outs within the period 1980 to 1997. Their report proved that announcement period returns increase with the ratio of subsidiary to non-subsidiary assets. They later supported that carve-outs reduce complexity of stock valuation, improve focus and enable an eventual spin-off or third party acquisition. In another study, Wagner (2005) analysed the performance of 81 carve-outs in Germany between 1984 and 2002. Significant positive CARs were reported. The author later supported that capital raised from stock issue was used to finance already undertaken projects rather than new investments, as in the case of the USA.

A close study of carve-out transactions suggests that companies undertaking such transactions are poor performers with high leverage prior to the transactions. Thus, a focus should be placed on how the proceeds from carved-out division share issued are used. Allen and McConnell's (1998) analysis of 188 carve-outs provided positive significant average CAR of 6.63% when the proceeds were used for the payments of debt. Conversely, negative average CAR of -0.01% was found when the proceeds were retained for investments. This study is consistent with the above studies on sell-offs, which considered proceeds allocation for debt payment more viable than proceeds allocation for new investments.

Asset sale transactions intended to downsize a business can take place in exchange for cash or equity. As such the question of what mode of exchange should outperform another needs to be addressed. However, this issue has been studied by De Swardt (2012) on the JSE. The author conducted a study on the effects of paying with equity or cash on inter-corporate asset sales that were announced from 1<sup>st</sup> January 2000 to 31<sup>st</sup> December 2011. Based on the results, equity funded asset sales created greater value compared to cash funded asset sales. Investors are more motivated when the selling firm is intending to share the risk and future prospects of the asset. On the contrary cash sales signals the market that, such assets have low future profit potentials since the seller is not willing to share any future risk of the asset.

Nevertheless, it will worth more to investigate if seasonal initial public offerings (IPOs) can contest carve-outs IPOs. The idea is motivated by the fact that poor performing firms prefer the carve-outs route to raise more capital than the seasonal IPO, since carve-outs are considered valuable assets. Thus, Schipper and Smith (1986) verified this issue for 76 firms that restructured through carve-outs. The authors reported positive CARs of 1.8% for carve-

outs issue. On the other hand, negative CARs were reported for seasonal issue. They finally concluded that carve-out is the only form of equity issue that can create more wealth effects.

Literature on the announcement effects of buyouts is limited relative to other divestitures. This might be due to the degree of ambiguity of such transactions. Notwithstanding, Madden, Marples and Chugh (1990), carried out an analysis of 36 voluntary Management Buy-out (MBO) announcements in the USA between 1973 and 1978. The results suggested that MBO announcements are accompanied by a positive share price appreciation. Conversely, the study of MBO announcements in the UK by Briston, Coutts, Mallin and Saadouni (1992) for the period 1984 to 1989 did not show any consistency with that of Madden *et al.* (1990). Instead, the result indicated that the parent shareholders experienced negative excess returns following the announcements. Consistently, Briston, Mallin and Saadouni's (1995) study on MBO announcements and share prices behaviour in UK between 1981 and 1991 revealed a negative share price impact to the parent shareholders following the announcement of the events.

Generally, when a strategy is new in a particular corporate environment it is considered an oddity and as such the adoption of such a strategy may not generate a significant positive outcome immediate. But the continuous implementation of such a strategy over time should mean the strategy is understood and thus a significant positive outcome should be expected. According to Thompson and Wright (1987), the USA and Europe started undertaking MBOs around the 1970s. The period when the above studies were conducted in the USA and UK is closer to the period by which MBO was considered a restructuring strategy, meaning that the strategy was not well understood. The positive response from USA investors during this time might be an anomaly.

Corporate unbundling performance around announcement can be improved if the parent firms are intending to put in place long-term investments projects which are highly profitable. Announcements with no future strategy fit may scare investors and thus putting in place a clear picture of how the business is intended to navigate in a long-run might attract investors and subsequently share price appreciation around announcements.

Prior studies of unbundling performance in South Africa are limited. One of the earliest studies is the Blount and Davidson (1996) research on the wealth effects of voluntary corporate unbundling announcements in South Africa. The authors reported a negative share price

impact as a result of unbundling announcements. Some possible reasons for the negative share price impact were given by the authors. From the corporate viewpoint, South Africa sees unbundling as a movement away from efficient structures and that the unbundling decision was not market related. Secondly, according to the capital market perspective, South African markets were not sufficiently sophisticated for unbundling to be a wealth-enhancing exercise. But it is important to note that the author's research did not specify the study period in which the research was carried out. A very short study period may make the results biased irrespective of the nature. This is because a long study period is sufficient to cut down outliers and it will be made up of different companies with different motives and market capitalization.

Nonetheless, the Blount and Davidson (1996) research is consistent with Jordan (2012). In order to investigate the effects of corporate unbundling announcements by South African listed corporations on shareholders wealth from 1<sup>st</sup> January 2002 to 31<sup>st</sup> June 2011, Jordan (2012) found strong negative abnormal returns as a result of 27 corporate unbundling announcements. According to the author, the South African trend of corporate unbundling announcement is not consistent with the rest of the world. The author also asserted that this poor performance is because South Africa is still coming out of past pressure as experienced prior to democracy in South Africa. The above results are not consistent with Bhana's (2006) study of 58 sell-offs undertaken by companies listed on the JSE from 1<sup>st</sup> January 1995 to 31<sup>st</sup> December 2001. The results showed that sell-off announcements have a positive effect on the shareholder wealth for both the sellers and buyers.

However, the studies by Blount and Davidson (1996) and Jordan (2012) did not specify the sample under investigation. They studied unbundling as a whole. Considering all the unbundling strategies under one sample makes it difficult to ascertain performance of a particular strategy and, as such, the authors' research is not robust enough for a conclusion. Research on unbundling is interested to understand which unbundling strategies can unlock shareholders value around or post announcements. Therefore, Bhana's (2006) research which specifies the sample under investigation like the overseas standard is a possible suggestion that SA is consistent with the overseas trend of unbundling through sell-off.

The issue of BEE position and influence in the South Africa corporate environment is still controversial. Coldwell *et al.* (2015) studied the impact of BEE on divestitures announcement. The authors derived two samples. The first sample consisted of firms which were dismantled

immediately after the start of democracy in South Africa and the study considered the period 1996 to 2002. The second sample consisted of firms which were dismantled due to the BEE act of 2003 and the study period runs from 2003 to 2011. Stock price reaction around announcements was positive for the firms restructuring in an immediately democratic South Africa. The case of BEE indicated a negative share price impact. This result has proven that BEE has a negative effect on shareholders' wealth for corporations refocusing with the aim to achieve BEE points.

Furthermore, buy-out transactions are not common in South Africa and as such, thin debate exists on this topic in South Africa. The only research on buy-outs found by this research is Bhana's (2005) study of 38 MBO announcements on the JSE over the period 1983 to 2002. The results supported that, on average, MBOs produced a significant positive wealth effect on the parent company shareholders. More so, the author supported that the potential reduction in the costs of the decision management and decision control functions within the public companies create productive gains which make MBO desirable and a viable alternative to the public company. The author's work is consistent with the case of MBO announcements in the USA by Madden *et al.* (1990) and disputed the cases of MBO announcements in UK by Briston *et al.* (1992, 1995). Though the results in USA can be termed an anomaly, the South Africa case which appear to be the most recent study around announcements may indicate that today, investors perceive buy-outs as wealth-creating strategies with future growth prospects

Despite the great confidence laid on unbundling activities than mergers by the above studies, Graham, Lemmon and Wolf (2002) still emphasised the importance of M&A. They analysed several hundred firms that expanded via acquisitions between 1980 and 1995. The sample size consisted of 755 acquisitions. According to the result, there was a positive market reaction to acquisition announcements. The authors emphasized that the standard assumption that conglomerate divisions can be benchmarked to typical stand-alone firms should be carefully reconsidered. But the relevance here is that the authors did not declare that M&A is superior to unbundling in terms of share price appreciation around announcements.

### **2.3.2 Post-Unbundling Performance**

The wealth effects of corporate unbundling can be better understood if post-unbundling performance is also examined. The fact here is that companies whose share prices appreciate significantly around announcement may not show a similar trend for years after. Sometimes

companies with such performance even close down. Hence, post-unbundling performance should be viewed on a larger scale.

### **Mergers Related Studies**

Companies started to re-evaluate the costs and benefits of their diversified status which led to a new commitment by companies to reduce their operations while concentrating on core business areas (Bhana, 2006). M&A activities in the 1960s led to the accumulation of many unused assets locking shareholder wealth. This created a complex information chain thereby making it difficult for managers to dissect information pertaining to a particular division within the corporation. As such, some authors carried out long run studies to compare unbundling and the diversification strategy of M&A. These studies were aimed at seeing if actually unbundling can be used to cut down the diversification discount induced by M&A.

Servaes (1996) conducted a research on diversification value from 1960 to 1970. The author found no evidence that diversified companies were valued at a premium. The results instead showed that diversified firms are valued at a discount compared to single segment firms.

More so, Berger and Ofek (1995) carried out a study on the effect of diversification on firm value from 1986 to 1991. The authors reported that the share price of an average diversified firm traded at a discount of about 15% of the value its lines of business would have had if operated as stand-alone businesses. According to the authors, the high diversification discount stemmed from the fact that diversification reduced value since segments of diversified firms have lower operating profitability than single-line segments.

The above two studies are consistent with Dittmar and Shivdasani's (2003) investigation on a sample of diversified firms that altered their organisational structure by unbundling one or more business segments. The study period ran between 1983 and 1994. According to the authors, a reduction in diversification discount was experienced by these firms after unbundling. The authors concluded that sale of assets results in a corporate focus, which intends to improve the efficiency of the remaining division. A study by Graham *et al.* (2002) on the analyses of several hundred firms that expanded via acquisitions between 1980 and 1995 indicated that wealth created around announcements was reduced after the acquisition event. But the authors argued that excess value reduction occurred because their sample firms acquired already discounted business units, and not because diversifying destroys value. The

authors' notion can be contested because unbundling activities gain value by disposing of unwanted or discounted divisions. So if other companies acquired such divisions and showed no performance improvement then there should be no excuse that M&A can contest unbundling.

The creation of wealth by any corporate restructuring strategy depends on how that strategy is related to firm value. Campa and Kedia (1999) carried out a study to see if diversified firms are positively correlated to value and subsequently carried out another study to compare value and single line businesses. The study was conducted within the period 1978 to 1996. The result showed a negative correlation between a firm's choice to diversify and firm value. The second study revealed a positive correlation between a firm's choice to refocus and firm value.

Moreover, Burch and Nanda (2002) took a sample of firms that have refocused for some years backward. The study period considered was from 1973 to 1996. From these firms they reconstructed a sample of diversified firms after refocusing and assessed the aggregate improvement in value. The results suggested that diversified firms are accompanied by a diversification discount. In addition, Rushin (2006) studied the performance of diversified and focused organisations within the period 2001 to 2005 on the JSE and found that focused organisations significantly outperform diversified organisations within the period considered by using average market return as a statistical measure. In a nutshell, it is evident that the share price of diversified companies traded at a discount relative to stand-alone businesses. This is because when a business is focused on a particular unit, it gives the management a good incentive to best monitor all the operations within the business while increasing efficiency.

### **Case of Spin-Offs**

When a company voluntarily spins off its subsidiary, the action is viewed as a positive one for both the parent company and its subsidiary (Woo *et al.*, 1989:29). In an analysis of the spinning-off of Regional Operating Companies (ROCs) by American Telephone and Telegraph (AT&T), Hall (1984) reported that AT&T and ROCs realised 18.8 percent return between the end of 1983 and November 1984. According to the authors, the post-unbundling performance of AT&T and ROCS exceeded the return of Standard and Poor's 500 by 12 percent over the same period. In another study, Cusatis *et al.* (1993) investigated the value created through spin-offs by examining the stock returns of spin-offs, their parent firms, and parent-spin-off combinations for periods of up to three years following the spin-offs. The

sample period ran between 1965 and 1988. The results indicated the presence of significant positive abnormal returns for spin-offs, their parents, and the parent-spin-off combinations.

In addition, McConnell, Ozbilgin and Wahal (2001) investigated whether a trading strategy based on ex-post analysis would have earned excess returns on an ex-ante basis over the period 1989 to 1995. They reported that the parents and subsidiaries beat their benchmarks by sizable margins over every post-spin-off interval considered. The authors' work is consistent with Furamera's (2006) investigation of the wealth effect of spin-offs on the Zimbabwe Stock Exchange. The study was carried out between January 2000 and December 2005. The author reported that the event companies outperformed the industrial index after unbundling. The study also affirmed that the significant drivers behind the decision to unbundle include the need to unlock shareholder value, a focus on core competences and facilitation of future growth.

Like any research, research on corporate unbundling may be influenced to a certain degree by the presence of outliers in a sample. McConnell and Ovtchinnikov (2004) examined stock price performance of spin-offs and their parents on a comprehensive sample of 311 spin-offs undertaken by 267 parents between January 1965 and December 2000. Generally, they found that excess returns were positive for both subsidiary and parent companies over almost all holding periods considered. After adjustment for risk, the results appear both economically and statistically significant for the subsidiaries. But after correction for one very large positive outlier, the parent's returns were not statistically or economically different from zero. From the authors' work research on unbundling should be well examined to reduce the level of influence by outliers at the level of the final results. But the question of whether each author actually provides a measure for this error is still a topic of debate.

Furthermore, a study of value improvement following spin-offs by Chemmanur and Yan (2003) recommended that spin-offs are associated with long-term performance. The author did not reveal the study period. However, the authors' work is consistent with Bhana' (2004) investigation on voluntary spin-offs occurring between 1988 and 1999 on the JSE. The study indicated that both the spin-offs and their parents offer significant positive abnormal returns for up to three years after the spin-offs' announcement date. This result suggests that South Africa is a fertile ground for unbundling activities today as compared to non-democratic South Africa. In the same vein, Ahn and Denis (2004) analysed the changes in investment policy



following 106 spin-offs between 1981 and 1996. For pre-spin-offs, it was found that the firms within the sample traded at a discount compared to single-segment firms. But for post-spin-offs, there was a significant increase in measures of investment efficiency and the diversification discount was eliminated.

Nonetheless, Woo, Willard and Daellenbach (1992) findings completely disputed the above findings. The authors investigated the three-year post-restructuring performance of 51 firms that were spun-off between 1975 and 1986. On average they found no performance improvement of the spun-off units following separation from the parent firms. The authors' work is in line with Jone and Martin (2008) on the operating performance of spin-offs within the period January 1<sup>ST</sup> 1997 to December 31<sup>ST</sup> 2004. According to the results, no performance improvement was found for years after the spin-offs. Consistently, Bhat and Burg's (2011) investigation on the post-performance of spin-off using 154 spin-offs between the period January 1999 and December 2004 found out that the spin-offs did not outperform a broad market index. In another study, Halai (2015) examined the parent company's influence on spin-off performance. The author studied energy spin-offs within the period 2011 to 2014 and financial services spin-offs within the period 2010 to 2014. It was found that energy spin-offs continue to generate net loss since the year of separation from the parent. For the financial services spin-offs, only a slight improvement was noted after separation from parent.

Furthermore, study by Majoni *et al.* (2014) on the impact of spin-offs on shareholder wealth for parent firms listed on the JSE over the period 1995 to 2011 reported significant negative cumulative abnormal returns for up to 250 days and 500 days following the spin-off announcement. However, long-run studies should be considered for at least three years following the event. But the authors only considered 500 days as maximum which is not even two years. If the study had monitored performance for at least three years, everything else being equal different results might have come out. Comprehensively, Kleinman and Sahu (1990) investigated share price performance of 40 newly spun-off firms between 1984 and 1987. After one month of trading, the average market-adjusted return for the 40 spun-off firms was -1.7%. After three, six, nine, and twelve months of trading the average market-adjusted return for the 40 spun-off firms was 4.8%, 14.6%, 22% and 22.7% respectively. This is a typical study that disputes Majoni *et al.* (2014) on the basis that over time, spin-off performance may improve and if performance is investigated for at least three years and above then any result arrived at irrespective of the nature should be considered robust.

After every unbundling exercise, the system of governance put in place may influence or distort post-unbundling performance. Seward and Walsh (1996) conducted a research to examine the governance and control mechanisms that were put in place in newly spun-off companies. They used a sample of 74 firms, voluntary spin-offs between 1972 and 1987. Their findings indicated that efficient internal control mechanisms were established in these firms. In a similar study, Ahn and Walker (2004) investigated the relation between corporate governance and the spin-off decision for 102 firms in the period 1981 to 1997. It was shown that larger firms, firms which are broader in scope, and firms appearing to invest inefficiently are more likely to engage in a spin-off. Their evidence also supported that there are firms that are maintaining value-destroying diversification strategies that do not eliminate this inefficiency due to agency problem. If such firms with inefficient investment can engage in a spin-off then efficient governance will be put in place, hence eliminating the agency problem.

Conglomerate organisations are candidates of agency problem which always leads to agency costs. The question of whether a spin-off strategy can eliminate such costs should be considered in corporate finance. Burson and Lippert (1996) investigated the post spin-off of Regional Operating Companies (ROCs) by American Telephone and Telegraph (AT&T) between the period 1978 and 1990. According to the results, the formation of ROCs led to a reduction in agency costs. They later contended that the reduction came from a decrease in undistributed cash flow, which is against Jensen's (1986) cash flow theory.

When an unbundling even is announced, doubt is cast upon which category of investors will play a bigger role towards the future performance of either the parent or the divested units. From this view, Allen (2001) examined the predictive ability of informed trading with respect to post spin-off stock performance and corporate control transactions from the period 1978 to 1991. The author found out that insiders' trade is significantly related to post spin-off returns. Consistently, Charoenwong, Ding and Pan (2008) used insider trading to examine undervaluation as a motive behind corporate spin-offs during the period 1987 to 2006. They realised that insiders contributed significantly towards the long-run stock performance and operating performance following spin-offs rather than outsiders. They later asserted that managers know when their firms are undervalued and time their own trades accordingly.

It seems that during a spin-off there exists information asymmetry even though it is claimed that a spin-off contains all the available information to the public. If all the available information is disclosed to the public as per the efficient market hypothesis of Fama (1970), then both insiders and outsiders should contribute equally to the post stock performance of spin-offs.

However, unbundling is a tool used to cut down information asymmetry within large corporations. High level of information asymmetry explains the high diversification discount present in conglomerate organisations. To test this fact, Krishnaswami and Subramaniam (1999) empirically analysed the information hypothesis that the separation of a firm's divisions into independently traded units through a spin-off enhances value since it mitigates information asymmetry about the firm. Their study consisted of 118 voluntary corporate spin-offs that were completed between January 1979 and December 1993. The results revealed that firms undertaking spin-offs have higher levels of information asymmetry compared to their industry and size-matched counterparts and the information asymmetry decreases significantly after the spin-offs.

On the whole, it can be suggested that companies should not mimic others and before any restructuring strategy is considered, companies should make sure their resources are well aligned to integrate irrespective of any economic manoeuvres or difficulties. Even though only a few studies seem to undermine corporate spin-offs, the management of each spun-off unit should be well monitored after any spin-off exercise since divisions need to adapt themselves in a business environment where synergy benefits are absent.

Generally, the decision to unbundle between spin-off and sell-off is similar. An early research by Khan and Mehta (1996) on divestiture decision between spin-off and sell-off from the period 1969 to 1987 revealed that firms undertake spin-offs and sell-offs because of low marginal return coupled with high joint operation and financial costs. From this common base and considering the overall performance of spin-off from the above literature, then, corporate unbundling through sell-off should be generally accompanied by positive wealth effects.

### **Case of Sell-Offs**

Most studies undertaken for post sell-off performance have shown some similarities with studies carried out on spin-offs. Hillier, McColgan and Werema (2005) examined the

operating performance of UK firms following a decision to sell-off non-financial assets. The study was carried out between 1993 and 2000. A significant improvement in firm operating performance was reported after the sell-off exercise. Again, Gadad, Stark and Thomas (2007) conducted a study on whether sell-offs are associated with changes in operating performance for both the buyer and the seller between the period 1<sup>st</sup> January 1985 to 31<sup>st</sup> December 1991. The results indicated that the operating performance of the buyers and the sellers increased by 3% and 3.1% per annum respectively on an average for three years after the sell-off. Conversely, in a study on sell-offs on the JSE over the period 1995 to 2011, Majoni *et al.* (2014) reported that sell-offs are impacted negatively post-announcements. This is consistent with an earlier study on sell-off performance by Steiner (1997). The author examined corporate sell-off decisions of diversified firms during the years 1986, 1987 and 1988 by a matching firm approach. According to the results, the probability of a sell-off is significantly negatively related to firm performance.

The above studies failed to compare the wealth effects between inter-firm sales and sales to unit management. However, this problem has been addressed by Hanson and Song (1997). The authors questioned the source of shareholders benefits following sell-off between 1980 and 1991. The authors' result supported that the long term performance of the parent firm improves when assets are sold to another firm and not when assets are sold to unit management. According to the authors, such performance comes from the elimination of negative synergies. They also proved that even though sales to unit management is accompanied by gains, but these gains do not come from eliminating negative synergies but instead arise from efficient contracting. They finally concluded that the parent firm failed to capture these gains generated by unit management from efficient contracting.

Other studies have been carried out to explain the most efficient way of allocating proceeds from sell-offs. Bates (2005) examined the allocation of cash proceeds following 400 subsidiary sales between 1990 and 1998. The findings indicated that positive abnormal returns were present for the retaining firms for over a 24-month interval following a sale announcement. But the abnormal returns were insignificantly different from zero for firms distributing proceeds to either debt or equity. The author disputed the general notion that firms retaining proceeds are exposed to continued unresolved agency conflict. In another study, Groth and Shin (2012) examined the factors and motivations prompting asset sales by financially distressed firms. The author used a sample of 253 financially distressed Korean

firms within the period 2000 to 2006. The study found out that the sample firms appear to sell fixed assets in order to reduce their high leverage with the proceeds from sales. They later concluded that the benefit to shareholders due to leverage reduction alleviates agency problems driven by information asymmetry. However, this study cannot contest Bates (2005) because it is based purely on financially distressed firms.

The used of sales proceeds to pay for debt, to reinvest or to distribute to shareholders will depend on how constrained a particular firm is and, as such, a general conclusion on efficient method of proceeds allocation may not be attained.

In an unbundling exercise, there is always an overall experience which must be felt by parties involved during the transaction and for years after the transaction. Research on divestitures experience during and after the transactions is very limited. The only study found by this research on divestiture experience is that of Brauer, Luger and Mammen (2014) on sell-offs. The authors investigated the moderating influences of different forms of internal and external sell-off experience on the relationship between firm sell-off activity and subsequent firm performance. The results found a positive moderating influence of a firm's general sell-off experience with learning benefits resulting from the repeated sale of related assets. A high level of experience heterogeneity negatively affected the relationship between firm sell-off activity and subsequent firm performance. From the authors' work, the sale of related assets should have more positive market experience than the sale of unrelated assets.

