#### UNIVERSITY OF KWAZULU-NATAL



# MERGERS AND ACQUISITIONS ON THE JSE: THE IMPACT ON ACQUIRER'S RETURNS WHEN MERGING WITH EITHER PRIVATE OR PUBLIC COMPANIES

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This thesis is submitted in partial fulfilment of the requirements for the degree of Master of Accountancy in the School of Accounting, Economics and Finance, College of Law and Management Studies, University of KwaZulu-Natal, Westville, in June 2019.

#### **DECLARATION**

- I, Lumka Mgilane, declare that:
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#### **ABSTRACT**

Over the past years mergers and acquisitions have been the leading strategies for expansion, growing the business as well as tapping into new markets. They are commonly used as the preferred method of rapid growth as the companies merge resources to create access to innovation and expanding the business.

The majority of empirical literature in the South African context focuses on stock returns after the announcement of the mergers and acquisitions, as well as analysing the method of payment, whether cash or issue of shares.

This research explored the impact of mergers and acquisitions on the shareholder value of Johannesburg Stock Exchange listed acquiring companies when acquiring a private company compared to acquiring a public company. The study analysed the impact of a merger and acquisition announcement on the overall shares. The focus point was analysing the difference in returns when an acquiring company acquired control in a private company compared to when an acquiring company targeted a public listed company.

A quantitative approach was utilised for the purpose of this research. An event study methodology was used with three window day periods being used, namely 3 days, 21 days and 41 days. The research included companies that were involved in mergers and acquisitions from 2011 to 2016 and the sample size was 94 companies. The results indicated that the acquisitions of private companies had statistically significant positive returns to the shareholders of the acquiring company. The acquisition of public listed companies did not, however, add value to the shareholders as the returns were not significant.

#### **DEFINITIONS OF TERMS**

- "Abnormal returns (AR)": The differences between a single stock or portfolio's performance and the expected return over a set period of time.
- "Acquiring company": The company that purchases the target company's stock and other assets, which allows the acquiring company to make decisions regarding the newly acquired assets without the approval of the target company's shareholders.
- "Acquisition": The process of acquiring a company to build on the strengths or weaknesses of the acquiring company.
- "Announcement date": The date upon which the acquiring company confirms that it intends to make a formal offer to a target company, thereby creating public awareness.
- "Average abnormal returns (AAR)": This relates to AARs over the 3 days, 21 days and 41 days window periods.
- "Cumulative abnormal returns (CAAR)": The sum of ARs.
- "Event study methodology (EVM)": is a statistical method to assess the impact of an event on the value of a firm. For example, the announcement of a merger between two business entities can be analysed to see whether investors believe the merger will create or destroy value.
- "IRESS": Australian software company specialising in the development of software systems and services for financial markets and wealth management. The company provides services to stockbrokers, financial institutions and research analysts
- "Listed company": Those companies which are included and trade on a stock exchange.
- "Merger": A combination of two companies into one entity.
- "Mergers and acquisitions (M&A)": A general term that refers to the consolidation of companies or assets through various types of financial transactions. M&As can

include several different transactions, such as mergers, acquisitions, consolidations, tender offers, purchase of assets and management acquisitions.

"Non-listed public company": A company which is not listed on any stock exchange but can have an unlimited number of shareholders to raise capital for any commercial venture.

"Post-acquisition period": The event window period of 1 day, 10 days and 20 days after the announcement date of a M&A or acquisition.

"Pre-acquisition period": The event window period of 1 day, 10 days and 20 days prior to the announcement date of a M&A.

"Private company": A company whose shares may not be offered to the public for sale and which operates under legal requirements less strict than those for a public company.

"Public company": A company whose shares are traded freely on the stock exchange.

"Target company": A company that has been chosen as an attractive M&A or acquisition option by a potential acquirer.

#### **ABBREVIATIONS**

AAR Average Abnormal Returns

ALSI All Share Index

AR Abnormal Returns

BRICS Brazil, Russia, India, China, South Africa

CAAR Cumulative Abnormal Returns

EGARCH Error Estimation Generalised Autoregressive Conditional

Heteroskedastic

EVM Event Study Methodology

FTSE Financial Times Stock Exchange

GARCH Generalised Autoregressive Conditional Heteroskedastic

JSE Johannesburg Stock Exchange

M&A Merger(s) and Acquisition(s)

OLS Ordinary Least Squares

UK United Kingdom

US United States

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#### **CHAPTER ONE: INTRODUCTION**

#### 1.1 Research background

Over the past years, mergers and acquisitions (M&A) were considered the leading strategy for expansion, growing the business, as well as tapping into new markets (Ndlovu, 2017). M&As are commonly used as the preferred method of rapid growth. According to Chatterjee (2000), M&As are one of the preeminent methods of corporate restructuring that have increased substantial prominence in both developing and in developed countries. M&As are usually motivated by the desire to acquire resources that the acquiring entity does not have, with the aim of obtaining market dominance (Vazirani, 2012). Zuhairy, Taher and Shafei (2015) mentioned that M&As are considered a fundamental part of business restructuring around the world. With markets changing all the time, only the most creative businesses survive the tight competition.

Corporate restructuring is defined as an act of reorganising operational ownership, and all other relevant structures of a company in order to make it more profitable (Gaughan, 2010). M&A Market (2014) mentioned that South Africa has an advantage in the sub-Saharan region. This is because South Africa continues to be the engine of growth in Africa, for companies looking to expand their businesses. South African institutions are expected to play an important role in financing development strategies. According to M&A Market (2014), there has been a positive increase in deal volumes in the African continent, particularly in the energy, mining, and telecommunications sectors, and South Africa has been a leader when it comes to M&As as the business environment has matured.

Figure 1.1 overleaf represents movements in M&As globally, inclusive of South Africa, for the period 2010 to 2016. Between 2010 and 2013, M&A activity remained stable. Following this, in 2014 M&A activity increased significantly by approximately \$1 401 billion. This was due to the global economy showing good signs of recovery from the 2008 great recession. Therefore, the appetite for M&As increased significantly (The Atlantic, 2016). According to The Atlantic (2016), M&A activities in 2015 were the biggest; there were, also many mega deals (deals above \$5 billion)

concluded in 2015. There was a decrease in the 2016 mergers due to a large number of merger applications that were still pending approval due to environmental concerns, and there were less mega deals compared to 2015 (The Atlantic, 2016).



Figure 1. 1: Global trends in M&As

Source: Statista: The Statistics Portal (2018)

Figure 1.2 overleaf represents trends in M&As, specifically in an African context. It covers the period 2011 to 2016. In Africa, M&A activity increased slightly between 2011 and 2012. Subsequent to this, M&A activity declined. In Africa, the M&A activity declined in 2014 compared to the prior year due to delays in the approval processes (Finance24, 2015). However, in 2015, the M&A wave increased substantially by more than 100%, from \$26 billion to \$58 billion. This is attributable to the economy showing good signs of recovery from the 2008 great recession (Statista: The Statistics Portal, 2018). The 2015 year had two mega deals that exceeded \$5 billion dollars. In 2016, while the quantity of M&A transactions remained large, no mega deals took place and hence the total M&A value was less when compared to 2015 (Statista: The Statistics Portal, 2018).

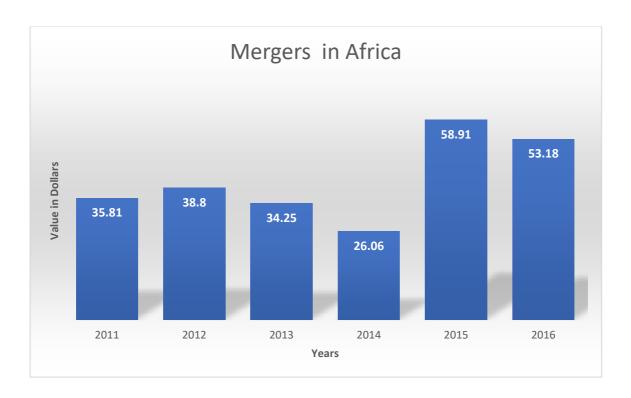


Figure 1. 2: M&A trends in Africa

Source: Statista: The Statistics Portal (2018)

Ndadza (2014) posited that M&As are important to the South African economy as they have been used extensively by companies to create firm competence and grow their core business by obtaining a larger market share and increasing profitability, thus increasing shareholder value. Furthermore, Chatterjee (2000) also emphasised that companies that have engaged in M&As have the capability of decreasing the costs of operating the business. Shah and Arora (2014) suggested that, in today's dynamic business environment, companies are forced to look for expansion by acquiring or merging with other companies. This desire for change drives entities to show an interest in M&As that they can actually use for levering them to create value for shareholders. For the value to be created, the costs should be less than the benefit received. However, these opportunities are difficult to find, mostly due to the differences between the companies involved. Cultural differences and how they operate might have a direct impact on the returns generated after the M&A. Most companies view M&As with an expectation of creating shareholder value by reducing the costs, thereby increasing productivity (Shah and Arora, 2014). One of the common reasons why shareholders agree to M&As is because they hope that the results will improve the financial performance of their companies. Jarrell and Poulsen (1989) have

concluded that even though M&As are one of the important growth tactics, their success in creating shareholder value for acquiring companies is still contested.

Andrade, Mitchell and Stafford (2001) discovered that M&As usually destroy the shareholder value of the acquiring entity. Zuhairy et al. (2015) supported this by stating that most of the M&As do not add value to the stakeholders of the acquiring company, and one of the common reasons is that managers do not realise that merging with another company involves a lot more than taking control of assets. Contrary to this, Ward and Muller (2010) found that the M&A announcements had a favourable effect on the returns with cumulative abnormal returns (CAAR) as high as ten percent, thus shareholder value was created for the acquiring company. Finally, Ndlovu (2017) concluded that M&A announcements brought positive returns, but these returns were not significant, therefore no value was created for the shareholders due to M&As.

#### 1.2 Problem statement

M&As are considered to play a very vital role in South Africa as they have the potential either to increase the shareholder value or to destroy it. The contribution to the economy comes in different forms. In cases where an acquiring company targets a company that is faced with financial problems, an acquisition helps to minimise loss of jobs. In most cases larger businesses are able to sustain themselves even in recessionary times, but small companies feel the pressure, even to the extent of closing down. This is where M&As play a big role to prevent job losses and to ensure that production continues. In some instances M&As are planned to eliminate competition, such as the failed M&A of Clover SA acquiring Dairy Day in 2018.

Over the past twenty years, M&As across the globe have caught the attention of academics and practitioners. The studies have drawn attention to various aspects of M&A activity, characteristics of M&A transactions, as well as gains and losses to the shareholders (Dutta & Jog, 2009). According to Moeller, Schlingemann and Stulz (2005), the earnings received after the announcements of the M&As were profitable for the acquiring companies, in aggregate, which resulted in the creation of value for stakeholders. On the other hand, Sehleanu (2015) stated that when entities merge with other entities for the purpose of increasing stakeholder value, in most instances, the end result has been the opposite. Ndlovu (2017) analysed share announcements

returns in South Africa and concluded that returns were favourable but not substantial. Therefore, the shareholders of the acquiring company did not obtain any value.

The majority of empirical literature in the South African context has focused on returns after the announcement date of the M&As, as well as analysing the method of payment, whether in cash or by issue of shares (Lusyana & Sherif, 2016). The previous studies done in South Africa did not focus on the specific returns earned when an acquiring company merges with either a private or a public company. For example, Halfar (2011) focused on analysing whether the acquiring company created or destroyed shareholder value by analysing the difference between pre and post-acquisition returns. Viljoen (2014) focused on the effects of cross border mergers and acquisitions on the performance of the acquiring company. Finally, Ndlovu (2017) focused on analysing the stock market reaction to M&A announcements specifically on Johannesburg Stock Exchange (JSE) listed companies.

The majority of literature reviewed (for example, Dilshad, 2013; Viljoen, 2014; and Ficici, 2018) have highlighted that M&As do not add any value to the shareholders of the acquiring company. It is quite possible that before companies embark on M&As, they do not analyse which acquisitions add value to the shareholders. That might lead to mergers that are not profitable, thus not adding any value to the shareholders. The majority of M&As involve private companies and therefore, without this knowledge, acquiring companies may continue to target other companies which will not add value.

The studies that have been carried out have not analysed the returns earned when the acquiring company obtains control in a private company or the returns earned when obtaining control in a public company. Therefore, this research will close that gap by analysing the returns earned by obtaining control in a private company compared to returns earned when obtaining control in a public company.

This research explores the impact of M&As on earnings in terms of the stakeholder value of the acquiring company after the M&A. The study will analyse the effect on announcing M&As on overall shares. The focus point will be analysing the difference in returns when the acquiring entity acquires majority of the votes of a private entity compared to when the acquiring company targets a public listed company.

#### 1.3 Research question and objectives

The aim of this research is to analyse the impact of M&As on shareholder value of the Johannesburg Stock Exchange (JSE) listed companies when acquiring a private enity compared to when acquiring a public entity. The overall research question is:

 What is the impact of M&As on the shareholder value of the JSE listed acquiring company when acquiring a private company compared to when acquiring a public company?

To answer this question, this research has the following objectives:

- To examine the share price movement of the acquiring company for any abnormal return (AR) earned after the M&A;
- To analyse any statistical significant differences between returns earned before the M&A and returns earned after the M&A; and
- To determine whether there is a difference in AR when acquiring a private company compared to when acquiring a public listed company.

## 1.4 Significance of the study

This study will focus on the period after the great recession in 2008. From 2010 the economy was showing great signs of recovery from the recession and companies were gaining confidence in M&As. Globally, to the best of the researcher's knowledge, the most recent study comparing ARs obtained when acquiring listed versus non listed companies was in 2007 by Capron and Shen (2007). Globally, Hansen and Lott (1996) in the US performed a study to analyse the returns for acquisitions of 252 private and public companies from. Their results illustrated that acquiring companies gained significant positive returns when acquiring a private company. Similarly, Conn, Cosh, Guest and Hughes (2005) performed a study on 4, 000 acquisitions where they examined private and public acquisitions. Their results also illustrated that the acquisitions of private companies in the UK resulted in significant positive AR. Lastly, Capron and Shen (2007) also concluded that the acquisitions of private companies

produced a positive stock market reaction compared to the acquisitions of public companies. This was from the analysis of 101 US companies.

