

**THE EFFECT OF WORKING CAPITAL MANAGEMENT ON THE  
PROFITABILITY OF GENERAL TRADING SMALL AND MEDIUM  
ENTERPRISES IN NAIROBI COUNTY**

**BY**

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## DECLARATION

I hereby declare that this research project is my original work and has not been presented for a degree award in any other university.

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## **DEDICATION**

This research is dedicated to my loving family, for the support, encouragement and prayers during the entire period of my study.

God bless you

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## **LIST OF ABBREVIATIONS**

ACP	Average Collection Period
ANOVA	Analysis of Variance
APP	Average Payables Period
CCC	Cash Conversion Cycle
ERM	Efficient Receivables Management
GDP	Gross Domestic product
KNBS	Kenya National Bureau of Statistics
NSE	Nairobi Securities Exchange
ROA	Return on Asset
ROE	Return on Equity
SME	Small and Medium Enterprises
SMERC	Small and Medium Resource Centre
WC	Working Capital
WCM	Working Capital Management

## **ABSTRACT**

Working capital management is a very pertinent determinant of liquidity and profitability of organizations. Short term management of corporate finances is a leeway for success and survival of the firms in the future. Efficient management of working capital cannot be ignored if the firm is to attain stable profitability and cash flows. This research sought to determine the effects of working capital management on profitability of general trading small and medium enterprises in Nairobi County. Descriptive research design was adopted for this study in which secondary data from financial statements of small and medium enterprises was gathered over the period 2010-2014. The collected data was analyzed by use of Microsoft excel 2013 and statistical package for social sciences (SPSS) version 17. Regression and correlation analysis were done to determine the effects of working capital on profitability. It was established that working capital is among the determinants of SMEs profitability of general trading SMEs in Nairobi County though not very key. Average collection period and Average age of inventory were found to be negatively related to profitability while a positive relation was noted between average payables period and cash conversion cycle. The study recommends that for general trading SMEs to remain profitable, efficient working capital management practices should be employed. This is imperative in determining, the financing mix, matching investment to organizational objectives, effective allocation of resources and striking a balance between risk, liquidity and profitability.

# CHAPTER ONE: INTRODUCTION

## 1.1 Background of the Study

Traditionally, researchers have focused on long-term finance, studying corporate capital structures, company valuation, and investments among other corporate finance areas. But short-term investment dominates the balance sheet of many organizations especially small and medium enterprises. Working capital directly affects the firms' value through its influence on profitability and risk (Smith, 1980). As noted by Blinder and Munccini (1991) maintaining a high level of inventory prevents possible loss of business due to stock outs; avoid interruption of production processes and hedges against fluctuations in prices among other benefits.

Credit sales acts as a stimulus for increased turnover in a number of ways: According to (Brennan, Maksimovic and Zechner 1988; Petersen and Rajan 1997) credit sales can acts as a price cut strategy. It also stimulates demand even in times of low need of the products (Emery, 1987) and enables a firm to establish a good personal feeling with its customers (Ng, Smith & Smith, 1999). Contrary, excessive investment in working capital tires the firm's current assets denying the firm an opportunity to invest in profitable activities (Brigham & Houston, 2007). Effectiveness in managing business receivables, payables and inventory is the main impetus for business success (Filbeck and Krueger, 2005).The effect of working capital management on profitability of SMEs is further emphasized by evaluating finance theory, liquidity theory and corporate risk management theories.

Kenya's 1989 Development plan (GOK, 1989) and the sessional paper No.2 of 2005(GOK, 2005) classifies SMEs as institutions which employ between 5 and 99 workers. The government has not only recognized the SME sector in Kenya but has also enabled a favorable environment, expanded access to credit, committed in training; efforts geared towards promoting growth in this sector (Ronge, Ndirangu, & Nyangito, 2002).

### **1.1.1 Working Capital Management**

Management of working capital is a process of establishing an optimal mix of inventories, receivables, payables, marketable securities and other short term financing. This entails elimination of risk of failure to meet short term obligation when they are due through proper planning and controlling the short term assets and liabilities (Eljelly, 2004). Farounbi (2005) defines working capital as that capital that is readily available that is those resources either in cash or those which are readily convertible into cash (Current Assets) and the soon maturing obligations of the firm (Current liabilities). It represents the resources a firm has at hand, to run its daily operations; measures business liquidity and the ability to meet the short term obligations when they are due (Emery, Finnerty & Stowe, 2004).

Nzioki et al. (2013) define working capital as a company's investment in short term asset such as cash, inventory, short term marketable securities and account receivable. According to Deloof (2003) working capital is a business accounting term referring to the liquid assets immediately accessible to a company to cover short term obligations as they

fall due. On the other hand, Falope and Ajilore (2007) argue that working capital management is the practice of researching and planning a company's assets, debts and incoming cash flow to ensure that the organization has enough Operating capital. Working capital is essential for everything from payroll, taking advantage of emerging opportunities, purchasing of raw materials, paying debts etc. Managing this money is broken down into four distinct fields: cash management, inventory management, debtors' management and short-term financing (Howorth & Westhead, 2003).

Short term working capital management decisions, determines whether or not the firm gets to the future where the present long term decision determines its success or failure (Block, 1992). Unlike long term investment decisions, determination of how much inventory, cash, receivables and payables to hold at any particular time is a decision which cannot be deferred to the future. These components are changing from time to time hence a decision to vary them needs to be instant. The level of Working capital is measured by establishing the cash conversion cycle. This represents the time between making payments for raw materials and receipt of cash from sales of finished goods. Deloof (2005) established that the longer the cash conversion cycle, the higher the investment in working capital hence translates to low returns.

### **1.1.2 Profitability**

Profitability refers to yielding a financial gain. This is among the main goals of business ventures. Measuring and projecting long run profitability is important for all businesses. Major proportion of a firm's balance sheet is made up of short term investments and

those other resources with shorter maturity (Pedro & Pedro, 2007). Maintaining a tradeoff between these proponents that define working capital i.e. current assets and current liabilities drives profitability of a business venture (Kesseven, 2006). Profitability has been measured by magpayo (2009) in terms of return on asset (ROA) and return on equity (ROE). This represents the ratio of returns before interest and tax to the assets of the firm. This shows how the SME's are employing their assets to generate income.

### **1.1.3 Effect of Working Capital on Profitability**

Every institution irrespective of the size or nature of business, working capital serves as a crucial aspect for maintaining liquidity, solvency, survival and finally the profitability of a firm (Mukhopadhyay, 2004). Working capital is important parameter in making liquidity and profitability comparison among firms (Eljelly, 2004). To maximize the shareholders' value, management of the time difference between the times of purchasing raw material and when sale proceeds of finished goods are realized is essential. The ways of managing this timeframe has a great impact on profitability of a business (Shin & Soenen, 1988). Maximization of shareholders profits and attaining stable liquidity are among the goals pursued by most institutions. Achieving a tradeoff between profitability and liquidity is though a big challenge (Smith, 1980; Rehemani & Nasr, 2007).

