

**EFFECT OF MERGERS AND ACQUISITIONS ON THE STOCK  
RETURNS OF COMPANIES LISTED AT THE NAIROBI  
SECURITIES EXCHANGE**

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**A RESEARCH PROJECT SUBMITTED IN PARTIAL  
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THE DEGREE OF MASTER OF SCIENCE IN FINANCE, SCHOOL  
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## DECLARATION

I declare that this research project is my own work and it has not been submitted for any degree or examination in any other university.

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## **DEDICATION**

I dedicate this research work to my lovely family

## **ACKNOWLEDGEMENT**

I wish to give thanks to Almighty God for the gift of life and chance to come this far. I also wish to express my sincere appreciations to my supervisors Mr. Dan Chirchir and Dr. Mirie Mwangi for their guidance throughout the whole research writing process, also the contribution and encouragements made by my family members especially for their caring support.

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## **LIST OF ABBREVIATIONS**

<b>DPS</b>	Dividend per Share
<b>EPS</b>	Earnings per share
<b>M&amp;As</b>	Mergers and Acquisitions
<b>NSE</b>	Nairobi Securities Exchange
<b>ROA</b>	Return on Assets
<b>ROE</b>	Return on Equity

## **ABSTRACT**

Mergers and acquisitions activities have doubled across the world and the total number of mergers and acquisitions is estimated to be over two billion as at December 2016. Mergers and acquisitions have become the contributing factor to the improved financial performance which is the main objective of every business entity. The recent upsurge of mergers and acquisitions is a clear indication of its significance among the business entities. This study investigated the effect of mergers and acquisitions on the stock returns of companies listed at the Nairobi Securities Exchange. 7 companies which had undergone mergers and acquisitions as from January 2010 to December 2017 was the population and secondary data was employed in the analysis. This study used an event study methodology for analysis. The study found that that there was no statistically significant difference between merger and acquisitions on abnormal returns. The study also revealed that there was no statistically significant difference between the mergers and acquisitions on average abnormal returns of KCB Group, Scan Groups and EABL and mergers and acquisitions had a statistically significant difference on the average abnormal returns of the DTB, EABL, Britam and Centum investments. Finally, the study found that there was a statistically significant difference between announcement of mergers and acquisitions and the cumulative average abnormal returns I&M bank, Centum investments, Scan Group and KCB bank but that there was no statistically significant difference between merger and acquisitions announcement and the cumulative average abnormal returns for DTB, EABL and Britam respectively. This study concluded that mergers and acquisitions affect the stock returns of companies listed at the Nairobi Securities Exchange. This study recommends that investors should focus on company fundamentals, which influence abnormal returns as opposed to announcements made by the firm on mergers and acquisitions.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

The urge for competitiveness among business entities has led to corporate restructuring aimed at retaining competitive advantage and improvement of the financial performance (Kemal, 2011). Through restructuring of the business entities, the companies achieve risk diversification. This includes changing the business strategies in the dynamic business environment so as to increase the shareholders' value. For instance management has been forced to rethink how to maximize the shareholders returns and mergers and acquisitions is one such option. This has prompted the increased mergers and acquisitions activities in the contemporary business environment aimed at improving the financial performance (Firth, 1979).

According to monopoly power theory, firms undergo mergers and acquisitions with an aim of increasing the market share (Ross, 1986). The agency theory by Mueller (1969) argues that managers of various firms prefer mergers and acquisitions so as to benefit from the deal rather than maximizing the shareholders' value. According to the synergy theory, mergers and acquisitions takes place since they generate synergy (Roll, 1986). Economics theory confirms that business entities enjoy economies of scale which is brought about mergers and acquisitions (Nielsen, 1974). Signaling hypothesis asserts that managers who have sufficient information concerning the total value of the target entity are motivated to spearhead the mergers and acquisitions activities (Fleming, 1980).

Due to the benefits associated with mergers and acquisitions activities, listed companies have been at the forefront pushing for mergers and acquisitions due to the benefits associated with it. These benefits include financial strength and cost reduction. Firms experiencing cash flow shortages can undergo mergers and acquisitions activities to increase the capital base and improve the financial strength this will improve the overall profitability and the financial performance (Elly, 2012).

### **1.1.1 Mergers and Acquisitions**

Mergers are the combinations of separate business entities to form new business entities (Lucey, 2001). Firms that are financially distressed can merge with firms with stable firms hence increase value as a result of consolidation. Mergers are classified into three which include vertical mergers which is combination of more than two companies in different lines of distribution, horizontal mergers which is the process of combining two or more companies in related business and conglomerate mergers which is the combination of firms in unrelated businesses.

Acquisition is the process by which one firm takes over the operations of another firm (Luypaert, 2008). In most cases of acquisitions, the larger company takes over the operations of smaller companies. For a successful acquisition process, the predators' management must know how to approach the target firms' management. Upon identification of the target company by the predator, price and terms of payment are established.

### **1.1.2 Stock Returns**

Stock refers to ownership in an entity. Two types of stock include; common stock and preferred stock. Common stock holders are entitled to earnings in proportion of their shareholdings in terms of dividends. However, preferred stock consist of both properties of stocks and bonds. Preferred stock consists of a fixed charge which leads to increase in an entity's financial leverage. In addition preferred stock owners are entitled to dividends which is a percentage of the value of the preferred stock. However, preferred stock holders are entitled to pay of dividends before the common stock holders are paid (Franke, 1991).

Stock returns refers to gains or losses due to change in stock prices over a given period. In addition, stock returns also factors in dividend payouts. Previous studies done have provided different definitions of stock returns. Kemal (2011) in his study of effect of leverage on stock returns defined returns to be geometric means of returns. Green (2015) refers to stock returns as returns adjusted for inflation. Marion (2010) in her study of empirical test of leverage and stock returns define stock returns as equity returns in excess of risk free rate.

### **1.1.3 Mergers and Acquisitions and Stock Returns**

The stakeholders in any business entity have positive expectations from their investment and they gauge it from the financial performance. The main goal of mergers and acquisitions is to ensure that the business entities operate smoothly as a result of this restructuring process. Mergers and acquisitions done properly tend to yield high return. Mergers and acquisitions are aimed at the creation of synergies (Ross, 1986).

Firms engaging in mergers and acquisitions will always want value creation for their shareholders. The firms that have failed might be as a result of poor management of the companies that were engaged in the deal (Myers, 1994). Mergers and acquisitions of the companies is significant in the ultimate success or its failure. The theory of economics argues that mergers and acquisitions exist to lower operational costs which will positively affect the stock returns.

#### **1.1.4 Companies listed at the Nairobi Securities Exchange**

The NSE was founded in 1954, it has a six decade heritage in listing equity and debt securities. It offers trading facility for investment both local and international. NSE plays an important role in the Kenyan economic development by encouraging firms to save thus help them to reallocate funds from dormant to active agents and making long term investment liquid for example transferring of securities. NSE has also helped firms to participate in local ownership of shares hence enabling Kenyans to own shares and invest in good companies hence leads to development of the economy (NSE, 2017). Due to high competition, a significant number of companies have resorted to mergers and acquisitions as the only strategy to remain competitive in the Kenyan industry. In Kenya, the business entities which have undergone mergers and acquisitions have continually reported improved financial results compared to the companies which have not undergone mergers and acquisitions recently (NSE, 2017).

## **1.2 Research Problem**

Globally, mergers and acquisitions activities have doubled according to the recent survey around the globe in general. The total number of mergers and acquisitions is estimated to be over two billion as at December 2016 (Jim, 2017). The recent upsurge of mergers and acquisitions is a clear indication of its significance among the business entities. There has been a common trend for companies in Kenya especially the listed companies opting for mergers and acquisitions as a corporate strategy to remain competitive. All this is aimed at improving the stock returns of the companies; this is the critical business strategy for success. After the mergers and acquisitions, the companies have recorded improved share returns this in turn is beneficial to the shareholders who have invested in those companies (NSE, 2017).

Green (2015) concluded that the profitability of the insurance companies improved after mergers and acquisitions. Maalale and Manje (2015) concluded that the restructuring through mergers positively affected the financial performance of food processing companies in the UK. Kamar, et al. (2011) concluded that mergers and acquisitions improved the financial performance of the corporate firms in India.

Mutua (2013) concluded that mergers and acquisitions had insignificant effect on the share returns of commercial banks. Muli (2011) concluded that mergers and acquisitions had insignificant effect on the financial performance of banks in Kenya. The study findings were inconsistent due to the limited sample sizes, models not specified, criteria for firm selection were not elaborate and a shorter period of study. The current study sought to address the gaps in conducting this study which aimed at answering this research question;



what is the effect of mergers and acquisitions on the stock returns of the companies listed at the Nairobi Securities Exchange?

### **1.3 Research Objective**

This study sought to determine the effect of mergers and acquisitions on the stock returns of the companies listed at the Nairobi Securities Exchange.