This means that there is a gap in the research after the recession, that focuses on comparing the ARs obtained by the listed acquiring company when acquiring another listed company, to the ARs earned after a listed acquiring company obtains control of a non-listed company. In South Africa, the current literature focuses on the overall ARs obtained by the listed company when the acquiring company is obtaining control of any other company. The most recent study that was carried out in South Africa on M&As by Ndlovu (2017) focused on overall returns to shareholders after the merger announcements. In South Africa there has been no focus on comparing ARs earned by a listed company obtaining control of another listed company to ARs earned when a listed company obtains control of a private company. This might be due to the fact that South Africa is an emerging market while the other studies were performed in the UK and in US which are developed markets.

This study will uncover the acquisitions that will contribute to significant ARs for the acquiring company by analysing the acquisitions of a listed company compared to the acquisitions of a private company. Consequently, the findings of this study will contribute to improved acquisition processes and a possible subsequent improvement on shareholder value of M&As. This study will contribute positively to the aforementioned knowledge gap through the sharing of its results with academics in the accounting industry. This study will also contribute significantly to the accounting and business economics industry by offering evidence-based recommendations for future M&A transactions.

## 1.5 Outline of the study

This chapter has provided a prelude to the study as well as motivation for the research. Chapter Two introduces the underlying theories on which the M&As' study theories are predicated. It also reviews the existing empirical evidence. Chapter Three details the methodology utilised in the study with the results being presented in Chapter Four. Chapter Five discusses the final conclusions of the study.

#### **CHAPTER TWO: LITERATURE REVIEW**

#### 2.1 Introduction

Chapter One identified the research question as to what the impact is of M&As on the shareholder value of the JSE listed acquiring company when acquiring a private company compared to acquiring a public company. The focus point will be the difference in CAAR when the listed acquiring company obtains control in another listed company compared to obtaining control in a private company. This chapter introduces the different types of M&As, followed by reasons for M&As. Theoretical literature is discussed in line with the research area. The empirical evidence is presented. Lastly, the hypothesis testing is developed.

#### 2.2 Types of mergers and acquisitions

Roberts, Wallace and Moles (2003) defined M&As as a combination of two companies into one. The distinguishing factor between a merger and an acquisition is influenced by the technique used to bring the entities together. For a merger there is a back-and-forth conversation between the two companies before the merger. In an acquisition, there is no negotiation. The acquired company might be taken over and it might cease to exist. Similarly, Gaughan (2010) defined M&As as a combination of two companies after which only one company, the merged company, will exist. In all instances, the acquiring company takes over the liabilities as well as the assets of the acquired company. Epstein (2004) found that academic literature often does not distinguish between M&As, and the terms are used interchangeably. Accordingly, this research will also use the terms "mergers" and "acquisitions" interchangeably.

There are three different types of M&As, namely vertical merger, horizontal merger and conglomeration merger.

A **vertical merger** is completed with the aim of coalescing two companies that are in the same value chain of engendering the same goods and service, but the only distinction is the stage of engenderment at which they are operating (Gaughan, 2010). A typical example is when a manufacturing company merges with a raw material supplier. Vertical integration is usually an attempt to reduce the risk relating to

suppliers. Such M&As are associated with operational synergies where companies merge to reduce the dependence on other companies (Cleverism, 2018).

A **horizontal merger** transpires when an entity takes over another company that offers identical products or services to the consumers. Companies are usually direct competitors in this case, hence this type of M&A is usually associated with collusive synergies, price control, and anti-competitive structures (Gaughan, 2010).

A **conglomerate merger** transpires when two different entities that usually operate in diverse industries merge. After merging they continue to operate in different industries or sectors. This is usually done to diversify the business into other industries to limit the business risk. Conglomerate M&As are usually associated with financial synergies as the companies that engage in these M&As compete for profitable assets that will expand the business (Roberts *et al.*, 2003).

#### 2.3 Reasons for M&As

M&As are useful growth strategies in terms of expanding the business externally (Rahman, Ali & Jebran, 2018). They continue to be the most popular strategic growth method (Loana, 2015). According to M&A Market (2014), M&As continue to be the most popular growth strategy for many companies and are the fastest way of growing the company. Stakeholders expect managers to expand the business and this puts pressure on managers to come up with growth strategies. Some managers take M&As as a preferred growth method, because they generate strong alliance with other companies to improve value for the stockholders (Bramson, 2000). M&As are important financial tools that allow companies to grow much faster and to provide returns to investors (Njambi & Kariuki, 2018). They have been used widely across the globe as one of the tools for enabling corporate external expansions by way of acquiring majority shares in another company; thereby obtaining majority control. M&As can also be done by acquiring assets in another company and combining the companies for the acquiring company to gain full effective control of the market (Ndadza, 2014). Similarly, Viljoen (2014) stated that M&As are considered to be part of the common mechanism that empowers the company to grow.

Evidence compiled by Mukherjee, Kiymaz and Baker (2004) found that the main reasons why companies prefer M&As as a growth method are to achieve the operating synergies, diversification, tax considerations, as well as management incentives. Combining two companies can also destroy the value to shareholders if managers mismanage the capital by financing lines that are not profitable. The primary motive for most entities that merge is to create more value for the merged entity, thus increasing shareholder's value (Brigham and Ehrhardt, 2002). When a M&A is successful it can serve as a platform for corporate growth, leading to an improved market share, thus decreasing the costs across multiple products and reducing the expenses by eliminating duplicate costs (Hitt, Harison & Ireland, 2001).

#### 2.3.1 Improving the company's performance

One of the key aspects for value creation for stakeholders involves improving the performance of the company that is being acquired. When two companies are combined, there is high probability that one can obtain a bigger market stake, therefore increasing revenue and profits and improving the value of the combined companies. Profit margins can be improved if redundancies and inefficiencies are removed from operations. Cartwright and Cooper (1992) suggested that between 50 to 80 percent of M&As are considered unsuccessful financially in the long term, as they fail to achieve the financial synergies. Synergies transpire when two operating divisions are run effectively and efficiently, using less resources. By using less resources, the company is lowering the average costs of running the business (Lubatkin, 1983).

M&As result in an overall benefit to the shareholders when the value of the combined entity is greater than the value of the two individual entities. The main cause of the gain is related to the performance improvement of the M&A (Piloff & Santomero, 1998). Hitt *et al.* (2001) concluded that synergies imply that gains accumulate to the acquiring company through improved operating efficiency which improves the market power over competitors. The acquisition of target companies with operations similar to the acquiring company are expected to yield significant synergies and improved financial performance. Companies participate in the M&A market to seek value increasing opportunities to combine their assets with the target company. Through this process, companies can improve their productivity with a related change in profitability (David, 2017).

#### 2.3.2 Accelerated growth

In some instances, M&As are undertaken to increase market share, to decrease the costs per product while at the same time increasing volumes, thus accelerating growth. The impact of a bigger market share results in growth to the profits and an increase in returns to the stakeholders of the acquiring entity. The combined entity usually benefits from several segments of the industry (Gaughan, 2010).

#### 2.3.3 Acquire skills and technology

Entities often merge or acquire other companies with the aim of obtaining the skills and technology of the target company. Some companies have exclusive rights to certain technologies. It may also be more expensive to develop the required skills and technologies from scratch. This means that it would be cheaper to acquire a company that has the desired skills and technology (Cleverism, 2018).

#### 2.4 Theoretical Literature

According to Firth (1980), there are two major competing theories when it comes to M&As, namely, the neo-classical profit maximisation theory, and the maximising management utility theory. These theories are now discussed:

#### 2.4.1 Neo classical profit maximisation theory

This theory states that the competitive market forces generally motivate companies to maximise the wealth of their shareholders. The theory suggests that companies will participate in M&As if the transaction will increase the shareholder's wealth in the acquiring company. Recent research by Njambi and Kariuki (2018) stated that some entities participate in M&As only to meet increasing demands from shareholders. The study also mentioned that companies merge to diversify into international markets and gain access to expensive modern technologies. This leads to increased profitability for shareholders. Piloff and Santomero (1998) argued that M&As are driven by the belief that benefits will accrue to the acquiring company by improving the penetration ratio of the market share, and thus improve profitability which would lead to increasing shareholder value. Two theories falling under the neo-classical profit maximisation

theory are the efficiency theory and the monopoly power theory. How these two theories can lead to value for shareholders will now be discussed.

#### 2.4.1.1 Efficiency theory

Haleblian, Devers, McNamara, Carpenter and Davison (2009) explain that companies merge to increase their market power and efficiency, thereby creating value for shareholders. Generally, M&As are accomplished with the main goal of increasing value of the company, and this is usually achieved by creating efficiency (Hitt *et al.*, 2001). Trautwein (1990) concluded that the efficiency theory comes with the belief that M&As are planned and completed to obtain goals.

There are three key synergies in the efficiency theory. **Financial synergy** usually results in lower costs of capital, by lowering the risk of the company's portfolio. The synergy is achieved by investing in unrelated business (Trautwein, 1990). **Operational synergy** is usually achieved by combining operations, as well as the transfer of information. Piloff and Santomero (1998) explained that many M&As are inspired by the belief that a big amount of unnecessary operating expenses could be removed through grouping them together. Finally, **managerial synergy** relates to the benefits that are realised when the acquiring managers have superior planning and monitoring abilities that benefit the acquired company's performance (Trautwein, 1990).

#### 2.4.1.2 Monopoly power theory

Firth (1980) alludes to the fact that profitability can be increased through synergies and also through the creation of monopoly power by eliminating competition. In addition, Trautwein (1990) proposed that there is a monopoly power theory which states that M&As are planned and implemented to achieve a monopoly from increased market power, which can be obtained through, amongst other things, the reduction of supply, discouraging potential new entrants and cross-subsidising products. Rapid technological changes and globalisation lead to companies facing high competition and ending up resorting to M&As to improve their competitiveness in the market by increasing their market share through M&As (Kivindu, 2013). In some instances, companies merge to eliminate competition, especially when the demand for a product is starting to decrease. Then a company will merge in order to acquire a bigger market

share. M&As are presumed to create cost synergies as the costs of operating the business are reduced and the production costs are reorganised to create efficiency. Market power advantages allow wealth to be transferred from the customers and suppliers to the shareholders, thus creating the scale of economies as the company exploits the opportunities to expand.

#### 2.4.2 Maximising management utility theory

The second major theory to explain M&As is the maximising management utility theory. This theory argues that, besides achieving certain levels of profits, managers will sometimes attempt to maximise their own interests. These interests do not necessarily go along with maximisation of the wealth of stakeholders. This is also known as the agency theory, which is when a principal organisation or person chooses to hire an agent to perform his or her duties. The two parties might have different interests and the principal cannot enforce the agent directly to make sure that they act in their best interests (Fama & Jensen, 1983). Interests of the agents include factors such as obtaining high salary increases, even when the company is not performing well, thus reducing the risks associated with losing their jobs and increasing their power. Trautwein (1990) extended this by suggesting an empire-building theory which argues that M&As are planned and implemented by managers who want to maximise their own personal wealth rather than that of the shareholder.

In summary, the shareholder maximisation theory develops the expectation that the M&A will lead to increased profits. For the M&A to be justified, there are expectations that wealth for the shareholder is created. On the other hand, the management utility theory does not necessarily expect that the wealth for the shareholders is created. Instead, an increase in firm size is expected to increase the benefits that the manager is likely to receive (Firth, 1980).

The empirical evidence will now be reviewed.

# 2.5 Empirical Literature

#### 2.5.1 Share price performance

M&As continue to be the common way for corporate restructuring. In South Africa alone, for the 2011 financial year, there were 284 M&As, which equates to approximately 23 M&As every month (Competition Commission, 2018). Even though the M&As are popular, the evidence shows that they provide mixed performance to the stakeholders of the acquiring entity. The stakeholders of target firm usually enjoy a short-run positive return while the investors in the bidding company usually experience a decrease in terms of the shares, usually after the M&A's announcement (Cartwright & Schoenburg, 2006). M&As generally result in an overall benefit to the shareholders when the value of the two entities that are brought together is more than the value of two individual entities. The main cause of the gain is related to the performance improvement after the M&A (Piloff & Santomero, 1998).

The performance measure of M&As consists of inspecting how the share price of the acquiring entity is performing over a period (Papadakis & Thanos, 2010). Recent studies carried out by Viljoen (2014), Lusyana and Sherif (2016) and Ndlovu (2017) used an event study methodology (EVM) to examine the significant AR to the shareholders. Therefore, it measured directly whether value was created for investors. Below is empirical literature that shows the different results, including insignificant returns, negative returns, as well as positive returns.

#### 2.5.1.1 Insignificant returns

Ghosh (2001) completed a study on 315 US companies listed on the New York Stock Exchange (NYSE) from 1981 to 1995 using EVM, with a window period of 61 days (30, 0, 30), where day 0 represents the day of the M&A announcement. The results from the findings showed that the pre-announcement returns, and post announcement returns, showed insignificant positive results. Halfar (2011) also found that, normally, the AR to stakeholders of the acquiring company were insignificant on the share price performance. The observation was from a sample of 29 SA M&As analysing entities listed on the JSE from 2000 to 2009 using EVM, with a window period of 757 trading days (30, 0, 726).

According to Dilshad (2013), target banks earned significant positive earnings after the M&A whereas AR for the banks that were acquiring were short-lived because by the end of the event window, which was 61 days (30, 0, 30), the returns were zero. This was from a sample of 18 UK deals of M&As using EVM from 2001 to 2010.

Viljoen (2014) also examined the cross-border M&As using EVM as well as financial ratios for a 41-day (20, 0, 20) window period. The focus was on entities listed on the JSE with the sample size of 44 SA companies. The findings showed AR that were classified as insignificant positive results. Similarly, Humphery-Jenner, Sautner and Suchard (2017) carried out a study on the role of private equity companies on cross-border United States (US) M&As using an 11-day (5, 0, 5) window period. They applied EVM and discovered that, normally, after the M&A announcement, there was no substantial increase to the returns on the cross-border M&As with private equity companies.