According to the theory of risk and returns, risk is inversely related to the return, therefore firms with high liquidity in working capital results to low profitability. Working capital management efficiency is essential for SME's; this is because a major portion of their assets is composed of current assets (Home & Wachowitz, 2000). If there is no

proper balance between profitability and liquidity of a firm, then the firm is highly likely to fall into bankruptcy (Kargar & Krueger, 2005).

#### **1.1.4 General Trading Small & Medium Enterprises in Nairobi County**

Small and medium enterprises (SMEs) are defined differently from country to country. Some common criteria in defining an SME include the number of employees, investment levels, Turnovers, Balance sheet and other criterion. In Kenya, an SME is an entity that is not held publicly accountable, does not publish financial statements for general public use though they have an option of using the international financial reporting standards (ICPAK, 2010) and does not hold funds in fiduciary for a big group of outsiders as their main business. The SME department of world bank defines an SME in terms of number of employees. According to the world bank, Ayyagari et al. (2003) defines an SME as an enterprise with up to 300 employees, with \$15 million in total assets and turnovers (medium enterprise) while a small enterprise is defined as an enterprise made up to 50 employees with assets and turnover of up to \$ 3 million.

In Kenya, the definition of an SME is based on number of employees. A micro entity is defined as an enterprise made up of 10 or less employees, Small enterprise with between 11-50 employees and medium and large entities with more than 50 employees. A 1999 national micro and small enterprises survey approximated that there was 1.3 million micro and small enterprises in Kenya, employing over 2.4 million people. According to 2010 national bureau of statistics' report, there were about 9041 SMEs in Kenya. This research, studies the general trade SMEs in Nairobi County registered with small and

medium Resource Centre (SMERC). According to Nairobi City council, (2012) report, there are about 50,000 registered SMEs in Nairobi County.

SMEs face management challenges which directly affect working capital as a component that is directly dependent on management practices hence affecting their performance. Most of the SMEs learn from their mistakes consequently exposing them to risks (Mwololo, 2011). Seasonality which is informed by changes in business cycles is also a challenge to most SMEs. This is making most of these institutions to close down due to difficulties in financing their working capital requirements during low seasons (Block et al., 2009). The management needs to initiate strategies to smoothen the fluctuations in working capital by either investing the excess working capital in short term marketable securities or seeking immediate short terms financing when there is deficit in working capital (Pandey, 2010).

## **1.2 Research Problem**

The small and medium enterprises have greatly contributed towards realization of the vision 2030. This has been in terms of Gross Domestic Product (GDP), employment and innovations. In most economies, Small & Medium Enterprises makes the largest proportions of businesses (Asquith et al., 1994). The Kenyan government has greatly supported development of SME's. This effort is meant to boost poverty reduction, accelerate economic growth among other motives. The government effort has been watered by KNBS (2007) report which purported that about 60% of SME's fail within the first few months therefore the government support does not thrive them to maturity. The

main problem for SME's is balancing between shortage and surplus of working capital, this problem leads these firms to difficulties when it comes to meeting their short term obligations or taking advantages of market opportunities.

According to the 1999 National Micro and Small Enterprise report, there were around 1.3 SMEs employing over 2.4 million people. The Nairobi City Council (2012) report revealed that there were about 50,000 registered SMEs in Nairobi County. Most of the times, these SMEs face working capital management challenges, a fact that mostly affect their performance (Mwololo, 2011). Seasonal variations directly affects the ability of SMEs to meet their maturing obligations, this makes most of these institutions to close down (Block et al., 2009). Smoothing these seasonality to maintain business continuity is a challenge facing most SMEs. Steady profitability is a motivation for business expansion; stretching to other lines of businesses and target other markets. Additionally, a profitable business increases chances of debt financing and attract new investors.

There have been conflicting argument on effect of WCM on firm profitability. For instance, some studies for example Nobanee (2009) have shown that a shorter CCC increases profitability other studies like Makori & Jagongo (2013) have proved otherwise. Khan and Khan (2013) investigated the influence of working capital management (WCM) on performance of SME's in Pakistan. Profitability was measured in absolute terms (Net operating profit) lather than a ratio that shows the return in proportion to the invested assets. Fraser & Fraser (1991) argue that ROA and ROI are the

best yardsticks for measuring profitability. Again, the context of the researches are different.

Omesa et al. (2013) analyzed the relationship between working capital management and manufacturing firms listed on Nairobi Securities Exchange (NSE), the researchers studied mature manufacturing firms. Nyabwanga, Ojera, Lumumba, Odondo and Otieno (2012) examined the relationship between working capital management and SSEs firms in Kisumu south district. Muthuva (2010) studied the effect of working capital on corporate profitability of NSE listed firms. Additionally, Gakure, Cheluguet, Onyango and Keraro (2012) researched the impact of working capital management on performance of 15 manufacturing firms listed in NSE between 2006 and 2010. However, these studies present no empirical evidence on the impact of working capital management and profitability of general trade SME's in Nairobi County. Therefore, the research seeks to answer the question: What is the effect of working capital management on the profitability of general trade SME's in Nairobi County?

### **1.3 Research Objective**

The general objective of the study is to investigate the effect of working capital management on profitability of general trading SME in Nairobi County. The specific objectives are:

- i. To determine the effect of inventory holding period on profitability of general trading SME's in Nairobi County.

- ii. To determine the effect of accounts receivable waiting period in the profitability of general trading SME's in Nairobi.
- iii. To establish the effects of accounts payable period on the profitability of general trading SME's in Nairobi.
- iv. To determine the effect of the cash conversion cycle on the profitability of general trading SME's.

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

The research seeks to investigate how working capital management practices affect profitability of general trading small and medium enterprises in Nairobi County. The following are the parties that stand to benefit from this research project.

The owners of general Trading SME' will benefit from the findings and recommendations of this research on working capital management knowledge which will help them implement effective practices which will enhance growth and success in their businesses.

Towards achievement of the projected 10% economic growth by 2030 in the economic pillar of vision 2030, the contribution of SMEs cannot be ignored. Therefore the policy makers will benefit from the findings and recommendations drawn from this research to efficiently allocate the resources and design optimal interventions to boost growth of SMEs in the country.

The academicians and researchers in working capital management will benefit from the empirical literature and theories from this study; such literature will form the basis for further research. Additionally, this research will form a basis for further research in working capital

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

This chapter discusses the conclusion drawn by other researchers in this area, theoretical review, empirical review, and the gaps in literature.

### **2.2 Theoretical Review**

There are various theories in working capital management. Some of these theories include;

#### **2.2.1 Finance Theory**

This theory is divided into three main areas that is capital budgeting, capital structure and working capital management (Aksoy, 2005). Capital budgeting and capital structures entails financing and management of long term investments while working capital management encompasses financing and management of short term investments that is current assets and current liabilities. Efficiency in management and administration of working capital is imperative as it directly affects liquidity and profitability of any firm (Raheman and Nasr, 2007). Inaccurate implementation of working capital management policies can lead a firm to bankruptcy even when the firm is still profitable (Kargar & Bluementhal, 1994); therefore profit maximization should not be put in the forefront but rather liquidity which spills over to profitability.