Unlike spin-offs, most authors have conceded that sell-offs have more likelihood to occur when firms are in financial distress, but empirical evidence behind this concession is limited. However, Nixon, Roenfeldt, and Sicherman [sa] studied this issue for 84 sell-offs which occurred between 1<sup>st</sup> January 1988 and 31<sup>st</sup> December 1993. The results indicated that firms are more likely to sell off assets when they are in financial distress.

### **Case of Carve-Outs**

Carve-outs are a bit different from other unbundling modes. Some of the studies looked at carve-outs as normal events and some try to consider carve-outs as a first phase of a two phase restructuring process. The announcement of the second event is also studied under the long-term effect of carved-out assets. Some of these studies include Schill and Zhou's (2001) analysis on price behaviour in the emerging internet industry by comparing investor valuation of internet subsidiary carve-outs with that of the parent. The results proved that an important

clientele of investors value direct internet asset holdings more than indirect holding via the parent. This is a suggestion that carved-out divisions are seen by investors to be more valuable than the parents. This is the reason why parents initiate carve-outs with the secondary motive of selling them to any best bidder, as stated by Colla *et al.* (2008). This idea is consistent with Powers (2003). The author analysed 181 equity carve-outs between 1981 and 1996 to determine whether the transactions are motivated by potential efficiency improvements or by an opportunity to sell overvalued equity. Firstly, the results showed that carve-out operating performance peaks at issue, declining significantly thereafter. Secondly, the author concluded that carve-outs are not motivated by the means to improve efficiency but rather motivated by the means to sell potential overvalued equity.

Furthermore, Klein, Rosenfeld and Beranek (1991) conducted a study on 52 carve-outs that took place between 1966 and 1983. The results indicated that 44 of the carve-outs were followed by a second event, 25 of which were followed by a reacquisition of the subsidiary by the parent, seventeen led to a sell-off and the remaining two were followed by a spin-off. More so, the authors stated that the CARs are positive and significant when a second event is a divestiture. But when the second event is a reacquisition, the CARs are positive but not significant. The authors' work is consistent with research by Gleason, Madura and Penathur (2006) on reacquisition as a second event. They analysed a sample of 129 equity carve-outs within the period 1981 to 2001 against a control sample of 135 carve-outs that were not succeeded by a reacquisition. Negative and significant CAR of -1.07% was reported for parent shares when the second event is a reacquisition. However, a positive and significant CAR of 0.65% was found for the control sample. These results can be attributed to the fact that investors will tend to react when an announcement is intended to refocus corporate assets. Reacquisition sounds a non-rationale decision which intends to expand corporate assets with a high degree of misfit.

Furthermore, Thompson and Apilado (2010) evaluated the wealth transfer hypothesis as applied to the second-stage events and announcements that follow carve-out during the period 1983 to 2004. Consistent with studies by Klein, Rosenfeld and Beranek (1991) and Gleason, Madura and Penathur (2006), the results indicated that wealth increases are present for parent stockholders and bondholders in the spin-off announcement as a second event.

Nevertheless, results found by Colla *et al.* (2008) are not directly similar to the above studies on carve-outs as a second event. They examined the later effect on carved-out shares by considering subsequent sell-offs, reacquisitions and spin-offs between 1985 and 1997 on a sample of US transactions. They reported that, in most cases, a second event follows the carve-out and that equity carve-outs are typically the first phase of a two-stage process of corporate restructuring. They later on suggested that CARs are positive and significant when the second event leads to the clear identification of a buyer as in sell-offs or in the reacquisition of shares by the parent. Unlike the above results, the authors found that a negative price reaction occurs when the second event leads to the sale of shares to dispersed shareholders, as in seasoned equity offers and spin-offs.

The above studies are more complex relative to studies on spin-offs and sell-offs. The only study found by the research to have monitored carved-out division performance for years without considering a second event is that of Vijh (1999). The author analysed long-term performance of 628 carve-outs in the period 1981 to 1995 and found that carved-out divisions did not underperform their bench marks.

The high degree of response by investors to information available prior to, and after an unbundling event denotes the power of unbundling as a refocusing strategy. Thompson (2011) investigated the extent to which returns can be affected by public information available before the announcement and offer dates for 274 carve-out parents between 1988 and 2006. According to the author, public information known prior to the offer date influences 7.52 percent of the variation in announcement, 5.57-38.31 percent of the variation in ex-date and 6 percent of the variation in three-year market-adjusted equity carve-out parent returns.

The most common forms of corporate unbundling are spin-offs, sell-offs and equity carve-outs. As such, it is important to compare and contrast the main motives behind these major forms of unbundling. Chen and Guo (2005) investigated why firms divest their assets and how firms choose among the three major divestitures mechanisms such as spin-off, sell-off and equity carve-out within the period 1985 to 1998. Firstly, the authors found that firms with higher leverage ratios and low cash income are more likely to engage in a sell-off or a carve-out. Secondly, the authors conceded that firms use sell-offs to divest small units operating in the same industry. Furthermore, they considered spin-offs and carve-outs as strategies used when the unbundling exercise involves larger divisions or business units. Lastly, according to

them, firms having high dividend yield, less information asymmetry, and divesting units operating in different corporate environment are more likely to use carve-out as an unbundling strategy.

### **Case of Leverage and Management Buy-Outs**

These two forms of unbundling are characterized by the use of large debt financing. As such, both restructurings are expected to give similar results. Even though buy-outs are perceived as strange restructuring strategies today, they have been used in the past. For example, Harding, Hanouille, Rue and Volkan (1985) realised the growing popularity of buyouts when they found that by 1983, at least half of all corporate acquisitions were transacted as leveraged buy-outs. More so, Baker and Smith (1998) argued that the incentives of increased ownership by management in a buy-out have been recognised by modern day corporate practices. Hence, this growing popularity of buy-outs since 1993 and the management incentives involved are possible suggestions that buyouts are accompanied by some positive results.

Corporations that have used the divestiture type Leverage Buy-Out (LBO) have been creative and have generated significant amounts of cash for asset redeployment (Golden and Little, 1985: 7). Hence, Lichtenberg and Siegel (1989) investigated the economic effects of LBOs for the period 1981 to 1986. According to the authors, manufacturing plants involved in LBOs showed significantly higher rates of total factor productivity growth than other plants within the same industry. This study is consistent with a similar study by Desbrières and Schatt (2002a) on financial characteristics and changes in performance of French companies involved in an LBO for the period 1988 to 1994. According to the result, acquired firms outperformed their peers in the same sector of activity for years after the event.

The issue of solving agency problems through unbundling is a controversial topic in finance. Agency problem is common amongst conglomerate organisations. Sometimes this problem arises from conflict of interest especially when managers tend to acquire more assets to make themselves managers of big corporations at the expense of shareholders. Thus, splitting these assets through an LBO should impute firm efficiency and resolve agency problem. On the contrary, Hill and Phan's (1995) review of organisational restructuring and economic performance of 214 LBOs between 1986 and 1989 did not support that LBOs lead to an increase in enterprise efficiency. Nevertheless, recent research by Nikoskelainen and Wright (2005) completely disputed Hill and Phan's (1995) argument. The study was based on the



realised value increase in exited leveraged buy-outs in UK in the years 1995 to 2004. The result supported that value increase and return characteristics are related to corporate governance mechanisms resulting from a leveraged buy-out. Their result is in line with Jensen's (1986) free cash flow theory, that the governance mechanisms of buy-outs solve agency problems.

Furthermore, it is important to compare LBOs today and those in the past to see if this refocusing strategy is still accompanied by significant wealth effects. This issue has been redressed by Guo, Hotchkiss and Song (2009). The authors examined whether, and how, leveraged buy-outs from the most recent wave of public to private transactions created value. They purported that such deals are somewhat more conservatively priced and less levered than their predecessors from the 1980s. Notwithstanding, gains in operating performance were either similar to or slightly exceeded those observed for benchmark firms. The authors' work should be highly considered since other studies failed to compare past and recent LBOs. However, more studies should be carried out so as to see how applicable the authors' work is today.

The investigation of the financial characteristics of LBOs should be another point of focus. Le Nadant and Perdreau (2006) examined 175 LBOs targets within the period 1996 and 2002 that were mainly privately held. The results supported that LBOs are less indebted and have more financial assets than their industrial counterparts. This is consistent with the contention by Alkhafaji (1991) that buyouts are more solvent financial entities.

After an LBO, the management put in place has a bigger hand in the performance of the divested asset. In a study by Bull (1989), the author compared management performance before and after LBOs for 25 companies between 1971 and 1983. Financial performance after the buy-outs was superior to performance before the buy-outs. From the results, it is evident that the small nature of the business gives the management the opportunity to minimize variability while speeding up the growth of the business with a good market timing ability and thus high profitability. A team of five managers assigned to manage a particular business have a high probability of performing well than when they are assigned to manage a conglomerate. Consistent with this argument, Gottschalg, Lopez-de-Silanes and Phalippou (2007) carried out an analysis of 5965 leveraged buy-out investments made by 193 private equity firms in 38 countries from the period 1973 to 2006. Following the analysis, the winners among the sample

were those with a smaller work load than the others. Again, these winners were found to have a superior market timing ability than the others.

Like LBO, Management Buy-out (MBO) involves the completely going private of a subsidiary in the hands of the management (Moschieri and Mair, 2005). This signals operating efficiency since the management already knows the internal control mechanism of the subsidiary and measures which can be used to improve performance. Smart and Waldfogel (1994) investigated the effect of restructuring on corporate performance. Their result proved that MBO improves corporate performance. But the authors' study period was not revealed. Hence it is difficult to cite the particular era in which the research is applicable. In another study by Robbie, Wilson and Wright (1996) on the long-term effects of MBOs for a sample of 251 UK buy-outs in the years 1982 to 1984, by using financial ratios, the authors suggested that MBOs significantly outperform a matched sample of non-buy-outs. The authors' work above foreshadowed Laing and Weir's (1998) study of 51 UK limited companies that restructured through MBO. Following the study, the authors reported a general improvement in performance in the years after the MBOs.

Furthermore, Haris, Siegel and Wright (2003) assessed the total factor productivity of manufacturing plants before and after MBOs in the UK within the period 1994 to 1998. The results provided that MBO establishments were less productive than comparable plants before the transfer of ownership. But their second analysis showed that MBO plants experienced a substantial increase in productivity after the buy-outs. More so, the authors argued that MBOs may be a useful strategy to reduce agency costs and enhancing economic efficiency.

Generally, during buy-out events the public views the transaction as a handicap for the shareholders. Hanson and Song (1997) suggested that buy-outs are weapons of wealth expropriation from shareholders by managers due to efficient contracting. Nevertheless, empirical studies have disputed the authors' idea. Among these studies is that of DeAngelo (1986) on a sample of 64 firms that proposed to go private. Within the study period 1973 to 1982, the author analysed the accounting decisions made by managers of these firms. The author reported that outside scrutiny by public shareholders together with their financial advisors avoided management manipulation. Kosedag, Mehran and Qian (2009), examined the information asymmetry in LBO transactions between 1980 and 1996. The findings

suggested that the market for corporate control is quite efficient, eliminating any possible wealth expropriation by managers in buy-out transactions.

On the whole, the improved performance following buy-outs may be attributed to the fact that the managers easily integrate the assets to fit their investment strategy taking in to account their previous experience. This idea is a handicap to M&A since assets are acquired with little or no knowledge on how to integrate them. Again, innovation, excess profit, and value creation are much more likely to be found in firms where owner-managers control the decision making process rather than in those which are controlled by agent-managers (Krause, 1989: 8).

### **Performance of South African Companies following Unbundling**

South African corporations follow a similar trend of unbundling as their overseas peers. The unbundling of these corporations has led to more success than failure. When Tiger Brands became an unbundler which let go Spar in 2004 and Adcock Ingram in 2008, the unbundling exercise was a successful one. Spar achieved a share price appreciation of over 23% after its listing. Adcock Ingram achieved a share price gain of 80% in its first two years of listing (Thomas, 2013). In 2003, Capitec was unbundled by PSG which gave Capitec a share price appreciation of 1800% (Thomas, 2013). The unbundling of Mpact by Mondi in July 2011 gave Mpact 80% gain in value after the exercise (Thomas, 2013). On the other hand, some unbundling exercises undertaken in South Africa have led to poor performance. One such situation is the unbundling of Hulamin by Tongaat Hulett in June 2007. A decrease in share price in its first week of listing and a loss of 85% of its total value was experienced (Thomas, 2013). The poor share price performance of Hulamin was due to the economic recession experienced at that time. Also, in May 2008 the unbundling of Eqstra by Mperial brought Eqstra down by 60% after the unbundling exercise (Thomas, 2013). These unsuccessful unbundling transactions were as a result of poor market timing. This is because Alsi40 reached its pre-crash peak in May 2008.

### **2.3.3 Joint Studies**

This research considers such studies as those which simultaneously investigated market reaction for a particular sample around unbundling announcements and post unbundling announcements. The essence of such studies is to give a clear picture of how a particular unbundling strategy behaves around and post the announcements. Many authors only provide

a one directional study and do not consider about what might happen at the other end. If a sample of firms is investigated for market reaction around announcements and for long-run stock performance then any possible conclusion should be considered robust. Two different samples investigated over the same study period may show dissimilar trends. If a spin-off sample for author A shows a positive market reaction around unbundling announcements and a sell-off sample for author B shows a positive market reaction for years after unbundling for the same study period, one cannot properly conclude that unbundling is accompanied by positive wealth effects around and post announcements during that period of analysis. This is because the sell-off sample may show a strong negative market reaction around announcements. This approach can help in the case of South Africa where literature on unbundling is too limited to easily arrive at a conclusion.

However, one of these studies is that of Dasai and Jain (1999). The authors examined if an increase in focus can explain stock market gains associated with spin-offs. They considered a sample of 155 spin-offs between 1975 and 1991. The results revealed that the announcement period and the long-run abnormal returns for the focus-increasing spinoffs are significantly larger than the abnormal returns for the non-focus-increasing spinoffs. After analysing the non-focus-increasing spin-offs, the authors asserted that such spin-offs are undertaken in order to separate underperforming subsidiaries from the parents. In this sense, investors are advised to closely examine a particular unbundling exercise before buying shares from the spun-off units.

In another study, Michaely and Shaw (1995) provided an analysis on how firms choose between equity carve-outs and spin-offs between the period 1981 and 1988. Firstly, they found out that riskier, more leveraged, less profitable firms chose to divest through a spin-off. Secondly, a cumulative excess return around announcements of 4.46% and 0.4% was found for spin-off and carve-out parents respectively. But the later was not significantly different from zero. Over a long term period, both the spin-off and the carve-out parents were accompanied by a reduction in their operating performance following the events. But carve-outs performed better than spin-offs and the difference was statistically different from zero.

Comparison between spin-offs and sell-offs has also been provided. Prezas and Simonyan (2012) investigated the determinants of the choice between spin-offs and sell-offs from 1980 to 2006. They reported that spin-offs are associated with more positive announcement effects

than sell-offs. Secondly, firms which sell off their assets exhibited a greater improvement in their post-divestiture long-term operating and stock return performance compared to those that spin off their assets. This recent study should be given more attention in finance literature since most firms restructure for future benefits. More so, the authors' work is a possible suggestion that firms with a long-term performance plan should adopt sell-off as the best refocusing strategy.

Furthermore, the announcement effect and the long-run performance of sell-offs and equity carve-outs has been investigated for companies listed in Taiwan. This study was conducted by Sun (2012) for a sample of 266 sell-offs and equity carve-outs for the period 1995 to 2004. According to the author, significant positive share price abnormal returns are related to divestiture announcements for companies listed in Taiwan. Secondly, the firms observed enhance performance after undertaking divestiture activities.

The performance trend of parents and their carve-outs should be examined well so as to give a solid background for possible conclusions. Hence, Madura and Nixon (2002) monitored performance of parents and subsidiaries for 88 carve-outs between 1988 and 1993. Positive CAR of 1.35% at the time of announcement was reported. But over a long-run, both parents and their carved out divisions showed negative CAR.

## **2.4 Conclusion**

The intensive adoption of corporate unbundling since the 1980s has made it more controversial in finance literature. The unbundling of an unwanted subsidiary in order to focus more on the core business is not a guarantee of success (Pearson, 1998). Certain capabilities and skills like managerial communication are required for successful divestitures (Brauer, 2006). However, the simple nature of single line business will require less of these capabilities and skills to succeed and according to Bertrand, Betschinger and Petrina (2014), divestiture activity offers firms higher strategic flexibility, as firms are able to amend or terminate a strategy that has become less applicable. Thus, as examined from the above empirical research by the various authors, unbundling is accompanied by significant wealth effects around announcements and post the events. Only a few authors' work showed deviation from this unbundling normality.

Though unbundling has been intensively used in developed countries as a tactical refocusing strategy, in Africa this strategy is still an oddity. Though South Africa has taken this strategy more seriously relative to other African countries, this study found thin debate on corporate unbundling in South Africa. Thus, conducting a research to examine share price performance following corporate unbundling events on the JSE will improve literature about unbundling in South Africa. USO as a non-corporate unbundling strategy is still new in finance literature. Even though this research has provided a discussion on the background of USO, other researchers could expand the body of work by looking at the various empirical studies conducted on USO.

## CHAPTER 3

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### Research Design and Methodology

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#### 3.1 Introduction

Research on corporate unbundling has received little attention in the literature compared to corporate mergers and acquisitions (Gadad and Thomas, 2005). Despite this fact, a review of prior literature reveals that an unbundling announcement is not a trivial event and that it is usually accompanied by changes in the wealth of shareholders (Bhana, 2006). However, corporate unbundling is no longer a discussion in the USA and Europe only but it has also now been adopted by emerging economies such as South Africa. Corporate unbundling constitutes many restructuring strategies. Some of the strategies have gained more interest in finance literature than others. A great deal has been documented concerning spin-offs, sell-offs and carve-outs (Powers, 2001:1).

The rate at which a particular unbundling strategy is investigated might be influenced by the amount of shareholder's wealth that can be unlocked by that strategy and the degree of ambiguity present during the execution of that strategy. Following the various authors' research and contentions at the level of chapter two, spin-offs, sell-offs and carve-outs appear less complex than management and leverage buy-outs and subsequently create significant positive wealth effects around and post announcements. Again, the amount of wealth created by a particular strategy may vary from one country to another. Research conducted on spin-off announcements in USA and Europe by Dasilas, Leventis, Sismanidou and Koulikidou (2011) revealed that the US spin-offs provided a stronger response from investors than the European spin-offs. No clear explanation for this wealth discrepancy between countries has been given. However, similar research in South Africa may show lesser wealth effects than in USA and Europe. But at this level, a clear explanation can be given since the economy structure consists of many holding companies (Castle and Kantor, 2000) which could not unbundle due to the apartheid era and consequently, these companies started unbundling a few years ago in a democratic SA. Therefore, if after an unbundling exercise in a particular economy no significant returns are found, it does not imply that in the future significant returns

will not be found. It might be that the market is still trying to adjust and accommodate the strategy.

In the 1960s, corporate unbundling was perceived as an oddity in USA and Europe but today it is a strategy used to unlock shareholders' wealth. Strategies that are perceived as oddities at inception can still create strong positive wealth effects following their implementation, and the nature of the wealth effects at inception may vary from one economic zone to another.

Though spin-offs, sell-offs and carve-outs are commonly used worldwide, the case of South Africa reveals that little research has been conducted on these strategies. This is clear from the limited studies found by the research on the JSE. Hence, a research undertaken on corporate unbundling on the JSE should add more to the existing literature, and especially if the research is conducted on at least two corporate unbundling strategies. Nevertheless, the JSE is lacking more long-run studies on corporate unbundling than studies around announcements. As such, the research will be conducted on a long-run basis in order to improve on the literature related to post-unbundling.

The research has adopted the event study methodology by a matching firm approach developed by Dasai and Jain (1999), which used the buy and hold technique to calculate abnormal returns. The methodology was adopted by Bhana (2004) on the South African companies to determine long-run performance of unbundling transactions. However, the research found it necessary to provide a vivid understanding of an event study and the reason why the matching firm technique is the most suitable for the research among all event study methods.

## **3.2 Event Study Background**

An event study is an empirical analysis that is normally used to measure the effect of an event on stock prices (Sitthipongpanich, 2011:60). An event study is a well-known research paradigm in several fields of business research, and is one of the most popular statistical designs in finance (Henderson, 1990). This method was used earlier by Ball and Brown (1968) to determine the impact of earnings announcements. Later, Fama, Fisher, Jensen and Roll (1969) adopted the method in their study of market efficiency. After these authors, there has been an increasingly adoption of the event study method to study the impact of corporate restructurings.



The appropriate method to investigate the performance of an event is the event study methodology. Therefore, if the event is to be investigated for a long-term period, the best long-term event study methodology should be used. Sitthipongpanich (2011) placed event study methodologies in to six categories. These methods include the following; the mean-adjusted return approach, the market-adjusted return approach, the market-model-adjusted return approach, the capital asset pricing model adjusted return approach, the reference portfolio approach and the matching firm approach. All these different methods have a common characteristic of abnormal returns determination. The only difference is in how the abnormal returns are arrived at. However, many authors investigating the performance of corporate divestitures have made use of the market-model-adjusted return approach and the matching firm approach more than any other method.

Nevertheless, irrespective of the method used for data analysis and arriving at any conclusion, Henderson (1990) asserted that all event study methods follow a general procedure. These include the following steps.

1. Set the date upon which the market is expected to receive the news.
2. Depict the returns of the individual firms in the absence of the news.
3. Determine the difference between observed returns and “no-news” returns for each firm
4. Aggregate the abnormal returns across firms and across time.
5. Test the significance of the aggregated returns to determine whether the returns are significant. If the returns are significant, specify for how long.

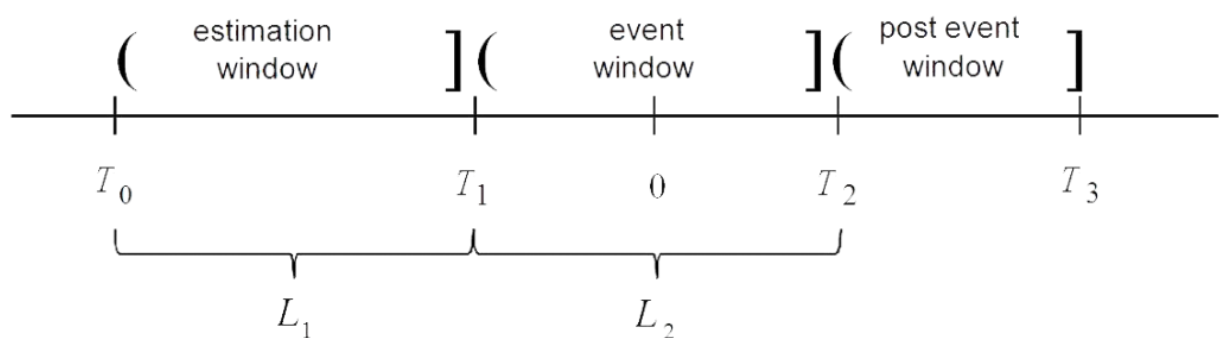
Furthermore, the methodology used to study the short-term and long-term performance of corporate unbundling events varies from one author to another. However, using a methodology that is good enough for a particular study will yield solid results. Literature on corporate restructurings concentrate on the use of either compounded long-run abnormal returns (buy and hold abnormal returns) or measures of average periodic performance (cumulative average abnormal returns) (Gershgoren, Hughson and Zender, 2005). Thus, the major methodologies adopted by various authors over time are the market model approach that aggregates results through Cumulative Average Abnormal Returns (CAARs) and the matching firm technique that aggregates results through Buy and Hold Abnormal Returns (BHARs).