Ficici (2018) scrutinised the market response from the announcement of United Kigdom (UK) M&As to see whether they created value for stakeholders using EVM for the period 2006 to 2016 applying a 21-day (10, 0, 10) window period. The results showed that the value creation seemed to be insignificant during the intervals used in the event study. Ahmed, Manwani and Ahmed (2018) completed an analysis on the M&As as a method of growth tactic for banks in Pakistan. The study analysed M&As from 2005 to 2016 with a 41-day (20, 0, 20) window period. Their findings showed that, on average, there was no impact on the pre-M&A returns and post-M&A returns. This was attributable to the financial crisis that resulted in banks increasing deposits and interest rates; and inflation rates also went up. This supports the management utility theory as there were returns received by the stakeholders after the M&A. Next, negative returns will be reviewed.

#### 2.5.1.2 Negative returns

Bruner (2002), in a study performed in the US applying the EVM from 1971-2001 using a 1 251-day (60, 0, 1190) window period, concluded that the acquiring companies' shareholders did not get any returns after the announcement of the M&A. His sample size was 130 companies that were part of M&As.

Kinateder, Fabich and Wagner (2017) studied domestic M&As in Brazil, Russia, India, China and South Africa (BRICS) to analyse whether there was any benefit created from the M&A transactions for the company that was acquiring as well as the company that was targeted. They used the EVM with a sample of 50 public listed companies from BRICS countries from 2006 to 2015 for a 21-day (10, 0, 10) window period. The findings from the research showed that shareholders of the targeted company got a

substantially high return at the announcement date of the M&A, whereas the shareholders of the acquiring company normally got a negative return.

Rahman *et al.* (2018) performed a study on the effect of M&As on the share price behaviour in the banking industry. They used the EVM from 2002 to 2012 to analyse the pre- and post-M&A effect for a 91-day (20, 0, 70) window period. They discovered that some companies achieved significant positive AR while other companies obtained abnormal negative returns. On average, the companies achieved negative returns on the announcement of the M&A, implying that the shareholders were getting a negative return on the investments.

Ferris, Jayaraman and Liao (2018) analysed companies that have busy board members who take part in M&As. A busy board member is defined as any board member who has three or more external director positions. Their sample was 47 360 M&A deals announced from 1999 to 2012 in 69 countries with a 5-day (2, 0, 2) window period. The results showed that, normally, the market did not respond well to a M&A announcement of a company that had busy board members. The researchers believed that the acquiring companies' busy board members overpaid for the acquired business. As a result, the company might not have been able to recover the money through synergies, assets, and return on equity.

Gurr's (2018) South African study analysed the impact of M&As by focusing on long term creation of value stakeholders from 2005 to 2010 using the financial ratios. Her findings highlighted that the performance of the acquiring entity decreased when focusing on the long term. Her study analysed the long term impact of M&As. This empirical evidence also supports the management utility theory as shareholders earned negative returns after the M&As. This implies that the transactions might have only benefited the interests of the managers, rather than the interests of the shareholders.

Lastly, positive returns will be reviewed.

#### 2.5.1.3 Positive returns

Contrary to the above studies which found no relationship or a negative relationship, in line with the neoclassical profit maximisation theory, some studies have found the

expected positive relationship. Cybo-Ottone and Murgia (2000) analysed the stock market valuation in the European banking industry by observing deals from 1988 to 1997 using the EVM for a 5-day (2, 0, 2) window period. Their results showed positive AR relating to announcement of deals with domestic banks. Contrary to that was that M&As with foreign institutions yielded negative returns after the announcement of the M&A.

Georgen and Renneboog (2004) noted that stakeholders of the acquiring entity obtain positive and significant returns for short term wealth creation using the EVM. Their sample was 228 deals on domestic and cross border M&A deals from 1993 until 2000 for a 61-day (20, 0, 40) window period.

Gattoufi, Al-Muharrami and Al-Kiyumi (2009) completed an assessment of commercial banks' consolidations from 2003 to 2007. They selected 10 banks that went into M&As and compared them to the banks that did not participate in M&As. Their findings stated that the M&As resulted in favourable returns for the share value of the banks that participated as they realised improvements that were greater that the average. They used data envelopment analysis as well as EVM using an 11-day (5,0,5) window period.

An analysis of wealth creation for M&As was carried out by Smrek and Perović (2018) in the US. They found that, in a sample of 587 companies from 1997 to 2012 using a 5-day (2, 0, 2) window period, the acquiring companies had insignificant negative returns before the announcement of the M&As. The returns after the announcement were positive and significant.

According to Van Essen (2018), the acquisition of companies that have high Corporate Social Responsibly (CSR) activities resulted in high positive AR for the acquiring companies, as these investments are considered to contribute to the society at large. Thus, they bring value to the stakeholders of the entity. This was based on a sample size of 309 US based companies that acquired companies that had high CSR activities, from 2002 to 2017, using the EVM for an 11-day (5,0,5) window period.

Fich, Nguyen and Officer (2018), using the EVM, explained that the acquisitions of small companies resulted in significant positive gains. Their study was performed in the US with a sample size of 2 297 companies from 1996 to 2008 for a 5-day (2, 0, 2)

window period. This supports the neo-classical profit maximisation theory as the shareholders earned positive returns after the transactions.

# 2.5.2 Acquisition of public listed company versus acquisition of a private company

As seen from the empirical evidence above, there has been mixed evidence regarding the reaction of M&As on shareholder value. Some studies argued that the returns earned by the acquiring company are insignificant while others concluded that the returns are negative. A potential reason could be the initial motives behind the M&As. For example, if a manager acquires a company simply for the reason of obtaining certain levels of profits, that manager will only be acting in their best interests and not necessarily in the interest of the shareholders. A further reason could be that the prior studies failed to consider whether a private or public company was acquired. The agency view predicts that private acquisitions result in better returns compared to acquisitions of public companies. This is because public companies are affected by separation of ownership and control, thus incurring agency costs, while private companies are usually owner-managed (Golubov and Xiong, 2018). This study therefore will focus on analysing the difference in CAAR (cumulative abnormal returns) should the acquirer acquire a private company compared to acquiring a public company.

Capron and Shen (2007) explained that the difference in availability of information on private companies versus public listed companies influenced the acquirer's choice of the target company. The information on private companies is usually very limited and this has an impact on the breadth of due diligence performed by the acquirer (Reuer & Ragozzino, 2007). This increases the risk of performing an incorrect evaluation of the precise value of the targeted entity. Acquiring a private entity usually raises interesting questions as to whether the market can value the M&A under asymmetric information conditions (Yuce & Ng, 2005). Asymmetric information conditions happen when there is limited public information about the targeted entity, and where the acquiring company knows more information about the target company's value than the public does (Yuce and Ng, 2005).

Makadok and Barney (2001) mentioned that the absence of information on private companies provides a chance for acquiring companies to use that to their advantage. Therefore, the absence of information usually results in acquiring companies obtaining AR as the assets are normally understated. Research undertaken by Hansen and Lott (1996) in the US analysed returns for acquisitions of 252 private and public companies from 1984 to 1994 using a 21-day (5,0,15) window period. Their findings showed that acquiring companies gained significant positive returns when acquiring a private company. Similarly, Chang (1998) also completed his analysis of US private company acquisitions compared to public company acquisitions, with a sample of 285 companies using a 31-day (15, 0, 15) window period. His conclusions presented that the acquiring entity earned positive AR when acquiring private companies. The acquisitions of public companies resulted in negative returns or insignificant positive results.

Fuller, Netter and Stegemoller (2002) examined a sample of 3 135 US acquisitions of public and private companies from 1990 to 2000 using a 5-day (2, 0,2) window period. Their findings showed that companies acquiring private companies gained positive returns. The acquisitions of public companies resulted in negative returns. They attributed this to the fact that private companies have a liquidity discount which results in higher returns to the acquirer. Acquisitions of private companies yield positive returns mostly since they are smaller, and they are more responsive to investment opportunities. Conn *et al.* (2005) performed a study on 4 000 acquisitions where they examined private and public acquisitions using EVM with a 3- day (1, 0,1) window period. The study paid attention to the announcement date and post acquisitions stock returns. The findings showed that the acquisitions of private companies in the UK resulted in significant positive AR.

Capron and Shen (2007) found that acquiring companies are more likely to acquire private companies that are in same industry as their core business or an area where they have accumulated acquisition experience. Acquiring companies are more likely to buy public listed companies when they enter into new business ventures. The acquisitions of private companies produced a positive stock market reaction compared to the acquisitions of public companies (Capron & Shen, 2007). This was from the analysis of 101 US companies for a 31-day (15, 0, 15) window period.

Based on the studies above it has been noted that the acquisition of private companies generally shows positive returns while the acquisition of public companies generally shows negative returns.

To the best of the researcher's knowledge, there has been no study done in South Africa that focuses on the returns earned when the listed acquiring company acquires control of a private company or compares this with acquiring control of a public company.

# 2.6 Summary of literature and development of hypotheses

Tables 2.1 and 2.2 below presents a summary of the literature reviewed and hypothesis testing.

Table 2. 1: Literature review summary table and hypotheses

Author and Year	Sample Period	Sample Size	Results for Acquiring Companies							
Insignificant Returns										
Ghosh (2001)	1981 - 1995	315 US M&A Deals	The results show insignificant returns to shareholders.							
Halfar (2011)	2000 - 2009	29 SA M&A Deals	Insignificant returns.							
Dilshad (2013)	2001 - 2010	18 UK Deals	Insignificant returns.							
Viljoen (2014)	2000 - 2013	44 SA M&A Deals	Insignificant positive results.							
Humphery-Jenner <i>et</i> al. (2017)	1996 - 2008	17, 409 US M&A Deals	No significant increase on returns after the M&A.							
Ficici (2018)	2006 - 2016	621 UK M&A Deals	Insignificant returns.							
Ahmed <i>et al.</i> (2018)	2005 - 2016	10 Banks Pakistan	No Impact on the returns.							
Negative Returns										
Bruner (2002)	1971 - 2001	130 US M&A Deals	No Returns to the shareholders.							
Kinateder et al. (2017)	2006 - 2015	50 BRICS M&A Deals	No Returns to the shareholders.							

Author and Voor	Sample	Sample	Results for Acquiring					
Author and Year	Period	Size	Companies					
Rahman <i>et al.</i> (2018)	2002 - 2012	121 M&A Deals Pakistan	On average negative returns to shareholders.					
Ferris et al. (2018)	1999 - 2012	47, 360 M&A Deals	Negative returns.					
Gurr (2018)	2005 - 2010	66 SA M&A Deals	Negative returns in the long run.					
Positive Returns								
Cybo-Ottone and Murgia (2000)	1988 - 1997	54 UK M&A Deals	Positive AR.					
Georgen and Renneboog 2004	1993 - 2000	228 UK M&A Deals	Positive AR.					
Gattoufi et al. (2009)	2003 - 2007	10 Gulf countries M&A Deals	Positive returns.					
Smrek, and Perović (2018)	1997 - 2012	587 US M&A Deals	Average positive returns.					
Van Essen (2018)	2002 - 2017	309 US M&A Deals	Positive AR.					
Fich <i>et al.</i> (2018)	1996 - 2008	2, 297 US M&A Deals	Positive AR.					

(Source: Researcher's own compilation)

#### **HYPOTHESIS 1**

Given the inconclusive results from the literature as seen in the summary above, the first hypothesis addresses the first objective, which is to examine the share price movement of the acquiring company for any abnormal return (AR) earned after the M&A. This hypothesis was drawn from the neoclassical profit maximisation theory that a M&A will increase shareholder value.

#### H0: CAAR ≤ 0

CAAR for mergers and acquisitions announcements is less than or equal to zero.

#### H1: CAAR >0

CAAR for merger and acquisitions announcements is greater than zero for the acquiring company.

#### **HYPOTHESIS 2**

There is an expectation that returns earned after (CAARA) the M&As are greater than the returns earned before (CAARB) the M&As' announcements. This addresses the second objective which aims at analysing any statistically significant differences between returns earned before the M&A and returns earned after the M&A.

#### H0: $CAAR_A - CAAR_B = 0$

The CAAR earned after the merger's announcement is the same as the CAAR earned before the merger announcement.

#### H1: $CAAR_A - CAAR_B > 0$

The CAAR earned after the merger's announcement is greater than the CAAR earned before the merger announcement.

Table 2. 2: Public versus private literature review summary

Public versus Private acquisitions									
Hansen and Lott (1996)	1989 - 1990	252 US M&A Deals	Private acquisition positive AR.						
Chang (1998)	1981 - 1991	285 US M&A Deals	Private acquisition positive AR. Public acquisitions negative returns or insignificant.						
Fuller <i>et al.</i> (2002)	1990 - 2000	3, 135 US M&A Deals	Significant negative returns for public acquisitions and significant positive returns for private acquisitions.						
Conn et al. (2005)	1984 - 1998	4 ,000 UK M&A Deals	Private acquisition positive AR.						
Capron and Shen (2007)	1981 - 1992	101 US M&A Deals	Private acquisition positive AR.						

(Source: Researcher's own compilation)

**HYPOTHESIS 3 (a)** 

The review of previous studies has provided contradicting results, with some scholars

finding that there are positive returns associated with the M&As while some say there

are negative returns or insignificant returns. A possible reason for inconclusive results

might be the fact that the studies did not consider whether the companies that were

acquired were private or public companies. This hypothesis addresses the third

objective of determining whether there is a difference in AR when acquiring a private

company compared to when acquiring a public listed company

 $H_0$ : CAAR<sub>A</sub> = CAAR<sub>B</sub>

The null hypothesis states that the CAAR earned before the listed company

acquires a non-listed company is equal to the CAAR earned after the mergers

announcement.

H<sub>1</sub>: CAAR<sub>A</sub> > CAAR<sub>B</sub>

The alternative hypothesis states that CAAR earned after the listed company

acquires a non-listed company is greater than CAAR earned before merger

announcements.

**HYPOTHESIS 3 (b)** 

 $H_0$ : CAAR<sub>A</sub> = CAAR<sub>B</sub>

The null hypothesis states that the CAAR earned before the listed company

acquires another listed company is equal to CAAR earned after the mergers

announcement

H<sub>1</sub>: CAAR<sub>A</sub> < CAAR<sub>B</sub>

The alternative hypothesis states that CAAR earned after the listed company acquires

another listed company is less than CAAR earned after merger announcements

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#### 2.7 Conclusion

The literature review has provided an outline of the empirical studies completed to quantify the performance of M&As. The review of previous studies has provided contradicting results, with some scholars finding that there are positive returns associated with the M&As while some say there are negative returns or insignificant returns. The conflicting results might be due to the motives of the M&As or whether a private or public company was being acquired. The previous studies only focused on the overall returns for acquisitions. In such studies, the returns were not analysed further considering shareholder returns of the acquiring company when a listed company acquires another listed company or when a listed company acquires a private company in South Africa. To the best of the researcher's knowledge, there is no recent research carried out in other countries that focuses on the analysis of the returns of the acquiring company when a listed company acquires another listed company or when a listed company acquires a private company. Therefore, this study will focus on returns obtained by the listed company acquiring another listed company or returns earned when a listed company acquires a private company.