### **1.4 Value of the Study**

Management is able to make informed choices on the merger and acquisition activities. From the result on the share returns, they are able to identify the possible target in case of mergers and acquisitions.

The research is of help to the academicians to act as reference for further research in this area of mergers and acquisitions. It will be of great help to the scholars since it will act as a source of literature for research.

The research will be helpful to the investors with the insight on mergers and acquisitions to make the decisions on the investment. It will provide them with information to help them make investment choices of the stocks of the profitable listed companies. The capital markets authority will borrow from this research in making informed policies aimed at maintaining the financial stability within the financial markets.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

The chapter explores the theories and empirical literature related to mergers and acquisitions, determinants of share returns of listed companies and summary of literature review.

#### **2.2 Theoretical Review**

The section reviews the theories the scholars have proposed in the area of mergers and acquisitions and they include; agency theory (Mueller, 1969), synergy theory (Roll, 1986), monopoly theory (Lambert, 2001), signaling hypothesis (Fleming, 1980) and economics theory (Nielsen, 1974).

##### **2.2.1 Agency Theory**

Agency theory which was developed by Mueller (1969) posits that the business entities management team prefers mergers and acquisitions for their own benefits rather than maximizing the value of the shareholders. The authority and prestige of the managers derived from their duties are directly related to growth of the company rather than its profitability. Investors and shareholders of in any organization expect the management team to adopt strategies which maximize their value. However, in many incidences, their expectations are not met given their minimal capability of tracking the managers' activities due to financial constraints, the managers might adopt this strategy for their own interests even if it has no financial benefit to the shareholders.

The decision making activities and control of business organization are positively related to its financial performance. In many cases, the managers try to maximize their welfare by awarding themselves huge salary amounts in the expense of shareholders, who are the owners of the business entities, hence affecting the share returns of the companies negatively (Mueller, 1969).

### **2.2.2 Synergy Theory**

The main benefit of mergers and acquisitions is the generation of financial synergy (Roll, 1986). Business entities achieving financial synergy through minimizing the cost of raising money internally below the cost of external sourcing for general investment purposes. Firms which are not able to entirely finance their investment operations with their internal sources are forced to combine with firms which can afford the external sources hence reducing the costs and risks involved (Roll, 1986). Financial stability is the key factor that will influence the financial performance of any business entity. If the business entity is financially stable, it has the capacity to manage its affairs but if the entity is faced with serious financial challenges, it will lead to receivership (Roll, 1986).

The financial stability of a company depends on its resources. Company resources are grouped into three categories; tangible resources, human capital and organizational capital. Many organizations generate competitive advantage through these resources hence improving their financial performance. Since these resources can neither be copied nor substituted, companies opt for mergers and acquisition activities to access the resource hence get significant synergies.

### **2.2.3 Monopoly Theory**

According to monopoly theory the motive for mergers and acquisitions is the creation of monopoly power (Lambert, 2001). Monopoly power means the market structure is controlled by one seller who sells unique products to its customers and that he faces no competition from other sellers. Under this market, no restrictions or barriers and by mergers and acquisitions, separate companies can be considered to become a bigger company which will own and control all the market. This theory is relevant to this study since it encourages monopoly power which can be attained through mergers and acquisitions. Monopoly power will benefit the listed companies by improving their share return as a result of increased profitability.

### **2.2.4 Signaling Hypothesis**

According to this theory, managers who have sufficient idea about the worth of the target firm are motivated to spearhead the mergers and acquisitions activities (Fleming, 1980). The availability of adequate information plays a key role in the formation of mergers and acquisitions. Managers who have adequate information about the value of the target are advantageous since they have sufficient information to seal the deal. With sufficient information, shareholders are assured of sound investment decisions by the managers since they understand the target company better, they can estimate the projected returns of the company and any possible risks associated with the company.

### **2.2.5 Economics Theory**

This theory was founded by Nielsen (1974), according to this theory, the companies in the mergers and acquisitions deal will enjoy finance economies as a result of reduced costs of

transactions. Business entities enjoy economies of scale as a result of mergers and acquisitions. Companies producing goods in bulk are able to enjoy the reduced costs of production. Firms will enjoy the marketing economies since they can be able to cover longer geographical areas due to benefits associated with mergers and acquisitions. The economics theory is about the benefits associated with minimized costs brought about by mergers and acquisitions. The examples include the increased quantity of the output and increased operations. Economics theory will affect the production costs associated with units of the output. This theory is relevant to this study since it encourages mergers and acquisitions which lead to economies of scale which improve the share returns (Nielsen, 1974).

## **2.3 Determinants of Stock Returns**

The major determinants of stock returns are; mergers and acquisitions, corporate governance, firm size, capital structure and liquidity.

### **2.3.1 Mergers and Acquisitions**

According to (Ross, 1980), mergers involve the combination of at least two business entities to increase the value of firms. The main purpose of horizontal mergers is to increase the market share in order to achieve the economies of scale. Conglomerate mergers involve the consolidation of firms in unrelated lines of business. Vertical merger is a merger between firms in different levels of production of various components of the same end product. According to Baldwin (1998) acquisition is a process where one business entity buys almost all assets of another firm and takes control of all operations.

### **2.3.2 Corporate Governance**

Corporate governance are the practices that shape the behavior of managers of the organizations in achieving the organizational goals. The strategies developed will help the managers in planning, monitoring and evaluating its overall financial performance in the management of risks and any uncertainties. Corporate governance practices aims at creating wealth for the stakeholders of the business entities who include the suppliers, shareholders, creditors and financial institutions. It will also ensure the rights of the shareholders are protected, shareholders are treated equally, their rights are protected and disclosures on the financial results are fully revealed by the management (Manne, 1965).

### **2.3.3 Firm Size**

The size of the firm affects its share returns negatively or positively. Large business entities can access most services at reduced costs due to their purchasing power for example finance, production and distribution compared to smaller companies who cannot afford the bulkiness of services. By accessing the services at reduced costs, the companies are able to do risk diversification efficiently. The companies can also be able to respond swiftly to the environmental and operating changes in the market (Myers, 1984).

### **2.3.4 Capital Structure**

Capital structure is the percentage mix of various types of financing components by the company (Modigliani & Miller, 1965). Capital structure does not exist. How the companies combine debt and equity will play a key role for the failure or success of such companies, the company can either use high proportion of equity capital and low debt and vice versa. The capital structure mix will affect the share returns, the use of high debt financing

exposes the company to bankruptcy because of high finance charges which the company cannot fully cater for, high amount of equity capital in the capital structure will help the company mitigate the risks associated with financial distress.

### **2.3.5 Liquidity**

The extent to which assets can be bought or sold is the liquidity. The transaction will not affect the price of the assets in the market. The quick ratio informs us on the fulfillment of the short term obligations as they fall due using the most liquid cash excluding the inventories. It is the ratio of current assets minus inventory divided by current assets. Current ratio on the other hand tells us more about the assets which will become liquid within 12 months with the liabilities to be settled. Business entities with greater percentage of liquid assets normally perform better because cash is readily available to cater for the obligations (Wood, 1988).

### **2.4 Empirical Review**

Louz (2016) investigated the relationship between M&As and the performance of the companies in Greece. He used a sample of 130 companies over the period 2007 to 2014 from the population of 281 companies. He analyzed the data for the premerger and post mergers period for a period of 3 years. The ROE measured the financial performance. Regression analysis was also used. Methodology used was appropriate. He concluded that M&As had a negative effect on the financial performance.

Njoroge (2016) did a study to examine whether the mergers of Glaxosmith and Cline merger delivered the value for the shareholders of the company. He analyzed the pre-merger post-merger financial performance. The analysis of financial performance involved

the determination of the return on investment. Sample size was limited. He concluded that GlaxoSmithKline performed better financially after the merger.

Mutiso (2015) investigated the impact of M&As on the firm value of oil firms in Kenya. A six year period data was employed. The survey targeted the 14 oil firms that had undergone M&As in Kenya. He analyzed the 5year Pre-mergers and acquisitions, and post mergers and acquisitions. Regression analysis was also conducted. The study was well structured.

Green (2015) analyzed the effect of mergers and acquisitions on the financial performance of the companies from the insurance industry in the United States of America. A sample of 97 companies which underwent mergers and acquisitions during the study period 2005 to 2013 were selected for the study. The survey aimed at establishing the profitability of insurance firms after mergers and acquisitions by the use of ratio analysis and t-test statistics. The choice of the variables was ok. He concluded that the profitability of the insurance companies improved after mergers and acquisitions.

Mash (2012) conducted a study to determine the effect of mergers and acquisitions on the financial performance of Indian firms from 2003 to 2009. The sample of the study was 112 companies of 345 pharmaceutical firms in India. The study was well structured. He found out that the return on investment and return on assets increased after mergers and acquisitions and he concluded that mergers and acquisitions have a significant influence on the financial performance.