### 3.2.1 The Market Model Approach under CAARs

This methodology is more complex than the matching firm technique. This methodology is widely used in finance and economics due to the finding's high levels of reliability and the elimination of subjectivity from the processed data (Balsey, 1970). It is mostly used to capture announcement effect following a restructuring event. Again, it is based on the assumption that new information, in the form of an event, introduced to the market will trigger immediate response from investors (Jordan, 2012: 27). However, an explanation of this methodology, according to Brown and Warner (1985), constitutes the test period, normal, abnormal, average and cumulative average abnormal returns.

The test period is simply the horizon by which the event study runs its course (Jordan, 2012). The test period is divided into two components, that is, the estimation window and event window (Jordan, 2012). The estimation window is the period considered for the estimation of the intercept and the slope parameters for a given asset. The intercept and the slope parameters are usually estimated by using the ordinary least square regression method (De Vroom and Van Frederikslust, 1999). On the other hand, the event window is the period in which the abnormal returns around the announcement of an event are calculated. That is pre- and post-event announcement. The following diagram gives the complete picture of the test period.

#### Event study Windows



Source: Event Study Metrics [sa].

From the diagram,  $L_1$  is the period by which the intercept and the slope parameters are calculated. These parameters are not calculated on the event window because they are required for normal return calculation. This remedy helps any possible contamination of normal returns by any information available pre- and post- an event announcement.  $L_2$  is the period by which

the announcement effect is captured. Any further investigation after  $L_2$  is termed post-event performance.

The normal return provides the return of a particular stock at a particular time under normal condition according to the market. The normal return determination assumes a market model. The market model posits that the only factor that determines the return on stock  $i$  at time  $t$ , is the return on the market at time  $t$  (Equity Strategy Research, 2003). The following linear equation is a market model.

$$R_{jt} = \alpha_j + B_j R_{mt} + \varepsilon_{jt} \dots \dots \dots (1)$$

Where:

- $R_{jt}$  = actual stock return;
- $R_{mt}$  = market return;
- $\alpha_j$  and  $B_j$  = intercept and slope parameters of share  $j$  respectively; and
- $\varepsilon_{jt}$  = random variable uncorrelated with  $R_{mt}$  and having a Gaussian distribution with zero expected value (Fama, 1973).

After normal returns are known, abnormal returns can be calculated and abnormal returns are the basis of this approach. Abnormal Return (AR) is the difference between predicted returns and actual returns (Brown and Warner, 1985). Predicted returns are calculated based on estimates generated as a result of the normal return calculation. Actual returns are determined within the event window. In order to make an overall inference regarding an event announcement, the average abnormal returns and the cumulative average abnormal returns are calculated. Average Abnormal Returns (AAR) is an aggregation of the abnormal returns for all the companies involved at each time  $t$  (Equity Strategy Research, 2003). This is given by the formula below.

$$AAR_t = \frac{1}{N} \sum_{i=1}^N AR_{i,t} \dots \dots \dots (2)$$

Where:

- $AAR_t$  = the average abnormal return at time  $t$ ;
- $N$  = the total number of companies; and
- $\sum_{i=1}^N AR_{i,t}$  = the sum of the abnormal returns for all the companies at a particular time  $t$ .

Cumulative average abnormal return (CAAR) is the sum of AARs over the  $T$ -days or  $T$ -months in the event window. This is given by the following formula.

$$CAAR_T = \sum_{t=1}^T AAR_t \dots \dots \dots (3)$$

Nevertheless, AARs and CAARs cannot be used to arrive at a final conclusion. As such, the significance of AARs and the CAARs can be determined by the use of a two-tailed  $t$ -test.

### 3.2.2 The Matching Firm Approach under BHARs

A fundamental choice for any long-run event study concerns the measure of long-run abnormal returns (Gershgoren, Hughson and Zender, 2005:6). This methodology has been widely used to investigate long-run performance patterns of corporate restructuring events. Like the market model method, the basis of the matching firm method is abnormal returns. The difference arises at the level of determining the abnormal returns. The abnormal returns are computed as buy and hold or holding period abnormal returns (Dasai and Jain, 1999: 84). The technique is far simpler and straight forward than the market model method. The only technicality is at the level of selecting the best possible matching firms for the event firms.

Matching is done on the first day of trade after the event. The matching process is done on the basis of relevant risk characteristics and the matched stocks not being exposed to the event of interest (Sithipongpanich, 2011:63). The selection of the matching firms has been done in different ways by various authors. In the study of long-run abnormal stock returns in USA by Barber and Lyon (1997), the authors selected one matching firm for each event firm using the market value of equity as a measure of matching. That is, for a firm to be considered as a matching firm for a particular event firm, the firm must have share price data available throughout the investigation horizon. However, in a similar study on long-run stock market performance following spin-offs by Dasai and Jain (1999), the authors selected one to four matching firms per event firm using the same measure. Thus, if data of the first matching firm is lacking at a particular point, data of the next matching firm is used from that point and so on.

In another dimension, matching is done by looking for a firm whose share price data is highly correlated to that of a particular event firm. Gershgoren *et al.* (2005) underwent a different way of selecting matching firms by considering a set of control firms that are highly correlated with the event firms but which have correlations with each other that are as low as possible. This is equal to performing a population regression of each event firm's holding period return on every possible combination of  $M$  matching firm returns and selecting the combination of  $M$  firms that generates the highest  $R^2$  (Gershgoren, *et al.*, 2005).

Despite the variability among different authors, Dasai and Jain (1999) provided a vivid explanation of the matching firm approach. Matching can be done using different measures

but the most commonly used are market value of equity and book-to-market ratio. By using market value of equity, the matching firms are those whose market values of equity are closest to the event firms. Priority is given to those firms belonging to the same sector of operation and industry with the event firm during the matching process. Normally, after accessing all firms listed in a particular stock exchange and which belong to the same sector or industry as a particular event firm, the closest firm in terms of the market value of equity is selected as a matching firm for that event firm. If the matching firm lacks share price data at a particular point, the second closest firm will be considered as a matching firm from that point. If this trend continues, a third matching firm is used and so on. Studies by Dasai and Jain (1999) and Bhana (2004) revealed a maximum of four matching firms.

However, none of the authors mentioned the number of event firms that had more than one matching firm. Nevertheless, a situation can arrive where there exists no matching firm operating in the same sector or industry with an event firm and according to Ritter (1991), a firm in a different industry may be used.

After the selection of matching firms, the BHARs can be calculated. Like the market model approach, the event window under the matching firm technique is the time period by which abnormal returns are calculated. Following studies by Dasai and Jain (1999) and Bhana (2004), the event window runs for at most three years prior to the events and generally three years after. The raw returns for the event firms are calculated by computing returns  $R_{i,T}$  for all holding periods considered as follows:

$$R_{i,T} = \left[ \prod_{t=1}^T (1 + r_{i,t}) \right] - 1 \dots\dots\dots (4)$$

Where,  $r_{i,t}$  is the return for firm  $i$  in time  $t$ . The matching firms buy and hold returns  $R_{i,T}^m$  will also be computed as in (4). If the event firm stop trading at a particular point, a buy and hold return is computed using the last available share price and this return is used as a performance measurement for all subsequent intervals (McConnell, Ozbilgin and Wahal, 2001)

The BHAR for each event firm is simply the difference between the long-run holding period return for that firm and the long-run holding period return for the matching firm (Gershgoren *et al.*, 2005). This is calculated from the following equation.

$$BHAR_t = R_{i,T} - R_{i,T}^m \dots\dots\dots (5)$$

In order to aggregate the data for an overall inference, the mean difference of the buy and hold returns is calculated as:

$$\overline{BHAR}_T = \frac{\sum_{i=1}^N [R_{i,T} - R_{i,T}^m]}{N} \dots\dots\dots (6)$$

Where N stands for the number of firms in a sample.

However, a two-tailed T-test is often used for testing statistical significance of  $\overline{BHAR}_T$ .

$$t = \frac{\overline{BHAR}_T}{S/\sqrt{N}} \dots\dots\dots (7)$$

Where  
 S is the sample standard deviation of BHARs and  
 N is the number of firms in a sample.

### 3.3 Justification for the Adoption of the Matching Firm Approach under BHARs

Research on corporate restructurings should put a clear picture of the possible techniques that can be used for data analysis. Any of the above methods can provide an analysis on the short-term and long-term basis. However, the choice of a particular method will depend on whether it is good at analysing short-term or long-term trends and taking into consideration some possible biases that may arise. Long-run event studies, which have been used to examine the price behaviour of equity for periods of one to five years following significant corporate events, are an increasingly important part of the finance literature (Gershgoren, *et al.*, 2005:1). Despite considerable interest in the long-run behaviour of prices relative to expectations, finance scholars are engaged in a continuing debate concerning the appropriate measure of long-run abnormal performance and the appropriate statistical methodology to use to test for the significance of any measured abnormal performance (Gershgoren, *et al.*, 2005:1).

The buy and hold returns under the matching firm technique concentrates exclusively on long-term trends. The BHARs directly measure investor experience (Gershgoren, *et al.*, 2005) and yield solid returns. Long-run event study should not use CAAR as a performance measure

because it is a biased predictor of investor experience (Barber and Lyon, 1997). Therefore, rejecting the null hypothesis of no abnormal returns measured as average period abnormal return does not imply a lack of abnormal return as measured by the BHAR (Gershgoren *et al.*, 2005). Again, the use of BHAR will automatically solve the problem of portfolio rebalancing with CAARs. This rebalancing bias arises because while the compound returns of a reference portfolio (an equally weighted index) are determined assuming monthly rebalancing, the compound returns of sample firms are determined without rebalancing (Barber and Lyon, 1997).

Furthermore, the BHARs can be calculated by using a reference portfolio and matching firms. At this level, a reference portfolio can be created by using market value of equity, price earnings ratio and other measures. But the research has adopted the BHAR by a matching firm technique. According to Fama (1998), the BHAR under the reference portfolio approach are highly skewed and as such causing standard tests to have the wrong size. Quantitative research on corporate restructurings should also consider listing bias as a possible impediment towards achieving solid results. Hence, in event studies of long-run abnormal returns, sample firms normally have a long post-event returns history, but firms that constitute the reference portfolio or index typically include new firms that began trading subsequent to the event month (Barber and Lyon, 1997: 342). For example, when the market model is used, the market index considered, such as All Share Index, will contain new firms that began trading after the event.

The matching firm technique is a one-to-one comparison. The method directly compares two different firms belonging to one sector or industry under one economic environment. Therefore, determining BHARs or CAARs under the reference portfolio will not provide such a robust check. The matching firm approach will result in a well-specified test using conventional t-statistics (Barber and Lyon, 1997).

### **3.4 Population and Sampling**

The research consists of companies which were listed on the JSE during the period 2000 to 2012 and have passed through genuine voluntary unbundling announcements. This period is considered because it covers years of both economic turbulence and stability in South Africa. The nature of divestitures may be affected by the direction a particular economy takes at a particular time.

Most corporations downsizing their business always pass through a period of instability since they need to adapt to their new business structure. Thus, during such times their returns may be weak relative to their peers which did not alter any part of their business. Small businesses are perhaps more vulnerable to market shifts as they lack resources and usually operate with narrower product portfolios, rendering them at greater risk from industry-related downturns (Blackburn, Dixon, Kitching and Smallbone, 2009: 27). However, it is difficult to find economies which are bullish over a long period of time without being bearish at a particular period. Irrespective of the nature of the economy, a good restructuring strategy should prove robust and be capable of circumventing difficult economic conditions.

Nevertheless, the South African economy has shown periods of stability and turbulence over time. The South African economic cycle reveals that from 2000, the economy was relatively stable before the 2007/2008 global financial crisis. After the 2007/2008 crisis, the South African economy gained some stability with a strong Rand. But from 2012, there were many labour strikes in South Africa which led to low production in the industrial and mining sectors. This resulted in a weaker Rand. Conducting the research over such an economic period should reveal the power of corporate refocusing irrespective of the nature of the economy on the JSE. According to Shama (1993), during periods of economic downturn, small businesses are less likely to perceive negative impact on performance. Consistently, in an analysis of US software during the 2001 to 2003 bearish period, Latham (2009) revealed that start-up firms are more likely than larger businesses to pursue revenue-generating strategies as means of surviving than strategies entailing cost reductions.

The long study period will put a solid background to check JSE consistency with its overseas peers such as the American Stock Exchange and New York Stock Exchange. Nevertheless, the study period is also considered in order to update Bhana (2004) and to provide an amendment to Majoni *et al.* (2014).

However, studies related to long-run performance of corporate spin-offs and sell-offs in Africa are very rare compared to other parts of the world. Tables 1 and 2 below present a summary of some studies conducted in Africa and the rest of the world respectively.



**Table 1. Studies on Long-Run Performance of Spin-off and Sell-off Transactions in Africa**

	Country or Region	Study Period	Sample Size	Investigation Horizon
Bhana (2004)	South Africa	1988-1999	19 parents and 47 spin-offs	-2years to +3years
Furamera (2006)	Zimbabwe	2000-2005	16 parents and 16 spin-offs	-1years to +3years
Majoniet al. (2014)	South Africa	1995-2011	25 spin-offs and 19 sell-offs	-250days to 500days

**Table 2. Studies on Long-Run Performance of Spin-off and Sell-off Transactions outside of Africa**

	Country or Region	Study Period	Sample Size	Investigation Horizon
Cusatis et al.(1993)	USA	1965-1988	131 spin-offs	3years
Desai and Jain(1999)	USA	1975-1991	155 Parents and 162 spin-offs	-3 to +3years
McConnelet al. (2001)	USA	1989-1995	80 parents and 96 spin-offs	3years
Veld and Veld-Merkoulova (2004)	Europe	1987-2000	156 spin-offs	3years
Gadadet al. (2007)	UK	1985-1991	72 sell-offs	-3 to +3years
Francoeur and Niyubahwe (2009)	Canada	1991-2000	88 sell-offs	3 years
Dasilaset al. (2011)	USA and Europe	2000-2009	239 spin-offs	-3 to +3years
Braueret al. (2014)	Europe	1995-2009	293 sell-offs	2years

Analysing tables 1 and 2 above, it is evident that research on long-run performance of spin-offs and sell-offs in Africa is still new. The number of unbundling transactions as depicted by the tables show that only a few African companies' performance have been monitored after the restructuring event relative to Europe and USA. However, various reasons can be given for this reality. Firstly, the number of companies listed on various African stock exchange markets is limited relative to their overseas peers such as Europe and USA. Secondly, the few companies listed on a typical African stock exchange market like the JSE are holding

companies not willing to unbundle part of their businesses. Lastly, after unbundling, the case of the JSE reveals that most of the companies go private. The stand-alone nature of the business may not permit them to withstand pressure from corporate raiders and holding companies on the JSE.

Considering the investigation horizons of the various authors' work, the research has considered two years prior to the unbundling announcement and four years after the unbundling announcement as a horizon to investigate parent performance. The horizon considered for their subsidiaries is four years after unbundling.

The research found it necessary to provide the names of the companies that restructured their business through unbundling between 2000 and 2012. Tables 3 and 4 provide spin-off and sell-off transactions respectively.

**Table 3. Spin-off Transactions between 2000 and 2012 on the JSE**

<b>Spin-offs</b>	<b>Event Year</b>	<b>Parent-Spin-offs</b>	<b>Event Year</b>
Investec Group LTD	2001	PSG Group LTD	2003
Impala Platinum Holdings LTD	2002	Tiger Brands	2004
Massmart Holdings LTD	2002	Avi LTD	2005
Truworths International LTD	2002	Anglo America PLC	2006
Woolworths Holdings LTD	2002	Exxaro Resources LTD	2006
Capitec Bank Holdings LTD	2003	Barloworld LTD	2007
MTN Group LTD	2003	Tongaat-Hulett Group LTD	2007
Spar Group	2004	Imperial Holdings Limited	2008
Kumba Iron Ore	2006	Sacoil Holdings Limited	2008
Naspers LTD	2006	Brimstone Investment Corporation LTD	2010
Telimatrix LTD	2007	First Rand Limited	2010
Hulamin	2007	Redefine Properties LTD	2011
Pretoria Portland Cement Company LTD	2007	Gold Fields LTD	2012
Eqstra Holdings LTD	2008	Nictus LTD	2012
Adcock Ingram Holdings LTD	2008		

Distell Group Limited	2009		
MMI Holding LTD	2010		
Trans Hex Group Limited	2010		
Trencor LTD	2011		
RMB Holdings LTD	2011		
Arrowhead Properties LTD	2011		

**Table 4. Sell-off Transactions between 2000 and 2012 on the JSE**

<b>Sell-offs</b>	<b>Event Year</b>	<b>Parent-Sell-offs</b>	<b>Event Year</b>
Coronation Capital Limited	2003	Super Group LTD	2000
ABSA	2005	Buildmax LTD	2001
African Rainbow Minerals LTD	2005	African Media Entertainment LTD	2002
Oceana	2006	Anglo American PLC	2002
PSV Holdings LTD	2006	Capital Property Fund LTD	2002
DRDGold LTD	2007	First Rand LTD	2002
Discovery Holdings LTD	2008	Gold Fields LTD	2002
Pan African Resources PLC	2009	Pangbourne Properties LTD	2002
Ingenuity Property Investment LTD	2009	Spanjaard LTD	2003
Vodacom Group	2009	ELB Group LTD	2004
Life HealthCare Group Holding LTD	2010	Harmony Gold Mining Company LTD	2005
Northam Platinum LTD	2010	Remgro LTD	2005
Capevin Holdings LTD	2012	Sanlam LTD	2005
Grand Parade Investments LTD	2012	SA Corporate Real Estate LTD	2007
		Netcare LTD	2008
		Petmin LTD	2008
		Telkom SA SOC Limited	2009

		Kaydav Group LTD	2009
		Trematon Capital Investment LTD	2009
		Zeder Investments LTD	2012

Following the justification given above, the sample size for a research on corporate unbundling in Africa may be smaller relative to that of Europe and USA. The study finally arrived at 14 parent-spin-offs, 21 spin-offs, 20 parent-sell-offs and 14 sell-offs. Only two companies appear twice following the sampling. These companies are First Rand Limited and Gold Fields Limited. They both appear on parent-spin-off and parent-sell-off. These companies are considered because each of the unbundling events belongs to a different investigation horizon according to the research and the effect of confounding is mitigated. Confounding events occur when a company restructured more than once within a particular investigation horizon. For example, if a company restructured in 2002 and 2010, then the effect of confounding is mitigated if the company is investigated twice within the research investigation horizon, that is, two years before and four years after.

This study is found to be unique by investigating the performance of parent-spin-offs, spin-offs, parent-sell-offs and sell-offs simultaneously and extending the traditional investigation horizon of three years to four years after unbundling as seen for studies conducted in Africa.

Nevertheless, it was also necessary to provide a summary of the number of companies in the final sample that restructured over a particular period. This has been provided on table 5.

**Table 5. Final Sample Statistics from 2000-2012**

<b>Years</b>	<b>Spin-offs</b>	<b>Parent-Spin-offs</b>	<b>Sell-offs</b>	<b>Parent-Sell-offs</b>	<b>Total Divestitures</b>	<b>Percentage of Final Sample</b>
2000	0	0	0	1	1	1.45%
2001	1	0	0	1	2	2.90%
2002	4	0	0	6	10	14.49%
2003	2	1	1	1	5	7.25%
2004	1	1	0	1	3	4.35%
2005	0	1	2	3	6	8.70%
2006	2	2	2	0	6	8.70%

2007	3	2	1	1	7	10.14%
2008	2	2	1	2	7	10.14%
2009	1	0	3	3	7	10.14%
2010	2	2	2	0	6	8.70%
2011	3	1		0	4	5.80%
1012	0	2	2	1	5	7.25%
Total	21	14	14	20	69	100%

The matching firm selection technique should be appropriate and concise to have a clear result. The matching firms are those listed on the JSE and have not passed through any restructuring event within the horizon under investigation. Matching can be done by using the market value of equity, book-to-market ratio or by matching the event firm using market value of equity and book-to-market ratio (Barber and Lyon, 1997). This study has adopted the market value of equity for the matching process. The matching was done on the first day of trade on the JSE after the finalization of the event. Under this research, the matching firms are those which belong to the same sector of operation or industry with the event firm and are closest to the event firm in terms of market value of equity (Dasai and Jain, 1999). Again, according to this research, some of the matching firms belong to an industry different from that of the event firm.

The first consideration of the research as per the matching was to directly match the event firms with other firms belonging to the same sector of operation. This is intended to provide a robust comparison between the stock performance of matching firms and event firms' before and after unbundling. African Markets provide a classification of companies by sector of operation on the JSE. A second consideration was to resort to the industrial level and this occurred when no matching firm was found for a particular event firm operating in a particular sector. In order to considered a firm belonging to a particular industry, the research made use of Statistics South Africa. They provide standard industrial classification of all economic activities. The last alternative was to look for a firm operating in a different industry with the event firm. This only occurred when no matching firm was found for an event firm within the industry.

Following the matching process, most of the event firms had their matching firms at the sector level. Secondly, most event firms had their matching in a one to one basis. That is, after verifying for possible matching firms per event firm, the closest matching firm in terms of market value of equity had its share price data throughout the investigation horizon. Thus,

there was no need to look for a second matching firm. According to this study, the abnormalities as per the matching process include the following points.

1. The matched firm and the event firm belong to different sectors. According to the research, most of the matched firms belong to the same sector with the event firms.
2. On a one to one basis, the matched firm does not have share price data throughout the investigation horizon and hence there is the need to look for a second matching firm. This is considered abnormal because most of the event firms had their matching firms on a one-to-one basis.

The following event firms encountered the first abnormality. No matching firm was found for Buildmax Limited at the sector level. As such, the closest firm in terms of market value of equity was considered at the industrial level. Like Buildmax Limited, Capevin Holdings Limited passed through the same procedure to arrive at a matched firm. In the case of Netcare Limited, no matching firm was found at the sector and industrial level. Hence, a random check was performed out of the industry and a firm with a market value of equity closer to that of Netcare Limited was considered. The same occurred with the following companies and the procedure that led to a matched firm for Netcare Limited was implemented. These are Life Healthcare Group Holdings Limited and MTN Group Limited.