For the studies that were done by Hansen and Lott (1996), Chang (1998) and Capron and Shen (2007), it was noted that the findings for acquisitions of private companies seems to be showing consistently positive earnings. On the other hand, the conclusions for acquisition of public companies has consistently shown negative results. This highlights the importance of considering private and public M&As separately in South Africa.

Chapter Three will discuss the research methodology.

## CHAPTER THREE. RESEARCH METHODOLOGY

## 3.1 Introduction

The primary objective of this research is to determine the impact of M&As on the shareholder value of JSE listed acquiring companies. The focus will be on the AR obtained when the listed company acquires another listed company compared to the AR obtained when a listed company acquires a private company. This study will also focus on acquiring companies obtaining control of other companies, irrespective of whether the acquired company is listed or non-listed. The literature review provided an outline of prior studies that have been carried out in relation to this topic. In terms of the neoclassical profit maximisation theory, M&As are expected to increase the shareholder value. On the other hand, in terms of the maximising management utility theory, M&As are expected to increase the manager's wealth and may not generate returns for the shareholder. In terms of the literature, mixed results were identified. Some M&As did bring favourable returns to the stakeholders. Other scholars, however, found that their results showed negative returns to the acquiring stakeholders. Lastly, some scholars also noted that their findings showed that M&As do not bring substantial returns to the shareholders; therefore, they do not add value. The literature review showed that when a public company acquires another public company, there are negative ARs whereas when a public company acquires a private company the ARs are positive.

This chapter outlines the research methodology that will be used to answer the research question that was raised in Chapter One concerning the impact of M&As on the shareholder value of the JSE listed acquiring company when acquiring a private company compared to acquiring a public company. This chapter begins with outlining the data and the data sources in section 3.2. Section 3.2.1 presents the research population and the sampling. Section 3.2.2 presents the estimation period and window period. Section 3.2.3 presents data types and sources and 3.2.4 presents Indicators of value. Section 3.3 outlines the research design. Section 3.3.1 presents the events study methodology, section 3.3.2 is the model specification with 3.3.3 presenting data presentation and analysis. Section 3.4 identifies the ethical issues. Lastly, section 3.5 concludes the chapter.

### 3.2 Data and Data Sources

## 3.2.1 Research population and sampling

The population from which the sample was drawn is the Competition Commission database (Competition commission,2018). All the M&As have to be approved by the Competition Commission before they are finalised. Therefore, all the M&As that have been approved in South Africa are included in the Competition Commission database. The database was obtained from the Competition Commission website and used to extract the M&As that happened from the 2011 financial year up to the 2016 financial year. The database contains M&A deals that were approved, pending, and declined. For this research a filter was applied to select M&A deals that were approved by the Competition Commission. The total population for the number of deals that were submitted to the competition commission was 1 827 deals. Of the total number of deals submitted, 1 515 were approved.

The final sample was selected using a purposive sampling method since the final sample population was limited in size, so non-probability sampling was used. Purposive sampling means that a sample is selected for the exact purpose of the research. The criteria for sample selection were based on the following:

- The companies were involved in M&As from 2011 to 2016.
- The acquiring entity was listed on the JSE for the above period.
- The entities completed the M&A deals between 2011 and 2016.

The final sample totaled to 94 companies involved in M&As that were listed on the JSE. Of the 94 acquisitions, 85 were acquisitions of private companies and 9 consisted of listed companies acquiring other listed companies. The data included listed as well as non-listed companies that were involved in M&A transactions and can be seen in Table 3.1.

Table 3. 1: Population and final sample

Year	Number of Deals Submitted	Number of Deals Approved	Listed Acquiring Companies
2011	284	235	17
2012	366	279	19
2013	330	304	11
2014	359	289	18
2015	441	365	19
2016	47	43	10
Total	1 827	1 515	94

(Source: Researcher's own construction)

The analysis involved a comparison of the pre-acquisition and the post-acquisition results from the 2011 to 2016 financial year ends of JSE listed companies. Baseline Scenario (2009) mentioned that South Africa was over the worst recession period and Africa was set to be the fastest growing region after Asia. In this study, the period from 2011 to 2016 was ideal to observe considering it was a post-recession period. Baseline Scenario (2009) stated that the recovery of a recession that is linked to a financial crisis will take about seven quarters. South Africa was declared to have slipped into a technical recession in 2017 after the gross domestic product declined during the second quarter of 2017 (Finance24, 2017). For this reason, 2017 and 2018 were excluded so the focus was from the 2011 to 2016 financial period. The total population size was 1 515 companies with approved deals by the Competition Commission (2018), as shown in Table 3.1.

For the final sample selected, the announcement date was validated at the IRESS news site for the first ten companies in each year. Due to the large volume of transactions, and the validation process being manual, only the first ten were verified. The final sample may be found in Appendix A.

#### 3.2.2 Estimation period and window period

M&As are usually studied over two different window periods. The first one is classified as short term, which at most is two years before and after the M&A, or a shorter period. The second one, being classified as long term, is three years or more before and after

the M&A (Aggoud & Bourgeois, 2012). McWilliams and Siegel (1997), however, noted that any period longer than 50 days runs a risk of including confounding events and they recommended that, for events studies, a maximum period of 50 days should be used. For the purpose of this research, a short term window period was utilised to scrutinize the movement of the price of a share subsequent to the M&A. This was because the short term eliminated the risk of including confounding events. In some cases, a company will have multiple acquisitions in one year, and it would be impossible to eliminate those transactions. Therefore, a short term window period was most suitable.

When utilising the market model for estimation of expected and AR, the beta and alpha coefficient must be estimated during an estimation period which happens before the event window (Werner and Mårtensson, 2012). The estimation window period was 180 trading days ending 20 days prior to the event. Brown and Warner (1985) recommended 180 trading days as the window period when analysing stock returns. The event window period is demarcated as the time interval that is selected to analyse data from the date of announcement of the M&A where "0" represents the announcement date. Common window periods are 5, 10 or 20 days and these window days have been used by scholars such as Shah and Arora (2014), Reinikainen (2010) and Ndlovu (2017). When choosing a window period, it is important to consider that an extensive window period makes it difficult to control for confounding effects. Thus, the window period should be short enough to eliminate the confounding effects but long enough to capture the effects of the events (McWilliams & Siegel, 1997).

Bruner and Perella (2004) argued that the estimates are more accurate when the event window is longer. Therefore, to avoid the limitations that come with choosing a single event window, the following event windows were applied for this study with "0" being the announcement date:

- The first window was 3 days (-1, 0, 1), used by Smit and Ward (2007);
- The second window was 21 days (-10, 0, 10), supported by Viljoen (2014); and
- The last window period was 41 trading days (-20, 0, 20), supported by Viljoen (2014).

Considering that the emphasis of this study was to scrutinise the short term effect of the M&A, window periods of 3, 21 and 41 days were considered adequate. Smit and Ward (2007) applied 3, 11, and 21 days window periods to scrutinise the effect of acquisitions on the share price of the acquiring entity. There is a possibility of leakage of information few days closer to the announcement of M&As, and this usually reduces the trading appetite for investors (Yuce & Ng, 2005). Therefore, 20 days before the announcement of the merger is considered enough to cover the risk of information leakage.

#### 3.2.3 Data types and sources

Data collection is defined as the process of collecting and gathering information that is essential for the study that is conducted (Mitchell, 2014). This study used secondary data that were obtained mainly from electronic databases such as the IRESS database, the Competition Commission, and the JSE. Vijoen (2014) recommended the use of secondary data because it provides access to larger datasets that will enable testing of the cause and effect relationship. Secondary data are defined as data that are readily available from other sources, such as financial information from the IRESS database. Secondary data have already been collected.

The following sources were utilised for this research:

- The Competition Commission database was used to identify M&As that were approved from 2011 to 2016. The Competition Commission is a statutory body that has been empowered to endorse M&As that promote equity and efficiency in the South African economy (Competition Commission, 2018).
- The JSE site was used to identify the announcement date of the M&A. The JSE offers efficient, secure primary and secondary capital markets over the diverse range of securities (Johannesburg Stock Exchange, 2018).
- The IRESS database was utilised to obtain share price information for the companies listed on the JSE. The IRESS considers their database to be a reliable and trusted database for stock market, financial sector news, and corporate market news. IRESS provides financial data feeds and analysis tools (IRESS, 2018).

#### 3.2.4 Indicators of value

According to Gurr (2018), there are two main indicators of value that can be used as a measurement of comparison to determine whether the value has been created or not for stakeholders of the acquiring entity. There are **internal indicators** that are also

classified as accounting measures such as return on assets, return on equity and return on capital. According to Rashid and Naeem (2017), the long term effects of M&As are analysed using the internal indicators such as profitability ratios, leverage, and liquidity ratios, to determine any improvement in the financial performance. Therefore, internal indicators tie into long run measurement.

There are also **external indicators** that include examining the share price of the company and intrinsic value (Gurr, 2018). The external indicators refer to Technical analysis tools that are used to measure changes in securities within a specific market. External indicators can be used either for long term or short term measurement. For this research, the short term was analysed using the external indicator of share price.

## 3.3 Research Design

## 3.3.1 Event study methodology

The EVM was developed to measure the impact or effect of an anticipated event such as in the case of M&As (McWilliams and Siegel,1997). Shah and Arora (2014) recommended the use of event study when analysing the impact of the share prices on the acquiring company before and after the M&A, to measure whether the AR was positive or negative. Similar to Dilshad (2013), Viljoen (2014), and Ficici (2018), the EVM was used to analyse the impact on the share price performance in relation to the announcement of a M&A transaction.

The first objective of the study is to analyse the share price of the acquiring company, by paying attention to the pre- and post-announcement of the M&A. The second objective is analysing AR when a public entity buys another public entity compared to the AR earned when a public entity buys a private entity. The aim is to analyse if there is any value being added for the stakeholders of the acquiring company. The EVM scrutinises the differences amongst the returns that are anticipated when there is no event (normal returns) and the returns that are caused by an event as in the case of M&As (AR) (Event Study Tools, 2018). It therefore allows the researcher to verify any AR on the share price because of an event. An event study scrutinises the market's response to an event or transaction through the observation of share prices around

the particular event (Peterson, 1989). Viljoen (2014) also supported the use of EVM to analyse the impact of M&As on shareholders' value of the acquiring company.

There are certain assumptions that must be applicable for the EVM to measure the realistic financial impact of an event (Event Study Tools, 2018). These are:

- Capital markets or share prices must replicate the available information about the company precisely and adjust instantly to the public issue of new data, that is, it presumes that the markets are efficient;
- The event is unexpected. The market only becomes aware of the event immediately after the announcement of the event; and
- There is an expectation that other events will be isolated from the transaction that is being analysed, that is, there will be no confounding effects.

Confounding events can be defined as those events that have the potential to influence the share price of a company. The confounding events that might have an impact on the study are:

- Declarations of interim or final dividends;
- · Changes in key management;
- Obtaining a major contract; and
- Filing of lawsuits that may damage the reputation of the company.

If such events are not managed well, they might have an impact on the share price during the window period (McWilliams and Siegel, 1997).

## 3.3.2 Model specification

According to Brown and Warner (1985), there are different models that are used to estimate the expected returns. These models include:

- Market model;
- Market-adjusted model;
- Market and risk adjusted returns model; and
- Market model with Generalised Autoregressive Conditional Heteroskedastic (GARCH) and Error Estimation Generalised Autoregressive Conditional Heteroskedastic (EGARCH).

Brown and Warner (1985) have used the market model when measuring the security price performance and have mentioned that the market adjusted model assumes that the expected returns are equal to all the securities. The market and risk adjusted returns assume that the Capital Asset Pricing Model generates returns, which is not necessarily the case. Lastly, the market model with GARCH and EGARCH error estimation models work best when used with time series data. Thus, the market adjusted model, market and risk adjusted returns model, and market model with GARCH and EGARCH are not suitable for this type of research.

Corhay and Rad (1996) advocated using the market model when investigating the impact of an event on the shareholders' wealth or when testing market efficiency. The model has also been advocated by Sorokina, Booth and Thornton (2013) as one of the prominent models when calculating the AR. Cable and Holland (1999), however, criticised the model on the basis that it assumes that, on average, all the shares will generate the same return as the market. This is not a fair assumption as shares react differently for different companies.

Rahman *et al.* (2018) stated that the market model is the standard method for examining the impact of events. According to Events Study Tools (2018), this method uses share price data to examine the returns on the event transactions by observing the market reaction of whether there is an increase or decrease in the share price of a company after the occurrence of the M&A event. The reaction of the market is measured in the form of AR which is calculated as the difference between actual returns and the expected returns of the share price after the M&A. The AR and cumulative AR of the share price are used to measure the impact of M&A events before and after the M&A (Events Study Tools, 2018).

In the context of this study, the market model was used as it makes use of actual market returns and the information was easily available. Ward and Muller (2010) mentioned that the disadvantage of the market model is that it assumes that the beta for the risk-free rate is constant which conflicts with the assumption that the market returns vary over time. The advantage of the market model is that it accounts for expected returns for individual companies, and it uses information that is easily available compared to the other models, therefore it is the preferred model.

#### 3.3.3 Data presentation and analysis of normal and abnormal returns

The information for the share price as well as market returns was downloaded from the IRESS database for all the companies selected in the sample. The announcement date was identified as the date the M&As were finalised from the Competition Commission database for the first objective and hypothesis focusing on the share price movement of the acquiring company for any abnormal return (AR) earned after the M&A, and the second objective and hypothesis focusing on differences between returns earned before the M&A and returns earned after the M&A. The following process was then followed:

- 1. The historical share prices were used to estimate ordinary least squares (OLS) regression (Market returns and share price returns estimates,  $R_i$  and  $R_m$ ) using Equation 1 below.
- 2. The market returns were then used to estimate the expected return (ER) using Equation 2 below.
- 3. Abnormal returns were calculated using the difference between share price return and the expected return (AR) using Equation 3 below.
- 4. Cumulative average abnormal returns (CAAR) were calculated based on the event date using Equation 4.
- 5. After the computation of CAAR, a t test was performed to analyse any significant returns obtained after the M&A.