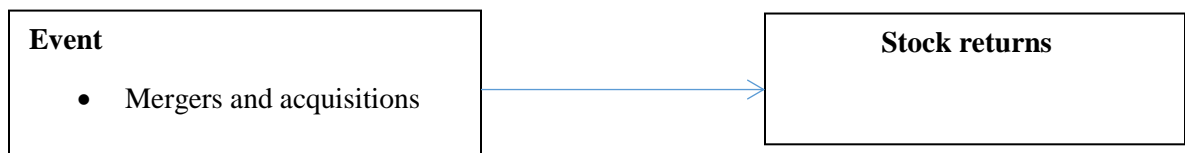
Kamar, et al. (2011) analyzed the mergers and acquisitions on performance of selected corporate entities in India from 2000 to 2005. A total of 356 corporate firms were chosen as the population of the study. A sample of 112 corporate firms which had undergone M&As was selected from 2001 to 2005. They concluded that mergers and acquisitions improved the liquidity and profitability of the corporate firms in India.

Malik (2010) conducted a study to assess the price of share after the acquisition announcement in the New York stock exchange in America in 2010. The share price of 200 companies was under observation but they used a sample of 102 companies. They concluded from their observation that share price of the companies posted an upward trend a few days prior to the acquisition announcement.

## 2.5 Conceptual Framework

**Independent variable**

**Dependent variable**



**Figure 2.1: Conceptual Framework**

## 2.6 Summary of the Literature Review

The following theories were highlighted in this chapter and they include; agency theory (Mueller, 1969), synergy theory (Roll, 1986), monopoly theory (Lambert, 2001), signaling hypothesis (Fleming, 1980) and economics theory (Nielsen, 1974). Determinants of

financial performance which include mergers and acquisitions, corporate governance, firm size, capital structure and liquidity were also discussed, conceptual framework. Different studies on mergers and acquisitions and financial performance were reviewed and they include; Louz (2016),Njoroge(2016),Mutiso (2015)Maraga (2014), Mash (2012),Kamar, et al. ( 2011), Muli (2011), Marion (2010), Okwar (2010) and ogutu (2010). From the literature reviewed, the following research gaps were evident, shorter period of study and lack of models in the studies. Therefore, the need for the current study to address the gaps.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This section discusses the methods which were used in this study, sources of data, sample selection, research design to be applied, population of the study, data collection and data analysis to be employed.

#### **3.2 Research Design**

Research design is the detailed description of the events and situations between people and things (Cooper, 2006). It aims at explaining how variables relate with each other. The descriptive design adopted describes the variables of interest and in so doing gives further understanding of the research problem design provides.

#### **3.3 Population**

Cooper (2006) defined population as a collection of things with similar characteristics. The target population is the total population, that a researcher is interested in researching and analyzing. The population of interest in this study was the 7 companies which have undergone mergers and acquisitions as from January 2010 to December 2017.

#### **3.4 Data Collection**

Data collection is the systematic method used to gather information from different stations to draw the conclusions by the researcher (Cooper, 2006). It is useful in order to acquire relevant data that can meet the intended purpose of research. This research relied on the

secondary data to investigate the association between the dependent variable and independent variable because secondary data was readily available.

### **3.5 Data Analysis**

Data analysis means the process of breaking down data to meaningful manner by use statistical tools. This study used an event study methodology for the research; the method is formulated to determine the effect of an event which was mergers and acquisitions on a certain variable that is dependent which was stock returns.

#### **3.5.1 Event Study Methodology**

The event study methodology involved the calculation of the abnormal return using a number of statistical models that are available which included CAPM (Sharpe & Linter, 1964), multi factor model and risk adjusted model. The study focused on the CAPM model to test if the firms generated abnormal return or not by using the below steps.

##### **Step 1: Identifying the event**

The first step is to identify event to be examined, and after that gather information of organizations that had experienced such an event. The information required incorporates the declaration date, the stock prices of the organization when the event occurred and the information on every one of the organizations so as to classify them into various categories.

##### **Step 2: Identification of value, event and post event windows**

The value estimation is done in this step. Moreover, we should settle on a time over which the stock prices of the organizations engaged with this occasion will be inspected. This is our occasion window. A post event time that is short will not have

the capacity to show the full financial impacts while a post event period that is too long will not be precise as it may incorporate impacts of different occasions happening in a similar period.

### **Step 3: Estimations of the essential parameters**

For instance in the event that we utilize the market model to locate the normal returns, we will require the alpha (y-intercept) and beta (slope) of the costs over a sensibly long estimation window.

**Step 4:** Next the model CAPM ( $R_i = R_f + B(R_m - R_f)$ ), the Arbitrage valuing hypothesis ( $R_i = B_i F_i + B_2 F_2 + \dots$ ) and the Constant mean model will be utilized to locate the normal profits for every one of the event day. From that point, normal come back is deducted from the real come back to get the abnormal profit for every day in the event window.

### **Step 5: Determination of abnormal return**

Abnormal return was calculated using a number of statistical models that were available which include, CAPM (Sharpe & Linter, 1964), Multi factor model and risk adjusted model by using the below steps.

Computation of the announcement day (0), the period of the study was 30 days (15 days prior the event and 15 days after the event), calculation of daily returns for each of the company as follows;

$$R_j = \frac{(P_i - P_o + DI)}{P_o}$$

Calculation of the return for a market portfolio by the help of the following formula;

$$MR_i = \frac{M_i - M_o}{M_o}$$

$MR_i$  the market return for the day  $i$

$M_i$  Market Return for day  $i$

$M_o$  Market Return for day  $o$

Calculation of the abnormal Return as follows;

$$R_{jt} = a_j + b_j R_{mt} + \sum \mu$$

Where

$R_j$  is the Return On Stock  $j$  on day  $t$

$A_j$  and  $b_j$  are the intercepts and the slope of the linear relationship between the returns of stock  $j$  and Returns of the overall market.

$R_{mt}$  is the return on the market index on the day  $t$ .

$\sum \mu$  is the unsystematic component of company's returns.

The efficient diversification reduces the total risk of a portfolio to the point where systematic risk is left hence reducing the equation to below

$$R_{jt} = a_j + b_j R_{mt}$$

Cumulative abnormal return (CAR) for 15 days before and 15 days after was calculated as follows;

$$CAR_i(\tau_1, \tau_2) = \sum_{t=\tau_1}^{\tau_2} AR_{it}$$

The computation of CAAR will follow (Panagiotis and Spyridon, 2011) approach and (Dancan and Linnet, 2017) approach.

### 3.5.2 Test of Significance

This study confirmed the relationship between the Stock Return of firms before mergers and acquisitions and post-mergers and acquisitions by using T-Test statistics test on the event window for all stock constructed to determine the abnormal returns.

$$t = (\text{CAAR}(t1, t2) - \mu) / S(\text{CAR}(t1, t2))$$

$\mu$  being tested for significance is the Abnormal Return which takes zero value.  $S(\text{CAR}(t1, t2))$  the test statistics for standard error of prediction is computed by dividing the Average Abnormal Return of all the stocks over specified event period (t1,t2) by standard deviation of estimation using the Z statistics.

$$\text{CAAR} = 1/n$$

The study analyzed if mergers and acquisitions had a significant effect on the stock returns hence if the effect is significant the t statistics is significantly different from 0.

## CHAPTER FOUR

### DATA ANALYSIS, RESULTS AND DISCUSSION

#### 4.1 Introduction

This chapter provides the paired summary statistics, the trend analysis of the firms which had undertaken mergers and acquisitions, the paired samples statistics and finally a discussion of the research findings.

#### 4.2 Descriptive Statistics

The study targeted the 7 companies which had undertaken mergers and acquisitions as from January 2010 to December 2017. Complete data was obtained from the 7 firms hence a 100% response rate. This section provides the descriptive results.

##### 4.2.1 Abnormal Returns

**Table 4.1: Abnormal Returns**

		Mean	N	Std. Deviation	Std. Error Mean
DTB	AR before merger	.00173	15	.019510	.005037
	AR after merger	-.00067	15	.023560	.006083
I&M	AR before merger	-.00567	15	.017406	.004494
	AR after merger	.00547	15	.025008	.006457
EABL	AR before merger	-.00007	15	.015332	.003959
	AR after merger	-.00233	15	.007789	.002011
Britam	AR before merger	-.00013	15	.005330	.001376
	AR after merger	.00007	15	.003918	.001012
Centum	AR before merger	-.00153	15	.017996	.004646
	AR after merger	.00180	15	.030578	.007895
Scan group	AR before merger	.00280	15	.013534	.003494
	AR after merger	-.00320	15	.033070	.008539
KCB	AR before merger	-.00013	15	.011655	.003009
	AR after merger	.00047	15	.006567	.001696

Source: Author (2018)



The findings on Table 4.1 indicate that the mean values for Scan group and DTB abnormal returns were positive (0.00280 & 0.00173) before acquisition but they became negative (-0.00320 & -0.00067) after acquisition while the mean values for Centum investments and BRITAM abnormal return were -0.00153 and -0.00013 before acquisition and 0.00180 and 0.00007 after acquisition respectively. According to the results, the average value for KCB for the abnormal return was negative (-0.00013) before the acquisition but it became positive (0.00047) after the acquisition whereas the average values for EABL and I&M bank for abnormal returns before acquisition were -0.00007 and -0.00567 but after acquisition the mean values were -0.00233 and 0.00547 respectively.