While excess working capital jeopardizes the returns, inadequate amount of working capital leads to difficulties in maintaining day – to- day operations of an entity. Small and medium enterprises’ major source of capital is mainly working capital; this is due to inability to mobilize capital from the capital market hence sort to finance their capital through short term borrowing in terms of working capital. This proportion of external borrowing represents credit risk to the creditors. A substantially high amount of working capital absorbs the creditors’ credit risk as the ability of the firm drastically increases hence increasing the value of the firm. Efficiency in working capital management does not only drive short term financial performance example profitability but also firm value maximization which is a long-term financial performance (Moyer et al., 1992)

### **2.2.2 Corporate Risk Management Theory**

This theory states that the shareholders are better off when the firm has a smooth and constant cash flow (Minton, 1999). This is because the firm can avoid costly external financing. Cash flow volatility directly affects a firm’s investment policy leading to acquisition of external financing. Empirically, previous researchers have proven that cash flow volatility is costly though there is no link between financial statement volatility and the value of the firm. This link is imperative as it facilitates risk management by valuing smooth cash flows at a premium. Volatility of cash flows directly affects the premium attached to the firm by investors. Cash flows volatility is directly related to the determinants of the value of the firm. Earning volatility matters exclusively to a firm irrespective of cash flow volatility. This is why empirically it has been established that

analysts try as much as possible to avoid making forecasting errors by avoiding volatility in earnings.

On the same note, it is prudent that the institutional investors avoid those firms which tend to have greater variations in earnings so as to avoid surprises of negative earnings. Sometimes managers are highly involved in income smoothing cases a state which reduces the apparent probability of default and this changes the firm's borrowing costs. This technique is employed to reduce the information gap between informed investors and uninformed investors hence hedging investors who would like to trade purely for liquidity reasons. Income smoothing reduces the cost of capital charged to a firm even after absorbing the cash flow volatility.

The capital asset pricing model suggests that a systematic risk is inversely related to the value of the firm. According to Shin and stulz (2000) systematic risk does not only affect the value of the firm but lather also the personal risk. Empirically, there is an inverse relationship between systematic risk and the value of the firm and inverse association with unsystematic risk. There are two significant types of risk i.e. the cash flow and earnings volatility which are highly unique from the financial market variables since they affect how stable the financial statements of an entity will be and generally affect the financial decisions made and the risk management policies adopted.

### **2.2.3 Liquidity Theory**

Jose (1996) defines liquidity as a function of the current assets and current liabilities. Liquidity is imperative in determining the working capital policies of a firm as it indicates possibility of the firm to meet its maturing obligation. Liquidity position is measured by determining the acid test ratio or current ratio. Though this has been the practice for the longest time now, these measures cannot provide much information for effective management of working capital. Richards and Laughlin 1980; Boer 1999 both have disagreed with acid test ratio and the current ratio as they do not separate between liquid and operating assets but lump them together. They further suggest that such ratios do not make sense to the cash flow of an institution. They suggest employment of inflows and outflows of liquidity through the firm- ongoing liquidity. This is due to the fact that raw materials acquisition, production, sales and the receipt of the payment do not occur instantly but rather over duration of time since ongoing liquidity is a function of the cash conversion cycle (CCC). The evaluation of effectiveness of working capital should not be done through the traditional measures of liquidity but rather through the cash conversion cycle (Pinches, 1992)

### **2.3 Determinants of Profitability in Small and Medium Enterprises**

Apart from working capital, the following are some of the factors that determine profitability of Small and Medium Enterprises.

### **2.3.1 Size of the Firm**

Serrasqueiro and Nunes (2008) studied the relationship between size and performance of big and small firms operating in Portugal between 1999 and 2003. A positive statistically significant relationship was noted. Similarly a study by Lee (2009) on firms operating in the USA between years 1987-2006, also found a positive relationship between the firm size and profitability. Stierwald (2009) studied the factors influencing profitability of a sample of 960 firms in Australia between 1995 and 2005. Like the first two researches, he found out that firm size positively affects profitability. Therefore, size of the firm is an important determinant of profitability.

### **2.3.2 The Industry**

The type of industry in which an SME operates affects the returns realized (Brush, Bromiley & Hendrick, 1999). Some industry have higher margins with very low running costs while others have slim margins with huge operating costs. This variation affects the profitability realized by small and medium enterprises.

### **2.3.3 Working Capital**

Working capital management is an imperative determinant of the firm profitability. Various researches on effects of working capital management of profitability have suggested that there is a relationship between WCM and firm profitability. Makori and Jagongo (2013) noted a positive correlation between profitability measured by return on assets and inventory holding period, APP while the CCC and ACP demonstrated a negative relationship. Hence most researchers have suggested that stewards can create

value to the firm owners by properly managing working capital. This is done through setting proper credit policies, inventory turnover levels, appropriate payment periods and generally managing the cash conversion cycle.

## **2.4 Empirical Literature Review**

Various researchers have studied and established various relationships between working capital management and profitability of various firms. Some of these studies include; Muthuva (2009) studied the effects of working capital components i.e. accounts receivables, average age of inventory and payables payment period on corporate profitability. The study used 30 firms listed in Nairobi Stock Exchange (NSE) between 1993 and 2008. Pearson and spearman's correlation model, fixed effects regression models were used for analysis. The researcher found out that there is an inverse relationship between accounts receivables collection period and the profitability of the firm while a direct (positive ) relationship between inventory conversion period and payables payment period with profitability of the firm.

Teruel and Solano (2008) studied the effects of working capital management on the profitability of SMEs. 8872 Small and medium enterprises in Spain were studied between 1996 and 2002. Panel data methodologies were used in testing the hypothesis. The results demonstrated that if inventory conversion period, receivable collection period and the cash conversion cycle could be reduced, the profitability of the firm will improve.

Eljelly (2004) empirically researched the relationship between profitability and liquidity. The researcher used the cash conversion cycle and current ratio on 929 stock companies in Saudi Arabia. Correlation and regression analysis were done. It was established that there is a high negative relationship between liquidity and the firms' profitability. This is very prevalent in firms with high current ratio and a long cash conversion cycle. Though at the industry level, it was established that the cash gap is more imperative as a measure of liquidity than the current ratio. Firm size was also found to be a factor with significant effect on the firm's profitability.

Khan et al. (2013) carried out an analysis to investigate the impact of working capital management (WCM) on the performance of small and medium enterprises (SMEs) in Pakistan between 2006 and 2012. Data from SMEDA, Karachi stock Exchange was used. Profitability was measured in terms of Return on Asset (ROA). The Average collection period (ACP), Average age of inventory (AAI), Cash conversion cycle (CCC), Accounts payables Period (APP), Size of the firm, Debt ratio (DR) Growth (GR) as the independent variables. Regression analysis was done to analyze the relationship. Results indicated that APP, GR, and size are directly related (positively) with profitability while ACP, AAI, CCC and DR are negatively correlated with profitability.