The market model started with the ordinary least squares (OLS) regression as shown in equation 1 which is the return of the market (Financial Times Stock Exchange (FTSE) / JSE / All Share Index (ALSI) and specific return of the company:

$$E(R_{it}) = \alpha_i + \beta_i R_{mt} \tag{1}$$

Where:

 $R_{it}$  = the rate of return on company i on day t

 $R_{mt}$  = the rate of return on a market portfolio of shares (ASPI) on day t.

 $\alpha_i$  = the intercept term (alpha)

 $\beta_i$  = the systematic risk of share *i* (beta)

After the estimation of the return of a company's share price as well as the market return, the next step was to calculate the expected return. Following Smith and Ward (2007), the abnormal returns were calculated using equation 2:

$$AR_{it} = R_{it} - (\alpha_i + \beta_i R_{mt})$$
 (2)

Where:

 $R_{it}$  = the rate of return on company i on day t

 $AR_{it}$  = abnormal returns of the firm i during the event period

 $R_{mt}$  = the rate of return on a market portfolio of shares (ASPI) on day t.

 $\alpha_i$  = the intercept term (alpha)

 $\beta_i$  = the systematic risk of share *i* (beta)

The study used the average abnormal returns (AAR) to assess securities under consideration. The AARs were calculated for each day by averaging the abnormal returns (ARs) for the whole sample on that day.

Following this, the CAAR was constructed to determine the accumulated impact (Reinikainen, 2010),

CAAR 
$$(t_1, t_2) = \sum_{i=1}^{n} AAR_t$$
 (3)

Where:

CAAR = Cumulative Average Abnormal Returns

AAR = the average abnormal returns

t = -20 to 20

Following Reinikainen (2010), a t test at the 5% significance level was used to test the level of significance. The t-statistic was constructed using the following formulae for AAR and CAAR respectively:

$$t\text{-statistic} = AAR_t / \sigma (AAR_t) \tag{4}$$

Where:

AARt = the Average Abnormal Return at day t

 $\sigma$  (AAR<sub>t</sub>)= the standard error of average abnormal return

And:

$$t\text{-statistic} = CAAR_t / \sigma (CAAR_t)$$
 (5)

Where:

 $CAAR_t$  = the day t cumulative average abnormal return  $\sigma$  ( $CAAR_t$ ) = the standard error of cumulative average abnormal error

#### 3.3.4 Analysis of private and public companies' acquisitions.

To test the third hypothesis, aligned to the third objective of determining whether there is a difference in AR when acquiring a private company compared to when acquiring a public listed company, the sample was split into two groups. The first group was the JSE listed company acquiring another JSE listed company (n=9). The second group was the JSE listed company acquiring a private company (n=85). The same procedures from step two to step five were then followed to test hypotheses 3(a) and (b) as stated in section 3.2.1

Descriptive statistics were used to show the profile characteristics of the selected sample and were therefore used to describe features of the data used in this study. For inferential analysis a t test was applied to test for any statistical significance in the difference between the CAAR mean earned before and the CAAR mean earned after the M&A, and to compare listed and unlisted companies.

## 3.4 Ethical issues

As this research did not involve humans or animals and used information from databases available in the public domain, the ethical clearance application was classified as 'no risk'. Full ethical clearance was granted, with the certificate number HSS/1069/018M. A copy of the certificate may be found in Appendix B.

## 3.5 Chapter summary

This chapter has detailed the methodological approach that was used to analyse the impact of M&As on the shareholder value of the JSE listed acquiring company. The chapter highlighted the population and the sample, as well as the justification for the period. The chapter further detailed the methodology that was selected, as well as the data types and sources of data. The market model was used to calculate the AR where ordinary least squares were used to estimate return on the share price as well as the return on the market, and AARs were calculated. The sample was drawn from the Competition Commission database while the IRESS database was used to extract the share price information.

Chapter Four provides a detailed analysis of the results.

**CHAPTER FOUR: RESULTS** 

4.1 Introduction

The aim of this study is to identify the impact of M&As on the shareholder value of JSE listed acquiring companies when acquiring private non-listed companies compared to acquiring public listed companies. Chapter Three detailed the methodology that was used to address this aim, and this chapter presents the findings of the study.

This chapter will present the findings for CAARs and descriptive statistics. Section 4.1 presents descriptive statistics for the sample, followed by section 4.2 which presents CAARs for the whole sample as well as descriptive statistics. Section 4.3 presents the difference between pre-announcement returns and post announcement returns, and section 4.4 analyses the results for the acquisition of private non-listed companies compared to acquisitions of public listed companies. Lastly, section 4.5 presents the chapter summary.

4.2 Descriptive Statistics

The final sample may be found in Appendix A. The sample comprised of 94 listed entities that were involved in M&As from 2011 to 2016, of which 85 were acquisitions of private companies and 9 were acquisitions of listed companies. A summary of the descriptive statistics for the individual JSE sectors and in total is presented in Table 4.1 overleaf.

The 2011 year had 17 M&As and the dominating sector was industrials with 7 M&As followed by finance with 6 M&As, and an average market capital of R32.36 billion. The 2012 year had 19 acquisitions with finance as the dominating sector attaining 9 M&As followed by consumer goods with 4 acquisitions having an average market capital of R29.42 billion. The 2013 year had 11 M&As with industrials being the dominating sector and the average market capital for 2013 was R23.35 billion. 2014 had 18 acquisitions with finance as the dominating sector obtaining 9 M&As and an average market share of R32.46 billion. The M&As industry experienced the highest peak on

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Table 4. 1: Summary of descriptive statistics for sectors (n=94)

	Average market capitalization (R 'million)							<b>Median</b> (R'million)	Std. Dev (R'million)
JSE Sector	2011	2012	2013	2014	2015	2016	Average per sector		
Basic Materials	R86 914	R11 453	R532	R1 209	R2 001	R3 550	R15 693 (8 private, 1 public)	R3 471	R28 007
Consumer Goods	R36 826	R12 077	R79 065	R25 642	R50 228	R3 342	R43 693 (10 private, 0 public)	R31 234	R36 752
Consumer Services	R10 465	R27 483	R53 300	R7 842	R44 366	R10 543	R23 657 (7 private, 0 public)	R16 783	R24 631
Financials	R60 521	R13 538	R3 651	R11 527	R31 437	R26 857	R24 880 (35 private, 5 public)	R10 075	R34 176
Health Care	R1 877	R1 732	R1 654	R1 754	R2 432	R2 321	R2 432 (1 private, 0 public)	R2 432	R2 432
Industrials	R6 057	R8 176	R24 727	R26 042	R30 286	R61 246	R24 726 (20 private, 3 public)	R8 513	R36 944
Oil and Gas	R248 300	R189 354	R282 354	R234 587	R255 543	R252 547	R248 300 (1 private, 0 public)	R248 300	R248 300
Technology	R7 137	R6 952	R6 986	R4 976	R5 987	R6 876	R9 440 (1 private, 0 public)	R9 440	R9 440
Telecommunications	R89 465	R92 573	R91 543	R120 344	R133 526	R124 766	R131 616 (2 private, 0 public)	131 616	R134 579
Average per annum	R 32 364 (15 private, 2 public)	R 29 420 (18 private, 1 public)	R 23 356 (10 private, 1 public)	R 32 464 (16 private, 2 public)	R30 462 (17 private, 2 public)	R22 662 (17 private, 1 public)	R30 332 (85 private, 9 public	R 12 511	R 45 376
- Private	R13 366	R32 271	R14 020	R31 401	R 23 061	R23 662	R 25 451	R 11 035	R 39 896
- Public	R51 307	R7 476	R116 683	R50 013	R116 019	R50 013	R 70 872	R 36 826	R 71 584

(Source: Researcher's compilation)

M&As in 2015. This was also evidenced in acquisitions as 2015 had 20 M&As and this was the highest of all the financial years from 2011 to 2016. The average market capital was R30.46 billion. This is attributable to the economy showing good signs of recovery from the 2008 great recession (Statista: The Statistics Portal, 2018). Lastly, 2016 had only 10 M&As with an average market capital of R22.66 billion.

Table 4.1 above shows the total average market capital of R30.33 billion with a median of R12.5 billion and a standard deviation of R45.37 billion. Average market capital for non-listed is R25.45 billion with a median of R11.03 billion and a standard deviation of R39.89. Lastly, the average market capital for listed companies is R70.87 billion with a median of R36.82 billion and a standard deviation of R71.58 billion.

## 4.3 Performance of mergers and acquisitions in general

## 4.3.1 Cumulative average abnormal returns

The final sample comprised 94 listed entities that were involved in M&As from 2011 to 2016, of which 85 were acquisitions of private companies and 9 were acquisitions of listed companies. EVM using the market model was used to calculate the expected returns. The expected returns (ERs) were then used to compute the AR which were calculated by subtracting the expected returns from the actual returns. The AARs were calculated for each day by averaging the ARs for the whole sample on that day. The CAARs were calculated using the AARs which were computed using the market model.

Table 4.2 overleaf shows the AAR, CAAR and CAAR t test as well as the significance level (p-value) for CAAR for the 41 days window period for the performance of mergers in general. The 41 days window period covered the two other window periods which were 3 days and 21 days. The results showed that there are no significant returns for CAAR for the whole 41 days window period as all p-values were greater than 0.05.

This study's first and second hypotheses aimed at testing whether the acquisition of a new company added value to the shareholders of the acquiring company. This included analysing and comparing the pre-M&A announcement returns with the post announcement returns to determine whether there were any significant differences.

Table 4. 2: Total sample over event window period

<b>Event Window Days</b>	AAR	CAAR	CAAR t test	CAAR p-value
-20	0.3315%	0.3315%	0.1738	0.4315
-19	0.2461%	0.5776%	0.3456	0.3654
-18	-0.0686%	0.5090%	0.3343	0.3696
-17	0.4038%	0.9128%	0.5891	0.2786
-16	-0.0499%	0.8629%	0.5522	0.2911
-15	0.2365%	1.0993%	0.6068	0.2730
-14	-0.0367%	1.0626%	0.5856	0.2800
-13	0.0338%	1.0964%	0.4502	0.3269
-12	-0.1035%	0.9930%	0.4443	0.3290
-11	0.3151%	1.3080%	0.5167	0.3035
-10	0.1479%	1.4559%	0.6609	0.2554
-9	-0.1062%	1.3497%	0.5634	0.2874
-8	-0.1700%	1.1797%	0.4164	0.3392
-7	-0.0440%	1.1357%	0.4334	0.3330
-6	-0.3668%	0.7689%	0.1960	0.4225
-5	-0.1236%	0.6453%	0.1042	0.4587
-4	-0.4822%	0.1631%	-0.0421	0.4841
-3	0.5488%	0.7118%	0.2209	0.4132
-2	-0.4192%	0.2926%	-0.0855	0.4682
-1	-0.1103%	0.1823%	-0.2281	0.4132
0	0.5844%	0.7667%	0.1030	0.4591
1	0.2809%	0.2809%	0.1312	0.4480
2	0.2665%	0.5474%	0.2971	0.3836
3	-0.0477%	0.4997%	0.4554	0.3251
4	0.2095%	0.7092%	0.5813	0.2813
5	0.1555%	0.8647%	0.5713	0.2847
6	0.2300%	1.0947%	0.7310	0.2333
7	-0.1831%	0.9116%	0.5941	0.2770
8	0.1278%	1.0395%	0.6498	0.2590
9	-0.1230%	0.9164%	0.5183	0.3028
10	0.0690%	0.9854%	0.5747	0.2837
11	-0.1658%	0.8197%	0.5281	0.2994
12	0.0516%	0.8712%	0.5066	0.3070
13	0.0685%	0.9398%	0.5887	0.2790
14	0.3713%	1.3111%	0.7782	0.2193
15	-0.3024%	1.0087%	0.7015	0.2425
16	-0.0524%	0.9563%	0.5958	0.2766
17	0.4030%	1.3592%	0.8470	0.1996
18	-0.0442%	1.3150%	0.7965	0.2140
19	-0.3773%	0.9377%	0.6230	0.2674
20	-0.8139%	0.1237%	0.0994	0.4607

(Source: Researcher's compilation)

The non-significant t tests in Table 4.2 show that CAARs did not differ significantly from zero. This implies that the market was either skeptical towards M&As because of the risks that are associated with the transactions, or they might not see any value in the M&As. Therefore, no value was created for the shareholders of the acquiring companies through these acquisitions. The results are similar to other studies such as those of Shah and Arora (2014) and Ndlovu (2017).

These findings showing the trend for the 41 days window period are illustrated graphically in Figure 4.1 overleaf. The results depicted in Figure 4.1 indicate that CAARs had an upward trend for the acquiring company before the announcement date with the results dropping 10 days before the announcement day. The returns were positive after the announcement and peaked at about 6 days, 14 days, as well as 17 days after the announcement. This means that the market saw value in M&As after the announcement of the M&A. The findings from Table 4.2 indicate that although there were positive returns after the M&As, the returns were not significantly different from zero. Therefore, the M&As did not create value for the acquiring companies.

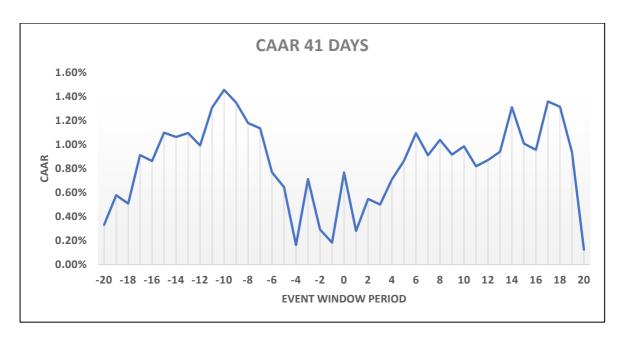


Figure 4. 1: Cumulative average abnormal returns for acquiring companies 41 days window period.