According to the findings, the average values for Scan group and DTB abnormal returns were positive before the respective mergers and acquisitions while those for KCB, Centum Investments, BRITAM, EABL and I&M bank were negative respectively. Conversely, after the respective mergers and acquisitions, the average values for Scan group, EABL and DTB abnormal returns were negative while KCB, Centum investments, BRITAM and I&M bank had negative abnormal returns respectively.

#### 4.2.2 Average Abnormal Returns

**Table 4.2: Average Abnormal Returns**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	AAR before merger	-.01193	15	.016555	.004274
	AAR after merger	.00433	15	.015108	.003901
Pair 2	AAR before merger	-.03347	15	.032227	.008321
	AAR after merger	-.02560	15	.023018	.005943
Pair 3	AAR before merger	-.02353	15	.019302	.004984
	AAR after merger	.02433	15	.015869	.004097
Pair 4	AAR before merger	-.00287	15	.005436	.001404
	AAR after merger	.00200	15	.004736	.001223
Pair 5	AAR before merger	.00640	15	.018259	.004715
	AAR after merger	.01727	15	.024209	.006251
Pair 6	AAR before merger	.01947	15	.011855	.003061
	AAR after merger	.01313	15	.026678	.006888
Pair 7	AAR before merger	-.00627	15	.007695	.001987
	AAR after merger	-.01007	15	.008540	.002205

**Source: Author (2018)**

Table 4.2 indicates that the average values for Scan group and Centum investments average abnormal returns (ARR) were positive (0.01947 & 0.00640) before the respective mergers and acquisitions while those of KCB, BRITAM, EABL, I&M Bank and DTM were negative (-0.00627, -0.00287, -0.02353, -0.03347 & -0.01193) respectively. The findings further indicate that Scan group, Centum, BRITAM, EABL and DTB bank average abnormal returns (AAR) were positive (0.01313, 0.01727, 0.00200, 0.02433 & 0.00433) after the respective mergers and acquisitions but the mean values for I&M bank and KCB AAR were negative (-0.02560 & -0.01007) respectively.

### 4.3.3 Cumulative Average Abnormal Returns

**Table 4.3: Cumulative Average Abnormal Returns**

		Mean	N	Std. Deviation	Std. Error Mean
DTB	CAAR before merger	-.10320	15	.067928	.017539
	CAAR after merger	-.14473	15	.022964	.005929
I&M	CAAR before merger	-.14567	15	.162783	.042030
	CAAR after merger	-.82880	15	.142220	.036721
EABL	CAAR before merger	-.17147	15	.139868	.036114
	CAAR after merger	-.06467	15	.117132	.030243
Britam	CAAR before merger	-.02900	15	.009805	.002532
	CAAR after merger	-.02727	15	.014489	.003741
Centum	CAAR before merger	.09613	15	.044170	.011405
	CAAR after merger	.27247	15	.076839	.019840
Scan group	CAAR before merger	.13067	15	.096748	.024980
	CAAR after merger	.47860	15	.056612	.014617
KCB	CAAR before merger	-.05313	15	.029734	.007677
	CAAR after merger	-.16567	15	.054890	.014173

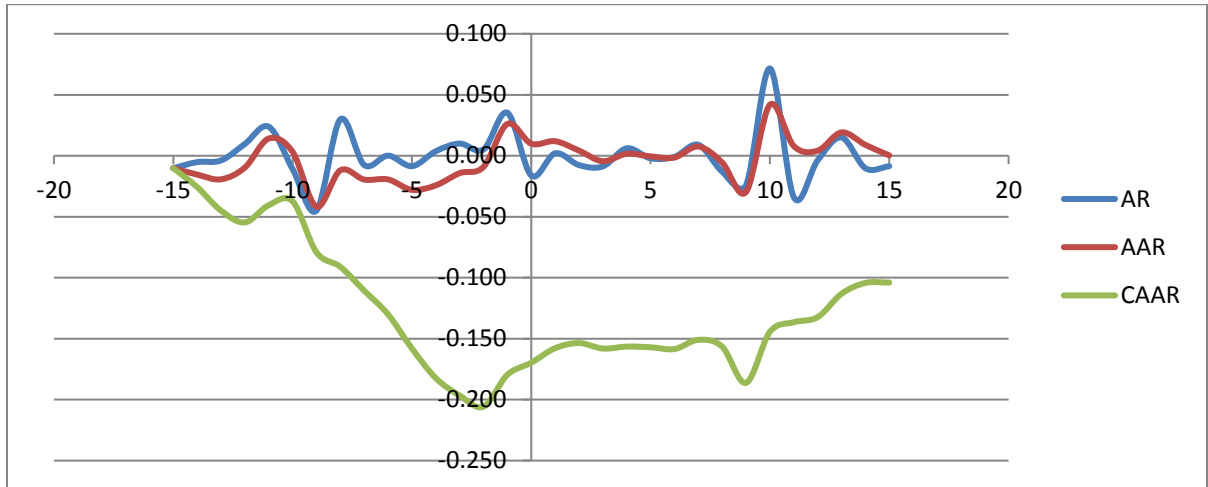
**Source: Author (2018)**

Table 4.3 shows that the average values for Scan group, and Centum investments Cumulative Average Abnormal Returns (CAAR) were positive before and after the respective mergers and acquisitions. On the other hand, the average values for KCB, BRITAM, EABL, I&M and DTB CAAR were negative positive before and after the respective mergers and acquisitions.

### 4.3 Trend Analysis

This section presents the trend for the respective firms' abnormal returns, average abnormal returns and the cumulative average abnormal returns before and after conducting the respective mergers and acquisitions.

### 4.3.1 DTB Trend

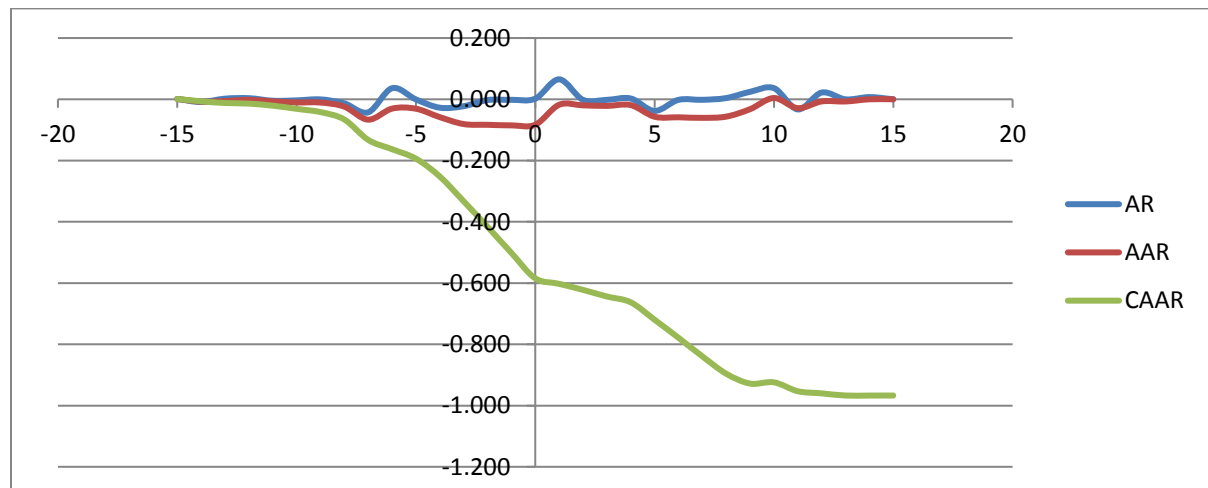


**Figure 4.1: DTB Trend**

**Source: Author (2018)**

The DTB trend on figure 4.1 shows that high and low fluctuations were witnessed with relation to the cumulative average abnormal returns, average abnormal returns and abnormal returns after the respective acquisition by DTB bank.