The second abnormality only occurs when the firm with the closest market value of equity with an event firm does not have share price data available throughout the investigation horizon of the event firm. Out of the companies with two matching firms, none of the matching firms came from a different sector. The following event firms had up to two matching firms. Petmin Limited, Telkom SA SOC Limited, Exxaro Resources Limited and Trans Hex Group Limited. The research did not find it necessary to report the matching process for the rest of the companies since they all follow the same path and encountered none of the abnormalities in the matching process.

### **3.5 Data Collection**

Data collection started by analysing unbundling announcements published by JSE Securities Exchange News Service (SENS) and Share Data Online. Secondly, a list of unbundling announcements was received from the JSE in the form of SENS via an email. All of the

announcements from JSE were verified through SENS announcements and only transactions related to spin-offs and sell-offs were considered. The JSE SENS database and Share Data Online are very consistent in announcing unbundling events and monitoring them from initial announcements to finalisation. Some of the announcements related to sell-offs were obtained from the Competition Commission of South Africa.

After investigating the various announcements from the different sources, 36 spin-off and 55 sell-off announcements between 2000 and 2012 were considered for further investigation. Out of which, an initial sample of 28 spin-offs, 19 parent-spin-offs, 17 sell-offs and 32 parent-sell-offs was obtained. The initial sample was investigated and some companies were not considered due to the following reasons.

1. Only finalised events were considered since these events have to be studied for a long-term period.
2. In the case where an event firm was found to have passed through more than one unbundling announcement within the investigation horizon, the firm was not considered. Thus, the potential effect of confounding events was mitigated. A firm could also be considered if it has restructured more than once within the research period (2000-2012) and each of the events falls in a different investigation horizon.
3. Only voluntary divestitures were considered. Forced divestitures are not motivated by wealth creation.

Following the above considerations, a final sample of 14 parent-spin-offs, 21 spin-offs, 20 parent-sell-offs and 14 sell-offs was considered for the research. Relative to studies conducted on corporate divestitures in South Africa such as Bhana (2004), Majoni *et al.* (2014), the final sample is sufficient to confirm if corporate spin-off and sell-off transactions on the JSE can unlock shareholders' wealth.

In order to allocate matching firms to each event firm, African Markets was used. They provide all companies listed on the JSE and their sectors. The monthly share price data and market value of equity required with respect to the event firms and the matching firms were obtained from I-NET BFA.

### 3.6 Data Analysis

The method by which data is analysed is very important. Firstly, the event window runs from 24 months prior to unbundling to 48 months after unbundling for the parent firms. The event window considered for the subsidiary runs to 48 months after unbundling. Data analysis assumes the matching firm technique presented at 3.2.2 above. The research has considered data analysis for a two-year holding period prior to the event. After the event, the first holding period considered is six months. This will verify immediate share price performance. This is followed by the analysis of share price performance for one year, two years, three years and four years after the event. Thus, a possible trend in stock behaviour should be observed throughout the holding periods, especially after unbundling.

Following the data collection procedure, share price movement of 14 parent-spin-offs, 21 spin-offs, 20 parent-sell-offs and 14 sell-offs was analysed within the event window considered by the research. Each event firm was properly matched as discussed under 3.2.2 above. The research used the following sequence of operations to arrive at the final results.

1. The raw returns for the event firms and their matched firms were calculated by using equation 4 above. The raw returns are calculated by a buy and hold technique.
2. The raw returns calculation was followed by the determination of BHARs. This was done by a direct implementation of equation 5 above. The BHAR at time  $t$  is the difference between the raw return of an event firm and the raw return of a matched firm at time  $t$ .
3. In order to calculate the BHAR for each holding period, the research use equation 6 above. Equation 6 simply calculates the average of the BHARs for each holding period.
4. The research is very interested to verify the significance of the BHAR of each holding period. A two-tailed T-test is used as shown on equation 7 above.

However, Mean Raw Returns (MRRs) are also determined in order to reveal the performance of the event firms in the absence of the matched firms. In order to determine the MRR of each holding period, raw returns for each event firm is first calculated by using equation 4 above. Like the BHARs, the research then aggregates the raw returns to come with the respective MRRs for each month. The statistical significance of each of the MRRs was checked by a two-tailed T-test.



### **3.7 Conclusion**

Unbundling is a strategy used by firms whose objective is to focus on their core business. As such, shareholders' wealth previously locked in by mergers and acquisitions activities could be released via unbundling. Also, the reduction of diversification discount through unbundling is the sole reason why today the investment world considers unbundling as a means of reversing past mistakes due to mergers and acquisitions. Despite these opportunities offered by unbundling, firms wishing to refocus their businesses must make sure they have the potential to stand on their own and be capable of withstanding any potential pressure from conglomerate organisations.

A review of past studies indicates that abnormal returns are present for years after unbundling. Only a few studies have disputed this fact. With the South Africa economy being amongst the top emerging economies in the world and considering the power of unbundling to release locked shareholder value, then research on corporate unbundling on the JSE should report significant positive abnormal returns.

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## **CHAPTER 4**

# **PRESENTATION AND DISCUSSION OF RESEARCH RESULTS**

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## 4.1 Introduction

Corporate unbundling activities are speeding up in USA and Europe. Chapter two of this study reveals that there are many more unbundling transactions in USA and Europe than observed in Africa. However, in Africa the few studies found by this study were conducted in South Africa. So the issue of whether African corporate society is aware of unbundling should be a call for concern. Part of this issue can only be addressed by intensifying research on unbundling in Africa and also trying to provide reasons why African corporate society should consider unbundling as a wealth-creating strategy. More so, studies about unbundling in USA and Europe reveal bigger sample sizes than studies in Africa. This is a clear indication that the implementation of the strategy started in USA and Europe before being adopted in South Africa and Africa as a whole.

The aim of the research is to provide an analysis of the long-run performance of corporate restructurings through unbundling transactions on the JSE. This chapter has been placed under two major headings, that is, the presentation and the discussion of research results. This is considered by the study because the two headings directly complement one another. The presentation of the results has been placed under three major categories, that is, the performance of spin-offs, the performance of sell-offs, and the difference between performance of sell-offs and spin-offs. Under the discussion of the research results, the study finds it necessary to first explain the succession of unbundling since the 1960s. This part tries to explain market reaction towards unbundling events and also relates how literature about unbundling performance evolved in South Africa and the rest of the world. Secondly, the succession of unbundling forms a core to a greater understanding of the research results and explains why corporate unbundling performance shows a particular trend for a particular region over time. It also helps in understanding why the null hypothesis can be accepted or rejected.

The second part of the discussion is to describe the sample characteristics. The sample characteristics help the research to identify the major sectors contributing to the results and also lay a foundation to state which sectors dominates corporate unbundling on the JSE. This aspect of the research is the first in literature about unbundling in South Africa. The study did not find any other study that identifies sectors dominating corporate unbundling in South Africa. After sample characteristics, the research hypotheses are addressed. The fourth and major part under discussion vividly provide a discussion of the research problem, objectives

and questions. The research problem, objectives and questions are discussed under one heading and the discussion concentrates around Buy and Hold Abnormal Return (BHAR) (adjusted) which is the performance measure considered by the study. The Mean Raw Return (MRR) (unadjusted) was also considered but to a limited extent since the purpose of the research is to compare an event firm's performance to that of an average company which did not undertake any restructuring activity. The last part of this chapter ends with a conclusion.

## **4.2 Presentation of Research Results**

The data was analysed through the matching firm approach which uses buy and hold abnormal return as a performance measure. This approach was used by Dasai and Jain (1999) and later adopted by Bhana (2004). The statistical test used to verify the significance of the result is a two-tailed t-test. This allows the study to test two ends of the results, that is, the positive and negative ends. Data analysis was performed for corporate spin-off and sell-off transactions occurring within the period 2000 to 2012. A final sample of 21 spin-offs, 14 parent-spin-offs, 14 sell-offs and 20 parent-sell-offs were investigated for stock price performance. Hypotheses one and two of the study were tested for the significance of the four samples' performance. Hypothesis three was tested for the significance of the difference in spin-offs and sell-offs performance. In order to give a clear picture of the results, the research adopted a tabular presentation. The research has considered X as the date of the first trade after the event. Nevertheless, the data analysis procedure passed through a scrutiny in order to avoid the presence of outliers within the four samples under investigation. The presence of outliers in a research sample may give misleading results.

### **4.2.1 Share Price Performance of Spin-offs: Parents and Spin-offs Returns**

To measure the value created through spin-offs, the research performed an analysis of 14 parents and 21 spin-offs. Both the Mean Raw Returns (MRRs) and the Buy and Hold Abnormal Returns (BHARs) were calculated from 24 months before the spin-off to 48 months after the spin-off. In calculating BHARs, the research took the parent and the spin-offs firms' raw returns and subtracted the returns of their various matched firms on the basis of sector, industry and size factors over the same period. The analysis was run from 24 months before

and 48 months after the X-date for the parents. For the spin-offs, the analysis was run for 48 months after the X-date.

The MRRs and BHARs for the parent-spin-offs are shown in table 6 below. The MRR for 24 months before the spin-off is 65%. After 6, 12, 24, 36 and 48 months the MRRs are 14%, 25.7%, 57.2%, 70.4% and 91.1% respectively. Following the adjusted returns performance, the parent-spin-offs showed a 40% in excess returns for 24 months before the X-date. Over the holding periods 6, 12, 24, 36 and 48 months, the BHARs are 8.7%, 17.5%, 35%, 26% and 40.4% respectively.

**Table 6: Share Price Performance of 14 Parent-Spin-offs for the Period 2000-2012**

STATISTICS	24-X	X-6	X-12	X-24	X-36	X-48
<b>Panel A: Raw Returns (MRRs)</b>						
Mean	0.650	0.140	0.257	0.572	0.704	0.911
Std. Deviation	1.080	0.183	0.159	0.164	0.152	0.139
T-statistic	1.641	2.822**	2.091**	0.186	0.487	1.120
<b>Panel B: Buy and Hold Abnormal Returns (BHARs)</b>						
Mean	0.400	0.087	0.175	0.350	0.260	0.404
Std. Deviation	4.560	0.313	0.422	0.821	1.130	1.023
T-statistic	0.904	9.661***	8.115***	5.545***	3.607***	3.464***

\*denotes 10% significance level

\*\*denotes 5% significance level

\*\*\*denotes 1% significance level

The MRRs and the BHARs for spin-offs were calculated over sub-periods corresponding to buying on X-date and holding for periods of 6, 12, 24, 36 and 48 months after. The results are shown in table 7 below. For holding periods X-6, X-12, X-24, X-36 and X-48, the MRRs are 3.7%, 10.9%, 22.3%, 28.9% and 41.8% respectively. For the same sub-periods, their respective BHARs are 0.8%, 9.8%, 16.1%, 22% and 29.9%. All of these results are statistically significant.

**Table 7: Share Price Performance of 21 Spin-offs for the Period 2000-2012**

STATISTICS	X-6	X-12	X-24	X-36	X-48
<b>Panel A: Raw Returns (MRRs)</b>					
Mean	0.037	0.109	0.223	0.289	0.418
Std. Deviation	1.161	0.827	0.589	0.484	0.420
T-statistic	1.852*	2.079**	2.323**	2.832***	3.264***

<b>Panel B: Buy and Hold Abnormal Returns (BHARs)</b>					
<b>Mean</b>	0.008	0.098	0.161	0.220	0.299
<b>Std. Deviation</b>	3.973	3.659	4.443	7.473	4.933
<b>T-statistic</b>	5.423***	6.079***	7.779***	7.465***	7.930***

*\*denotes 10% significance level*

*\*\*denotes 5% significance level*

*\*\*\*denotes 1% significance level*

#### **4.2.2 Share Price Performance of Sell-offs: Parent-Sell-offs and Sell-offs**

The performance of sell-offs transactions were analysed using the same metric as the case of spin-offs. To examine value created through sell-offs, the research analysed the performance of 20 parent-sell-offs and 14 sell-offs. Like spin-offs, MRRs and the BHARs were examined for 24 months to the X-date and 48 months after. In calculating BHARs, the research took the parent and the sell-offs firms' raw returns and subtracted the return of their various matched firms on the basis of sector, industry and size factors over the same period.

Share price performance of parent-sell-offs for 24 months prior to the X-date and up to 48 months after is depicted in table 8 below. For the following holding periods, 24-X, X-6, X-12, X-24, X-36 and X-48, the MRRs are 57.6%, 12.4%, 22.7%, 50.7%, 62.4% and 80.7% respectively. For the same sub-periods their respective BHARs are 33.3%, 7.3%, 14.5%, 29.1%, 21.6% and 33.6%.

**Table 8: Share Price Performance of 20 Parent-Sell-offs for the Period 2000-2012**

<b>STATISTICS</b>	<b>24-X</b>	<b>X-6</b>	<b>X-12</b>	<b>X-24</b>	<b>X-36</b>	<b>X-48</b>
<b>Panel A: Raw Returns (MRRs)</b>						
<b>Mean</b>	0.576	0.124	0.227	0.507	0.624	0.807
<b>Std. Deviation</b>	0.424	0.203	0.203	0.162	0.150	0.153
<b>T-statistic</b>	1.138	0.858	2.391**	3.226***	3.889***	4.876***
<b>Panel B: Buy and Hold Abnormal Returns (BHARs)</b>						
<b>Mean</b>	0.333	0.073	0.145	0.291	0.216	0.336
<b>Std. Deviation</b>	4.299	0.483	0.701	1.021	1.384	2.229
<b>T-statistic</b>	2.062*	0.569	1.339	1.343	0.402	9.137***

*\*denotes 10% significance level*

*\*\*denotes 5% significance level*

*\*\*\*denotes 1% significance level*

The MRRs and the BHARs for sell-offs were calculated over sub-periods corresponding to buying on X-date and holding for periods of 6, 12, 24, 36 and 48 months after. Table 9 below shows the MRRs and the BHARs of sell-offs over the various sub-periods. The MRRs for the following holding periods, X-6, X-12, X-24, X-36 and X-48, are 2.4%, 6.9%, 14.2%, 18.4% and 26.6% respectively. Over the same sub-periods, their respective BHARs are 4%, 4.6%, 7.5%, 10.3% and 14%.

**Table 9: Share Price Performance of 14 Sell-offs for the Period 2000-2012**

STATISTICS	X-6	X-12	X-24	X-36	X-48
<b>Panel A: Raw Returns (MRRs)</b>					
Mean	0.024	0.069	0.142	0.184	0.266
Std. Deviation	0.398	1.013	0.714	0.586	0.484
T-statistic	0.273	1.042	1.343	1.531	1.361
<b>Panel B: Buy and Hold Abnormal Returns (BHARs)</b>					
Mean	0.004	0.046	0.075	0.103	0.140
Std. Deviation	6.714	6.025	9.127	8.577	3.529
T-statistic	3.034***	2.556**	3.968***	4.070***	4.128***

*\*denotes 10% significance level*

*\*\*denotes 5% significance level*

*\*\*\*denotes 1% significance level*

### **4.2.3 Share Price Performance Difference between Sell-offs and Spin-offs**

The difference in the performance between sell-offs and spin-offs will indicate the best alternative on the JSE for a long-term period following their announcements. The first consideration of the research is that sell-offs should significantly outperform spin-offs for a long-term period. Hypothesis three of the research indicates that any outcome from the difference can be statistically equal to zero or statistically different from zero. From hypothesis three, the second consideration of the research is that any outcome of the difference (positive or negative) should be significantly different from zero, thereby supporting the

alternative hypothesis and rejecting the null hypothesis. In order to determine this difference, the study subtracted the raw returns and the adjusted returns of spin-offs from that of sell-offs.

The performance difference between sell-offs and spin-offs for 6, 12, 24, 36 and 48 months after the X-date is shown in table 10. For holding periods X-6, X-12, X-24, X-36 and X-48, the differences in their MRRs are -1.3%, -3.9%, -8.1%, -10.5% and -15.2% respectively. The differences in their BHARs for the same sub-periods are -0.4%, -5.2%, -8.6%, -11.7% and -16% respectively.

**Table 10: Performance Difference between Sell-offs and Spin-offs for the Period 2000 to 2012**

STATISTICS	X-6	X-12	X-24	X-36	X-48
<b>Panel A: Raw Returns (MRRs)</b>					
Mean	-0.013	-0.039	-0.081	-0.105	-0.152
Std. Deviation	-0.763	0.186	0.125	0.102	0.064
T-statistic	-1.579	-1.036	-0.981	-1.301	-1.903*
<b>Panel B: Buy and Hold Abnormal Returns (BHARs)</b>					
Mean	-0.004	-0.052	-0.086	-0.117	-0.160
Std. Deviation	2.741	2.366	4.683	1.104	-1.405
T-statistic	-2.389**	-3.523**	-3.811***	-3.395***	-3.802***

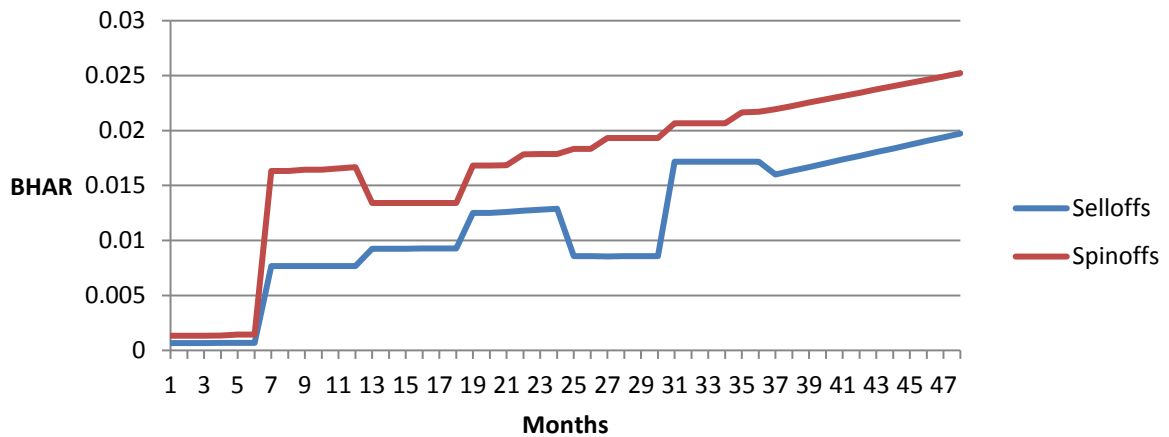
\*denotes 10% significance level

\*\*denotes 5% significance level

\*\*\*denotes 1% significance level

Figure 1 below shows a pattern of performance between sell-offs and spin-offs after the X-date from a BHAR perspective. The figure shows performance on monthly basis for up to 48 months after the X-date.

**Figure 1: Average Monthly Abnormal Returns for Sell-offs and Spin-offs for the Period 2000-2012**



### 4.3 Discussion of Research Results

Merger and acquisition activity which over crowded the 1960s tended to lose its popularity in the 1980s due to the presence of many unused assets which were acquired (Bhana, 2006). The presence of many unused assets locked valuable shareholders' wealth and, as such, from the 1980s, unbundling was used as an escape route to relieve conglomerates and unlock shareholders' wealth. According to Gordon (1992: 61), the highly publicized mergers and acquisitions boom of the 1980s has receded dramatically, and restructuring by divesting business units has become increasingly popular. Research on corporate unbundling should show a successive trend of performance from 1980s and the performance should increase from one year to another. Therefore, if the performance of countries that are still emerging in the implementation of unbundling strategy is not strongly positive, for years after such countries should show a trend of significant outperformance. Under this heading, the research has provided a successive trend of corporate unbundling. This provides a foresight as to what performance trend can be observed in South Africa after unbundling. Secondly, the sample characteristics were established with the sole reason to point out major sectors that contribute to corporate unbundling on the JSE. Lastly, a vivid discussion of the research problem, objectives and questions was done under one heading due to their complementing position.

#### 4.3.1 The succession of Corporate Unbundling Performance

In order for the performance of any given strategy to be understood, it is important to trace the inception of the strategy so as to bring forth some controversial factors within the strategy. A sequence of a strategy's implementation will lay a foundation for one to understand why certain performances or patterns are observed today in different countries. Generally, over time, corporate unbundling has passed through two major eras, the period when unbundling was considered an oddity and the period during which the mechanics underlying unbundling



was understood. If a strategy is considered an oddity at a particular time, it then suffices that any performance due to market response may be explained by its oddity nature together with other factors. Thus, at this level the market response may doubt the strategy as well as welcome the strategy. On the other hand, a strategy is no more an oddity when it has been continuously implemented over time. Here no doubt is cast on the strategy by the market since it is well understood. When a strategy has been used for years, it then becomes normal and any subsequent performance has no excuse and, as such, reasons other than its oddity nature can better explain its performance.

In a nutshell, the difference between these two eras following the implementation of a strategy is that oddity together with other factors may play a role in explaining its performance at its inception, and over time only other factors can explain its performance. Market behaviour varies between different countries. Thus, oddities can be understood by the market immediately or with time, pertaining to a particular region.

Market response can be weak or strong depending on how it perceives a certain announcement. A strong response means it can be strongly positive or strongly negative. This is because the market has understood the strategy and chosen to respond strongly positive when it finds that there will be significant value created under the strategy, or respond strongly negative when it finds that the adoption of the strategy can be value-destroying. Weak response can be positive or negative but not significant. Weak response means the market finds the strategy to have no negative or positive impact on wealth. It is important to note that any market response at any given time in a given region is an attempt to protect itself.

M&A activity which over crowded the 1960s tended to lose its popularity in the 1980s due to the presence of many unused assets which were acquired (Bhana, 2006). The earliest research found by the research on unbundling performance is that of Boudreux (1975) in USA. The author found positive wealth effects around announcements. Other early studies around unbundling announcement are Schipper and Smith (1983), and Miles and Rosenfelt (1983) in USA. Both studies revealed strongly positive results around announcements. On the long-run performance of unbundling, the research found Hall's (1984) study to be among the earliest studies. The author reported significant positive results after years of unbundling in the USA. All of these early studies were found on spin-offs. The earliest study on sell-offs found by the research is Alexander, Benson and Kampmeyer (1984) in the USA. The results were positive

around announcements. The study periods of the above early studies fall between 1960 and 1980. This evidence has revealed that the earliest studies on corporate unbundling started in USA and despite its oddity nature by then, generally market response around announcements and for a long-run proved strongly positive. This means in the USA the oddity nature of corporate unbundling by then was well understood and welcomed by the market positively. However, after the 1980s, much research on unbundling has been conducted in the USA and this proved that many corporations are refocusing through unbundling today. Therefore, unbundling cannot be perceived as an oddity in the USA nowadays.

In South Africa, the earliest study on unbundling according to this research is Blount and Davidson (1996). Negative significant results were found around announcement. Other early studies in South Africa according to this research are those of Bhana (2004) and Bhana (2006) on spin-offs and sell-offs respectively. After these early studies in South Africa, according to the research only a few studies have been conducted. These are Jordan (2012) and Majoni *et al.* (2014). By implication, research about unbundling performance is still lacking in South Africa. Again, the few studies revealed smaller sample sizes relative to studies in USA and Europe. This means that unbundling is still not popular in South Africa. Therefore, up until now, any result related to corporate unbundling in South Africa can still be explained by its oddity nature in conjunction with other factors. However, following an increasing effort by conglomerates to refocus their businesses, the market must have understood the strategy a bit. With time many studies will enhance a better understanding of the strategy and corporate unbundling will become a normal phenomenon like M&A in South Africa.