(Source: Researcher's own construction)

The graphic illustration in Figure 4.1 together with the findings from Table 4.2 indicate that although there were positive returns after the M&As, the returns were not

significantly different from zero. Therefore, the M&As did not create value for the acquiring companies. These findings are consistent with the findings from the other studies such as that of Ndlovu (2017) who concluded that the announcement of the M&A does not create value for the shareholders of the acquiring company. Similarly, Viljoen (2014) did not find any significant returns for the shareholders of the acquiring company. Therefore, this research retains the first null hypothesis that stated that merger and acquisitions announcements do not affect shareholder value for the acquiring company.

# 4.3.2 Difference between pre-announcement and post-announcement returns CAAR

The second hypothesis was tested by comparing the pre-announcement returns with the post announcement returns. According to Viljoen (2014), companies embark on M&As with the aim of increasing returns to their shareholders. Therefore, the expectation was that the returns earned after the M&A announcements would be higher than the returns before the M&A announcements.

A t test was calculated to test the difference between the pre- and post-CAAR and the results are shown on the Table 4.3 below.

Table 4. 3: Sample statistics for three window periods comparing before and after the announcement of the mergers

Event Window	CAAR Mean before	CAAR Mean after	t test	p-value	Is the CAAR statistically significant?
3 Days	0.4745%	0.4142%	0.3797	0.3845	No
21 Days	0.7885%	0.7850%	0.0157	0.4939	No
41 Days	0.8319%	0.8746%	-0.4628	0.3244	No

(Source: Researcher's own compilation)

Table 4.3 shows sample statistics for the three window periods. The t test was calculated to test the difference between the pre and post CAAR mean for all the three event window periods.

The paired sample t test was calculated to do a comparison of the mean CAAR earned before the announcement of the M&A to the CAAR mean earned after the M&A for the

3 days, 21 days and 41 days window periods. Although the pre-announcement returns were different to the post announcement returns, they were not significantly different as all p-values exceeded 0.05. Therefore, there was no value for shareholders of the acquiring company after the announcement of the M&A

The CAAR was not significant at any window period and this shows that there was no significant difference between the pre- and post-announcement returns. Although the CAARs were positive, they were not significant. The M&A announcements did not add any additional value for the shareholders as the returns were not significant. This is in line with the findings of Corhay and Rad (1996) and Ndlovu (2017). These findings support the maximizing management utility theory which suggests that managers will sometimes attempt to maximise their own interests. These interests do not necessarily correspond with maximisation of the shareholder's wealth. Therefore, the second null hypothesis that states that the CAAR earned after the M&A announcement is not significantly greater than the CAAR earned before the M&A announcement is retained.

## 4.4 Performance of acquirers when acquiring a private company

Table 4.4 shows descriptive statistics for all three window periods for AAR and CAAR for the acquisitions of private companies from 2011 to 2016. The majority of acquisitions were acquisitions of private companies as they comprised 85 out of the total 94 acquisitions.

Table 4. 4: Descriptive statistics for AAR and CAAR non-listed companies

	41 DAYS						
	AAR	CAAR	t test	p-value			
Mean	0.0473%	0.6955%	0.4960	0.1986			
Median	-0.0748%	0.4947%					
Standard Deviation	0.8986%	3.0740%					
Variance	0.0081%	0.0945%					
Minimum	-1.8833%	-5.1827%					
Maximum	2.2239%	5.3783%					

(Source: Researcher's own compilation)

Table 4.4 presents the descriptive statistics of AARs, CAARs, and t test for acquisitions of private companies not listed on the JSE. The mean for CAAR is

0,6955%. This implies that most of the companies had cumulative AARs less than zero. This was also evident in the median of 0,4947%. The CAAR variance was 0,0945%, meaning that the share price movement was minimal. Overall, the market did not react to the announcements of M&As. T test results were insignificant, which means that the shareholders of the acquiring company did not get any significant returns. The results for all non-listed companies are presented in Table 4.5 overleaf.

The AARs and CAAR before the announcements of the M&As showed mixed results. The CAAR constantly showed negative returns with a mean CAAR of -2.0269% for the 20 days window period before the merger announcement. The p-value was only significant for days -12, -5, -4 and -1 before the M&As when tested for significance at the 5% level of significance before the announcement of the M&As. There is a possibility of information leakage about the M&As that made investors sceptical of trading before the announcement of the M&As. There is always an increased risk associated with acquiring a private company (Yuce & Ng, 2005). The returns earned before the announcement of the M&A of the private companies showed negative returns and this is in line with the findings from Yuce and Ng (2005).

The AARs and CAAR after the announcements of the M&As consistently showed positive results. The CAAR constantly showed positive returns with a mean CAAR of 3.5292% and p-value of 0.0001 after the merger announcement. The findings from Table 4.5 indicate that there were significant positive returns from day 6 after the M&As. Therefore, the M&As did create value for the acquiring companies. These findings are consistent the findings from the other studies such as Capron and Shen (2007) and Corhay and Rad (1996) who concluded that the announcement of the M&As create value for shareholders of the acquiring company as the returns are significant.

Table 4. 5: Total sample over event window period for acquisitions of private companies

<b>Event Window Days</b>	AAR	CAR	CAAR t test	CAAR p- value	Significant
-20	0.3866%	0.4947%	0.0996	0.4604	No
-19	-0.0991%	0.3463%	0.1684	0.4333	No
-18	-1.2108%	-0.8275%	-0.4979	0.3101	No
-17	0.1682%	-0.6966%	-0.2527	0.4007	No
-16	-0.7475%	-1.3836%	-0.3862	0.3501	No
-15	1.0186%	-0.4891%	-0.0266	0.4896	No
-14	-0.9219%	-1.5407%	-0.7672	0.2225	No
-13	-0.7593%	-2.3012%	-1.5879	0.0579	No
-12	-0.9232%	-3.1317%	-1.9195	0.0290	Yes
-11	0.9212%	-2.3369%	-1.4163	0.0800	No
-10	-0.0406%	-2.3986%	-1.4657	0.0731	No
-9	0.2947%	-1.8743%	-1.2445	0.1083	No
-8	-0.0748%	-2.0513%	-1.2570	0.1059	No
-7	0.7152%	-1.3611%	-0.7722	0.2210	No
-6	-1.7087%	-2.9000%	-1.4477	0.0756	No
-5	-0.2188%	-3.0686%	-1.6668	0.0495	Yes
-4	-1.8833%	-5.1827%	-2.5167	0.0067	Yes
-3	2.2239%	-2.8797%	-1.4271	0.0784	No
-2	-0.3918%	-3.3935%	-1.5226	0.0657	No
-1	-0.3578%	-3.5621%	-1.6792	0.0482	Yes
0	2.1261%	-1.5294%	-0.7059	0.2412	
1	1.0451%	0.9918%	0.4486	0.3273	No
2	0.4448%	1.3685%	0.7844	0.2173	No
3	0.9370%	2.1974%	1.1763	0.1212	No
4	0.1080%	2.3549%	1.3247	0.0942	No
5	-0.1426%	2.1848%	1.2137	0.1139	No
6	1.3532%	3.4351%	1.8754	0.0319	Yes
7	-0.5601%	3.0138%	1.7216	0.0442	Yes
8	1.1683%	4.0794%	2.4224	0.0086	Yes
9	0.2533%	4.3489%	2.5865	0.0056	Yes
10	-0.0773%	4.2831%	2.5138	0.0068	Yes
11	-0.3998%	3.8699%	2.2870	0.0122	Yes
12	0.3481%	4.1725%	2.4537	0.0080	Yes
13	0.0992%	4.2643%	2.4614	0.0078	Yes
14	0.6976%	4.9129%	3.0654	0.0014	Yes
15	-0.4490%	4.4648%	2.7890	0.0032	Yes
16	0.9172%	5.3783%	3.3738	0.0005	Yes
17	-0.7618%	4.6282%	3.1167	0.0121	Yes
18	-0.3747%	4.2752%	2.7052	0.0040	Yes
19	-0.8415%	3.3556%	2.2253	0.0142	Yes
20	-0.3434%	3.0043%	2.0810	0.0200	Yes

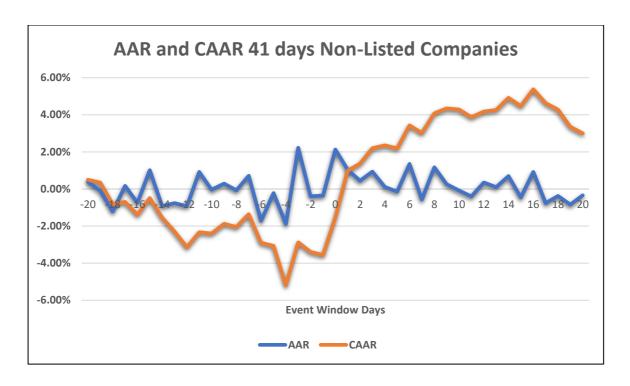


Figure 4. 2: AAR and CAAR 41 days window period for non-listed companies

(Source: Researcher's own construction)

Table 4.6 shows sample statistics for the three window periods. The t test was calculated to test the difference between the pre and post CAAR mean for all the 3 events window periods.

Table 4. 6: Sample statistics for the three window periods comparing before and after the announcement for non-listed companies

Event Window	CAAR Mean before	CAAR Mean after	t test	p-value	Is the CAAR statistically Significant
3 Days	-3.4778%	1.1801%	-22.5741	0.0141	Yes
21 Days	-2.8672%	2.8258%	-11.2035	0.0001	Yes
41 Days	-2.0269%	3.5292%	-13.5171	0.0001	Yes

(Source: Researcher's own compilation)

The paired sample t test was calculated to carry out a comparison of the CAAR mean earned before the announcement of the M&A to the CAAR mean earned after the announcement of the M&A. There was a significant difference between the CAAR mean earned before the M&A announcement and the CAAR mean earned after the M&A announcement for the 3 days window (p=0.0141), the 21 days window

(p=0.0001), and the 41 days window (p=0.0001) periods. The comparison of CAAR earned before the merger and CAAR earned after the merger shows a p-value that is significant for all window periods. Therefore, the positive market reaction to the M&A did create value for the shareholders of the acquiring company.

Overall, the acquisitions of private companies brought significant positive returns for the shareholders of the acquiring company. The findings support neo-classical profit maximisation theory which states that companies will generally participate in M&As if shareholders' wealth in the acquiring company will be created. Thus, this study rejects the null hypothesis for hypothesis 3(a) and accepts the alternate hypothesis that states that CAAR earned after the listed company acquires a non-listed company is greater than CAAR earned before merger announcements.

## 4.5 Performance of acquirer when acquiring public company

Table 4.7 shows descriptive statistics for all three window periods for AAR and CAAR for the acquisitions of public listed companies for the 41-day window period of companies listed on the JSE. Out of the total 94 acquisitions, only 9 were acquisitions of listed companies.

Table 4. 7: Descriptive statistics AAR and CAAR listed companies for 41 days window (n=9)

	41 DAYS						
	AAR	CAAR	t test CAAR	p-value			
Mean	-0,0098%	0,3875%	0,1111	0.5178			
Median	0,0222%	0,0017%					
<b>Standard Deviation</b>	0,4683%	1,9970%					
Variance	0,0022%	0,0399%					
Minimum	-0,9339%	-2,6292%					
Maximum	0,9108%	3,6182%					

(Source: Researcher's own compilation)

The CAAR mean was 0.3875. This implies that most of the companies had CAAR close to zero. The variance was 0.0399 which means that the share price movement was minimal. The t tests for the 41-day window periods were insignificant (p>0.05), showing that the means did not differ significantly from zero. Overall, therefore, the market did not react to the announcements of M&As of listed firms. This is in line with

the findings of Chang (1998). These findings also support the maximising management utility theory which suggests that managers will sometimes attempt to maximise their own interests. These interests do not necessarily correspond to maximisation of the shareholders' wealth. The results for all listed companies are presented in Table 4.8 overleaf.

These findings are represented graphically in Figure 4.3.

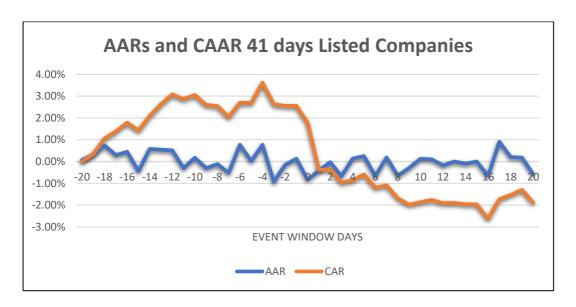


Figure 4. 3: AARs and CAAR 41 days window period listed companies

(Source: Researcher's own construction)

The findings from Table 4.8 and figure 4.3 indicate that there were no significant positive returns after the M&As. Therefore, the M&As did not create value for the acquiring companies. These findings are consistent with the findings from the other studies such as Capron and Shen (2007) and Conn *et al.* (2005) who concluded that the announcement of the M&As does not create value for shareholders of the acquiring company as the returns are not significant. This is because public companies are affected by the separation of ownership and control, thus they incur agency costs whereas private companies are usually owned by managers, thus avoiding agency costs (Golubov & Xiong, 2018).