Makori et al. (2013) carried out a research to find out if there is a relationship between WCM and corporate performance of manufacturing firms which are listed in NSE. 20 companies were analyzed for 5 years; principal components analysis (PCA) and multiple

regressions were carried out. ACP was negatively correlated while CCC, Current liabilities and other working capital variables were positively related.

Nyabwanga et al. (2012) studied the effect of working capital management practices on performance of SSEs in Kisii South District. 113 SSEs comprising trading and manufacturing enterprises were studied. Pearson's correlation coefficient and multiple regression techniques were employed. The researchers found out that WCM practices were low among SSEs, most of these institutions have not embraced formal routines for managing working capital hence their financial performance on average were low. It was also established SSE financial performance is directly related to efficiency of cash management (ECM), efficiency receivables management (ERM) and efficiency of inventory management (ELM).

Gakure et al. (2012) analyzed the relationship between WCM and financial performance of 15 manufacturing firms listed at NSE for the period 2006 to 2010. A regression model and Pearson's correlation analysis were used for analysis, it was established that there was an inverse relationship between firms' performance and liquidity, ACP, APP, AAI and profitability while the CCC was directly related to profitability. Though the model was statistically significant, independent variables with an exception of APP were not statistically significant.

Egbide et al. (2009) researched WCM and profitability of Nigeria listed companies for the period of 2005-2006 and 1995-2005. Ordinary least squares and pooled regression techniques were used in analysis. It was established that the WCM component i.e. Average Age of Inventory(AAI), Average Collection period(ACP), Average Payables Period(APP) and CCC directly affect profitability at different levels of significance. The researchers also established that there was insignificant variation in the impact of WCM between small and large firms. Further the researchers suggested that managers can create value by managing the components of working capital at the optimal level. Al-Debi'e 2011; Charitou, Elfani and Lois 2010 supports these findings. Efficient utilization of the firm's resources and reduction in the magnitude and levels of volatility leads to reduction of default risk hence increasing the value of the firm (Charitou et al., 2010). These researchers concluded that if the proponents of cash conversion cycle are properly managed, the value of the firm will be enhanced hence increasing profitability.

Teruel and Solane (2005) studied SMEs in Spain and established that firms with more liquid assets opt to reduce their cash levels while firms with more short-term debt tend to hold high level of cash so as to mitigate the risk of non-renewing short-debts. On the other hand, a research on 13,287 Swedish manufacturing SME's by Abel (2008) established that WCM efficiency accelerate the rate of transfer of current assets (Inventory and accounts receivables) into cash leading to sufficient cash holdings. Empirical studies have established that firms that are able to reduce their inventory holding period and the accounts receivables period are able to accelerate cash conversion cycle in both SMEs and large corporate.

Turuel and Solano (2007) studied the effect of WCM on profitability of SMEs between 1993 and 2002. They resolved that management can enhance the value of stakeholders by reducing the average age of inventory and reducing the accounts receivables period and the CCC; these will drastically improve the profitability of SMEs. An empirical study of demand of credit by SMEs in UK, it was established that those SMEs that tender late payment of their debts do so after they approach their limit on their short-term bank finance. Therefore, incase the statutory interest is adjusted upwards, then the limit of such SMEs will be narrow hence they will face liquidity challenges leading to failure (Peel et al., 1997)

## **2.5 Summary of Literature Review and Research Gap**

Working capital management is an important facet of financial management for both SMEs and large institutions. So many studies have been done on manufacturing corporate listed in NSE in Kenya. Proper management of short-term assets and liabilities is imperative for small and medium companies. This is due to the problem that most of these small institutions cannot easily access financing from the capital market hence they end up having working capital finance as their main source of external financing. Most conflicting argument on the effect of working capital components on profitability of different firms have been raised by different researchers. There is an argument that long cash conversion cycle might increase profitability. This is because high inventories and generous credit policies may translate to high sales, avoiding stock out costs and enabling access to the product before paying (Long, Maltiz & Ravid, 1993). This conclusion

conflicts with the position arrived by many researchers like (Charitou et al., 2009; Makori et al., 2013).

The theories are in agreement as they propose the importance of effective working capital management. Working capital, a major arm of finance theory is key in determining the profitability and Liquidity level of a firm. This is in line with the liquidity theory which proposes better means of measuring working capital by use of CCC and stability of such working capital as founded in the corporate risk management theory.

Though there are many researches done on this area in other parts of the world and few in Kenya there is none specifically studying the general trading SMEs in Nairobi County. This research will seek to analyze the effect of working capital management on profitability of SMEs in Kenya but specifically for general trading SMEs in Nairobi County.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

This chapter presents a description of the methodology used in finding answers to the research questions. The chapter start with a description of the research design chosen and the justification of the design. This is followed by population of the study, sample and sampling method. The subsequent section describes data collection methods and techniques used in analysis of data.

### **3.2 Research Design**

This refers to how data collection and analysis are structured to meet the research objectives by empirical evidence (Chandran, 2004; Cooper & Schindler, 2006). The study used descriptive research design. A descriptive research is the one where data is collected in order to answer some questions concerning the current status of variables in the study. A descriptive survey design is appropriate for this study since it focuses on more than one SME.

### **3.3 Population**

According to Cooper and Schindler (2003) a population is the entire subjects, organizations, customer database, or amount of quantitative data on which the measurement are taken. For this research, the population of the study was the SMEs operating in Nairobi County, in Kenya. The target population was the 84 SMEs registered with The Small and Medium Enterprises Resource Centre (SMERC) in Nairobi County.

### **3.4 Sample and Sampling Technique**

The sampling frame was all the SMEs registered with SMERC in Nairobi County. 37 SMEs were selected. Purposive sampling method was employed to select the sample. This approach was employed since few SMEs held a complete set of financial statements hence could supply the sufficient information for the period under study.

### **3.5 Data Collection Techniques**

The study utilized secondary data. Data was collected from the financial statements for the past five years (2010-2014). The specific data collected is the profit before interest and tax and the average assets to determine the return on assets (ROA) for the dependent variable. The inventory, Accounts receivable, Accounts payable, credit sales and cost of sales data was used to analyze the independent variables.