The above discussion provides that globally studies on unbundling started around 1975 and intensifies after the 1980s. But the case of South Africa shows that studies were only found from 1996. Therefore, the implementation of corporate unbundling has varied over time between different regions and as such the performance trend may vary widely, closely or indifferently. However, it all depends on how the market of that particular region at a particular period perceives unbundling. Again, any final result following unbundling performance should relate to the nature of unbundling at a time in conjunction with other vital factors.

### **4.3.2 Sample Characteristics**

The sample consisted of companies refocusing through voluntary unbundling from the period 2000 to 2012. The global financial crisis of 2007/2008 falls within this study period. Therefore, the various samples should consist of companies which restructured during this crisis, or experienced the effect of the crisis immediately after restructuring or for some months after restructuring.

The sample consists of two major corporate restructuring strategies in South Africa, that is, spin-off and sell-off. A total of 69 companies as a final sample experienced corporate unbundling through spin-off and sell-off transactions within the study period considered. From the 69 companies, the research derived two major samples, that is, 35 companies that passed through a spin-off and 34 companies that passed through a sell-off. These two major samples led to four sub-samples. That is, 21 spin-offs, 14 parent-spin-offs, 14 sell-offs and 20 parent-sell-offs. Each of the four samples constituted of a significant number of companies that experienced the effect of the 2007/2008 crisis.

A further description of the research sample relates the research results to major sectors that contributed significantly and this expands the knowledge related to sectors undertaking corporate divestitures activities on the JSE. Table 11 is a clear and detailed picture of the percentage contribution per sector of operation related to the four sub-samples. Table 12 presents the percentage contribution per sector of operation related to the two major samples. It also provides the total percentage contribution per sector of operation as a result of unbundling. Table 11 directly speaks to the results of the research by identifying sectors that contributed more towards the performance of spin-offs, parent-spin-offs, sell-offs and parent-sell-offs. Table 12 signifies those sectors that dominate in corporate spin-off and sell-off activities on the JSE. The placing of companies to their respective sectors was taken from African Markets. The research sample of 69 companies cuts across 24 sectors of operation on the JSE from 2000 to 2012.

Even though the research identified 24 sectors which led to a total sample of 69 companies, not all the sectors were identified as major contributors. Some of the sectors appear major only at sub-sample level. Major contributors were chosen by considering the gap between the highest and lowest sector contributing to a research sample. Considering table 11, mining, support services, general retailers, food and drug retailers, financial services and industrial

metals and mining are major sectors that contributed to 21 spin-offs by 9.52% each. For 14 parent-spin-offs, mining, financial services, oil and gas producers and food producers are identified as the major contributors by 14.29%, 28.27%, 14.29% and 21.43% respectively. The case of 14 sell-offs revealed the least number of contributors. These are mining and industrial metals and mining by 14.29% each. Lastly, mining, real estate investment trust, support services, and financial services are the major contributors to 20 parent-sell-offs by 15%, 10%, 10% and 20% respectively.

Nonetheless, table 12 summarizes table 11 in to two major samples. That is, 34 spin-offs and 35 sell-offs. The research adopted this approach in order to clearly indicate major sectors restructuring through spin-off and sell-off activities and also to spell out which sectors dominate corporate unbundling on the JSE. Table 12 implies that major contributors at a four sample level may not be major at a two sample level. Again, sectors which do not appear as major at a two sample level may emerge major at a total sample level. From table 12, mining, support services, general retailers, financial services and food producers were identified as major contributors to 35 spin-offs by 11.43%, 8.57%, 8.57%, 17.14% and 8.57% accordingly. For a sample of 34 sell-offs, mining, financial services and industrial metals and mining emerged the major contributors by 14.71%, 14.71% and 8.82% accordingly. Relating to the total sample (69 companies) considered by the research, mining, real estate investment trust, support services, general retailers, financial services, industrial metals and mining, life insurance and food producers dominates corporate unbundling on the JSE by 13.02%, 5.89%, 7.25%, 5.89%, 15.94%, 7.25%, 4.35% and 5.89% respectively. Out of these major contributors, financial services and mining remain outstanding as the two major sectors restructuring through corporate unbundling.

**Table 11: Four Samples Characteristics**

Sectors	Spin-offs	%Cont. Per Sector	Parent-Spin-offs	%Cont. Per Sector	Sell-offs	%Cont. Per Sector	Parent-Sell-offs	%Cont. Per Sector
Mining	2	9.52%	2	14.29%	2	14.29%	3	15%
Real Estate Investment trust	1	4.76%	1	7.14%			2	10%
Real Estate Investment and Services					1	7.14%	1	5%
Support Services	2	9.52%	1	7.14%			2	10%

General Retailers	2	9.52%	1	7.14%			1	5%
Food and Drug Retailers	2	9.52%						
Financial services	2	9.52%	4	28.27%	1	7.14%	4	20%
Mobile Telecom	1	4.76%			1	7.14%		
Fixed Line Telecom							1	5%
Industrial Metals and Mining	2	9.52%			2	14.29%	1	5%
Industrial Transportation	1	4.76%						
Media	1	4.76%					1	5%
Construction and Materials	1	4.76%						
Life Insurance	1	4.76%			1	7.14%	1	5%
Chemicals							1	5%
Beverages	1	4.76%			1	7.14%		
Oil and Gas Producers			2	14.29%				
Food Producers			3	21.43%	1	7.14%		
Banks	1	4.76%			1	7.14%		
Pharmaceuticals and Biotechnology	1	4.76%						
Industrial Engineering					1	7.14%		
HealthCare Equipment and Services					1	7.14%	1	5%
Travel and Leisure					1	7.14%		
Oil, Equipment, Service and Distribution							1	5%
Total	21	100%	14	100%	14	100%	20	100%

**Table 12: A Two Sample and One Sample Characteristics**

Sectors	Total Spin-offs	% Contribution per Sector	Total Sell-offs	% Contribution per Sector	Total Divestitures	Total % Contribution per Sector
Mining	4	11.43%	5	14.71%	9	13.04
Real Estate Investment Trust	2	5.71%	2	5.88%	4	5.89
Real Estate Investment and Services			2	5.88%	2	2.98
Support Services	3	8.57%	2	5.88%	5	7.25
General Retailers	3	8.57%	1	2.94%	4	5.89

Food and Drug Retailers	2	5.71%			2	2.98
Financial Services	6	17.14%	5	14.71%	11	15.94
Mobile Telecom	1	2.86%	1	2.94%	2	2.98
Fixed Line Telecom			1	2.94%	1	1.45
Industrial Metals and Mining	2	5.71%	3	8.82%	5	7.25
Industrial Transportation	1	2.86%			1	1.45
Media	1	2.86%	1	2.94%	2	2.98
Construction and Materials	1	2.86%			1	1.45
Life Insurance	1	2.86%	2	5.88%	3	4.35
Chemicals			1	2.94%	1	1.45
Beverages	1	2.86%	1	2.94%	2	2.98
Oil and Gas Producers	2	5.71%			2	2.98
Food Producers	3	8.57%	1	2.94%	4	5.89
Banks	1	2.86%	1	2.94%	2	2.98
Pharmaceuticals and Biotechnology	1	2.86%			1	1.45
Industrial Engineering			1	2.94%	1	1.45
HealthCare Equipment and Services			2	5.88%	2	2.98
Travel and Leisure			1	2.94%	1	1.45
Oil, equipment, Service and Distribution			1	2.94%	1	1.45
Total	35	100%	34	100%	69	100%

### 4.3.3 Addressing Research Hypotheses

The following hypotheses are considered to verify the significant of BHARs for parent firms and their subsidiary for 24 months to the X-date and throughout 6, 12, 24, 36 and 48 months after.

Hypothesis 1

$$H_a: BHAR_{sParent} \neq 0$$

$$H_0: BHAR_{sParent} = 0$$

Hypothesis 2

$$H_a: BHAR_{sunbundled D} \neq 0$$

$$H0: BHAR_{sunbundled D} = 0$$

Hypothesis 3

$$Ha: BHAR_{sselloff} - BHAR_{sspinoff} \neq 0$$

$$H0: BHAR_{ssell-off} - BHAR_{sspinoff} = 0$$

Considering these three hypotheses, the alternative hypothesis states that any outcome of the result is significantly different from zero. According to the null hypothesis, any outcome of the result is not significantly different from zero. Therefore, the null hypothesis can only be rejected if the results are strongly positive or negative, Thus, verifying if corporate unbundling is a trivial or non-trivial issue on the JSE.

The parent-spin-offs experienced an insignificant positive excess return of 4% for 24 months prior to the X-date shown on table 6. But they show a continuous significant outperformance over their matched firms with excess returns of 8.7%, 17.5%, 35%, 26% and 40.4% for 6, 12, 24, 36 and 48 months after the X-date. Therefore, from hypothesis one, the null hypothesis is accepted for 24 months prior to unbundling and rejected for 6, 12, 24, 36 and 48 months after unbundling. The results on table 7 indicates the continuous significant outperformance of spin-offs over their matched firms by 0.8%, 9.8%, 16.1%, 22% and 29.9% for 6, 12, 24, 36 and 48 months holding periods accordingly. The results then reject the null hypothesis for all holding periods considered.

Generally, the research expects the performance of sell-offs and spin-offs to show a similar trend. Unlike parent-spin-offs, parent-sell-offs experience a significant positive excess return of 33.3% for 24 months prior to the X-date as depicted by table 8. This dissimilar trend continues for 6, 12, 24 and 36 months afterwards with insignificant positive excess returns of 7.3%, 14.5%, 29.1% and 21.6% respectively. After 48 months following unbundling, parent-sell-offs show a similar performance to parent-spin-offs with positive significant excess return of 33.3%. Considering hypothesis one, the null hypothesis is accepted for X-6, X-12, X-24 and X-36 holding periods and rejected for 24-X and X-48 holding periods. Table 9 shows that the sell-offs companies experienced significant positive BHARs of 4%, 4.6%, 7.5%, 10.3% and 14% for 6, 12, 24, 36 and 48 months respectively after unbundling. This performance trend is directly similar to that of spin-offs. As such, from hypothesis two, the null hypothesis is rejected through all holding periods.

Hypothesis three stresses the significance of the differences in the BHARs between sell-offs and spin-offs. According to table 10, spin-offs significantly outperform sell-offs through all holding periods with excess returns of 0.4%, 5.2%, 8.6%, 11.7% and 16% for 6, 12, 24, 36 and 48 months after the X-date. Hence, the research rejects the null hypothesis through all holding periods. Following the testing of these three hypotheses, the research found that corporate unbundling on the JSE is not a trivial issue.

#### **4.3.4 Addressing Research Problem, Objectives and Questions**

The research problem of a study seeks to understand previous studies, the technique used for their data analysis, their consistency and inconsistency with one another and possible weakness resulting from such studies. This is an attempt to come up with a solid research that can update, adjust and address various issues found in other studies. All these relevancies were considered by this study and thus the research problem was developed through studies by Bhana (2004) and Majoni *et al.* (2014) on corporate unbundling on the JSE. Bhana (2004) investigated spin-offs' performance for up to three years and within the period 1988 to 1999. This was carried out in an immediately democratic SA. Therefore, the study of Majoni *et al.* (2014) from 2000 to 2012 should serve as a complete update of Bhana (2004) but unfortunately, the authors failed to monitor corporate unbundling performance for up to three years. The authors analysed performance from 250 to 500 days following unbundling. This implies the performance was not analysed for up to two years. A review of literature under long-run performance of unbundling revealed at least three years of investigation post-restructuring. Therefore, the research problem of this study constitutes an update of Bhana (2004) and an amendment of Majoni *et al.* (2014) by investigating unbundling performance for up to four years.

The Mean Raw Returns (MRRs) as shown on tables 6, 7, 8 and 9 simply demonstrates the performance of unbundling with no adjustment made relative to the matching firms. Therefore, the performance of an event firm relative to an average company is not considered by this measure. The MRRs were also considered in Desai and Jain (1999) and Bhana (2004). Both the MRRs and the BHARs are derived from buy and hold returns. Unlike the BHARs, MRRs give the exact position of the company at a particular time without considering the position of an average company operating in the same sector or industry. Therefore, BHARs give the market position of an event firm at a particular time.



In a nutshell, the MRRs of an event firm can be very poor, but when the BHAR measure is used the firm may still hold a better position than an average company belonging to its sector of operation or industry. MRRs are considered to a limited extent since the essence of the research is to compare the performance of companies that restructured with those which did not restructure between 2000 and 2012. The consistency of MRRs with a particular study does not mean that the BHARs will also show the same or similar trend.

Table 6 of the study shows that significant MRRs were experienced by the parent-spin-offs for just six months and twelve months after the X-date. Both results are significant at 5% level. Contrary to the parent-spin-offs, table 7 shows a continuous significant performance of spin-offs for all holding periods. The significance of the results improves from 10% level to 1% level. Hence, everything else being equal, the spin-offs companies outperforms their parents as per MRRs measure. Though for 24 months prior to spin-off and for 24, 36, and 48 months after the MRRs are positive for parent-spin-offs, they are not significant. From tables 6 and 7, the results are generally consistent with Bhana (2004). The only inconsistency is observed for parent-spin-offs for 24 months prior to spin-off and for 24, 36, and 48 months after.

The results from table 8 reveal that for 24 months to sell-off and 6 months after, the MRRs of parent-sell-offs are all positive but not significant. However, for 12, 24, 36 and 48 months the results emerge positive and significant. Contrary to parent-sell-offs, the results in table 9 portray that sell-offs experienced no significant MRRs for all holding periods. Consequently, using the MRRs as a performance measure, parent-sell-offs outperform their subsidiaries. This is conflicting because in the case of spin-offs, subsidiaries outperform their parents. Table 10 compares the MRRs of spin-offs and sell-offs. As indicated from the presentation of the results, the MRRs of spin-offs were subtracted from those of sell-offs. From the results, spin-offs outperform sell-offs for all holding periods. But spin-offs significantly outperform sell-offs only for the 48 months holding period.

The results from tables 6 and 8 indicate that for two years prior to unbundling, both the parents of spin-offs and sell-offs show positive MRRs and BHARs, but for the two years prior to unbundling, the parent-sell-offs experience positive significant BHARs of 33.3%. Knowledge related to both the spin-off and sell-off events should not be available in the market by this time. Therefore, the significant outperformance of the parent-sell-offs over their matching

firms can be attributed to inside trading ahead of public announcement of sell-offs (Bhana, 2004). However, even though the parent-spin-offs equally experienced a positive BHAR of 40%, it is not statistically significant at 10%, 5% and 1% levels. According to this research, the announcement process of spin-offs can be more information efficient than sell-offs on the JSE.

As shown in table 6, the parent-spin-offs experience strong positive abnormal returns of 8.7% over their matching firms for 6 months immediately after the spin-off. This result may support previous studies conducted by Bhana (2005) and Bhana (2006) on the performance of divestitures around announcements as well as the broad studies conducted overseas by Dasilas, Leventis, Sismanidou and Koulikidou (2011), Murray (2000), Miles and Rosenfelt (1983) and many others.

Furthermore, table 7 shows a significant excess return of 0.8% after six months for spin-offs. Spin-offs performance is consistent with that of their parents and this suggests the presence of significant abnormal returns around spin-off announcements on the JSE. However, after one, two, three and four years, spin-offs and their parents show a continuous significant outperformance over their matching firms. This performance is consistent with the study of long-run performance of spin-offs and their parents by Bhana (2004), Furamera (2006) and Desai and Jain (1999) in South Africa, Zimbabwe and USA respectively. According to Furamera (2006), this performance is driven by the need to release shareholder value, focus on core competences and the ability to ease future growth.

From tables 8 and 9, sell-offs and their parents continuously outperform their matching firms for all holding periods. The only insignificant BHARs occurred at X-6, X-12, X-24 and X-36 holding periods for parent-sell-offs. The poor performance of parent-sell-offs relative to their subsidiaries may be due to lack of investors' confidence in the possibility for these companies to create wealth after the sell-off. For spin-offs after the transaction, both the parents and their subsidiaries share common facilities and this can explain why both the parent-spin-offs and their subsidiaries continuously outperform their matching firms with strong positive results immediately after the transaction and up to four years later. Investors look at the possibility for the parent-sell-offs to survive as single businesses since they do not share any common facilities with their subsidiaries after the transaction. However, compared to the parents, the stock market performance of their subsidiaries are always stronger potentially because the

subsidiaries are smaller in size and are more focused than their corresponding parents (Dasai and Jain, 1999: 90).

Research on long-run share price performance of parent-sell-offs is scarce in the literature of unbundling. From chapter two of this research, most of the long-run studies on parent-sell-offs considered different aspects of unbundling. The only research found similar to this study as per sell-off is Gadad, Stark and Thomas (2007). The authors found that the operating performance of the buyers and the sellers increased by 3% and 3.1% per annum respectively on an average for three years after the sell-off. According to this research, share price performance for the parent-sell-offs increase by 6.4% per annum on an average for four years. Thus, this is consistent with Gadad, Stark and Thomas (2007).

Notwithstanding, the BHARs for parent-sell-offs become more and more positive with positive significant excess return of 33.6% observed for X-48 holding period. This research provides that investors tend to value parent-sell-off companies over time. Therefore, after a sell-off, investors' confidence in the parents progressively increases with time. Unlike parent-sell-offs, sell-offs show significant outperformance due to the ability for the buyer to integrate the assets in to its business. This relation provides a shield against any pressure in the market.

Nonetheless, the study has compared sell-offs performance with that of spin-offs for up to four years following their announcements. The BHARs of spin-offs were subtracted from that of sell-offs. From table 10, spin-offs significantly outperform sell-offs over all holding periods with excess returns of 4%, 5.2%, 8.6%, 11.7% and 16% for 6, 12, 24, 36 and 48 months respectively. Studies by Prezas and Simonyan (2012) and Majoni *et al.* (2014) found that sell-offs outperform spin-offs over a long term period. Hence, the research anticipated sell-offs to show a similar trend as supported by the authors. Conversely, the research shows that spin-off is a good unbundling strategy rather than sell-off over a long-term period.

Following the graphical presentation of sell-off and spin-off performance on figure 1, from one to six months, spin-off steadily outperforms sell-off. From six to eight months both strategies show a stiff outperformance over their matching firms, with spin-off still trailing sell-off. The worst performance of spin-off occurred between the 13<sup>th</sup> and the 19<sup>th</sup> months. For sell-off, the worst performance occurred between the 25<sup>th</sup> and 30<sup>th</sup> months. But both strategies continue to outperform their matching firms significantly, with spin-off trailing sell-off over

all holding periods. The steady, stiff upward, stiff downward and steady upward movements as shown on figure 1 depict market efficiency on the JSE, that is, how investors respond over time after the finalisation of corporate unbundling events.

A close observation of both spin-off and sell-off market movements revealed that there are many movements occurring at the level of sell-off than spin-off. Any of these movements is an attempt for the market to correct itself. The more movements, the less efficient the market is. Therefore, the research found spin-off more market efficient than sell-off. Krisnaswami and Subramaniam (1999) supported that a popular press and practitioners consider the reduction of information asymmetry as the motive behind spin-offs. According to these authors, the CEOs of most firms involved in spin-offs argue that spin-offs improve the firm's market value because investors are able to perceive value more clearly after the spin-off.

Nevertheless, sell-offs show a significant outperformance over their matching firms. But the continuous outperformance of spin-off over sell-off may be explained from an investor's point of view and the latent problem. Firstly, after a spin-off event, shareholders of the parent firm still benefit from any value created by the spin-off. Hence, investors may think that the refusal to completely let go of a particular division can initiate a hidden agenda, such as the potential for the division to generate profit in future. Secondly, during a sell-off there is a complete transfer of assets from the parent to the buyer. Another hidden agenda here can be the reason why the parent failed to share the future risk associated with the asset. As such, investors may consider the buyer gullible during the purchase due to latent problems. However, both spin-off and sell-off benefit from investors' confidence more than their matching firms.

The continuous outperformance of spin-offs and sell-offs over their matching firms through all holding periods proves that corporate unbundling is resilient even during periods of economic crisis. The research period runs from 2000 to 2012 and 42.03% of the total divestures fall within the interval 2004-2008. This percentage is very significant to affect the general performance of both sell-off and spin-off transactions. On average, any company that unbundled within this interval has experienced the effects of the 2007/2008 financial crisis and fortunately for the research, each of the four samples consist of a good number of companies that restructured between 2004 and 2008.

The study is not consistent with research by Majoni *et al.* (2014) on the JSE. Contrary to these authors, this study reports positive abnormal returns for both spin-offs and sell-offs for 6, 12, 24, 36 and 48 months after unbundling. Majoni *et al.* (2014) found negative abnormal returns for 250 and 500 days post- spin-offs and sell-offs. However, the author investigated performance for less than two years. The authors' results also showed that the abnormal returns become less negative from 250 to 500 days post-unbundling for both spin-offs and sell-offs. Therefore, everything being equal, the authors could find positive abnormal returns for the third and fourth years. Literature on post-unbundling performance has proven that performance should be investigated for at least three years before a relevant conclusion can be arrived at.

More so, Majoni *et al.* (2014) supported that different selection techniques can vary results. Secondly, the present of one big outlier may vary results significantly. In a study on the share price performance of spin-offs and their parents by McConnell and Ovtchinnikov (2004), they found that generally excess returns were positive for both subsidiary and parent companies over almost all holding periods considered. After adjustment for risk, the results appear statistically significant for the subsidiaries. But after correction for one very large positive outlier, the parent's returns were not statistically different from zero. Thus, the question whether each study actually provides a measure for this error is still a topic of debate.

The research results show that the BHARs of both parents and subsidiaries become more positive from six months and up to 48 months after the X-date. This is consistent with the general trend of corporate unbundling performance. Most studies on the long-term performance of unbundling exercises found that, on average, the adjusted returns become more and more positive with time. In a study by Kleinman and Sahu (1990) on long-term performance of spin-offs, it was found that after one month of trading, the average market adjusted return for the 40 spun-off firms was -1.7%. After three, six, nine, and twelve months of trading the average market-adjusted return for the 40 spun-off firms was 4.8%, 14.6%, 22% and 22.7% respectively. Similar to Desai and Jain (1999), Bhana (2004), Hanson and Song (1997), the same trend was observed. This evidence also questions the 250 to 500 days event window of Majoni *et al.* (2014) on spin-offs and sell-offs.

The results of this research prove that spin-off and sell-off are associated with the creation of shareholders' wealth for up to four years post-unbundling. According to this research, the

main driving force towards wealth created by the divestitures is the focused nature of the companies after unbundling. During the data gathering process of the research, unbundling announcements by SENS revealed that most companies were restructuring in an attempt to focus their business. Again, this wealth may be created due to investors' confidence in corporate unbundling. Gordon (1992) suggested that when companies divest their businesses, the stand-alone entities tend to gain more recognition from analysts and investors than when they were still part of the parent company. This wealth increase can also be explained by a reduction in information asymmetry and a reduction in agency costs. According to Burson and Lippert (1996), information asymmetry decreases significantly after a spin-off. The authors clearly stated that there is a reduction in agency cost after a divestiture.