Table 4. 8: Total sample over event window period for listed companies

<b>Event Window Days</b>	AAR	CAAR	CAAR t test	CAAR p-value
-20	0.0737%	0.0017%	0.1074	0.4573
-19	0.3122%	0.3467%	0.2334	0.4079
-18	0.7386%	1.0606%	0.6662	0.2534
-17	0.2917%	1.3772%	0.7576	0.2253
-16	0.4484%	1.7853%	0.8097	0.2100
-15	-0.4426%	1.4254%	0.6246	0.2668
-14	0.5779%	2.0897%	1.0971	0.1377
-13	0.5400%	2.6306%	1.5088	0.0673
-12	0.5120%	3.0808%	1.7239	0.0440
-11	-0.2990%	2.8660%	1.4609	0.0737
-10	0.1749%	3.0550%	1.6380	0.0524
-9	-0.3027%	2.5992%	1.3930	0.0834
-8	-0.1201%	2.5472%	1.2544	0.1064
-7	-0.5208%	2.0431%	0.9482	0.1727
-6	0.7723%	2.7022%	1.1611	0.1242
-5	0.0222%	2.6910%	1.2154	0.1136
-4	0.7734%	3.6182%	1.6358	0.0526
-3	-0.9339%	2.6316%	1.1724	0.1220
-2	-0.1580%	2.5550%	0.9296	0.1774
-1	0.1283%	2.5571%	0.8914	0.1875
0	-0.8330%	1.7863%	0.5736	0.2838
1	-0.4158%	-0.3803%	-0.1679	0.4338
2	-0.0300%	-0.3649%	-0.2258	0.4112
3	-0.6724%	-0.9652%	-0.3288	0.3718
4	0.1375%	-0.8607%	-0.3018	0.3820
5	0.2506%	-0.5918%	-0.2378	0.4065
6	-0.6721%	-1.1954%	-0.5193	0.3024
7	0.1903%	-1.0975%	-0.5536	0.2907
8	-0.6511%	-1.6802%	-0.9651	0.1685
9	-0.2919%	-1.9828%	-1.2060	0.1154
10	0.1205%	-1.8699%	-1.1011	0.1368
11	0.1008%	-1.7602%	-0.9966	0.1609
12	-0.1805%	-1.9104%	-1.1291	0.1309
13	0.0024%	-1.9031%	-1.0522	0.1477
14	-0.0938%	-1.9642%	-1.2654	0.1045
15	-0.0031%	-1.9679%	-1.1579	0.1251
16	-0.6638%	-2.6292%	-1.6533	0.0508
17	0.9108%	-1.7262%	-1.2308	0.1109
18	0.2056%	-1.5351%	-1.0070	0.1582
19	0.1837%	-1.2994%	-0.8605	0.1960
20	-0.5850%	-1.8791%	-1.2880	0.1004

Table 4.9 overleaf presents the sample statistics for the 3-days window period.

Table 4. 9: Sample statistics for three window periods compared before and after the announcement for listed companies

Event Window	CAAR Mean before	CAAR Mean after	t test	p-value	Is the CAAR statistically Significant
3 Days	2.5560%	-0.3726%	376.7936	0.0008	Yes
21 Days	2.6999%	-1.0989%	16.8213	0.0001	Yes
41 Days	2.1832%	-1.4782%	14.7359	0.0001	Yes

(Source: Researcher's own compilation)

Table 4.9 shows sample statistics for the three window periods. The t test was calculated to test the difference between the pre and post CAAR mean for all the three events window periods. The paired sample t test was calculated to carry out a comparison of CAAR mean earned before the announcement of the M&A with CAAR mean earned after the announcement of the M&A. The difference for the 3-days window was significant (p=0.0008), as was the 21-days window (p=0.0001) and the 41-days window (p=0.0001) periods. The CAAR mean earned after the M&A was announced was consistently negative for all three window periods and this difference was significant. The shareholders of the acquiring company did not get any returns after the announcement of the M&A. Therefore, the M&A announcement did not create value for the shareholders of the acquiring company.

Overall, the acquisitions of public companies did not bring returns for the shareholders of the acquiring company.

These findings are aligned with the findings by Capron and Shen (2007) and Conn *et al.* (2005), who concluded that the acquisitions of public companies does not bring positive returns for the shareholders. This is because public companies are affected by the separation of ownership and control, thus they incur agency costs whereas private companies are usually owned by managers, thus avoiding agency costs (Golubov & Xiong, 2018). This means that the third null hypothesis, that the CAAR earned before the listed company acquires another listed company remains the same after the mergers announcement, is retained.

Figure 4.4 below shows CAAR for listed companies and CAAR for non-listed companies over the 41 days window period.

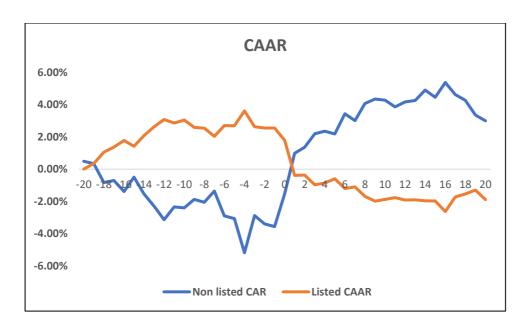


Figure 4. 4: CAAR 41 days window period for listed and non-listed companies

(Source: Researcher's own construct)

Figure 4.4 shows that CAAR for listed companies was showing positive returns for the period constantly before the announcements of the M&As. The period after the announcements of the mergers showed negative CAAR constantly for acquisitions of listed companies. The CAAR for acquisitions of private companies showed negative returns constantly before the announcements of M&As. After the announcement of the M&As, the acquisitions of private companies showed positive CAAR.

# 4.6 Chapter summary

This chapter presented the findings of the study. The results analysing the share movement for AARs show that the AAR movement did not differ significantly. This means that the market did not respond positively to the announcement of the M&As. Similarly, Ndlovu (2017) also concluded that overall, the market did not respond to the announcement of mergers and acquisitions. The CAARs were also not significant for the overall results. The CAARs were positive after the announcement of the M&As, but they were not significantly different, therefore there was no additional value being added for the shareholders of the JSE listed acquiring companies. These outcomes were similar to the findings from the other studies such as Ndlovu (2017) and Viljoen (2014). This supports the first null hypothesis that states that M&A announcements do not affect or increase shareholder value for the acquiring company.

The analysis of the pre-announcement and post-announcement returns showed AAR and CAAR before and after the announcement of the M&A. The analysis indicated that the M&As do not bring significant returns to the shareholders, therefore no value was added for the shareholders. This supports the second null hypothesis that states that the CAAR earned after the mergers announcement is the same as the CAAR earned before the merger announcement.

The results obtained when analysing the acquisition of private companies showed that the CAARs means were significantly different. Post-acquisition returns were positive, implying that the acquisitions of private companies did add value to the shareholders of the acquiring companies. This is linked with the fact that the average bid price or purchase price is usually lower. The majority of acquisitions were related to the acquisitions of private companies by listed companies and these findings are in line with the findings from other studies by Capron and Shen (2007) and Corhay and Rad (1996). Thus, null hypothesis 3(a) was rejected and the alternate hypothesis that states that the CAAR earned after the listed company acquires a non-listed company is greater than CAAR earned before merger announcements.

The acquisitions of publicly listed companies did not result in any significant returns to the shareholders of the acquiring companies, with post-acquisition returns being negative and statistically different from the pre-acquisition returns. This resulted in the retention of the null hypothesis 3(b) that stated that the CAAR earned before the listed company acquires another listed company is the same as the CAAR earned after the merger announcement.

Chapter Five presents the conclusion with recommendations derived from the findings obtained in this chapter.

## CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

This study examined the impact of M&As on the shareholder wealth of JSE listed companies when acquiring private non-listed companies compared to public listed companies. The previous chapter presented a detailed discussion of the findings from the study. This chapter presents a summary of the research methodology used in the study as well as conclusions on the results from the previous chapter. Following this, contributions of the study as well as limitations of the study and possible future research directions are highlighted.

## 5.2 Research hypothesis, methodology, and design.

This research study analysed the impact of M&As on the shareholder value of JSE listed acquiring companies. The focus was on analysing the impact when acquiring a private company compared to acquiring a public company. The study investigated the impact on share prices when M&A events were announced. The study also investigated the difference in pre-acquisition returns and post-acquisition returns, and, lastly, the difference in returns when acquiring a private company compared to returns when acquiring a public company.

The research study used the EVM, applying the market model to analyse the impact of M&As on the shareholder value of the acquiring company. The companies involved in M&As were obtained from the Competition Commission website for a period of six years from 2011 to 2016. The final sample was 94 companies listed on the JSE that were involved in M&As. The IRESS database was used to obtain share price information.

## 5.3 Findings

### 5.3.1 Share price abnormal returns.

The EVM was used to analyse the movement in the share price before the announcement and share price after the announcement for any significant differences in all the three window periods. Evidence from all the event window periods, 3, 21 and

41 days, showed that the CAAR mean indicated an increasing trend after the announcement of the M&A. Although the trend was positive for the CAAR mean, it was not statistically significant. This implies that the shareholders of the JSE acquiring companies did not obtain any benefit from the M&As. Therefore, the announcements of the M&As did not have any impact on the overall share price, and thus had no value for the shareholders of the acquiring company. These results are in line with the management utility theory that states that managers will sometimes attempt to maximise their own interests and their interests do not necessarily correspond to maximisation of shareholders' wealth. Recent studies that also concluded that M&As do not add any value for the shareholders include studies done by Ficici (2018), Ahmed et al. (2018), and Viljoen (2014). Therefore, it is important that when a company plans to acquire another company, a detailed plan should be analysed to determine whether it would generate positive and significant returns for the shareholders of the acquiring company. The board must approve all the M&A transactions. The interests of all the different stakeholders must be considered before the transaction is approved.

## 5.3.2 Difference in pre-announcement returns and post-announcement returns

AARs and CAARs were analysed for the whole sample of 94 companies to compare the returns earned before the announcement of the M&A to the returns earned after the announcement of the M&A. The evidence showed that the CAAR mean before the announcement of the M&As was positive but not was not significant statistically. The expectation was that there should be positive ARs earned after the M&As. The findings showed that the CAAR mean earned after the announcement of the M&A was positive but not significant statistically. Therefore, in as much as the returns were positive, they were not significant statistically, implying that no real value was created for the shareholders of the acquiring company. One of the common reasons the returns were insignificant was due to the market being sceptical about the transactions due to them being highly risky (Shah & Arora, 2014). These results are also in line with the management utility theory that states that managers will sometimes attempt to maximise their own interests and their interests do not necessarily correspond with maximisation of the shareholders' wealth. The returns earned after the M&A were not significant; therefore, there was no value being created for the shareholders.

# 5.3.3 Difference in abnormal returns when acquiring a private company compared to public company

The findings from acquiring private companies showed that the CAAR mean had AR for acquisitions of private companies. This implies that the returns earned when acquiring a private company were significantly greater. Therefore, the acquisitions of private companies do add value to the shareholders of the acquiring companies. The findings support the neoclassical profit maximisation theory which states that companies will generally participate in M&As if shareholders' wealth in the acquiring company will be created.

Contrary to that were the acquisitions of public companies where the CAAR mean was positive but was not significant statistically. The findings suggested that the acquisition of public companies did not bring any returns to the shareholders of the acquiring companies.

Therefore, is it recommended that when a company is considering acquiring an existing company, it should preferably be a private company as it yields significant positive ARs compared to acquiring a public listed company. If M&As are considered as a preferred method of growth, the board should make sure that the transactions will bring returns to the shareholders. All the M&A transactions must be approved by the shareholders.

# 5.4 Contributions of the study

The findings of this study contribute to improved acquisition processes and a subsequent possible improvement on shareholder value of M&As. This study contributes to M&A literature by exploring an important part of the section of the market for corporate control that has not been explored fully in South Africa. The most recent study that was carried out in South Africa on M&As by Ndlovu (2017) focused on overall returns to shareholders after the merger announcements. In South Africa there has been no focus on comparing ARs earned by a listed company obtaining control of another listed company to ARs earned when a listed company obtains control of a private company.

The empirical evidence explored the impact on earnings when the acquiring company acquires control in public company compared to earnings when acquiring a private company. The findings show that the acquisitions of private companies bring positive significant returns to the shareholders while acquisitions of public companies bring negative returns. Due to lower costs and administration for acquiring private companies, the price is usually lower and that leads to gains for shareholders of the acquiring companies. This information will benefit the companies that are planning to embark on M&As as they will have knowledge of which acquisitions will add value to the shareholders. This study also contributes significantly to the accounting and business economics industry by offering evidence based recommendations for future M&A transactions.

#### 5.5 Limitations

The first limitation applied to this study was that it focused only on acquiring companies listed on the JSE, due to the lack of information for the companies that were not listed. Therefore, the findings cannot be generalised to non-listed companies.

The second limitation was that the time period was from 2011 to 2016 which was only six years of data that were tested. Therefore, the study focused only on the short term measures within a particular time constraint.

#### 5.6 Recommendations for future research

Future research could focus on different types of M&As, analysing these separately. This can be done to determine which type of M&A is more successful compared to the others, as the information could be very beneficial to companies who are considering M&As.

The time period could be extended as this study was restricted to acquisitions that took place from 2011 to 2016, to determine whether the outcomes would be different when analysing over a longer period.

Finally, this study considered only the short term impact of M&As. Future studies could consider the impact of acquiring a private company compared to public M&As on the long term performance basis.

## 5.7 Conclusion

This chapter presented the findings from this study. The overall studies showed that the AARs and CAARs were not different significantly. Therefore, no additional value was added to the shareholders of the acquiring company. The analysis of the pre-M&A returns compared to the post-M&A returns indicated that the differences were not different significantly. Lastly, the comparisons of returns earned when acquiring a private company reflected that the CAAR mean was significantly greater. Therefore, acquiring private companies did add value to the shareholders of the acquiring companies. The analysis of public companies showed that the acquisition of public companies did not bring any significant returns as the CAAR mean was not significantly statistically greater. The board of directors and shareholders should approve all the M&As' transactions to minimise the chances of acquiring companies that would not give returns to the shareholders.