### 4.3.2 I&M Bank Trend

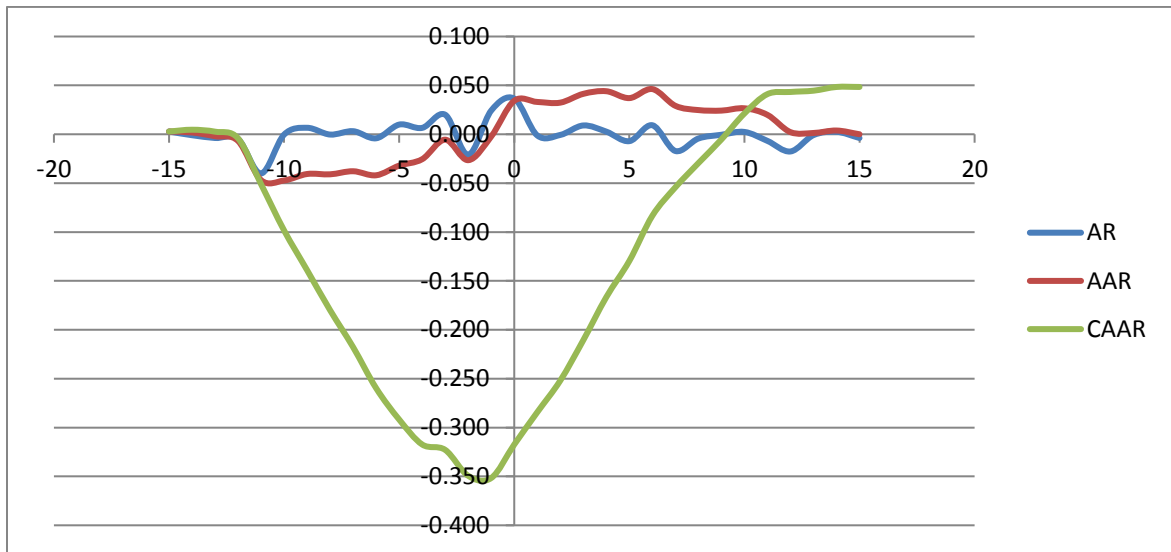


**Figure 4.2: I&M Bank Trend**

**Source: Author (2018)**

The I&M trend on figure 4.2 shows that the cumulative average abnormal returns gradually declined after the acquisition while the average abnormal returns recorded a gradually increase with high and low fluctuations being recorded with regards to abnormal returns after the acquisition by the bank.

### 4.3.3 EABL Trend

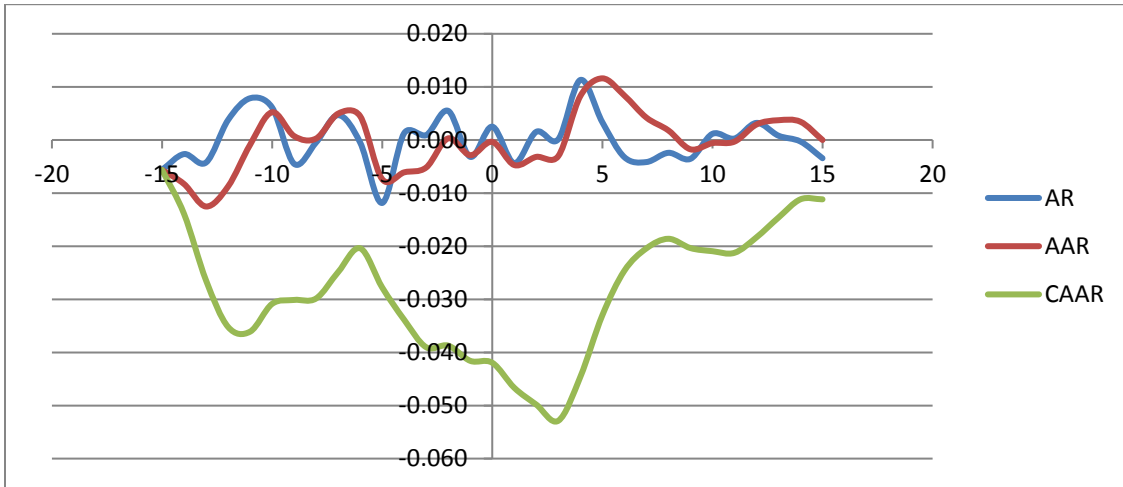


**Figure 4.3: EABL Trend**

**Source: Author (2018)**

The EABL trend on figure 4.3 shows that the cumulative average abnormal returns after the acquisition steadily increased after the announcement of the acquisition but the average abnormal returns and the abnormal returns steadily declined after the acquisition.

#### 4.3.4 Britam Trend

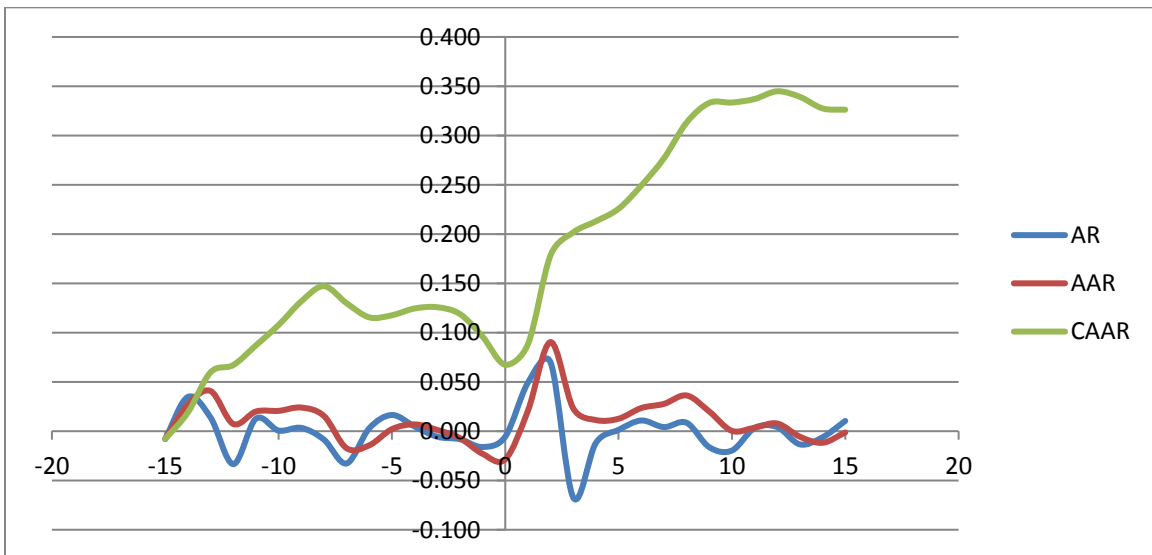


**Figure 4.4: Britam Trend**

Source: Author (2018)

The Britam trend on figure 4.4 shows that cumulative average abnormal returns sharply increased after the acquisition while the average abnormal returns recorded a gradually increase with high and low fluctuations being recorded with regards to abnormal returns after the acquisition by Britam.

#### 4.3.5 Centum Trend

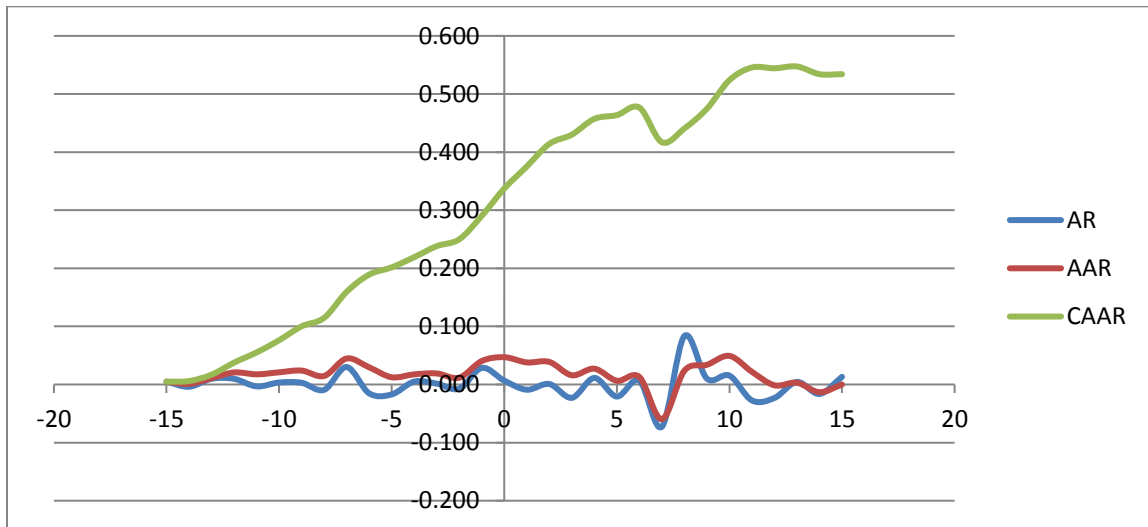


**Figure 4.5: Centum Trend**

Source: Author (2018)

Figure 4.5 shows fluctuations in both the average abnormal returns and abnormal returns after the acquisition but the Cumulative Average Abnormal Returns steadily increased after the acquisition by Centum holdings.