Furthermore, the study proves that unbundling is related to share price appreciation over a long-term period. The study also implies that spin-offs and sell-offs are viable corporate unbundling strategies for South African corporations. This is consistent with the broad studies overseas such as Cusatis *et al.* (1993), McConnell, Ozbilgin and Wahal (2001), Chemmanur and Yan (2003), Gadad, Stark and Thomas (2007) and others.

#### **4.3.5 Conclusion**

The aim of the study is to provide an analysis of the long-run performance of corporate restructurings through unbundling transactions on the JSE for the period 2000 to 2012. The research found that positive abnormal returns are associated with spin-off and sell-off transactions for up to four years following their announcements. Though the parent-sell-offs failed to show significant positive abnormal returns throughout all holding periods like spin-offs, parent-spin-offs and sell-offs, they still outperform their matching firms through all holding periods. The study serves as an update for Bhana (2004) and also as an amendment for Majoni *et al.* (2014). The research is unique by extending the traditional investigation horizon of three years to four years and adding to finance literature the long-run performance of parent-sell-offs on the JSE Limited. Spin-offs were found to be the best refocusing strategy rather than sell-offs over a long-run and that spin-offs appear more market efficient than sell-offs. Unlike Majoni *et al.* (2014), the research is consistent with the broad international studies. The study provides that conglomerates should downsize their businesses through corporate unbundling in order to unlock value held by over-accumulation of assets. This

research also finds that the mining and the financial sectors dominate corporate unbundling on the JSE.

## **CHAPTER 5**

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### **CONCLUSION**

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#### **5.1 Introduction**

Merger and acquisition (M&A) activities were very popular around the 1960s. From the 1980s, due to locked shareholders' value, M&A lost its popularity and corporate downsizing through unbundling was a sensible option to unlock shareholders' value (Bhana, 2006). Due to the wealth-creating nature of corporate unbundling in finance literature since the 1980s, researchers find it necessary to investigate all possible ends of the strategy and to explain to

investors and conglomerates about its profit potentials. Under literature on unbundling provided in chapter two, unbundling can be corporate or non-corporate. Non-corporate unbundling is linked to universities in the form of spin-offs. Generally, unbundling can be voluntary or non-voluntary. The focus of this study is on corporate unbundling that is voluntary by nature. Thus, this research seeks to provide an analysis of the long-run performance of companies which restructured through voluntary unbundling on the JSE between 2000 and 2012.

The research has investigated the performance of spin-offs and sell-offs transactions. In order to investigate this performance, four major samples were considered. These are 21 spin-offs, 14 parent-spin-offs, 14 sell-offs and 20 parent-sell-offs. The research samples were obtained by studying unbundling announcements by the Security Exchange News Service (SENS) and Share Data Online across all the sectors on the JSE. Part of the data related to sell-offs was obtained from the Competition Commission of South Africa. After studying the various announcements, a final sample of 69 companies belonging to spin-offs and sell-offs transactions emerge from 24 sectors on the JSE.

Furthermore, two major methods of analysing data related to unbundling were identified. These are the matching firm approach that uses the Buy and Hold Abnormal Return (BHAR) as a performance measure, and the market model approach that considers Cumulative Average Abnormal Return (CAAR) as a performance measure. After a discussion of the two methods, the matching firm approach was selected as the best method to investigate long-run performance of unbundling, and this was justified. In the course of analysing the data, the Mean Raw Return (MRR) was added as an additional measure and this was calculated from buy and hold returns. The adoption of MRR is consistent with Dasai and Jain (1999) and Bhana (2004). This measure was added in order to show the exact position of the event firms other than their position related to their industry or sectors as depicted by the BHAR. However, the research is skewed towards the BHAR since the research focus is to compare the performance of the event firms and their matched firms.

The rest of this chapter is organized as follows. The research has provided the major considerations of the study. This will be followed by findings and implication of the study. After, some recommendations will be provided. It will also be necessary to provide the



limitations of the study and areas of future studies. The chapter will conclude with a summary of the research.

## **5.2 Major considerations of the Research**

In the course of a research, many aspects may be found but the research must prioritise areas found to be very important. Objectives and questions related to the study have been addressed. Some of the research objectives and questions emerged as major considerations of the research and as such there is need for them to be spelled out.

The study came across several aspects of corporate unbundling. However, some of these aspects were found to be very important. Firstly, the study is focused only on South African companies restructuring through corporate unbundling. The South African companies considered are those listed on the JSE. Following the various authors contributions about unbundling in chapter two, the study developed an interest in spin-off and sell-off transactions. These two refocusing strategies are the most controversial in finance literature related to unbundling. The research wanted to see if South Africa companies will show a similar unbundling pattern depicted in the USA and Europe. In order for this consistency to be verified, it was necessary first of all to update Bhana's (2004) study on spin-offs and provide an amendment to the study by Majoni *et al.* (2014) on spin-offs and sell-offs, and simultaneously investigate common issues that have been studied in the USA and Europe. Some of these issues were given more detail by this research than was found in unbundling literature.

Firstly, the research investigated unbundling performance for up to four years. The research did not find any study in South Africa that investigated unbundling performance for up to four years. Secondly, it was found that positive abnormal returns are present for up to four years following spin-offs and sell-offs. Another consideration was to verify if sell-offs outperform spin-offs for up to four years. According to Prezas and Simonyan (2012) and Majoni *et al.* (2014), sell-off is a better refocusing strategy over a long-run than spin-off. But the research did not pick up this pattern. Instead spin-offs outperform sell-offs for up to four years. Another area of interest covered by the research is to provide a reason why significant returns are found for up to four years after unbundling and also to give reasons why spin-offs outperform sell-offs on the JSE.

Furthermore, in the course of analysing spin-off and sell-off data, the research found a pattern of market response. The pattern differs between spin-offs and sell-offs and shows steady, up and down movements for years after unbundling. The research found this pattern to be market efficiency and the various movements are in attempt for the market to correct itself.

Nevertheless, the research also considered the effect of the 2007/2008 global financial crisis on corporate unbundling in SA. This is an attempt to check the resilience of unbundling during economic instabilities. Fortunately for the research, 42.03% of the total divestitures fall within the period 2004 to 2008. Within this period, any company that restructures must have experienced the effects of the crisis immediately, or for some time after unbundling.

Lastly, a final sample of 21 spin-offs, 14 parent-spin-offs, 14 sell-offs and 20 parent-sell-offs cut across 24 sectors of operation on the JSE. This aspect of the research is new in unbundling literature. This was considered by the research in order to reveal those sectors that are refocusing through corporate unbundling. Amongst the different sectors, mining and financial services dominate corporate unbundling on the JSE.

### **5.3 Findings and implications of the study**

This study has extended the traditional investigation horizon of three years to four years after unbundling in SA. Even on the international scale, most studies are limited to three years after unbundling. Again, the study took a further step to investigate the performance of parent firms and their subsidiaries after unbundling, and further distinguished spin-offs and sell-offs as per market efficiency. In addition to the BHAR measure adopted by the research, the research made use of the MRR consistent with Dasai and Jain (1999) and Bhana (2004). A further step was taken to identify sectors which dominate corporate unbundling on the JSE. In the course of undertaking these additional steps together with the scope of the research, the research found a lot of aspects which are a result of unbundling.

Considering the MRRs, both samples experienced positive stock price performance for up to four years after unbundling. However, only spin-offs and parent-sell-offs experienced significant MRRs from one year and up to four years after unbundling. Under this measure, parent-spin-offs and sell-offs perform poorly relative to spin-offs and parent-sell-offs. The only significant MRRs found for parent-spin-offs occurred for six and twelve months post unbundling. According to this measure, though positive wealth effects are associated with

parent-spin-offs and sell-offs, robust measures still need to be considered by parent-spin-offs and asset buyers before an unbundling exercise is considered. This measure reveals the wealth position of event firms without relating the position to the industrial level.

However, the focus of the research is to compare the event firms with other firms within the same sector or industry. The BHAR measure takes a particular event firm to its industrial position. This large part of the research tries to match the performance of firms which were restructured through unbundling to firms which did not restructure but belong to the same sector or industry. This forms the core of corporate unbundling research, especially over a long-term period. According to this study, the spin-offs, parent-spin-offs, and sell-offs significantly outperform their matched firms for 6, 12, 24, 36 and 48 months after unbundling. Only the parent-sell-offs failed to follow this trend. The only significant positive BHAR after unbundling occurred at 48 months holding period. These results imply that spin-offs, parent-spin-offs and sell-offs are accompanied by significant positive wealth effects for up to four years after unbundling and that care must be taken for parent-sell-offs after unbundling.

The study finds no previous studies on long-run stock performance of parent-sell-offs in South Africa. This indicates that parent-sell-offs performance has not been monitored for a long-run since the adoption of unbundling as a refocusing strategy in South Africa, and thus proper steps must be taken before any sell-off event. The poor performance of parent-sell-offs implies that there is still a doubt about their future profit potentials by investors.

Unlike parent-spin-offs, the research realized that for two years prior to unbundling the parent-sell-offs experienced positive significant BHAR. Therefore, the significant outperformance of the parent-sell-offs over their matching firms can be attributed to inside trading ahead of public announcement of sell-offs (Bhana, 2004). This aspect revealed a high information asymmetry about parent-sell-offs and as such can cast doubt on investors' response to the parent-sell-off stocks after unbundling. Information availability has a big role to play about response to market announcements. However, parent firms will always remain bigger in size than their subsidiaries after unbundling. This is due to their egoistic nature not to let go all their divisions and especially those divisions which are doing very well. Hence, the bigger the company the more it becomes less visible to the market as per any information related to the company. Their subsidiaries are relatively smaller in size after unbundling and any

information available remain visible and can be easily digested by the market and thus there is a significant response to their stocks.

The study also compares the market efficiency of spin-offs to sell-offs and it was revealed that, spin-offs are more market efficient than sell-offs. If all the information for a particular company is available to the market during and after restructuring, it then means that the response to the stock of the company by investors will be more market efficient than the response to the stock of a company which hides part of the information. Sell-offs appear less market efficient than spin-offs and this may be attributed to a transfer effect from their parents. That is, even though the sell-offs become independent of their parents, the fact that their parents have hidden information may cast doubt on the future performance of their subsidiaries.

Furthermore, it was also necessary for the study to spell out the sectors that are refocusing more through corporate unbundling. 24 Sectors were found participating in voluntary unbundling between 2000 and 2012. Out of the 24 sectors, some of the sectors dominated others in unbundling activities. A final sample of 69 companies constituting both sell-offs and spin-offs transactions was dominated by the mining, real estate investment trust, support services, general retailers, financial services, industrial metals and mining, life insurance and food producers sectors. In essence, the outperformance of corporate unbundling over all holding periods after unbundling is driven by these major sectors. However, overall, mining and the financial services sectors dominated unbundling on the JSE between 2000 and 2012.

The resiliency of corporate unbundling to the 2007/2008 global financial crisis was also checked. The research considers that any company which was restructured through unbundling from 2004 to 2008 must have experienced the effects of the crisis. Fortunately, the research found 42.03% of the total divestiture between 2004 and 2008. This percentage is significant enough to affect the overall result. All the samples contributed significantly to the 42.03%. Therefore, the outperformance of the event firms over their matched firms for up to four years means that unbundling can resist the pressure from any economic instability. After any restructuring event, it is expected that the operational structure of the firm involved should be less stable than that of a company which did not restructure. This means that the management and the logistic chain of the restructured company may be affected at the level of decision making. Therefore, the additional effect of a crisis should make the restructuring

company far more unstable, and this might significantly lessen the profit potential of the company. In essence, the matched firms of the study should outperform the event firms for all holding periods.

Furthermore, the results revealed that the parent-sell-offs outperform their matched firms and perform poorly relative to the rest of the samples. Nevertheless, this outcome may also be due to the effect of the 2007/2008 crisis. Parent-sell-offs may be less resilient than their subsidiaries in an event of a crisis, and according to Dasai and Jain (1999), the small nature of subsidiaries makes them potentially stronger than their parents. Therefore, in the presence of any economic turbulence, the subsidiaries should prove more resilient than their parents after unbundling.

## **5.4 Research Recommendations**

This research has cut across a wide range of aspects related to unbundling and this led to many findings. Corporate unbundling performance may vary from one economy to another. Sometimes the results directly match between different economies but with similar economic trends. From the literature review of this study, the research found a close relation between the USA and Europe as per unbundling performance around announcements and post announcements. The research sample sizes between these two regions are close. The research also found that corporate unbundling activities first started in these two regions. This closeness between the two regions yielded similar unbundling results as revealed by chapter 2 of this study.

According to Gadad and Thomas (2005), the rapid growth of corporate unbundling from the early twentieth century in the USA and the UK has been observed as a wide spread restructuring strategy of the corporate landscape. In Africa there is still thin debate about unbundling, and South Africa leads this debate with more existing studies about the strategy than the rest of Africa. But as institutions evolve by shifting social views and changing regulatory policies, corporate restructuring through unbundling could be seen by shareholders as a desirable strategy and accordingly, could be seen in a positive light (Gadad and Thomas, 2005). This is a typical characteristic of South Africa which was observed by the rampant increase in unbundling activities when restrictions and sanctions were uplifted following the end of apartheid era. From the above hints and considering the research results, certain recommendations about unbundling in South Africa may vary with the rest of the world since

the South Africa economy has a different structure, and unbundling is still new in South Africa relative to Europe and the USA. However, the consistency of this research with the broad studies overseas should give birth to common recommendations to investors and conglomerates as observed from overseas literature.

Firstly, this study recommends conglomerates to embark on corporate refocusing through unbundling. The complex nature of big companies may input a diversification discount due to assets under-utilization. Through unbundling, the reduced complexity of the firm may lower monitoring and coordinating costs (Veld and Merkoulova, 2003) and thus, future share price appreciation. According to the results of this study, holding companies on the JSE should prioritize spin-offs over sell-offs during unbundling and that spin-offs are associated with a more significant share prices appreciation over a long-term period than sell-offs.

Corporate unbundling is undertaken by corporations for several reasons. Most often, sell-offs are considered as a means to create cash for other investments or to pay back company's debts. Therefore, though spin-off has been placed as the first priority on the JSE by the research, some companies in need of cash will still refocus through asset sale and especially when they find such assets unprofitable to them. The parent-sell-off sample of the research could only show significant outperformance over their matched counterparts for just 48 months post unbundling. For 6, 12, 24 and 36 months after unbundling they show positive BHARs which were not significant. Therefore, companies willing to downsize their business through sell-off should take necessary steps before the event.

The part played by the seller in an announcement may predict the future share price performance of its remaining assets. The research has proven that the parent-sell-off companies traded ahead of public announcement. Unlike parent-spin-offs, a significant BHAR of 33.3% was reported for the parent-sell-off for two years prior to unbundling. It is advisable for the seller to be fair before and during sell-off announcements. Unfair behaviour may be penalised by the market. Again, since the parent-sell-offs poorly perform for 6, 12, 24 and 36 months after, it means that the parent-sell-off companies need to be well monitored and the management needs to quickly readapt to the new business structure. The selling of a business entity can completely alter the whole logistic chain. If much care is taken in reintegrating the remaining assets, then significant outperformance can be witnessed from six months and throughout four years.

Though the research found spin-off more advantageous than sell-offs on the JSE, shareholders, stakeholders and the management of companies willing to undertake spin-offs should not lessen their effort to provide robust measures for their future existence. The nature of a spin-off today may differ in future. Hence, remedies put in place today during and after a spin-off announcement should be adjusted with time to fit with a present economic condition.

Furthermore, sell-offs proved successful, with significant BHARs reported for all holding periods after unbundling. Despite the poor performance by their parents, they still outperform their matching counterparts significantly. This outperformance may be due to their smaller nature. Conglomerates should reduce the size of their businesses as much as possible in order to maximise any potential profit available within the company.

During the research, 42.03% of the total divestitures were restructured between 2004 and 2008. This means that a significant portion of the divestitures experienced the effects of the 2007/2008 global financial crisis. Despite the effect of the crisis, corporate unbundling proved resilience according to the BHAR and MRR. In case of any financial crisis, companies willing to refocus at that time should undertake corporate unbundling in order to thwart the effects of the crisis.

## **5.5 Limitations of the Study**

Like any other research, the research may be biased because of some complex issues that revolve around the confines of corporate restructuring. Although long-run event studies have witnessed many advances over the years, the appropriate method for measuring the share price performance of firms for a long-run following corporate events is much debated in finance literature (Dutta, 2015). Despite the long historical nature of long-run event studies, there still exist some limitations. According to Barber, Lyon and Tsai (1999), long-run abnormal return performance analysis is treacherous and according to Kothari and Warner (2007) the best possible model to determine abnormal returns is still not arrived at.

The computation of buy and hold returns assumes that if the event firm stops trading for any reason following the unbundling event, a buy and hold return is computed using the last available share price (Bhana, 2004). This may be limited because the result may be different

if the firm had not stopped trading within that period. Share price greatly differs from one month to another. A company may speed up its operation which can lead to a higher share price increase in the following month. On the other hand, the same company may experience a sharp drop in its share price for the following month. Thus, if the last month's data is used for subsequent intervals then the research maybe underestimating or overestimating the performance of that company.

The matching firm procedure may not provide results that reflect the whole JSE since the event firms are matched to specific firms. This is the main advantage of using a market index (All Share Index) which constitutes the average performance of companies on the JSE.

The matching technique may also vary results. The research has considered the same industrial characteristics and the market value of equity as a matching measure. Another research could use  $R^2$ . At this level, a multiple regression is run from a set of  $K$  potential control firms returns to an event firm return. The matching firm considered is the one with the highest  $R^2$ . The use of these two methods may report different results.

Research about unbundling in the USA, Europe and Canada portrays larger sample sizes relative to research in South Africa. A big sample size has a higher probability to provide accurate results than a small sample size. The inclusion of many companies in a given sample means that a lot of factors inherent in a divestiture are reflected in the sample. Thus, the power of unfair players in a research sample is mitigated leading to solid results. The samples used in this research are smaller in size relative to studies overseas. The few unbundling announcements on the JSE and the fact that unbundling is still new in South Africa led to the small sample sizes. The stringent measure considered by the research to arrive at a final sample also contributed to the small sample sizes of this study.

## **5.6 Areas of Future Studies**

This research has reiterated about thin debate on corporate unbundling in South Africa and Africa as a whole. Of the few studies in Africa, most of them were conducted in South Africa. Again, these studies performed in South Africa have investigated unbundling performance around announcements rather than post-announcements, and the authors have concentrated on



spin-offs and sell-offs. There is still much to be done regarding the existence of other corporate unbundling strategies and extending the existing literature on spin-offs and sell-offs.

The research has identified many areas that need to be investigated in South Africa. This study has updated previous work on long-run performance of spin-offs by Bhana (2004) and also provided an amendment to Majoni *et al.* (2014), whose work was based on the long-run share price effect on spin-offs and sell-offs. In addition to this study, the various authors' studies are characterized by smaller sample sizes. Thus, it is advisable to conduct much research on the announcement and post effects of spin-offs and sell-offs in the future. The current trend of unbundling in South Africa suggests that there may be more unbundling events in the future than present and as such the research samples should be bigger in size than those of research in the past and present. Specifically, much research should be conducted on the long-term performance of parent-sell-offs. Even on the international scale, parent-sell-offs have not been widely investigated, both around announcements and post announcements relative to parent-spin-offs. Again, this research and Majoni *et al.* (2014) appear to be the only studies that compared spin-off and sell-off performance over a long-run. Other authors should compare their performance around announcements. When two research samples are investigated over the same period it leads to more accurate comparison than when the two samples result from two different authors' work investigating their performance over different periods.

The study has also added more to the literature about unbundling regarding the market efficiency of spin-off and sell-off over a long-run. Much research in this area, and specifically in South Africa, should investigate this issue for years to come.

Nevertheless, research should explain to investors about other alternatives of corporate unbundling like carve-outs, management and leverage buyouts and others. Companies with different corporate structures should refocus through different refocusing strategies. If research is not carried out on all these available strategies, then it will be difficult for corporate society to understand their choices when needs arise.

## **5.7 Summary of the Research**

The aim of the research is to analyse long-run performance of corporate divestitures on the JSE within the period 2000 to 2012. The divestitures investigated are spin-off and sell-off

transactions. The study constituted 69 companies under study and this resulted in 21 spin-offs, 14 parent-spin-offs, 14 sell-offs and 20 parent-sell-offs. All of these samples were arrived at after stringent measures taken by the study. The research used the matching firm methodology under the BHAR as a performance measure. Consistent with Dasai and Jain (1999) and Bhana (2004), the research adopted the MRR as another measure to check the position of the event firms but without comparing their performance with other companies belonging to their respective sectors or industry. However, emphasis was laid on BHAR as the main focus of the research. By choosing the study period 2000 to 2012, the previous study by Bhana (2004) on spin-offs was automatically updated. The research also provided an amendment to study by Majoni *et al.* (2014) on spin-offs and sell-offs.

The literature review part of this study revealed that generally, corporate unbundling transactions are accompanied by positive wealth effects around announcements and post announcements. Most of the studies found significant wealth effects associated with corporate unbundling exercises. The research found that spin-offs, parent-spin-offs, sell-offs and parent-sell-offs are associated with positive wealth effects for up to four years after unbundling, that is, both samples continuously outperformed their matched firms for 6, 12, 24, 36, and 48 months after unbundling.

More so, spin-offs, parent-spin-offs and sell-offs significantly outperformed their matching firms for all holding periods of the research after unbundling. Only parent-sell-offs failed to follow this path. Parent-sell-offs only experienced a significant BHAR in the 48 months holding period after unbundling. Again, only the parent-sell-offs showed a significant BHAR for two years prior to unbundling. The parent-spin-offs experienced a positive but insignificant BHAR for two years prior to unbundling. According to the research, the parent-sell-off companies traded ahead of public announcement. Furthermore, in analysing the MRRs, both samples experienced positive returns for all holding periods after unbundling and the results were significantly positive for many holding periods. Spin-offs even experienced significant MRRs for all holding periods.

The market efficiency nature of unbundling was also checked between spin-offs and sell-offs. The research found a series of stock price movements within spin-offs and sell-offs. But spin-offs showed a more steady movement than sell-offs. Thus, in analysing the various market movements spin-offs were found more market efficient than sell-offs.

The research also found that corporate unbundling activities are skew within the different sectors on the JSE. Out of the 24 sectors that participated in unbundling for the period 2000 to 2012, mining, real estate investment trust, support services, general retailers, financial services, industrial metals and mining, life insurance and food producers dominate the final sample of 69 event firms. Out of these major sectors, mining and financial services remain outstanding and contributed 13.03% and 15.94% respectively to the final sample of 69 event firms. However, the research did not find any reason why some sectors are more interested in unbundling than others.