### **3.6 Data Analysis Techniques**

The study used a regression model to study the effects of working capital management on profitability of SMEs in Nairobi County. The regression equation used as borrowed from Njenga (2011) is;

$$Y_i = K_0 + \beta_1 CCC_i + \beta_2 AAI_i + \beta_3 ACP_i + \beta_4 APP_i + e_t$$

Where

$Y_i$  = Profitability of a firm  $i$  measured in terms of Return on Asset (ROA)

Return on Asset = Profit before interest & Tax/ Total Assets

$K_0$  = Estimated profitability when all the other variables are zero

$B$  = Change in estimated  $Y$

$e_i$  = Error term

$AAI_i$  = Days inventory outstanding of firm i

$ACP_i$  = Days sales outstanding of firm i

$APP_i$  = Days payables outstanding of firm i

$CCC_i$  = Cash conversion cycle of firm i

The CCC will be derived as:

$CCC = \text{Days inventory outstanding (AAI)} + \text{Days sales Outstanding (ACP)} - \text{Days payables Outstanding (APP)}$

Other independent variables were derived as shown;

$\text{Days inventory outstanding (AAI)} = \text{inventory} / \text{Cost of sales} \times 365$

$\text{Days sales Outstanding (ACP)} = \text{Accounts Receivables} / \text{credit sales} \times 365$

$\text{Days Payables Outstanding (APP)} = \text{Accounts payables} / \text{credit purchases} \times 365$

Statistical tools such as excel and SPSS were used in analyzing the descriptive and other statistical measures. To test the level of significance, analysis of variance (ANOVA) was employed.

## **CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION**

### **4.1 Introduction**

This chapter presents an analysis of secondary data collected from financial statements of general trading small and medium enterprises in Nairobi County between 2010 and 2014. Data was based on financial statements of a sample of 37 SMEs.

### **4.2 Descriptive Statistics**

Descriptive statistics were done for the metrics measuring working capital and profitability. The result shows that the average return on asset is 12.95% with a standard deviation of 2.38 percent. The SMEs have an average collection period of 26 days with a standard deviation of 10 days. The average payables period is 26 days with a standard deviation of 6 days and average age of inventory stood at 29 days with a higher standard deviation of 16 days. The average cash conversion cycles for the SMEs under study is 29 days with a standard deviation of 20 days. The days taken to collect receivables are substantially the same number of days that these firms takes to pay their payables.

**Table 4.1 Descriptive Statistics**

	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
ROA	185	-9.86%	19.63%	12.95%	0.023803
ACP	185	5.2	50.76	26.02	10.85
APP	185	11.66	43.12	26.58	6.72
AAI	185	4.71	83.90	29.58	16.40
CCC	185	-10.86	114.98	29.02	20.62

Source: Research Data 2015

### 4.3 Correlation Analysis

**Table 4.2 Correlation Analysis**

	<i>ACP</i>	<i>APP</i>	<i>AAI</i>	<i>CCC</i>	<i>ROA</i>
ACP	1				
APP	-0.0916	1			
AAI	0.3038	0.0565	1		
CCC	0.4522*	-0.123	0.9733**	1	
ROA	0.1316	-0.2222	0.144	0.2379	1

Source: Research Data 2015

The correlation analysis table above shows that generally there is a low correlation between the metrics determining working capital and profitability. The correlation between AAI and CCC is (0.97\*\*) showing a strong positive relationship between the variables. To avoid multi-collinearity problem in regression analysis, stepwise regression is employed hence elimination of the highly correlated variables.

#### 4.4 Regression Analysis

The research sort to determine the effect of working capital management on profitability of general trading SMEs in Nairobi County. The research findings showed that there was a significant correlation (R= 0.4030) between working capital management and the Profitability of SMEs as measured by return on assets. The study also revealed that 5.77 % of general trading small and medium sized enterprises' profitability can be explained by working capital management. The findings are as shown in the table 4.3 below

**Table 4.3 Model Summary**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
	0.4030	0.1624	0.0577	0.0231

Source: Research Data 2015

Further, the variables produced statistically insignificant values for the study at 95% confidence level ( $p > 0.05$ ) hence not very reliable for explaining the effect of working capital management on profitability of general trading SMEs in Nairobi County. The results are as shown in table 4.4 below.

**Table 4.4 ANOVA**

<b>Model</b>	<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	0.003311993	4	0.000828	1.550838	0.211272
Residue	0.096654	180	0.000534		
Total	0.096654	184			

Source: Research Data 2015

While a significant negative relationship was found on average age of inventory  $\beta_1 = 0.001457$ , an inverse insignificant relationship existed with the average collection period. On the other hand, a statistically weak positive relationship was noted between average payables period while a strong direct relationship was found to exist between cash conversion cycle and profitability of the studied SMEs. See table 4.5 below.

**Table 4.5 Regression Coefficients**

<b>Model</b>		<b>Unstandardized Coefficients</b>		<b>t</b>	<b>Sig</b>
		<b>B</b>	<b>Std. Error</b>		
	Constant	0.1617710	0.0196493	8.2329	2.1E-09
	ACP	-0.0008827	0.0007189	-1.2279	0.2284
	APP	0.0000371	0.0003505	0.1058	0.9164
	AAI	-0.0014572	0.0006566	-2.2193	0.0336
	CCC	0.0011979	0.0006141	1.9507	0.0501

Source: Research Data 2015

The established regression equation was;

$$Y_i = 0.16177 - 0.0008827ACP_i + 0.0000371 APP_i - 0.0014572AAI_i + 0.0011979 CCC_i + e_t$$

The study found that holding all the independent variables constant, the return on asset would change by 0.16177. A unit increase in cash conversion cycle and average payables period leads to an increase in profitability by 0.0011979 and 0.0000371 respectively. A unit increase in average collection period and average age of inventory leads to a decrease in profitability by 0.0008827 and 0.0014572 respectively.

## 4.5 Discussions

Like the findings arrived by Gakure et al. (2012), a negative relationship was found on average collection period and average age of inventory  $\beta_1 = -0.0008827$  and  $\beta_2 = -0.001457$  respectively with profitability of SMEs. On the other hand, a positive relationship was established on average payables period and cash conversion cycle ( $\beta_3 = 0.00003709$  and  $\beta_4 = 0.001197884$  and profitability of SME respectively as demonstrated in table 4.5. The same position is also established by Turuel and Solano (2007).

From the research findings in table 4.1, the mean value of profitability (ROA) was 12.95% and a standard deviation of 2.38%. It meant that the general trading medium and small enterprises in Nairobi maintained an average profitability margin of 12.95% with deviation of 2.38% on either sides. The maximum value for profitability as measured by ROA was 19.63% with a minimum value of -9.86 %.

Cash conversion cycle which is a working capital metric had a mean of 29 days and a standard deviation of 20 days on either sides. Maximum number of days was 114 days and minimum value -10 days. The negative CCC attained is healthy as it means that those SMEs are paid 10 days earlier than they take to pay their creditors. The average collection period for the SMEs is 26 days with a standard deviation of 10 days, minimum number of days taken is 5 days while 50 days are taken to collect the receivables. The average inventory turnover is 29 days, with a maximum number of days inventory taken is 83 days and a minimum of 4 days, these values deviates by 2 weeks on either sides.

The average payment period for the firms is 26 days with a standard deviation of 6 days on either sides and a maximum and minimum days of 11 and 43 days respectively.