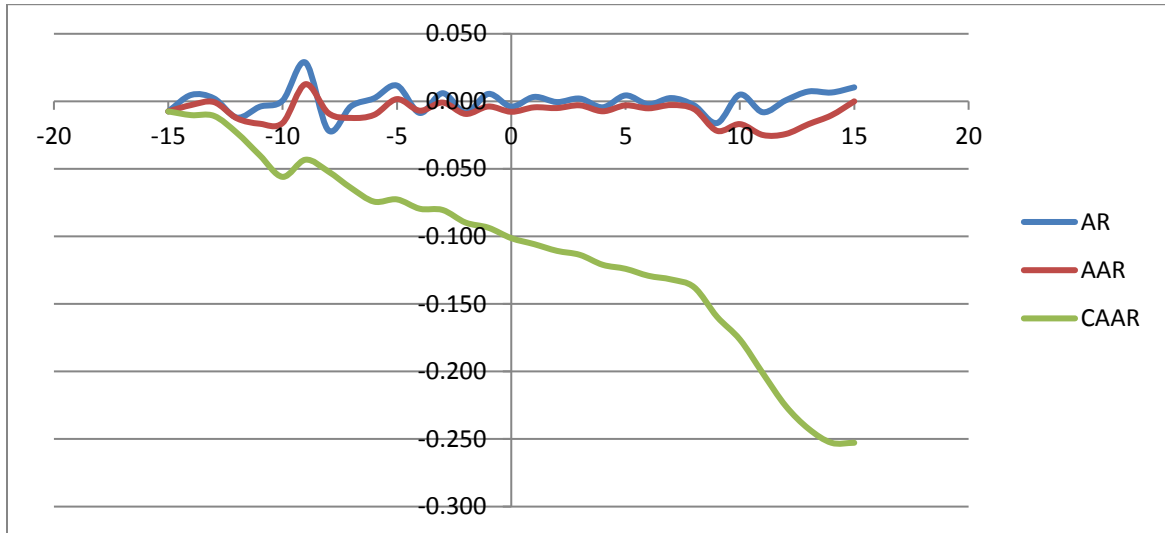
#### 4.3.6 Scan Group Trend



**Figure 4.6: Scan Group**  
**Source: Author (2018)**

The SCAN group trend on figure 4.6 indicates that the Cumulative Average Abnormal Returns steadily increased after the announcement of the merger while rapid fluctuations were witnessed with regards to the average abnormal returns after the merger. Conversely, abnormal returns recorded high and low fluctuations after the merger.

### 4.3.7 KCB Trend



**Figure 4.7: KCB Trend**

**Source: Author (2018)**

The abnormal returns fluctuated up and down before and after the announcement of the acquisition. The results shows that fluctuations on the average abnormal returns were not rapid before and after the announcement of the acquisition but the cumulative average abnormal returns steadily declined after the merger.

### 4.4 Paired Samples Test

The study paired samples t-test was used in the study to assess whether there was a statistically significant difference between stock returns before and after the merger and acquisitions announcement.



#### 4.4.1 Paired Samples Test for Abnormal Returns

**Table 4.4: Paired Samples Test for Abnormal Returns**

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
DTB	AR before merger –AR after merger	.002400	.031582	.008154	-.015089	.019889	.294	14	.773
I&M	AR before merger –AR after merger	-.011133	.029619	.007648	-.027536	.005269	-1.456	14	.168
EABL	AR before merger –AR after merger	.002267	.018324	.004731	-.007881	.012414	.479	14	.639
Britam	AR before merger –AR after merger	-.000200	.005722	.001477	-.003369	.002969	-.135	14	.894
Centum	AR before merger –AR after merger	-.003333	.031162	.008046	-.020590	.013924	-.414	14	.685
Scan Group	AR before merger –AR after merger	.006000	.035733	.009226	-.013788	.025788	.650	14	.526
KCB	AR before merger –AR after merger	-.000600	.012580	.003248	-.007567	.006367	-.185	14	.856

**Source: Author (2018)**

The paired samples test for abnormal returns on table 4.4 shows that there was no statistically significant difference between the announcement and merger and acquisitions on abnormal returns of the firms which had conducted mergers and acquisitions within the considered study period. This is indicated by the p values, which are all greater than 5% level of significance.

#### 4.4.2 Paired Samples Test for Average Abnormal Returns

**Table 4.5: Paired Samples Test for Average Abnormal Returns**

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
DTB	AAR before merger – AAR after merger	-.016267	.023879	.006166	-.029490	-.003043	-2.638	14	.019
I&M	AAR before merger – AAR after merger	-.007867	.048688	.012571	-.034829	.019096	-.626	14	.542
EABL	AAR before merger – AAR after merger	-.047867	.026659	.006883	-.062630	-.033103	-6.954	14	.000
Britam	AAR before merger – AAR after merger	-.004867	.006289	.001624	-.008349	-.001384	-2.997	14	.010
Centum	AAR before merger – AAR after merger	-.010867	.020739	.005355	-.022352	.000618	-2.029	14	.062
Scan Group	AAR before merger – AAR after merger	.006333	.030191	.007795	-.010386	.023053	.812	14	.430
KCB	AAR before merger – AAR after merger	.003800	.011521	.002975	-.002580	.010180	1.277	14	.222

**Source: Author (2018)**

The paired sample results on table 4.5 shows that there was no statistically significant difference between the mergers and acquisitions on average abnormal returns (ARR) of KCB Group, Scan Groups and EABL since the p values were greater that 0.05. On the other hand, the results indicate that the acquisitions had a statistically significant difference (P value, 0.019, 0.000, 0.010 and 0.062<0.05) on the average abnormal returns of the DTB, EABL, Britam and Centum investments.

#### 4.4.3 Paired Samples Test for Cumulative Average Abnormal Returns

**Table 4.6: Paired Samples Test for Cumulative Average Abnormal Returns**

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
DTB	CAAR before merger – CAAR after merger	.041533	.086794	.022410	-.006531	.089598	1.853	14	.085
I&M	CAAR before merger – CAAR after merger	.683133	.102150	.026375	.626564	.739702	25.901	14	.000
EABL	CAAR before merger – CAAR after merger	-.106800	.254071	.065601	-.247500	.033900	-1.628	14	.126
Britam	CAAR before merger – CAAR after merger	-.001733	.021842	.005640	-.013829	.010362	-.307	14	.763
Centum	CAAR before merger – CAAR after merger	-.176333	.041291	.010661	-.199200	-.153467	-16.540	14	.000
Scan Group	CAAR before merger – CAAR after merger	-.347933	.053158	.013725	-.377371	-.318495	-25.350	14	.000
KCB	CAAR before merger – CAAR after merger	.112533	.030570	.007893	.095604	.129463	14.257	14	.000

**Source: Author (2018)**

Table 4.6 shows that there was a statistically significant difference between announcement of mergers and acquisitions and the cumulative average abnormal returns I&M bank, Centum investments, Scan Group and KCB bank as indicated by p values of  $0.000 < 0.05$ . Conversely, the results indicate that there was no statistically significant difference between merger and acquisitions announcement and the cumulative average abnormal returns (CAAR) for DTB, EABL and Britam since their p values were greater than 5% respectively.

## **4.5 Discussion of the Findings**

The findings of the study revealed that there was no statistically significant difference between the announcement and merger and acquisitions on abnormal returns of the listed firms in Kenya. This is an indication that the announcement of mergers and acquisitions do not have a statistically significant difference on abnormal returns of firms which had concluded that mergers and acquisitions. A study by Green (2015) concluded that the profitability of the insurance companies improved after mergers and acquisitions.

In addition, the study revealed that there was no statistically significant difference between the announcement of mergers and acquisitions on average abnormal returns (ARR) of KCB Group, Stan Group and EABL respectively. This means that the announcement of mergers and acquisitions do not have a statistically significant difference on average abnormal returns of firms which had concluded that mergers and acquisitions. A study by Mutiso (2015) concluded that the M&As activities did not have any effect on the financial performance.

The study also found that acquisitions had a statistically significant difference on the average abnormal returns of the DTB, EABL, Britam and Centum investments. This means that the mergers and acquisitions had a statistically significant effect on the average abnormal returns of the DTB, EABL, Britam and Centum investments. A study by Mash (2012) found out that the return on investment and return on assets increased after mergers and acquisitions and he concluded that mergers and acquisitions have a significant influence on the financial performance.

The study also found that that there was a statistically significant difference between announcement of mergers and acquisitions and the cumulative average abnormal returns I&M bank, Centum investments, Scan Group and KCB bank. This is an indication that announcement of mergers and acquisitions significantly influences the cumulative average abnormal returns (CAAR) for I&M bank, Centum investments, Scan Group and KCB bank respectively. A study by Malik (2010) concluded from their observation that share price of the companies posted an upward trend a few days prior to the acquisition announcement.