According to the result of this study, unbundling can unlock shareholders value for up to four years after the event. Therefore, any company with underutilized assets due to corporate mergers could resort to corporate unbundling and unlock the profit potentials contained in the assets. Though corporate unbundling is still new in South Africa, it has been positively welcomed by the market and the results directly speak that unbundling is not a trivial issue in South Africa. Despite the small sample sizes, the study is consistent with the broad studies overseas. The research also finds that corporate unbundling may be resilient to economic turbulence.

## REFERENCES

Ahn, S. and Denis, D.J. 2004. 'Internal capital markets and investment policy: Evidence from corporate spinoffs', *Journal of Financial Economics*, 71: 489–516.

Ahn, S. and Walker, M. D. 2004. *Corporate governance and the spinoff decision* [online]. Available from:

<[http://accounting.uwaterloo.ca/seminars/old\\_papers/Seoungpil%20Ahn\\_Corporate%20Governance.pdf](http://accounting.uwaterloo.ca/seminars/old_papers/Seoungpil%20Ahn_Corporate%20Governance.pdf)> [Accessed 15 March 2016]

Alexander, G., Benson, P. & Kampmeyer, J. 1984. 'Investigating the valuation effects of announcements of voluntary corporate selloffs', *The Journal of Finance*, 39(2): 503 – 517.

Alkhafaji, A.F. 1991. 'Management perceptions towards buyouts', *Management Decision*, [online]. 29(7): 57-63. Available from: <<http://dx.doi.org/10.1108/00251749110007058>> [Accessed October 14, 2016]

Allen, J. and McConnell, J. 1998. 'Equity carve-out and managerial discretion', *Journal of Finance*, 53(1): 163-186.

Allen, J.R. 2001. 'Private information and spinoff performance', *The Journal of Business*, 74(2): 281-295.

Baker, G. and Smith, G. 1998. *The New Financial Capitalist*. Cambridge University Press, Cambridge.

Ball, R. and Brown, P. (1968). 'An empirical evaluation of accounting income numbers', *Journal of Accounting Research*, 6: 159-178.

Balsley, H. L. (1970). *Quantitative research methods for business and economics*. New York: Random House

Barber, B.M., and Lyon, J.D. 1997. 'Detecting long-run abnormal stock returns: The empirical power and specification of test statistics', *Journal of Financial Economics*, 43: 341-372.

Barber, B.M., Lyon, J.D. and Tsai, C.L. 1999. 'Improved methods for tests of long-run abnormal stock returns', *The Journal of Finance*, 54 (1): 165-201.

Bates, T. 2005. 'Asset sales, investment opportunities, and the use of proceeds', *Journal of Finance*, 60: 105-135.

Becker, T.E. and Gopinath, C. 2000. 'Communication, procedural justice, and employee attitudes: Relationships under conditions of divestiture', *Journal of Management*, 26: 63-83.

Beraza-Garmendia, J.M. and Rodríguez-Castellanos, A. 2015. 'Characteristics and effectiveness of university spin-off support programmes', *Academia Revista Latinoamericana de Administración*, [online]. 28(1): 14 – 44. Available from: <<http://dx.doi.org/10.1108/ARLA-09-2013-0139>> [Accessed February 10, 2017]

Berger, P.G. and Ofek, E. 1995. 'Diversification's effect on corporation value', *Journal of Financial Economics*, 37(1): 39-65.

Bertrand, O., Betschinger, M.A. & Petrina, Y. 2014. 'Organizational spillovers of divestiture activity to M&A decision-making', *Advances in Mergers and Acquisitions* [online]. 13: 65-83. Available from: <<http://dx.doi.org/10.1108/S1479-361X20140000013003>> [Accessed October 14, 2016]

Besanko, D., Dranove, D., Shanley, M. & Schaefer, S. 2010. *Economics of strategy*. 5<sup>th</sup> ed. Hoboken: John Wiley & Sons.

Bezjak, J.R., Loh, C. & Toms, H. 1995. 'Voluntary corporate divestitures as antitakeover mechanisms', *The Financial Review*, 30(1): 41-60.

Bhana, N. 2000. 'Overseas listing by companies listed on the Johannesburg Securities Exchange and its impact on shareholder wealth', *Investment Analyst Journal*, 51: 37 – 47.

Bhana, N. 2004. 'Performance of corporate restructuring through spin-offs: evidence from JSE listed corporations', *Investment Analysts Journal*, 60: 5 -15.

Bhana, N. 2005. 'The share price reaction to management buyout announcements of companies listed on the JSE Securities Exchange', *Investment Analysts Journal*, 34(62): 19-30.

Bhana, N. 2006. 'The effect of corporate divestments on shareholder wealth: The South African experience', *Investment Analysts Journal*, 63: 19 – 30.

Bhat, S. and Burg, C.J. 2011. 'Does communicating corporate parent brand heritage help spinoff stock performance?', *Corporate Communications*, [online]. 16(1): 27 – 37. Available from: <<http://dx.doi.org/10.1108/13563281111100953>> [Accessed February 10, 2017]

Blackburn, R., Dixon, S., Kitching, J. and Smallbone, D. 2009. *Business strategies and performance during difficult economic conditions* [Online]. Available from:<<http://eprints.kingston.ac.uk/5852/1/kitching-j-5852.pdf>> [Accessed 25 September 2017]

Blair, D.M. and Hitchens, D. 1998. *Campus Companies – UK and Ireland*, Ashgate, Aldershot.

Blount, G. and Davidson, S. (1996). Stock market responses to corporate unbundling in South Africa, *South African Journal of Accounting Research*, 10(1), pp. 63 – 73.

Boudreaux K.J. 1975. 'Divestiture and share price', *Journal of Financial and Quantitative Analysis*, 10(3): 617-626.

Brauer, M and Schimmer, M. 2010. 'Performance effects of corporate divestiture programs', *Journal of Strategy and Management*, [online]. 3(2): 84 – 109. Available from: <<http://dx.doi.org/10.1108/17554251011041760>> [Accessed October 14, 2016]

Brauer, M. 2006. 'What have we acquired and what should we acquire in divestiture research? A review and research agenda', *Journal of Management*, 32: 751-785.

Brauer, M., Luger, J. & Mammen, J. 2014. 'Sell-offs and firm performance: A matter of experience?', *Journal of Management*, 20(10): 1-9.

Braun, M.R. and Latham, S.F. 2007. 'The governance of going private transactions', *Management Decision*, [online]. 45(5): 866 – 882. Available from: <<http://dx.doi.org/10.1108/00251740710753684>> [Accessed February 10, 2017]

Brigham, E. F. and Houston, J. F. 2010. *Essentials of financial management*. 2nd ed. Cengage Learning Asia, Singapore.

Briston, R.J., Coutts, J.A., Mallin, C.A. & Saadouni, B. 1992. 'Management buyout announcements and securities returns: A UK study 1984-1989', *Journal of Accounting and Economics*, 19(4): 641-655.

Briston, R.J., Mallin, C.A. & Saadouni, B. 1995. 'Management buyout announcements and securities returns in the UK: Further evidence for the period 1981-91', *Applied Financial Economics*, 5(2): 243-250.

Brooke, R. 1984. 'Management buy-outs give industry a new lease of life', *Industrial Management & Data Systems*, [online]. 84(3/4): 6 – 7. Available from: <<http://dx.doi.org/10.1108/eb057352>> [Accessed October 14, 2016]

Brown. S. J. and Warner, J.B. 1985. 'Using daily stock returns, the case of event studies', *Journal of Financial Economics*, (March): 3-31.

Bull, I. 1989. 'Financial performance of leverage buyouts: An empirical analysis', *Journal of Business Venturing*, 4: 263-279.

Burch, T.R. and Nanda, V. 2002. 'Divisional diversity and the conglomerate discount: evidence from spinoffs', *Journal of Financial Economics*, 70: 69–98.

Burson, T.E. and Lippert, R.L. 1996. 'The link between reduced agency costs and the AT&T divestiture', *Studies in Economics and Finance*, [online]. 16(2): 67 –86. Available from: <<http://dx.doi.org/10.1108/eb028722>> [Accessed October 14, 2016]

Campa, J. M. and Kedia, S. 1999. *Explaining the diversification discount* [online]. Available from: <<http://archive.nyu.edu/bitstream/2451/26235/2/99-06.pdf>> [Accessed 25 March 2016]

Canina, L. and Klein, T. 1998. 'Spin-offs in the lodging industry', *Journal of Hospitality Financial Management*, 6 (1): 1-19.

Cao, J., Owen, S. & Yawson, A. 2006. 'Evaluating the market reaction to UK divestitures', *Management Research News*, [online]. 29(8): 471 – 479. Available from:



<<http://dx.doi.org/10.1108/01409170610692798>> [Accessed October 14, 2016]

Cao, J., Owen, S. & Yawson, A. 2010. 'Divestitures, corporate governance and wealth effects', *Accounting and Finance*, 50(2): 389 – 415.

Cartwright, S. and Cooper, C.L. 1992. *Mergers and Acquisitions: The Human Factor*, Butterworth& Heinemann, Oxford.

Castle, J. and Kantor, B. 2000. 'Trading stocks- an alternative to unbundling for the South African group', *Investment Analysts Journal*, Number 51: 49-56.

Chang, Y., Phil, Y.Y. & Chen, M. 2009. 'The determinants of academic research commercial performance: Towards an organizational ambidexterity perspective', *Research Policy*, 38(6): 936-946.

Charoenwon, C., Din, D. K. and Pan, J. 2008. *Insider trading and corporate spinoffs* [online]. Available from:  
<[https://www.researchgate.net/profile/charlie\\_charoenwong/publication/228540918\\_insider\\_trading\\_and\\_corporate\\_spinoffs/links/0f31752de6bbca6bce000000.pdf](https://www.researchgate.net/profile/charlie_charoenwong/publication/228540918_insider_trading_and_corporate_spinoffs/links/0f31752de6bbca6bce000000.pdf)> [Accessed 30 March 2016]

Chemmanur, T.J. and Yan, A. 2003. 'A theory of corporate spin-offs', *Journal of Financial Economics*, 72: 259–290.

Chen, H.L. and Guo, R.J. 2005. 'On corporate divestiture', *Review of Quantitative Finance and Accounting*, 24: 399-421.

Chung Sin, Y. and Ariff, M. [Sa]. *Corporate spin-offs and the determinants of stock price changes in Malaysia*, [online]. Available from:  
<[http://www.alanyoonassociates.com/news/corp\\_spinoffs.pdf](http://www.alanyoonassociates.com/news/corp_spinoffs.pdf)> [Accessed 31 November 2016]

Clarke, J.A., 1998. Economies of scale and scope at depository financial institutions: A review of the literature', *Economic review Journal*.

Clarysse, B., Heirman, A. and Degroof, J.J. 2001. 'An institutional and resource-based explanation of growth patterns of research-based spin-offs in Europe', *STI Review*, 26: 75-96.

Clubb, C. and Stouraitis, A. 2002. 'The significance of sell-off profitability in explaining the market reaction to divestiture announcements', *Journal of Banking and Finance* 26: 671-688.

Coldwell, D., Joosub, T., King, D. & McClelland, T. 2015. 'Institutional forces and divestment performance of South African conglomerates: Case study evidence', *South African Journal of Economics and Management Sciences*, 18(3): 338-353.

Colla, p., Ippolito, F. & Talamanco, A. 2008. *Second events in equity carve-outs* [online].

Available from:

<[https://www.researchgate.net/profile/paolo\\_colla/publication/228735187\\_second\\_events\\_in\\_equity\\_carve-outs/links/559e30c808aeb45d1715f881.pdf](https://www.researchgate.net/profile/paolo_colla/publication/228735187_second_events_in_equity_carve-outs/links/559e30c808aeb45d1715f881.pdf)> [Accessed 15 May 2016]

Comment, R. and Jarrell, G.A. 1995. 'Corporate focus and stock returns', *Journal of Financial Economics*, 37: 67-87.

Cox, R.A.K., Kleinman, R.T. and Sahu, A.P. (1992), 'Strategically planned spin-offs: The empirical evidence', *Competitiveness Review*, [online]. 2(1): 9 -12. Available from:

<<http://dx.doi.org/10.1108/eb060156>> [accessed February 10, 2017]

Cusatis, P.J., Miles, J.A. & Woolridge, J.R. 1993. 'Restructuring through spin-offs', *Journal of Financial Economics*, 33: 293-311.

Daines, R. and Klausner, M. 2004. 'Agents protecting agent: An empirical study of takeover defenses in spinoffs', Stanford Law and Economics Olin, Working Paper No. 299, pp. 1-33.

Dann, L. and DeAngelo, H. 1988. 'Corporate financial policy and corporate control: A study of defensive adjustments in assets and ownership structure', *Journal of Financial Economics*, 20: 87-127.

Dann, L.Y., Masulis, R.W. and Mayers, D. 1991. 'Repurchase tender offers and earnings information', *Journal of Accounting and Economics*, 14: 217-251.

Dasai, H. and Jain, P.C. 1999. 'Firm performance and focus: Long-run stock market performance following spinoffs', *Journal of Financial Economics*, 54: 75-101.

Dasilas, A., Leventis, S., Sismanidou, M. & Koulikidou, K. 2011. *Wealth effects and operating performance of spin-offs: International evidence* [online] Working Paper.

Available from:

<<http://www.efmaefm.org/0efmameetings/efma%20annual%20meetings/2011-braga/papers/0415.pdf>> [Accessed 25 March 2016]

DeAngelo, L. 1986. 'Accounting numbers as market valuation substitutes: A study of management buyouts of public shareholders', *Accounting Review*, 61: 400-20.

Desbrières, P. and Schatt, A. 2002a. 'The impacts of LBOs on the performance of acquired firms: The French case', *Journal of Business Finance and Accounting*, 29(5 and 6): 695-729.

De Swardt, C.A. 2012. The effects of paying with equity or cash on inter-corporate asset sales. Master dissertation. Gordon Institute of Business Science, University of Pretoria.

Available from:

<<http://repository.up.ac.za/bitstream/handle/2263/23715/dissertation.pdf?sequence=1>> [Accessed 15 May 2016]

Devogelaer, D. 2003. *European refocusing throughout the nineties* [online]. Available from:

<[ecsocman.edu.ru/images/pubs/2003/01/05/0000035697/refocusing.pdf](http://ecsocman.edu.ru/images/pubs/2003/01/05/0000035697/refocusing.pdf)> [Accessed 5 March 2016]

De Vroom, H.J. and Van Frederikslust, R.A. 1999. *Shareholder wealth effects of corporate spin-offs: The worldwide experience 1990-1998* [online]. Available from: <[http://www.fbk.eur.nl/prj/rifm/workingpapers/wp99\\_6.pdf](http://www.fbk.eur.nl/prj/rifm/workingpapers/wp99_6.pdf)> [Accessed 01 February 2016]

Dittmar, A. and Shivdasani, A. 2003. 'Divestitures and divisional investment policies', *Journal of Finance*, 58(6): 2711-2743.

Doukas, J. A. and Kan, O.B. 2004. 'Excess cash flows and diversification discount', *Financial Management*, 33(2): 71-86.

Dutta, A. 2015. Essay on testing long-run abnormal stock returns. Doctoral dissertation. University of Vaasa.

Equity Strategy Research (2003). *Value relevance of analysts' earnings forecasts* [Online]. Available from: <<https://www.princeton.edu/~markus/teaching/eco467/04lecture/04event%20study%20description.pdf>> [accessed 05 September 2014]

Event Study Metrics. [Sa]. *Event study methodology* [Online]. Available from: <[http://www.event study methodology \\_ eventstudymetrics.html](http://www.eventstudy methodology _ eventstudymetrics.html)> [Accessed 01 October 2017]

Fama, E. 1970. 'Efficient capital markets: A review of theory and empirical work', *Journal of Finance*, 25: 383-417.

Fama, E.F. 1973. 'A note on the market model and the two-parameter model', *Journal of Finance*, 28: 1181-1185.

Fama, E.F. 1998. 'Market efficiency, long-term returns, and behavioural finance', *Journal of Financial Economics*, 49: 283-306.

Fama, E.F. and Jensen, M.C. 1983. 'Agency problems and residual claims', *Journal of Law and Economics*, 26: 327-49.

Fama, E.F., Fisher, L., Jensen, M. and Roll, R. 1969. 'The adjustment of stock prices to new information', *International Economic Review*, 10: 1-21.

Feldman, J. and Klofsten, M. 2000. 'Medium-sized firms and the limits to growth: A case study in the evolution of a spin-off firm', *European Planning Studies*, 8(5): 631-50.

Ferreira, F.A. 1997. *Corporate refocusing: Theoretical explanations and performance consequences* [online]. Available from:

<[http://www.unisa.ac.za/contents/faculties/service\\_dept/docs/Vol%203%20Num%202-.pdf](http://www.unisa.ac.za/contents/faculties/service_dept/docs/Vol%203%20Num%202-.pdf)> [Accessed 20 March 2016]

Francoeur, C. and Niyubahwe, A. 2009. *Sell-offs, internal capital markets, and long run performance: Canadian evidence* [online]. Available from:

<[www.emeraldinsight.com/1743-9132.htm](http://www.emeraldinsight.com/1743-9132.htm)> [Accessed 15 March 2016]

Frank, K.E. and Harden, W. 2001. 'Corporate restructurings: A comparison of carve-outs and spin-offs', *Journal of Business, Finance and Accounting*, 28: 503-529.

Furamera, T. 2006. Unbundling of listed companies: Does it unlock shareholder value and improve performance? (A case for Zimbabwe). Master dissertation. The Graduate School of Business, University of Kwazulu-Natal. Available from:

<<http://researchspace.ukzn.ac.za/xmlui/handle/10413/1092?show=full>> [Accessed 15 May 2016]

Gadad, A.M. and Thomas, H.M. 2005. 'Sources of shareholders wealth gains from asset sales', *Applied Financial Economics*, 15: 137-141.

Gadad, A.M., Stark, A.W. & Thomas, H.M. 2007. *Divestitures: Wealth transfers or real economic gains?* [online]. Available from:

<<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.378.1438&rep=rep1&type=pdf>> [Accessed 20 April 2015]

Garvin, D.A. 1983. 'Spin-offs and the new firm formation process', *California Management Review*, 25(2): 3-20.

Gershgoren, G.G., Hughson, E. & Zender, J.F. 2005. *A simple-but-powerful test for long-run event studies* [online]. Available from:<<http://leedsfaculty.colorado.edu/zender/papers/longrun-10-12-08.pdf>> [Accessed 01 June 2016]

- Gleason, K., Madura, J. & Penathur, A.K. 2006. 'Valuation and performance of reacquisitions following equity carve-out', *The Financial Review*, 41: 229-246.
- Golden, W.J. and Little, A.D. 1985. 'Leveraged buyouts as a corporate development tool', *Journal of Business Strategy*, [online]. 6(1): 7 – 14. Available from: <<http://dx.doi.org/10.1108/eb039095>> [Accessed September 20, 2016]
- Gordon, J.M. 1992. 'Spin-offs: A way to increase shareholder value', *Journal of Business Strategy*, [online]. 13(1):61 – 64. Available from: <<http://dx.doi.org/10.1108/eb039472>> [Accessed November 29, 2016]
- Gostner, K. 2002. *An assessment of the economic impact of the primary listings by South African companies on the London Stock Exchange 1997-2001* [online]. Available from: <[http://www.fdi.net/documents/worldbank/databases/busmap/sa\\_companies\\_on\\_lse.htm](http://www.fdi.net/documents/worldbank/databases/busmap/sa_companies_on_lse.htm)> [Accessed 20 April 2015]
- Gottschalg, O., Lopez-de-Silanes, F. & Phalippou, L. 2007. *The performance of leveraged buyout investments* [online]. Available from: <[http://www.istfin.eco.usi.ch/index/l\\_phalippou.pdf](http://www.istfin.eco.usi.ch/index/l_phalippou.pdf)> [Accessed 06 January 2017]
- Graham, J.R., Lemmon, M.L. & Wolf, J.G. 2002. 'Does corporate diversification destroys value?', *The Journal of Finance*, 57: 695-720.
- Green, S. 1992. 'The impact of ownership and capital structure on managerial motivation and strategy in management buyouts: A cultural analysis', *Journal of Management Studies*, 29(4): 513-35.
- Groth, J.C. and Shin, G.H. 2012. 'Fixed asset sales by financially distressed firms: Bank pressure or bankruptcy avoidance', *Investment Management and Financial Innovations*, 9(4): 60-70.
- Gübeli, M.H. and Doloreux, D. 2005. 'An empirical study of university spin-off development', *European Journal of Innovation Management*, [online]. 8(3): 269 – 282.

Available from:

<<http://dx.doi.org/10.1108/14601060510610153>> [Accessed February 10, 2017]

Guo, S., Hotchkiss, E.S. & Song, W. 2009. *Do buyouts (still) create value?* [online].

Available from:

<<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.472.9973&rep=rep1&type=pdf>>

[Accessed 18 May 2016]

Haase, H., Kratzer, J. & Lautenschläger, A. 2014. 'Contingency factors on university spin-off formation: an empirical study in Germany', *Journal of Entrepreneurship and Public Policy*, [online]. 3(1):160 – 176. Available from: <<http://dx.doi.org/10.1108/JEPP-02-2012-0013>>[Accessed February 10, 2017]

Hagel III, J. and Singer, M. 2000. *Unbundling the corporation* [online]. Available from:

<[http://www.mckinseyquarterly.com/unbundling\\_the\\_corporation\\_1069](http://www.mckinseyquarterly.com/unbundling_the_corporation_1069)> [Accessed 15

April 2014]

Halai, T. (2015). Parent company influence on spin-off performance. Masters dissertation, Universidade Fernando Pessoa [online]. Available from:

<<http://bdigital.ufp.pt/bitstream/10284/4934/1/master%20thesis.pdf>> [Accessed 06 January 2017]

Haleblian, J., Devers, C.E., McNamara, G., Carpenter, M.A. & Davison, R.B. 2009.

'Taking stock of what we know about mergers and acquisitions: A review and research agenda', *Journal of Management*, 35(3): 469-502.

Hall, T. 1984. 'Investment value grew 18.8% for holders who took shares in AT&T and regionals', *Wall Street Journal*, December 17, p. 27.

Hanson, R.C. and Song, M.H. 1997. *Long term performance of divesting firms and the effect of managerial ownership* [online]. Available from:

<<http://www-rohan.sdsu.edu/faculty/msong/moonweb/Longtrm2.pdf>> [Accessed 02 February 2016]

Harding, S.D., Hanouille, L., Rue, J.C. and Volkan, A.G. 1985. 'Why LBOs are popular', *Management Accounting*, December 1985, pp. 51-6.