It was established that working capital had a positive relationship ( $R = 0.4030$ ) with profitability. This conclusion was supported by various descriptive statistics, however, the independent research variables were only found to explain 5.77 % of the profitability of general trading small and medium enterprises in Nairobi County. The variables were found to be statistically insignificant as the ( $p > 0.05$ ) at 95 % confidence level as shown in table 4.4

From the correlation analysis, the study established that there is a high positive correlation between AAI and CCC ( $0.9733^{**}$ ) and ACP and CCC ( $0.4522^*$ ). To avoid multi-collinearity problem in regression analysis, stepwise regression was employed hence elimination of the highly correlated variables.

The research found a regression equation for period 2010 to 2014 to establish the effect of working capital management on profitability of general trading SMEs in Nairobi County to be,

$$Y_i = 0.16177 - 0.0008827ACP_i + 0.0000371 APP_i - 0.0014572AAI_i + 0.0011979 CCC_i + e_t$$

From the above summarized regression equation, it was established that there is a relationship between WCM and profitability of general trading SMEs. The intercepts

were found to vary with the highest being 0.16177 and the lowest 0.0000371, this means that the profitability of SMEs will range these limits holding all the other factors of WCM to a constant zero. CCC had the highest positive effect on profitability while average age of inventory had the highest negative effect on profitability.

## **CHAPTER FIVE:SUMMARY, CONCLUSION AND RECOMMENDATIONS**

### **5.1 Introduction**

This chapter presents the discussions drawn from the data findings presented in chapter four. This chapter is structured into summary of findings, conclusion, recommendations, limitations of the study and areas for further research.

### **5.2 Summary of Findings**

This research was intended to act as an eye opener to the interested parties that is government, SME business owners, researchers and government. The research utilized secondary data. Financial statements data was sampled from 37 general trading SMEs in Nairobi County between 2010 and 2014. The reason for restricting this research to this period is because this is the latest data available for analysis. The target sample was achieved. The research aimed to investigate the effect of working capital management on profitability of general trading SMEs in Nairobi County. The results of the study established that on average the sampled SMEs made a profit of around 12.95 percent, with some making losses up to -9.86 % as measured by the return on assets. The cash conversion cycle for the 37 SMEs in general was established to be 29 days with a standard deviation of 20 days. The minimum CCC attained was -10 days which is a better indicator as receivables are received 10 days before making payments. The difference between the minimum and maximum cash conversion cycle was 124 days, demonstrating that some SMEs really take long to complete the cycle. The collection period and average

inventory period was 26 days and 29 days respectively. The study found that these values can deviate up two weeks on either side. The number of days taken to pay creditor stood at 26 days, this could change up to 6 days to the right or left.

The study established that working capital had a positive relationship with the profitability of SMEs ( $R=0.4030$ ). The independent metrics of working capital were found to predict 5.77 percent of the profitability of general trading SMEs. The relationship was found to be statistically insignificant as the  $P>0.05$  at 95% confidence levels. The research established existence of a high correlation of 0.9733\*\* between average age of inventory and the cash conversion cycle. Nevertheless, the correlation between other factors were low. Stepwise regression was employed to eliminate the highly correlated variables.

The cash conversion cycle of the sampled small and medium enterprises, was established to have the highest positive impact on profitability, on the flip side, average age of inventory was found to be highly negatively related to profitability. The research established a statistically insignificant relationship between the working capital metrics and SMEs profitability. While a positive relationship was noted between average payables period and cash conversion cycle, an inverse relationship was established between average collection period and average age of inventory with profitability of general trade SMEs.

### **5.3 Conclusion**

The study established that working capital variables have insignificant relationship with profitability of general trading SMEs. Various inferential and descriptive statistics supported the above conclusion, however it was established that the study variables only explain 5.77% of the times. There was a significant negative relationship between average age of inventory (-0.001457 and high t value -2.2193,  $p < 0.05$ ) and a direct relationship between CCC (0.0011978, t value 1.95065,  $p < 0.05$ ) with profitability of SMEs. On the other hand, there exist a negative relationship between ACP and a positive relationship between APP although these working capital metrics had a statistically insignificant relationship. As shown in table 4.5.

### **5.4 Recommendations**

The study recommends that the longer the average payables period and cash conversion cycle, the higher the profitability. This is due to a better business warmth established with the supplies, so that suppliers are not stopped hence avoiding interruption of business operations. The smooth operations leads to eventual profitability.

There is an inverse relationship between ACP and AAI and profitability of general trading small and medium enterprises in Nairobi County. This is because the shorter the period, SMEs are able to eliminate inventory holding costs, obsolescence of stock among others. The study recommends a shorter average collection period and average age of inventory for better profitability of SMEs. The study further recommends that for the general trading small and medium enterprises to remain profitable working capital

management cannot be ignored. This is imperative in making decisions about resource allocations, matching capital investment to objectives, striking the optimal investment mix. The working capital management techniques for general trading SMEs should be more inclined towards strategic issues which will highly drive profitability.

## **5.5 Limitations of the Study**

The major limitation of this study were; non availability of all required data as most SMEs do not keep the full financial statements. This limitation reduced the degree of arriving at a conclusive stand-point on the relationship between the dependent and independent variables. Nevertheless, the conclusions and recommendations were made from the available data. Purposive sampling technique was employed to ensure attainment of the required sample for the period of 5 years. Generalization of the results to other SMEs could be made at limited confidence due to the sample size attained.

Inadequate resources as the researcher conducted the research under constraints of finances. Due to the fact that SMEs do not publish the financial statements, logistical costs where high. The researcher did phone calls and emails to some SMEs to share the financial statements. Through this, the data was received though with a lot of follow ups.

Time constraint in doing the research while still holding a full time job and studying part time. Especially, during data collection, time was a great hindrance. Nevertheless, the researcher was able to conduct the research within the specified timeframe.

## **5.6 Recommendations for Further Studies**

This study explored the impact of working capital management on the profitability of general trading small and medium enterprises in Nairobi County. The research focused on SMEs in Nairobi County, therefore, generalization of the findings to other SMEs will not be adequate. To this end, further research should be done to investigate the impact of working capital management on profitability of SMEs in the rest of the counties to see if the relations are consistent.

Secondary, Similar repeated research can be done in few years to come to establish if the relationship will still hold or there will be any changes as more small and medium enterprises are established and others are closed.

Further research can be done on SMEs in other lines of business other than general trading. Especially, a research can be done for SMEs which are in the service industry or in other lines of business.

Finally, a study on the effects of working capital management on profitability of SMEs in Nairobi County can be done but more variables/metrics of working capital management like growth, Debt ratio, size of SMEs should be considered to investigate whether or not the relationship in this research will still hold.