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# **APPENDIX A: STUDY SAMPLE**

	Primary Acquiring Firm	Market Cap	Sector	Primary Target Firm
1	Hosken Consolidated Limited	R 11035634185	Financials	KWV Holdings Limited
2	Tiger Brands Limited	R 36 826 858 656	Consumer Goods	Davita Trading (Pty) Ltd
3	Investec Property Limited	R 15 322 507 274	Financials	The Edgardale Properties
4	Reunert Limited	R 13 288 229 595	Industrials	ECN Telecommunications (Pty) Ltd
5	Discovery Health Medical Scheme	R 23 334 794 355	Financials	UMed Medical Scheme
6	FirstRand Limited	R 109 996 242 352	Financials	MMI Holdings
7	Hudaco Industries Limited	R 2 825 958 934	Industrials	Filter and Hose Solutions (Pty) Ltd
8	African Equity Empowerement	R 210 415 956	Industrials	Premier Fishing Brands
9	Transpaco Limited	R 367 343 878	Industrials	Disaki Cores and Tubes (Pty) Ltd
10	Tsogo Sun Hotels	R 4 148 102 233	Consumer Services	Gold Reef Resorts Limited
11	Gold Fields	R 86 914 375 106	Basic Materials	Gold Brands Investments
12	The Spar Group Limited	R 16 783 492 732	Consumer Services	Northern Light Trading 128 (Pty) Ltd
13	Aveng (Africa) Limited	R 17 052 028 460	Industrials	Dynamic Fluid Control (Pty) Ltd
14	RMB Holdings Limited	R 46 550 791 056	Financials	Alexander Forbes Group
15	Standard Bank Group Limited	R 156 888 779 087	Financials	Credit Suisse Standard Bank Securities (Pty) Ltd
16	Jasco Electronics Holdings Ltd	R 146 399 336	Industrials	Ferrotech
17	Murray & Roberts Steel Ltd	R 8 513 045 677	Industrials	SA Rebar Holdings (Pty) Ltd
18	Andulela Investment Holdings Ltd	R 786 718 853	Financials	Pro-Roof Steel Merchants (Pty) Ltd
19	AECI Limited	R 9 845 388 214	Basic Materials	Qwemico Distributors (Pty) Ltd
20	Redefine Properties Limited	R 19 907 273 554	Financials	Bakford Properties (Pty) Ltd
21	Northam Platinum Limited	R 3 471 926 622	Basic Materials	Mvelaphanda Resources Limited
22	Pick 'n Pay Retailers Ltd	R 22 386 515 158	Consumer Services	African Spirit Trading 90 (Pty) Ltd
23	Growthpoint Properties Ltd	R 11 472 485 700	Financials	Design Square Shopping Centre (Pty) Ltd
24	Hyprop Investments Limited	R 12 945 776 249	Financials	Attfund Retail Limited
25	Woolworths Ltd	R 32 579 754 987	Consumer Services	Q Retail Services cc
26	The JSE Limited	R 6 168 309 600	Financials	Momentum Platform Holdings (Pty) Ltd

	Primary Acquiring Firm	Market Cap	Sector	Primary Target Firm
27	PSG Konsult Limited	R 9 115 137 534	Financials	Western Group Holdings Limited
28	Afrimat Limited	R 604 567 378	Industrials	Infrasors Holdings Limited
29	Mondi Limited	R 21 042 898 126	Basic Materials	Mondi Shanduka Newsprint (Pty) Ltd
30	Liberty Group Limited	R 22 747 364 606	Financials	Arctic Sun Trading 17 (Pty) Ltd
31	Growthpoint Properties Ltd	R 31 560 347 499	Financials	Bellville Trading (pty) Ltd
32	Nampak Products Limited	R 15 747 539 158	Industrials	Elopak South Africa (Pty) Ltd
33	Shoprite Checkers Ltd	R 74 021 902 452	Consumer Services	Kwa- Nongoma Trading (Pty) Ltd
34	Conoration Fund Managers	R 7 146 395 658	Financials	Growthpoint Properties
35	Sasol Holdings	R 248 300 324 868	Oil and Gas	Merichem Company
36	Pioneer Foods	R 12 077 465 520	Consumer Goods	Amaqanda Farms (Pty) Ltd
37	Sephaku Holdings Limited	R 532 551 269	Basic Materials	Metier Mixed Concrete (Pty) Ltd
38	Vukile Property Fund Limited	R 7 444 064 582	Financials	Refine Retail (Pty) Ltd, previously known as Paxospot (Pty) Ltd
39	Massmart Holdings Limited	R 41 446 901 975	Consumer Goods	Capensis Investments 241 (Pty) Ltd
40	Datatec Limited	R 9 440 873 832	Technology	Comztek Holdings (Pty) Ltd
41	OneLogix Ltd	R 440 030 946	Industrials	RSA Tankers (Pty) Ltd t/a United Bulk
42	Rebosis Property Fund Limited	R 2 887 621 831	Financials	Dreamfair Properties 26 (Pty) Ltd,
43	Delta Property Fund Limited	R 1 385 457 066	Financials	Four properties owned by Manaka Property Investments (Pty) Ltd
44	Raubex Group Limited	R 3 109 430 690	Industrials	Tosas Holdings (Pty) Ltd
45	Shoprite Checkers Ltd	R 116 683 499 570	Consumer Goods	Mayville Mall Liquors
46	Rebosis Property Fund Limited	R 2 887 621 831	Financials	Centre of The Sun Properties (Pty) Ltd
47	The Bidvest Group Limited	R 70 632 599 850	Industrials	Amalgamated Appliance Holdings Limited
48	Ingenuity Property Investment	R 546 527 000	Financials	Insight Property Developers (Palmyra Road) (Pty) Ltd
49	Sanlam Investment Holdings Ltd	R 94 017 000 000	Financials	Simeka Employment Benefits Holdings (Pty) Ltd
50	Hyprop Investment Limited	R 18 609 091 038	Financials	Sycom Property Fund Managers Limited
51	York Timbers Ltd	R 1 209 028 179	Basic Materials	The Thorpe Timber Company and Timber Preservation Services business
52	Stefanutti Stocks Ltd	R 1 956 039 758	Industrials	Energotec (a division of First Strut (Pty) Ltd)
53	Mpact Limited	R 400 185 146	Industrials	Detpak South Africa (Pty) Ltd
54	Pick 'n Pay Retailers Ltd	R 24 980 660 692	Consumer Goods	Royal Victory Trading 55 (Pty) Ltd

	Primary Acquiring Firm	Market Cap	Sector	Primary Target Firm
55	Redefine Properties Limited	R 29 911 328 340	Financials	Chantilly Trading 95 (Pty) Ltd
56	Dis-Chem Pharmacies	R 19 128 736 278	Consumer Goods	The CJ Wholesalers Business
57	Shoprite Checkers	R 93 575 031 440	Consumer Goods	Mossel Bay Family Store (Pty) Ltd
58	Grindrod Holdings South Africa	R 16 839 451 751	Industrials	Xceed Resources Limited
59	Delta Property Fund Limited	R 3 499 521 400	Financials	Walk CC and Ziningi Properties (Pty)
60	Growthpoint Properties Limited	R 47 005 234 788	Financials	Abseq Properties (Pty) Ltd
61	Woolworths Ltd	R 63 228 002 516	Consumer Goods	Dula Investments (Pty) Ltd
62	The Bidvest Group Limited	R 88 006 826 491	Industrials	Academy Brushware (Pty) Ltd
63	SA Corporate Real Estate Fund	R 7 900 571 125	Financials	An Industrial Proprerty of Eveready (Pty) Ltd
64	PPC Limited	R 19 008 920 947	Industrials	Safika Cement Holdings (Pty) Ltd
65	Discovery Health Medical Scheme	R 50 013 216 955	Financials	Afrox Medical Aid Society
66	Ingenuity Property Investments Limited	R 1 078 207 893	Financials	The rental enterprise and property
67	Redefine Properties Limited	R 40 280 613 866	Financials	Grapnel Property Investments (Pty) Ltd
68	Tradehold Limited	R 3 172 692 584	Financials	Mettle Investments (Pty) Ltd
69	Sibanye Gold Limited	R 2 084 783 643	Basic Materials	Witwatersrand Consolidated Gold Resources Limited
70	Barloworld SA Limited	R 22 126 113 045	Industrials	Leatoy Proprietary Limited t/a Leach Toyota
71	Imperial Group Limited	R 38 445 914 305	Industrials	Mitsubishi Motors Paarden Eiland
72	Pick 'n Pay Retailers Ltd	R 25 642 900 531	Consumer Goods	Quintado 159 (Pty) Ltd
73	Emira Property Fund Limited	R 8 842 727 454	Financials	Property Fund and Strategic Real Estate Managers (Pty) Ltd
74	MMI Group Limited	R 7 246 767 671	Financials	Smart Life Insurance Company Limited
75	Afrocentric Investment Corporation Limited	R 2 432 846 525	Health Care	Certain assets of WAD Holdings (Pty) Ltd
76	Rhodes Food Grou Limited	R 3 343 730 000	Consumer Goods	Boland Pulp Proprietary Limited
77	Equites Property Fund Limited	R 1 258 513 905	Financials	Intaprop Proprietary Limited
78	Pan African Resource PLC	R 3 550 189 840	Basic Materials	Blue Falcon 232 Trading Proprietary Limited
79	Santam Limited	R 25 659 479 655	Financials	Professional Provident Society Marketing Services (Pty)Ltd
80	Telkom SA SOC Limited	R 36 454 872 860	Telecommunications	The Bellville Property
81	Sun International (South Africa) Limited	R 14 711 286 749	Consumer Services	GPI Slots (Proprietary) Limited
82	Accelerate Property Fund Limited	R 4 681 655 090	Financials	The Redevelopment of Fourways Mall
83	Rolfes Holdings Limited	R 369 272 187	Basic Materials	Bragan Chemicals (Pty) Ltd

	Primary Acquiring Firm	Market Cap	Sector	Primary Target Firm
84	Tiso Blackstar Group SE	R 972 748 724	Consumer Services	Robor (Pty) Ltd
85	Vodacom Ltd	R 226 779 069 140	Telecommunications	Altech Autopage Cellular
86	Remgro	R 117 972 092 987	Industrials	RCL Foods
87	Stellar Capital Partners Limited	R 2 184 076 879	Financials	Friedshelf 1678 Limited
88	enX Group Limited	R 1 180 886 702	Industrials	West African International (Proprietary) Limited
89	Mpact Limited	R 7 790 097 575	Industrials	Remade Holdings (Pty) Ltd and the Property Companies
90	Deneb Investments Limited	R 1 285 811 225	Financials	Premier Rainwatergoods Proprietary Limited
91	Balwin Proprietary Limited	R 4 117 519 402	Financials	The Development Rights
92	Liberty Group Limited	R 32 964 789 322	Financials	Trans African Concessions Proprietary Limited
93	Remgro	R 118 041 853 411	Industrials	Mediclinic
94	RMB Holdings Limited	R 93 737 093 675	Financials	Atterbury Property Holdings Proprietary Limited

### APPENDIX B: ETHICAL CLEARANCE



23 August 2018

Ms Lumka Shirley Mgilane (219039906) School of Accounting, Economics & Finance Westville Campus

Dear Ms Mailane.

Protocol reference number: H55/1069/018M

Project title: The impact of Mergers and Acquisitions on Shareholder Value of the JSE listed

Full Approval - No Risk / Exempt Application

In response to your application received on 20 August 2018, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol has been granted FULL APPROVAL.

Any alteration/s to the approved research protocol i.e. Questionnaire/interview Schedule, informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number. PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this apportunity of wishing you everything of the best with your study.

Yours faithfully

Professor Shenuka Singh (Chair)

/ms

cc Supervisor: Mr Alastair Marais and Zamanguni Gumede cc Academic Leader Research: Professor Josue Mbonigaba ce School Administrator: Ms Seshni Naldoo

> Humanities & Social Sciences Research Pthics Committee Professor Shenuke Singh (Chelr)/Dr Shemile Naidoo (Deputy Chair) Westville Campus, GovernMheid Building

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> N 1910 - 2010 A 100 YEARS OF ACADEMIC EXCELLENCE

Founding Computers: 👅 Edgewood 🕒 Howard College 🥟 Medical School 🍵 Pletsmantzhung 🍵 Westville



02 October 2019

Ms Lumka Shirley Mgilane 218039906 School of Accounting, Economics & Finance Westville Campus

Dear Ms Mgilane

Protocol reference number: HSS/1069/018M

New Project title: Mergers and acquisitions on the JSE: The impact on acquiror's returns when merging with either private or public companies

#### Approval Notofication-Amendment Application

This letter serves to notify you that your application and request for an amendment received on 25 September 2019 has now been approved as follows:

Change in title

Any alterations to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form; Title of the Project, Location of the Study must be reviewed and approved through an amendment/modification prior to its implementation. In case you have fuirther queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

Recertification must be applied for on an annual basis.

Best wishes for the successful completion of your research protocol.

Yours faithfully

Dr Rosemary Sibanda (Chair)

Cc Supervisor: Mr Alastair Marais and Zamanguni Gumede Cc Academic Leader Research: Professor Josue Mbonigaba

Cc School Administrator: Ms Seshni Naidoo

Humanities & Social Sciences Research Ethics Committee

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Founding Campuses: Edgewood in Howard College Medical School Pietermentzburg Westville

### **APPENDIX C: TURNITIN REPORT**

## FINAL WITH CORRECTIONS ORIGINALITY REPORT SIMILARITY INDEX INTERNET SOURCES **PUBLICATIONS** STUDENT PAPERS PRIMARY SOURCES Submitted to University of Witwatersrand Student Paper Submitted to Kingston University 2 Student Paper Submitted to University of Birmingham 3 Student Paper Submitted to University of Central England in 1% 4 Birmingham Student Paper Submitted to University of KwaZulu-Natal 5 Student Paper Submitted to University of Lancaster 6 Student Paper Submitted to Curtin University of Technology 7 Student Paper Submitted to 9561 8 Student Paper Submitted to University of Pretoria 9

### APPENDIX D: LETTER CONFIRMING EDITING

C.A.T. Centre Computer Assisted Teaching

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Dr Noleen D Loubser

52 Steele Road Pelham Pietermaritzburg 3201

J084 831 7479

noleen.work@gmail.com

18 November 2019

Mr A Marais and Ms Z Gumede School of Accounting, Economics and Finance University of KwaZulu-Natal

#### CONFIRMATION OF EDITING

This is to confirm that I have proofread and edited the revised Masters dissertation of LUMKA MGILANE, student number 218039906, titled MERGERS AND ACQUISITIONS ON THE JSE: THE IMPACT ON ACQUIROR'S RETURNS WHEN MERGING WITH EITHER PRIVATE OR PUBLIC COMPANIES. I do not hold a formal editing qualification, but have been editing academic work for many years, and have devoted much of my academic career to helping develop and train academic writing skills for students.

Dr Noleen D Loubser

Malagoria.

PhD Psychology (Witwatersrand)

### APPENDIX E: LETTER CONFIRMING EDITING

### Mrs Radhika Singh

(F.T.C.L), FELLOWSHIP, TRINITY COLLEGE OF LONDON, (SPEECH AND DRAMA)

LANGUAGE EDITING OF PhD THESIS

#### Lumka Mgilane

This is to certify that I have edited the Masters thesis titled "MERGERS AND ACQUISITIONS ON THE JSE: THE IMPACT ON ACQUIROR'S RETURNS WHEN MERGING WITH EITHER PRIVATE OR PUBLIC COMPANIES"

for language – tenses, syntax, vocabulary, spelling, sense, and all other aspects of language editing.

Corrections are marked on the paper, and need to be corrected.

#### Disclaimer:

Final decisions rest with the student as to which suggestions to implement.

No review of the final document was requested before submission.

Mrs R Singh Language Editor 18th February 2020