The study finally revealed that that there was no statistically significant difference between merge and acquisitions announcement and the cumulative average abnormal returns (CAAR) for BRITAM, EABL and DTB. This means that announcement of mergers and acquisitions does not significantly influences the cumulative average abnormal returns (CAAR) for DTB, EABL and Britam respectively. A study by Mash (2012) found that mergers had a positive significant effect on the financial performance.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION, RECOMMENDATIONS**

#### **5.1 Introduction**

This section contains a summary of the study, the research conclusions based on the findings and recommendations as per the study conclusions. The chapter also presents the research limitations and suggestions for additional research.

#### **5.2 Summary**

This study investigated the effect of mergers and acquisitions on the stock returns of companies listed at the Nairobi Securities Exchange. The summary descriptive result established the average values for Scan group and DTB abnormal returns were positive before the respective mergers and acquisitions while those for KCB, Centum Investments, BRITAM, EABL and I&M bank were negative respectively. Conversely, after the respective mergers and acquisitions, the average values for Scan group, EABL and DTB abnormal returns were negative while KCB, Centum investments, BRITAM and I&M bank had negative abnormal returns respectively.

The paired samples statistics for average abnormal returns (ARR) established that the average values for Scan group and Centum investments average abnormal returns (ARR) were positive (0.01947 & 0.00640) before the respective mergers and acquisitions while those of KCB, BRITAM, EABL, I&M Bank and DTM were negative (-0.00627, -0.00287, -0.02353, -0.03347 & -0.01193) respectively. The findings further indicate that Scan group, Centum, BRITAM, EABL and DTB bank average abnormal returns (AAR) were positive with the respective values (0.01313, 0.01727, 0.00200, 0.02433 & 0.00433)

The paired samples statistics for cumulative average abnormal returns (CAAR) revealed that the average values for Scan group, and Centum investments Cumulative Average Abnormal Returns (CAAR) were positive before and after the respective mergers and acquisitions. On the other hand, the average values for KCB, BRITAM, EABL, I&M and DTB CAAR were negative positive before and after the respective mergers and acquisitions. The paired samples test for abnormal returns established that there was no statistically significant difference between merger and acquisitions on abnormal returns of the firms which had conducted mergers and acquisitions within the considered study period. This was indicated by the p values, which are all greater than 5% level of significance.

The paired sample results revealed that there was no statistically significant difference between the mergers and acquisitions on average abnormal returns (ARR) of KCB Group, Scan Groups and EABL since the p values were greater than 0.05. On the other hand, the results indicate that the acquisitions had a statistically significant difference (P value, 0.019, 0.000, 0.010 and  $0.062 < 0.05$ ) on the average abnormal returns of the DTB, EABL, Britam and Centum investments. Finally, the paired samples statistics for cumulative average abnormal returns (CAAR) revealed that there was a statistically significant difference between announcement of mergers and acquisitions and the cumulative average abnormal returns I&M bank, Centum investments, Scan Group and KCB bank as indicated by p values of  $0.000 < 0.05$ . Conversely, the results indicate that there was no statistically significant difference between merger and acquisitions announcement and the cumulative average abnormal returns (CAAR) for DTB, EABL and Britam since there p values were greater than 5% respectively.

### **5.3 Conclusions**

The study results revealed that there was no statistically significant difference between merger and acquisitions on abnormal returns of the listed firms in Kenya. The study also revealed that there was no statistically significant difference between the announcement of mergers and acquisitions on average abnormal returns (ARR) of KCB Group, Scan Groups and EABL respectively. The study based on the finding concludes that mergers and acquisitions do not have a statistically significant difference on average abnormal returns of firms which had concluded that mergers and acquisitions.

Additionally, the study found that acquisitions had a statistically significant difference on the average abnormal returns of the DTB, EABL, Britam and Centum investments. Therefore, the study concludes that mergers and acquisitions had a statistically significant effect on the average abnormal returns of the DTB, EABL, Britam and Centum investments. Further, the study established that there was a statistically significant difference between mergers and acquisitions and the cumulative average abnormal returns I&M bank, centum investments, Scan Group and KCB bank.

The study therefore concludes that announcement of mergers and acquisitions significantly influence the cumulative average abnormal returns (CAAR) for I&M bank, Centum investments, Scan Group and KCB bank. Lastly, the study established that there was no statistically significant difference between merge and acquisitions and the cumulative average abnormal returns (CAAR) for BRITAM, EABL and DTB. study concludes that mergers and acquisitions does not significantly influences the cumulative average abnormal returns (CAAR) for DTB, EABL and Britam respectively.



## **5.4 Recommendations**

The results of the effect of mergers and acquisitions on abnormal returns led to the conclusion that mergers and acquisitions do not have a statistically significant difference on abnormal returns of firms which had concluded that mergers and acquisitions. Thus, the study recommends that recommends that investor should focus on company fundamentals, which influence abnormal returns as opposed to announcements made by the firm on mergers and acquisitions.

The findings on the effect of mergers and acquisitions on average abnormal returns led to the conclusion that mergers and acquisitions do not have a statistically significant difference on average abnormal returns of some firms but an insignificant significant difference on average abnormal returns of other firms. The study therefore recommends that management of firms should conduct adequate due diligence before engaging in merger and acquisitions to make sure they are advantageous to the company which is merging or conducting the acquisition.

Finally, the results of the effect on mergers and acquisitions on cumulative average abnormal returns led to the conclusion that mergers and acquisitions do not have a statistically significant difference on cumulative average abnormal returns of some firms but an insignificant significant difference on cumulative average abnormal returns of other firms. The study based on this conclusion recommends that the management of listed firms should focus more on the synergies created by mergers and acquisitions, which would maximize the value of the owners of the company.

## **5.5 Limitations of the Study**

The population of this study was the 7 companies which have undergone mergers and acquisitions as from January 2010 to December 2017. The study therefore considered the seven firms, thus the findings are therefore generalized to the seven firms which formed the study population.

The study also used secondary data, which was obtained from the listed financial firms financial statements for a period of 15 days before merger and acquisitions. However, secondary data is always historical in nature and may not represent the current situation of the firms. In addition, the study did not incorporate the views of the listed non-financial firms' financial performance due to the use of secondary sources of data.

The researcher also faced time constraint. Given that the study utilized secondary data which was obtained from several sources which included; Capital Markets Authority, the individual companies and the Nairobi Securities Exchange. The time was not adequate for the entire data collection exercise and analysis. However, the limited available time, it was well utilized.

## **5.6 Suggestions for Further Research**

The study focused on merger and acquisitions and how they influence stock returns of listed firms in Kenya. Merger and acquisitions however affect financial performance, firm liquidity and asset of the company. Merger and acquisition also affect employees and the company operations in general. The study therefore recommends a study on the effect merger and acquisitions on financial performance of firms and the other fundamental factors influenced by mergers and acquisitions.

The study also focused on the seven companies which have undergone mergers and acquisitions as from January 2010 to December 2017. However merger and acquisitions in Kenya have been conducted for several years by both listed and non-listed firms. The study therefore recommends an additional research which will cover a longer study period and also cover non listed firms.

The study focused on merger and acquisitions and how they influence stock returns of listed firms in Kenya. This study recommends a study on mergers only and how they influence stock returns of listed firms in Kenya.

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## APPENDICES

### Appendix I: List of companies at the NSE that have merged or acquired between 2010 and 2017

Target Company	Merged/Acquired by	Date
1. Savings and Loan(K) Ltd	KCB	2010/02/01
2. Cavendish Square Holdings	Scan Group	2013/12/08
3. Genesis Kenya	Centum Investments	2013/09/18
4. Real Insurance Ltd	BRITAM	2014/04/09
5. Serengeti Breweries	EABL	2014/07/02
6. Giro Commercial Bank	I&M Bank	2017/02/13
7. Habib Bank	Diamond Trust Bank	2017/07/01