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## **APPENDICES**

### **APPENDIX I**

#### **LIST OF SMALL AND MEDIUM ENTERPRISES REGISTERED WITH SMERC**

1. DIPCHEM EAST AFRICA LTD
2. DOLA PALACE
3. WILSON MEDIA
4. BEAUTY BUYERS COSMETICS
5. WAKULIMA SHOP
6. CHIENI PLAINS CO.
7. IMA DISTRIBUTORS
8. JAMII WHOLESALERS
9. JML WACHIRA WHOLESALERS
10. KANINI HARAKA ENT
11. KOTECHA WHOLESALERS
12. LESPHINE INVESTMENTS
13. NDUNGI WHOLESALERS
14. PROGRESSIVE INDUSTRIES
15. NEW ADATIA WHOLESALERS
16. AGRO CHEM.
17. MAARUFU ENT.
18. JACQUES B/SHOP
19. ASWANI TAILORING INSTITUTE
20. VICTORIALS
21. SYBES COMM.
22. NDUNGI WHOLESALERS
23. GURUMESA
24. Y.H. WHOLESALERS

25. UNITED MILLERS
26. ABDALLA WHOLESALERS
27. JOY BEAUTY SHOP
28. TODONYANG INVEST
29. SCOOBY ENT.
30. RAISONS TRADING CO.
31. MAMA KAREN COSMETICS & BEAUTY SHOP
32. BLUE HEIGHTS DISTRIBUTORS
33. TRIDAH WHOLESALERS
34. BLUE HEIGHTS DISTRIBUTORS
35. IMA DISTRIBUTORS
36. QUEENSWAY COSMETICS & SALON
37. PINE TREE AGENCIES LTD
38. MR PRICE COSMETICS
39. BUYERS BAY PRODUCTS
40. JAY KAY
41. HAIR COLLECTION & COSMETICS
42. CLEAN SHELF SUPERMARKETS
43. SKYLET BEAUTY SHOP
44. PRAMUKH CASH N CARRY LTD
45. LEENS STORES LTD
46. PASSION BEAUTY SHOP
47. SISTER NICE BEAUTY PRODUCTS
48. SUMMER AFRICA LTD
49. TUSCHEM ENTERPRISES
50. GLOBAL COSMETICS
51. WASHMART
52. STECK PHARMACY
53. STYLE AND BEHOND
54. EASTLEIGH MATTRESSES
55. ABZ BEUTY CENTRE

56. GUNDUA COSMETIC
57. PURITO ENTERPRISES
58. KITULANI STORES LTD
59. BETIS ENTERPRISES
60. SENSATIONS
61. GENERATION SHOP
62. WAROSE BEAUTYSHOP
63. MILAN RATILAL SHAH LTD
64. SANLIZ
65. GOODWILL STORES K LTD
66. DIADEMS CHEMIST
67. PHARMAX
68. CHIENI PLAINS
69. DALLASCOSMETICS
70. BAMBOO VILLA CHEMIST
71. G-MART COSMETICS & BEAUTY SHOP
72. ERRSE COSMETICE
73. PAPIILON BEAUTY SHOP
74. FAIR PRICE COSMETIC
75. PESCA PHARMACY
76. CHARLENE B/SHOP
77. SHAPHIM ENT
78. SAKINA COSMTICS
79. GLORY COSMETICS
80. PINE TREE AGENCIES LTD
81. V.G SHOP
82. MEDSPHARMACY
83. JOADA BOUTIQUE
84. GOODWILL STORES K LTD

## APPENDIX II: DATA COLLECTION

<b>SME</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>
<b>ACP</b>	2014	2.47	2.81	40.77	20.53	24.24	20.76	11.78	28.12	13.45	26.13	3.77	2.86	9.16
	2013	3.21	2.27	2.50	20.60	21.65	19.38	16.37	15.19	24.15	26.99	3.52	3.78	17.98
	2012	1.94	19.74	25.24	23.30	21.15	17.44	38.67	34.44	9.85	36.30	57.94	3.60	16.38
	2011	7.74	22.91	32.74	27.45	26.99	18.71	39.46	30.71	18.13	32.52	55.86	31.27	18.59
	2010	10.65	19.16	29.14	19.19	31.04	17.70	34.03	31.01	19.72	29.99	40.75	21.84	18.77
<b>APP</b>	2014	24.71	2.61	26.96	25.42	30.37	26.22	51.60	18.82	28.37	22.43	41.59	25.12	19.91
	2013	23.99	2.04	26.03	23.85	33.81	25.90	29.64	23.70	28.37	21.55	25.57	25.12	19.89
	2012	20.97	1.80	24.08	26.04	23.69	23.93	28.14	21.85	22.62	20.77	22.74	23.74	12.06
	2011	29.93	24.19	3.18	22.87	31.63	25.71	34.67	28.98	41.76	27.34	29.07	28.14	27.76
	2010	31.11	27.67	3.82	37.01	43.86	26.38	32.21	32.14	47.89	31.53	40.56	31.71	29.65
<b>AAI</b>	2014	62.48	59.33	44.99	33.53	39.82	20.34	17.56	50.23	47.75	43.24	60.58	6.76	13.67
	2013	40.26	54.12	44.83	4.66	36.36	27.49	19.39	46.51	37.29	50.15	51.60	47.28	24.65
	2012	31.56	58.64	43.78	4.49	56.37	34.37	10.68	62.56	58.80	19.95	10.25	89.00	17.92

	2011	52.22	31.45	5.29	5.74	50.77	23.17	11.18	47.00	42.07	13.65	16.55	23.39	24.02
	2010	18.61	24.17	6.04	2.01	48.43	51.84	46.93	46.11	66.92	70.84	13.83	95.63	31.14
<b>CCC</b>	2014	40.24	59.52	58.80	28.64	33.69	14.89	-22.26	59.53	32.83	46.95	22.75	-15.49	2.93
	2013	19.48	54.35	21.30	1.41	24.21	20.97	6.12	38.01	33.07	55.59	29.55	25.94	22.75
	2012	12.52	76.58	44.94	1.76	53.83	27.88	21.20	75.16	46.02	35.48	45.45	68.85	22.24
	2011	30.03	30.17	34.85	10.32	46.14	16.17	15.98	48.73	18.44	18.83	43.34	26.53	14.85
	2010	-1.85	15.66	31.35	-15.8	35.62	43.16	48.74	44.98	38.75	69.29	14.02	85.75	20.27
<b>ROA</b>														
<b>(%)</b>	2014	14.95	14.27	13.86	12.56	11.44	13.99	13.76	6.97	10.48	11.57	8.06	12.65	18.52
	2013	14.65	16.54	14.58	13.02	10.90	14.67	14.24	11.51	10.48	12.34	12.45	12.65	18.53
	2012	16.33	17.64	15.46	13.53	14.30	16.38	15.76	12.74	12.03	15.41	14.33	16.13	23.51
	2011	13.35	15.88	13.44	11.09	9.46	16.52	13.42	11.23	9.74	11.53	11.88	10.40	19.58
	2010	13.58	16.93	11.86	10.98	9.82	15.94	13.42	11.54	11.10	12.26	11.22	8.47	18.66
<b>SME</b>		<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>