Haris, R., Siegel, D. & Wright, M. 2003. *Assessing the impact of management buyouts on economic efficiency: plant-level evidence from the United Kingdom* [online]. Available from: <<http://www.economics.rpi.edu/workingpapers/rpi0304.pdf>> [Accessed 18 May 2016]

Hattingh, S. 2007. *BHP Billiton and SAB: Outward capital movement and the international expansion of South African corporate giants* [online]. Available from: <[http://www.taxjustice.net/cms/upload/pdf/Ilrig\\_0809\\_South\\_African\\_giants.pdf](http://www.taxjustice.net/cms/upload/pdf/Ilrig_0809_South_African_giants.pdf)> [Accessed 09 April 2015]

Hayes, R.H. 1972. 'The human side of acquisition', *Management Review*, 41-46.

Hellerman, M. and Jones, B. 2000. 'Spin-Offs', *Journal of Business Strategy*, [online]. 21(4):10 – 14. Available from: <<http://dx.doi.org/10.1108/eb040097>> [Accessed February 10, 2017]

Henderson, G.V (1990). 'Problems and solutions in conducting event studies', *Journal of Risk and Insurance*, 57: 282–306.

Hill, C.W.L. and Phan, H.P. 1995. 'Organizational restructuring and economic performance in leveraged buyouts: an ex post study', *Academy of Management Journal*, [online]. 38(3):704-739. Available from: <[https://www.researchgate.net/profile/Phillip\\_Phan/publication/266218459\\_organizational\\_restructuring\\_and\\_economic\\_performance\\_in\\_leveraged\\_buyouts\\_an\\_ex\\_post\\_study\\_author\(s\)/links/54d0d4080cf298d6566927a2.pdf](https://www.researchgate.net/profile/Phillip_Phan/publication/266218459_organizational_restructuring_and_economic_performance_in_leveraged_buyouts_an_ex_post_study_author(s)/links/54d0d4080cf298d6566927a2.pdf)> [Accessed May 17, 2016]

Hillier, D., McColgan, P. & Werema, S. 2005. *Asset sales, operating performance and firm strategy: An empirical analysis* [online]. Available from: <[http://www.efmaefm.org/0efmameetings/efma%20annual%20meetings/2005-milan/papers/110-hillier\\_paper.pdf](http://www.efmaefm.org/0efmameetings/efma%20annual%20meetings/2005-milan/papers/110-hillier_paper.pdf)> [Accessed 30 March 2016]



- Hite, G.L. and Owers, J.E. 1983. 'Security price reaction around corporate spin-off announcements', *Journal of Financial Economics*, 12(4): 409-436.
- Hite, G.L., Owers, J.E. & Rogers, R.C. 1987. 'The market for inter-corporation sales-partial sell-offs and total liquidations', *Journal of Financial Economics*, 18(2): 229-252.
- Hopkins, H. 1991. 'Acquisition and divestitures as a response to competitive position and market structure', *Journal of Management Studies*, 28(6): 665-667.
- Hunt, P.A. 2004. *Structuring mergers and acquisitions. A guide to creating shareholder value*. 2nd edition. New York: Aspen Publishers.
- Jensen, M. and Meckling, W. 1976. 'Theory of the firm: managerial behavior, agency costs and ownership structure', *Journal of Financial Economics*, 305-60.
- Jensen, M.C. 1986. 'Agency cost of free cash flow, corporate finance and takeovers', *American Economic Review*, May: 323-329.
- Jensen, M.C. 1993. 'The modern industrial revolution, exit, and the failure of internal control systems', *Journal of Finance*, 48: 831-880.
- Johnson, G.A., Brown, R.M. and Johnson, D.J. (1994). 'The Market Reaction to Voluntary Corporate Spin-offs: Revisited.' *Quarterly Journal of Business and Economics*, 33(4): 44-59.
- John, T. 1993. 'Optimality of spin-offs and allocation of debt', *Journal of Financial and Quantitative Analysis*, 28(1): 139-160.
- Jone, M. and Martin, L. 2008. Better off Spun off? School of Economics and Management, Lund University [online]. Available from:  
<<http://lup.lub.lu.se/luur/download?func=downloadFile&recordOId=1341879&fileOId=2435087>> [Accessed 06 January 2017]
- Jongbloed, A. 2004. 'Spin-offs: Implications for corporate policies', *Journal Tijdschrift voor Economie en Management*, [online]. 49(4): 569-588. Available from:

<[https://lirias.kuleuven.be/bitstream/123456789/85622/1/TEM\\_4-04\\_03\\_jongbloed.pdf](https://lirias.kuleuven.be/bitstream/123456789/85622/1/TEM_4-04_03_jongbloed.pdf)>  
[Accessed May 21, 2014]

Jordan, J. B., 2012. An analysis of the response to corporate unbundling announcements on the Johannesburg Stock Exchange. Doctoral dissertation. Faculty of Commerce, Law and Management, University of Witwatersrand.

Khan, A.Q. and Mehta, D.R. 1996. 'Voluntary divestitures and the choice between sell-offs and spin-offs', *The Financial Review*, 31(4): 885-912.

Kirchmaier, T. 2003. *The performance effects of European de-mergers* [online]. Available from: <[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=432000](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=432000)> [Accessed 08 March 2016]

Kiyamaz, H. 2006. 'The impact of announced motives, financial distress, and industry affiliation on shareholders' wealth: Evidence from large sell-offs', *Quarterly Journal of Business and Economics*, 45(3/4): 69-89.

Kleiman, R. and Sahu A. 1990. 'The market performance of corporate spin-offs', *AAII Journal*, 12(7), 8-11.

Klein, A., Rosenfeld, J. & Beranek, W. 1991. 'The two stages of an equity carve-out and the price response of parent and subsidiary stock', *Managerial and Decision Economics*, 12: 449-460.

Kosedag, A., Mehran, J. & Qian, J. 2009. 'Reverse-LBOs, re-LBOs and informational asymmetry hypothesis of LBO transactions', *Managerial Finance*, [online]. 35(8): 716 – 728. Available from: <<http://dx.doi.org/10.1108/03074350910967259>> [Accessed 14 October, 2016]

Kothari, S.P., & Warner, J.B. 2007. *Econometrics of event studies*. Chapter 1 in Handbook of Corporate Finance-Empirical Corporate Finance. Elsevier B.V.

- Krause, D.S. 1989. 'Do small firm leveraged buyouts add value to the U.S. economy?' *American Journal of Business*, [online]. 4(2): 7 – 10. Available from: <<http://dx.doi.org/10.1108/19355181198900012>> [Accessed February 10, 2017]
- Krishnaswami, S. and Subramaniam, V. 1999. *Information asymmetry, valuation and the corporate spin-off decision* [online]. Available from: <[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=123088](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=123088)> [Accessed 10 March 2016]
- Laamanen, T. and Keil, T. 2008. 'Performance of serial acquirers: Toward an acquisition program perspective', *Strategic Management Journal*, 29: 663-672.
- Laing, D. and Weir, C. 1998. 'Management buy-outs: The impact of ownership changes on performance', *Journal of Small Business and Enterprise Development*, [online]. 5(3): 261 – 269. Available from: <<http://dx.doi.org/10.1108/eum0000000006788>> [Accessed September 20, 2016]
- Lang, L., Poulsen, A. & Stulz, R. 1995. 'Asset sales, firm performance and the agency costs of managerial discretion', *Journal of Financial Economics*, 37: 3-37.
- Lasfer, M.A., Sudarsanam, P.S. & Taffler, R.J. 1996. 'Financial distress, asset sales and lender monitoring', *Financial Management*, 25(3): 57-66.
- Latham, S. 2009. 'Contrasting strategic response to economic recession in start-up versus established software firms', *Journal of Small Business Management*, 47 (2): 180-201.
- Le Nadant, A.L. and Perdreau, F. 2006. 'Financial profile of leveraged buy-out targets: Some French evidence', *Review of Accounting and Finance*, [online]. 5(4): 370 – 392. Available from: <<http://dx.doi.org/10.1108/14757700610712444>> [Accessed February 10, 2017]
- Lichtenberg, F. R. and Siegel, D. 1989. *The effects of leveraged buyouts on productivity and related aspects of firm behavior* [online]. Working Paper. Available from: <<https://core.ac.uk/download/files/153/6819511.pdf>> [Accessed 15 May 2016]

Lockett, A. and Wright, M. 2005. 'Resources, capabilities, risk capital and the creation of university spin-out companies', *Research Policy*, 34(7): 1043-57.

Lovejoy, F.A. 1971. Divestment for profit. Financial Executives Research Foundation.

Madden, G.P., Marples, L.W and Chugh, L.C. 1990. 'A stock market evaluation of management buyouts', *Journal of Business Finance and Accounting*, 17(3): 325-358.

Madsen, Ø., Oust, M., Sørheim, R. & Widding, L. Ø. 2011. 'Funding of university spinoff companies: A conceptual approach to financing challenges', *Journal of Small Business and Enterprise Development*, [online]. 18(1): 58 – 73. Available from:  
<<http://dx.doi.org/10.1108/14626001111106433>> [Accessed February 10, 2017]

Madura, J. and Nixon, T.D. 2002. 'The long-term performance of parent and units following equity carve-outs', *Applied Financial Economics*, 12: 171-181.

Majoni, A., Mukanjari, S., Nichols, E. & Rosenberg, A. 2014. 'Divestitures and shareholder wealth in the long-run: The South African case', *Corporate Ownership and Control*, 11(4): 569-578.

Maksimovic, V. and Phillips, G. 2001. 'The market for corporate assets: Who engages in mergers and are there efficiency gains', *Journal of Finance*, 56: 2019-2065.

Markman, G.D., Phan, P.H., Balkin, D.B. & Gianiodis, P.T. 2005b. 'Entrepreneurship and university based technology transfer', *Journal of Business Venturing*, 20(2): 241-263.

Martínez Sánchez , A. and Pérez Pérez, M. 2003. 'The development of university spin offs: Early dynamics of technology transfer and networking', *Technovation*, 23(10): 823-831.

McConnell, J.J. and Ovtchinnikov, A.V. 2004. *Predictability of long-term spinoff returns* [online]. Available from:  
<<http://www2.owen.vanderbilt.edu/alexeiovtchinnikov/Predictability%20of%20long-term%20spinoff%20returns.pdf>> [Accessed 05 March 2016]

McConnell, J.J., Ozbilgin, M. and Wahal, S. 2001. 'Spin-offs, ex ante', *The Journal of Business*, [online]. 74 (2): 245-280. Available from: <[http://www.jstor.org/stable/pdf/10.1086/209672.pdf?\\_=1458904942857](http://www.jstor.org/stable/pdf/10.1086/209672.pdf?_=1458904942857)> [Accessed March 28, 2016]

Menon, A., Balachandran, B., Faff, R. & Love, R. 2004. Announcements of voluntary corporate sell-offs: A comparative country analysis of their impact on shareholder wealth. Department of Accounting and Finance, Monash University, Australia.

Michaely, R. and Shaw, W.H. 1995. 'The choice of going public; spin-offs vs. carve-outs', *Financial Management*, 24 (3): 5-21.

Miles, J. and Rosenfeld, J. 1983. 'The effect of voluntary spin-off announcements on shareholders' wealth', *The Journal of Finance*, 38(5): 1597 – 1606.

Montgomery, C., Thomas, A. & Kamath, R. 1984. 'Divestiture, market valuation and strategy', *Academy of Management Journal*, 27 (4): 830-840.

Moschieri, C. and Mair, J. 2005. 'Research on corporate unbundling: A Synthesis'. IESE Business School, Working paper: 590.

Mukherjee, T.K., Kiyamaz, H., & Baker, H. K. 2003. 'Merger motives and target valuation', *A Survey of Evidence from CFO's*, 1-34.

Murray, L. 2000. 'An assessment of the wealth effects of spin-offs on the London Stock Exchange', Working Paper, University College, Dublin.

Nikoskelainena, E. and Wrightb, M. 2005. *The impact of corporate governance mechanisms on value increase in leveraged buyouts* [online]. Available from: <[https://www.researchgate.net/profile/mike\\_wright7/publication/4886805\\_the\\_impact\\_of\\_corporate\\_governance\\_mechanisms\\_on\\_value\\_increase\\_in\\_leveraged\\_buyouts/links/0a85e53215d160fa40000000.pdf](https://www.researchgate.net/profile/mike_wright7/publication/4886805_the_impact_of_corporate_governance_mechanisms_on_value_increase_in_leveraged_buyouts/links/0a85e53215d160fa40000000.pdf)> [Accessed 17 May 2016]

Nixon, T.D., Roenfeldt, R.L. & Sicherman, N.W. [Sa]. 'The choice between spin-offs and sell-offs', *Review of Quantitative Finance and Accounting*, 14(2000): 277-288.

Pearson, B. 1990. 'Successful management buy-outs', *Management Decision*, [online]. (28(4):60-62. Available from: <<http://dx.doi.org/10.1108/00251749010141500>> [accessed September 20, 2016]

Pearson, M.1998. 'Spin-offs', *Journal of Business Strategy*, [online]. 19(4): 31 – 35. Available from: <<http://dx.doi.org/10.1108/eb039949>> [Accessed 25 November, 2016]

Pelepu, k. 1990. 'Consequences of leverage buyouts', *Journal of Financial Economics*, 27: 247-263.

Pirnay, F., Surlemont, B. and Nlemvo, F. 2003. 'Toward a typology of university spin-offs', *Small Business Economics*, 21(4): 355-69.

Pittino, D. and Visintin, F. [Sa]. 'Assessing the effect of different dimensions of top management team diversity on the growth of university-based spin-off firms', *New Technology-Based Firms in the New Millennium*, [online]. 16 Jun 2015: 171-186. Available from: <<http://dx.doi.org/10.1108/S1876-022820150000011016>> [Accessed February 10, 2017]

Pogue, M. 1991. 'Financing the MBO: A Complex Issue?', *Management Decision*, [online]. 29(2): 58-62. Available from: <<http://dx.doi.org/10.1108/00251749110141699>> [Accessed October 14, 2016]

Porter, M.E. 1987. 'From competitive advantage to corporate strategy', *Harvard Business Review*, 65(3): 43-59.

Powers, E. A. 2001. 'Spinoffs, selloffs and equity carve outs: An analysis of divestitures method choice', Working paper, University of South Carolina.

Powers, E. A. 2003. 'Deciphering the motives for equity carve-outs', *Journal of Financial Research*, 26: 31-50.

Prezas, A. P. & Simonyan, K. (2012). 'Corporate Divestitures: Spin-Offs vs. Sell-Offs'. Working Paper, Suffolk University, Boston, December.

Rajan, R., Servaes, H. & Zingales, L. 2000. 'The cost of diversity: The diversification discount and inefficient investment', *Journal of Finance*, 55: 35-80.

Ravenscraft, D. and Scherer, F. 1987. 'Mergers, sell-offs and economic efficiency', Working Paper, The Brookings Institution.

Ritter, J.R. 1991. 'The long-run performance of initial public offerings', *Journal of Finance*, 46(1): 3-27.

Robbie, K., Wilson, N. & Wright, M. 1996. 'The longer-term effects of management-led buy-outs', *Journal of Entrepreneurial and Small Business Finance*, [online]. 5(3): 213-234.

Available from:

<<http://digitalcommons.pepperdine.edu/cgi/viewcontent.cgi?article=1192&context=jef>>

[Accessed March 15, 2016]

Rosenfeld, J.D. 1984. 'Additional evidence of the relationship between divestiture announcements and shareholder wealth', *Journal of Finance* 39(5): 1437-1448.

Rushin, L.T. 2006. The impact of diversification on the financial performance of organisations listed on the industrial sector of the JSE. Masters dissertation, Gordon Institute of Business Science, University of Pretoria [online]. Available from:

<<file:///c:/users/58554874/documents/the%20impact%20of%20diversification%20by%20lois.pdf>> [Accessed 15 august 2016]

Scharfstein, D.S. and Stein, J.C. 2000. 'The dark side of internal capital markets: Divisional rent-seeking and inefficient investment', *Journal of Finance*, 55: 2537-2564.

Schill, M. J. and Zhou, C. 2001. *Pricing an emerging industry: Evidence from internet subsidiary carve-outs* [online]. Available from:

<<http://down.cenet.org.cn/upfile/36/2005418163711195.pdf>>

[Accessed 10 May 2016]

Schipper, K. and Smith, A. 1983. 'Effects of recontracting on shareholder wealth: The case of voluntary spinoffs', *Journal of Financial Economics*, 12: 437-467.

Schipper, K. and Smith, A. 1986. 'A comparison of equity carve-outs and seasoned equity offerings: Share price effects and corporate restructuring', *Journal of Financial Economics*, 15: 153-186.

Schlingemann, F.P., Stulz, R.M. & Walking, R.A. 2002. 'Divestitures and liquidity of the market for corporate assets', *Journal of Financial Economics*, 64: 117-144.

Servaes, H. 1996. 'The value of diversification during the conglomerate merger wave', *The Journal of Finance*, 51(4): 1201-1225.

Seward, J.K. and Walsh, J.P. 1996. 'The governance and control of voluntary corporate spin-offs', *Strategic Management Journal*, 17: 25-39.

Seyhun, H.N. 1986. 'Insiders' profits, costs of trading and market efficiency', *Journal of Financial Economics*, 16: 189-212.

Shama, A. 1993. 'Marketing strategies during recession: A comparison of small and large firms', *Journal of Small Business Management*, 31 (3): 62-72.

Singh, H. 1990. 'Management buyout: Distinguishing characteristics and operating changes prior to public offering', *Strategic Management Journal*, 11: 111-29.

Singh, H. 1993. 'Challenges in researching corporate restructuring', *Journal of Management Studies*, 30(1): 147-72.

Sitthipongpanich, T. 2011. 'Understanding the event study', *Journal of Business Administration*, 34 (130): 59-68.

Slovin, M.B., Sushka, M.E. and Polonchek, J.A. 2005. 'Methods of payment in asset



sales: Contracting with equity versus cash', *The Journal of Finance*, 60(5), 2385-2407.

Smart, S.B. and Waldfogel, J. 1994. 'Measuring the effect of restructuring on corporate performance: The case of management buyouts', *The Review of Economics and Statistics*, [online]. 76(3): 503-511. Available from: <<http://www.jstor.org/stable/2109975>> [Accessed May 05, 2016]

Stankiewicz, R. 1994. 'Spin-off companies from universities', *Science and Public Policy*, 21(2): 99-107.

Steiner, T.L. 1997. 'The corporate sell-off decision of diversified firms', *The Journal of Financial Research*, 20(2): 231-241.

Stulz, R. 1988. 'Managerial control of voting rights', *Journal of Financial Economics*, 20: 25-54.

Sudarsanam, P.S. 1995. *The essence of mergers and acquisitions*. 1<sup>st</sup> ed. London: Prentice Hall.

Sun, M. and Chen, K.C. 2009. 'Corporate asset sales in Taiwan', *Review of Pacific Basin Financial Markets and Policies*, 12(1): 87-102.

Sun, S. 2012. 'Impact of divestiture activities on corporate performance: Evidence from listed firms in Taiwan', *The International Journal of Business and Finance Research*, 6(2).

Tanawal, A. R. H, and Tumiwa, J. 2014. 'Analysis of financial performance before and after spin-off in PT. BNI (Persero) TBK', *Journal of EMBA*, 2(3): 697-708.

Tehrani, H., Travlos, N.G., & Waagelein, J.F. 1987. 'The effects of long-term performance plans on corporate sell-off-induced abnormal returns', *The Journal of Finance*, 42(4): 933-942.

Thomas, S. 2013. *Unbundling's successes and flops* [online]. Available from: <<http://www.financialmail.co.za/business/money/2013/04/11/unbundling-s-successes-and-flops>> [Accessed 15 April 2014]

Thompson, R.S. 1991. 'Management buyouts: retrospect and prospects', *Management Research News*, [online]. 14(1/2): 9 – 14. Available from:

<<http://dx.doi.org/10.1108/eb028112>> [Accessed September 20, 2016]

Thompson, R.S. and Wright, M. 1987. 'Markets to hierarchies and back again: The implication of management buy-outs for factor supply', *Journal of Economic Studies*, [online]. 14(3): 5 – 22. Available from: <<http://dx.doi.org/10.1108/eb002645>> [Accessed September 20, 2016]

Thompson, T.H. 2011. 'Ex ante variables and carve-out parent returns', *Managerial Finance*, [online]. 37(10): 890 – 914. Available from:

<<http://dx.doi.org/10.1108/03074351111161574>>

[Accessed February 10, 2017]

Thompson, T.H. 2013. 'An examination of the long-term performance of reacquired carve-outs', *Managerial Finance*, [online]. 39(6): 569 – 583. Available from:

<<http://dx.doi.org/10.1108/03074351311322852>> [Accessed February 10, 2017]

Thompson, T.H. and Apilado, V. 2010. 'Second-stage events and bondholder wealth', *Managerial Finance*, [online]. 36(2): 103 – 121. Available From:

<<http://dx.doi.org/10.1108/03074351011014532>> [Accessed February 10, 2017]

Veld, C and Veld –Merkoulova, Y.V. 2003. 'Do spin-offs really create value? The European case', *Journal of Banking & Finance*, [online]. 28(2004): 1111–1135. Available from:

<[www.elsevier.com/locate/econbase](http://www.elsevier.com/locate/econbase)> [Accessed February 20, 2016]

Venkiteshwaran, V. 2014. 'Do asset sales affect firm credit risk? – Evidence from credit rating assignments', *Managerial Finance*, [online]. 40(9): 903 – 927. Available from:

<<http://dx.doi.org/10.1108/mf-09-2012-0196>> [Accessed October 14, 2016]

Vijh, A.M. 1999. 'Long-term returns from equity carve-outs', *Journal of Financial Economics*, 51: 273-308.

Vijh, A.M. 2000. *The positive announcement-period returns of equity carveouts: asymmetric information or divestiture gains?* [online]. Available from: <<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.25.4946&rep=rep1&type=pdf>> [Accessed 24 October 2015]

Vijh, A.M. 2002. 'The positive announcement-period returns of equity carve-outs: asymmetric information or divestiture gains?', *Journal of Business*, 75(1): 153-90.

Wagner, H.F. 2005. 'Equity carve-out decision', working paper, Università Bocconi.

Watson, T. 2011. *Mitigating the human capital risk of spin-off* [online]. Available from: <<https://www.towerswatson.com/en-in/insights/ic-types/survey-research-results/2011/10/viewpoints-qa-mitigating-the-human-capital-risks-of-spin-offs>> [Accessed 28 November 2016]

Woo, C.Y., Willard, G.E. & Beckstead, S.M. 1989. 'Spin-offs: What are the gains?', *Journal of Business Strategy*, [online]. 10(2): 29 – 32. Available from: <<http://dx.doi.org/10.1108/eb039292>> [Accessed 29 November, 2016]

Woo, C.Y., Willard, G.E. & Daellenbach, U.S. 1992. 'Spin-off performance: A case of overstated expectations', *Strategic Management Journal*, 13: 433-447.

Wright, M., Hoskisson, R.E., Busenitz, L.W. and Dial, J. 2001. 'Finance and management buyouts: agency versus entrepreneurship perspectives', *Venture Capital*, 3(3): 239-61.

Zahra, S. and Pearce, J. 1989. 'Boards of directors and corporate financial performance: a review and integrative model', *Journal of Management*, 15: 291-334.