## Appendix II: Data on Abnormal Returns

Day	KCB	Scan	Centum	BRITAM	EABL	I&M	DTB
-15	-0.0075	0.0049	-0.0078	-0.0056	0.0028	0.0011	-0.0102
-14	0.0047	-0.0038	0.0348	-0.0027	-0.0010	-0.0087	-0.0052
-13	0.0022	0.0099	0.0138	-0.0042	-0.0038	0.0021	-0.0039
-12	-0.0120	0.0098	-0.0334	0.0038	-0.0048	0.0036	0.0096
-11	-0.0040	-0.0032	0.0127	0.0079	-0.0401	-0.0048	0.0238
-10	0.0005	0.0034	0.0007	0.0061	-0.0003	-0.0036	-0.0109
-9	0.0287	0.0029	0.0033	-0.0045	0.0066	-0.0003	-0.0450
-8	-0.0214	-0.0092	-0.0085	-0.0005	-0.0003	-0.0134	0.0299
-7	-0.0036	0.0301	-0.0327	0.0047	0.0031	-0.0425	-0.0076
-6	0.0023	-0.0152	0.0030	-0.0005	-0.0041	0.0362	0.0001
-5	0.0117	-0.0171	0.0164	-0.0119	0.0099	-0.0004	-0.0086
-4	-0.0086	0.0050	0.0048	0.0013	0.0065	-0.0275	0.0037
-3	0.0060	0.0015	-0.0056	0.0009	0.0200	-0.0226	0.0100
-2	-0.0084	-0.0072	-0.0082	0.0055	-0.0210	-0.0024	0.0052
-1	0.0055	0.0286	-0.0161	-0.0032	0.0243	-0.0018	0.0353
0	-0.0039	0.0066	-0.0056	0.0025	0.0365	0.0021	-0.0162
1	0.0033	-0.0090	0.0493	-0.0044	-0.0012	0.0652	0.0020
2	-0.0005	0.0009	0.0697	0.0015	-0.0007	-0.0018	-0.0077
3	0.0020	-0.0229	-0.0673	0.0001	0.0090	-0.0019	-0.0087
4	-0.0044	0.0113	-0.0118	0.0113	0.0027	0.0026	0.0061
5	0.0044	-0.0208	0.0014	0.0033	-0.0070	-0.0379	-0.0021
6	-0.0022	0.0066	0.0108	-0.0032	0.0092	-0.0019	-0.0009
7	0.0024	-0.0727	0.0042	-0.0042	-0.0171	-0.0018	0.0090
8	-0.0030	0.0834	0.0086	-0.0024	-0.0044	0.0040	-0.0131
9	-0.0161	0.0102	-0.0163	-0.0036	-0.0005	0.0244	-0.0241
10	0.0050	0.0153	-0.0196	0.0012	0.0024	0.0364	0.0716
11	-0.0081	-0.0274	0.0033	0.0003	-0.0068	-0.0331	-0.0340
12	0.0007	-0.0232	0.0042	0.0032	-0.0176	0.0220	-0.0038
13	0.0073	0.0044	-0.0134	0.0008	-0.0009	-0.0001	0.0150
14	0.0065	-0.0163	-0.0061	-0.0003	0.0025	0.0071	-0.0103
15	0.0104	0.0132	0.0104	-0.0034	-0.0038	0.0000	-0.0086

### Appendix III: Data on Average Abnormal Returns

Day	KCB	Scan	Centum	BRITAM	EABL	I&M	DTB
-15	-0.0075	0.0049	-0.0078	-0.0056	0.0028	0.0011	-0.0102
-14	-0.0027	0.0010	0.0269	-0.0083	0.0018	-0.0077	-0.0154
-13	-0.0006	0.0110	0.0407	-0.0125	-0.0020	-0.0056	-0.0193
-12	-0.0126	0.0207	0.0073	-0.0088	-0.0068	-0.0020	-0.0097
-11	-0.0166	0.0175	0.0200	-0.0009	-0.0469	-0.0067	0.0141
-10	-0.0160	0.0210	0.0206	0.0052	-0.0473	-0.0103	0.0032
-9	0.0127	0.0239	0.0240	0.0007	-0.0407	-0.0107	-0.0418
-8	-0.0087	0.0147	0.0154	0.0003	-0.0410	-0.0241	-0.0119
-7	-0.0123	0.0448	-0.0173	0.0050	-0.0378	-0.0666	-0.0195
-6	-0.0100	0.0296	-0.0143	0.0045	-0.0419	-0.0305	-0.0194
-5	0.0017	0.0125	0.0021	-0.0074	-0.0321	-0.0308	-0.0280
-4	-0.0069	0.0175	0.0069	-0.0061	-0.0255	-0.0583	-0.0243
-3	-0.0009	0.0190	0.0013	-0.0052	-0.0055	-0.0809	-0.0143
-2	-0.0093	0.0118	-0.0069	0.0003	-0.0265	-0.0833	-0.0091
-1	-0.0038	0.0403	-0.0230	-0.0029	-0.0022	-0.0851	0.0261
0	-0.0077	0.0470	-0.0285	-0.0004	0.0343	-0.0831	0.0099
1	-0.0045	0.0380	0.0208	-0.0047	0.0330	-0.0179	0.0119
2	-0.0050	0.0389	0.0904	-0.0032	0.0324	-0.0197	0.0042
3	-0.0030	0.0159	0.0231	-0.0030	0.0414	-0.0216	-0.0045
4	-0.0074	0.0272	0.0113	0.0083	0.0440	-0.0190	0.0016
5	-0.0030	0.0064	0.0127	0.0116	0.0370	-0.0570	-0.0005
6	-0.0052	0.0130	0.0235	0.0084	0.0462	-0.0588	-0.0015
7	-0.0027	-0.0597	0.0277	0.0042	0.0291	-0.0606	0.0075
8	-0.0058	0.0237	0.0362	0.0018	0.0247	-0.0567	-0.0056
9	-0.0218	0.0339	0.0200	-0.0017	0.0242	-0.0323	-0.0297
10	-0.0169	0.0492	0.0003	-0.0006	0.0266	0.0041	0.0419
11	-0.0249	0.0218	0.0036	-0.0003	0.0198	-0.0290	0.0079
12	-0.0242	-0.0013	0.0078	0.0029	0.0022	-0.0070	0.0041
13	-0.0169	0.0031	-0.0056	0.0037	0.0013	-0.0072	0.0192
14	-0.0104	-0.0132	-0.0117	0.0034	0.0038	0.0000	0.0089
15	0.0000	0.0000	-0.0013	0.0000	0.0000	0.0000	0.0003



### Appendix IV: Data on Cumulative Average Abnormal Returns

Day	KCB	Scan	Centum	BRITAM	EABL	I&M	DTB
-15	-0.0075	0.0049	-0.0078	-0.0056	0.0028	0.0011	-0.0102
-14	-0.0102	0.0059	0.0191	-0.0139	0.0046	-0.0066	-0.0257
-13	-0.0108	0.0169	0.0598	-0.0264	0.0027	-0.0122	-0.0450
-12	-0.0233	0.0376	0.0671	-0.0352	-0.0042	-0.0141	-0.0547
-11	-0.0399	0.0552	0.0871	-0.0361	-0.0511	-0.0209	-0.0406
-10	-0.0559	0.0762	0.1077	-0.0309	-0.0984	-0.0312	-0.0374
-9	-0.0432	0.1001	0.1317	-0.0301	-0.1390	-0.0419	-0.0792
-8	-0.0519	0.1148	0.1471	-0.0298	-0.1800	-0.0660	-0.0911
-7	-0.0642	0.1596	0.1298	-0.0249	-0.2178	-0.1326	-0.1107
-6	-0.0742	0.1892	0.1155	-0.0204	-0.2598	-0.1630	-0.1301
-5	-0.0726	0.2016	0.1176	-0.0278	-0.2918	-0.1939	-0.1581
-4	-0.0795	0.2191	0.1245	-0.0339	-0.3173	-0.2522	-0.1824
-3	-0.0804	0.2381	0.1258	-0.0390	-0.3229	-0.3331	-0.1966
-2	-0.0897	0.2499	0.1189	-0.0387	-0.3494	-0.4164	-0.2058
-1	-0.0935	0.2903	0.0959	-0.0416	-0.3516	-0.5015	-0.1796
0	-0.1013	0.3373	0.0674	-0.0419	-0.3174	-0.5846	-0.1697
1	-0.1057	0.3753	0.0882	-0.0467	-0.2843	-0.6025	-0.1578
2	-0.1107	0.4141	0.1786	-0.0498	-0.2519	-0.6223	-0.1536
3	-0.1137	0.4301	0.2017	-0.0529	-0.2106	-0.6439	-0.1581
4	-0.1210	0.4572	0.2130	-0.0446	-0.1666	-0.6629	-0.1565
5	-0.1240	0.4637	0.2257	-0.0330	-0.1296	-0.7198	-0.1571
6	-0.1292	0.4766	0.2492	-0.0246	-0.0833	-0.7787	-0.1585
7	-0.1319	0.4170	0.2769	-0.0204	-0.0542	-0.8393	-0.1510
8	-0.1377	0.4407	0.3131	-0.0186	-0.0295	-0.8960	-0.1566
9	-0.1595	0.4746	0.3331	-0.0204	-0.0053	-0.9282	-0.1863
10	-0.1764	0.5238	0.3335	-0.0209	0.0213	-0.9241	-0.1444
11	-0.2013	0.5457	0.3371	-0.0212	0.0411	-0.9531	-0.1365
12	-0.2255	0.5443	0.3448	-0.0183	0.0433	-0.9601	-0.1324
13	-0.2424	0.5474	0.3392	-0.0146	0.0446	-0.9673	-0.1132
14	-0.2527	0.5341	0.3275	-0.0112	0.0484	-0.9673	-0.1043
15	-0.2527	0.5341	0.3262	-0.0112	0.0484	-0.9673	-0.1040