<b>ACP</b>	2014	3.10	36.07	51.85	24.30	16.52	0.48	3.63	35.57	29.52	5.05	2.90	38.27	17.90
	2013	1.96	31.76	48.75	21.34	13.94	4.06	4.31	38.73	28.51	63.23	30.02	42.06	29.37
	2012	17.44	33.62	55.87	21.56	12.42	31.79	34.95	66.50	26.88	82.10	31.82	34.89	19.56
	2011	16.70	34.57	47.66	19.91	33.37	26.08	33.16	39.56	29.75	57.01	25.47	38.58	17.75
	2010	13.73	35.76	49.66	18.83	3.30	21.56	25.81	34.93	36.43	42.92	22.31	19.12	3.48
<b>APP</b>	2014	3.54	28.18	20.79	5.59	39.52	23.19	18.91	25.06	30.10	17.58	25.23	30.14	56.63
	2013	34.86	29.61	17.84	17.52	33.41	24.97	18.30	28.98	30.57	19.33	32.31	27.73	35.37
	2012	23.90	26.23	16.54	15.33	30.31	25.03	18.45	25.12	28.89	17.73	23.46	23.14	19.15
	2011	32.06	32.58	19.68	16.33	29.72	30.17	27.64	33.36	41.12	14.66	29.95	31.01	21.92
	2010	32.13	3.76	23.51	16.50	41.79	28.73	32.95	42.69	43.33	17.83	29.34	35.35	43.24
<b>AAI</b>	2014	19.46	50.85	92.59	6.91	39.74	12.86	57.90	7.45	3.35	13.84	9.64	10.28	48.42
	2013	65.27	41.13	88.21	56.59	58.43	5.91	50.95	4.56	42.84	12.08	37.63	21.19	25.21
	2012	1.26	10.37	76.57	8.21	38.05	6.99	11.03	4.00	57.45	8.90	34.68	63.96	7.49
	2011	50.52	14.35	83.60	11.30	50.59	38.02	13.54	5.11	25.49	6.43	30.40	63.37	29.40
	2010	60.76	11.84	78.51	25.80	16.23	25.21	8.60	6.76	42.58	10.26	20.82	25.31	48.77

<b>CCC</b>	2014	19.02	58.74	123.64	25.62	16.74	-9.85	42.62	17.95	2.77	1.32	-12.69	18.41	9.69
	2013	32.37	43.27	119.11	60.41	38.97	-15.01	36.97	14.32	40.78	55.98	35.35	35.52	19.21
	2012	-5.20	17.76	115.90	14.45	20.16	13.75	27.54	45.39	55.44	73.28	43.04	75.71	7.91
	2011	35.16	16.34	111.58	14.87	54.23	33.93	19.06	11.31	14.12	48.78	25.91	70.93	25.22
	2010	42.36	43.84	104.67	28.14	-22.26	18.04	1.45	-1.00	35.69	35.35	13.79	9.08	9.01
<b>ROA</b>														
<b>(%)</b>	2014	14.26	7.41	12.23	11.24	9.22	12.28	11.38	14.09	9.07	15.65	10.06	13.96	10.26
	2013	13.26	11.80	12.23	11.86	11.97	11.88	12.28	18.91	9.85	16.45	10.33	14.23	10.26
	2012	15.65	12.85	13.48	16.78	14.26	13.81	13.15	22.08	10.77	19.93	12.16	14.32	12.15
	2011	11.19	9.02	11.16	13.36	11.13	11.04	11.74	20.17	12.17	16.37	10.04	13.83	8.50
	2010	11.87	8.71	11.46	13.60	11.27	9.59	9.31	18.51	8.90	16.57	10.39	14.38	8.16
<b>SME</b>		<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>	<b>32</b>	<b>33</b>	<b>34</b>	<b>35</b>	<b>36</b>	<b>37</b>		
<b>ACP</b>	2014	33.25	44.15	32.36	34.49	73.92	23.83	11.77	37.34	20.89	13.81	20.44		
	2013	33.68	40.45	32.47	29.18	15.60	23.87	20.57	29.54	48.32	19.22	22.38		
	2012	52.85	48.70	24.18	21.13	12.64	20.43	20.03	26.79	78.39	44.63	20.48		

	2011	38.38	43.38	26.21	22.99	20.16	22.88	19.75	26.16	36.58	33.06	10.35		
	2010	27.24	47.03	24.47	29.16	18.42	23.62	16.69	18.72	32.00	20.39	8.19		
<b>APP</b>	2014	26.44	29.54	24.01	47.13	29.71	17.49	23.82	29.05	26.77	12.67	23.30		
	2013	26.44	26.13	24.00	36.17	29.70	17.48	23.82	22.20	26.76	21.58	23.28		
	2012	23.74	23.54	20.40	34.29	26.62	13.14	22.75	18.60	25.25	22.82	18.79		
	2011	32.78	28.81	29.13	47.90	38.87	18.00	35.50	25.65	29.31	25.10	12.77		
	2010	37.28	32.93	30.81	50.09	48.31	18.91	33.87	25.54	36.26	32.12	13.01		
<b>AAI</b>	2014	46.72	3.21	27.55	2.39	27.92	13.10	8.93	3.44	4.81	11.47	3.13		
	2013	53.40	57.64	46.23	1.95	9.70	8.32	21.11	7.14	3.35	9.77	3.81		
	2012	59.54	8.27	18.05	6.26	1.43	14.83	1.64	1.44	9.50	11.44	4.66		
	2011	45.07	1.03	8.73	6.03	56.78	34.92	29.86	17.26	17.34	59.95	2.78		
	2010	16.56	93.94	20.33	7.56	42.44	22.13	39.52	1.51	21.79	37.64	9.19		
<b>CCC</b>	2014	53.53	17.81	35.90	-10.25	72.13	19.45	-3.12	11.74	-1.07	12.60	0.27		
	2013	60.64	71.96	54.71	-5.04	-4.40	14.71	17.86	14.48	24.91	7.41	2.91		

	2012	88.65	33.43	21.83	-6.90	-12.55	22.12	-1.07	9.62	62.64	33.25	6.35		
	2011	50.67	15.59	5.81	-18.87	38.06	39.80	14.12	17.77	24.61	67.91	0.36		
	2010	6.52	108.0	13.99	-13.37	12.55	26.85	22.34	-5.31	17.53	25.92	4.37		
<b>ROA</b>														
<b>(%)</b>	2014	16.73	15.38	12.41	10.98	8.96	12.41	11.87	15.13	11.66	11.51	9.39		
	2013	16.57	12.68	11.67	10.85	9.69	13.16	11.89	15.13	13.34	11.51	11.27		
	2012	17.93	14.64	12.92	11.46	15.55	15.11	14.84	16.84	14.91	14.55	12.89		
	2011	14.42	11.03	9.48	9.99	13.90	13.04	11.27	13.04	12.95	11.39	10.40		
	2010	14.46	9.84	8.89	8.98	15.05	11.90	14.60	14.36	12.12	11.86	8.56		