

**THE RELATIONSHIP BETWEEN OWNERSHIP  
CONCENTRATION AND DIVIDEND SMOOTHING AT THE  
NAIROBI SECURITIES EXCHANGE**

**BY**

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## DECLARATION

I **Gideon Mutiso Munyao** do here by declare that this research project report is my original work and has not been submitted to the University of Nairobi, or any other university for academic credit.

**Signed**..... **Date** .....

**Gideon Mutiso Munyao.**

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The project paper has been submitted for examination with my approval as the university supervisor.

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## **DEDICATION**

I dedicate this project to my family for the sacrifice, time, patience and understanding as they bore with my absence and tight schedules. I also dedicate it to my parents who sacrificed a lot to make me what I am. I pray that God will reward you abundantly.

## **ABSTRACT**

The objective of the study was to establish whether a relationship existed between ownership concentration and dividend smoothing for firms listed at the NSE. A descriptive research design was used. A census of the sixty four listed firms as at 31<sup>st</sup> December 2014 was taken. The selection criteria used was that the firms should have been listed for at least four years and also should have been paying dividends for the four years. Thirty one firms qualified the selection criteria. Secondary data from the NSE was used. Firms were classified on per sector basis. For each sector, the mean dividend smoothing, ownership concentration, firm's size and net asset value per sector were computed. Data was analyzed using the SPSS package to establish associations, significance and relationships. The association between dividend smoothing and ownership concentration showed a negative relationship. While the significant tests showed significant relationship. The coefficient of determination value shows that over 90% of the variations in dividend smoothing were explained by the model. However the overall model was not fit for the data. Dividend smoothing was found to be a new concept in the developing economies stock exchanges. The dividend smoothing models are rarely used to establish dividend payout levels. The use of dividend smoothing knowledge is recommended.

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## **ABBREVIATIONS AND ACRONYMS**

DPS	Dividend per Share
EPS	Earning per share
HHI	Herfindahl-Hirschman Index
Ksh	Kenya Shillings
MSM	Muscat Stock Market
NSE	Nairobi Securities Exchange
P/E	Price Earnings Ratio
RelVol	Relative Volatility
S & P	Standards and Poor
SPSS	Statistical Package for the Social Sciences
SOA	Speed of Adjustment
UK	United Kingdom
US	United States of America

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# CHAPTER ONE: INTRODUCTION

## 1.1 Background of the Study

Ownership concentration has been an issue of great interest in both developing and developed economies because of its varying effects over a firm's dividend payment Policies. The connection between ownership concentration and dividend smoothing is a subject of importance in the corporate governance and finance literature today. The debate on ownership concentration goes back to the Berle and Means (1932) studies, which suggests that an inverse correlation should be observed between diffuseness of shareholdings and firm performance.

The study was anchored on the agency theory. According to the agency theory by Jensen and Meckling (1976), managers are more concerned with maximizing their own utility rather than that of their principals. That could give rise to agency costs. Agency costs can be reduced through increases in ownership concentration, because it increases the incentives for large shareholders to engage in costly monitoring. The presence of a large controlling shareholder is a competing monitoring device that may substitute dividend smoothing as he will have an incentive to directly monitor the managers (Easterbrook 1984).

The Nairobi Securities Exchange (NSE) is one of the biggest security exchanges in Africa. Being in a developing economy, the market was characterized by weak and sometimes fragmented regulatory systems as well as low levels of investor protection. Sixty Four (64) firms were listed in the NSE as at 31st December 2014([www.nse.co.ke/listed-companies/list](http://www.nse.co.ke/listed-companies/list)). The ownership status of some firms

could be categorized to be high ownership concentration while others had diffused ownership.

### **1.1.1 Ownership Concentration**

Ownership concentration refers to the number of large-block owners and the total percentage of the company's shares that they own. According to Berle and Means (1932), a controlling owner is an owner who holds at least 20 percent of the company shares. Below this threshold firms are regarded to be under management control. Diffused ownership is when corporate shareholders are diffused in the nature of their shares ownership makeup. Diffuse ownership is characterised by a large number of shareholders with smallholdings and is anticipated to produce weak monitoring of managerial decisions.

Knowledge of firm's ownership concentration is of great importance to economists, investors and policy makers. Users of the concentration information could make informed decisions leading to improved firm's performance, better returns and better understanding of market situations. According to Easterbrook (1984), it was also expected that in the presence of efficient markets, market monitoring would discipline the managers via the threat of hostile takeovers. Owners were expected to exercise more freedom in monitoring the use of firm resources as they would in case of private firms.

A common way to measure ownership concentration is to take the percentage shares held by the largest shareholder or the combined shares held by a number of the largest owners as proposed by Berle and Means (1932). Ownership concentration measure is established based on the fraction of the shares held by the large shareholders

controlling at least 20 percent of the equity (Thomsen and Pedersen, 2000). Other concentration measures include Herfindahl indices and measures based on game theory. Herfindahl-Hirschman Index – HHI measures market concentration calculated by squaring the market share of each firm competing in a market, and then summing the resulting numbers. Game theory measures assume that shareholders are the players, and measure the probability of individual players to affect decision making in voting games considering their voting share as well as the voting shares of other shareholders.

### **1.1.2 Dividend Smoothing**

Dividend smoothing is the management of the dividend policy so as to achieve a dividend pattern which is smooth relative to earnings. The phenomenon was first documented by Lintner (1956). It manifests itself as the practice of keeping dividends constant over two or more consecutive periods. Lintner (1956) concluded that dividends were quite stable over time and that firms in the US were reluctant to increase their dividends unless they could see permanent increases in earnings. The study demonstrated that firms were less likely to cut dividends even when earnings dropped. The study further showed that dividends tend to increase steadily over time and also tend to be smoothed in relation to earnings, in order to maintain a certain target payout ratio.

Knowledge about dividend smoothing is important to managers, investors, economists and policy makers as follows. Managers use the practice to avoid adverse stockholder reactions when setting the dividend level. In the imperfect capital market, firms that suffer undervaluation of stocks have an incentive to send a signal of their profitability

through dividend increases. To indicate a credible signal firms can smooth dividends and increase dividends only when they can maintain the increased earnings. Easterbrook (1984) and Jensen (1986) noted that agency conflicts between shareholders and managers also reflect the importance of dividend smoothing. Dividend payments effectively mitigate agency problems since high and stable dividend payments serve as a commitment that the firm is not an over-investor. Finally, Managers have an incentive to smooth earnings and dividends if shareholders compensate them based on reported earnings and dividends.

Consistent with his findings, Lintner (1956) developed the partial adjustment model. This was a model specification of how managers smooth their dividends. In the model, he presumed that the change in dividends from one year to another corresponded to the earnings, the target payout ratio and the speed of adjustment (SOA). The SOA is an important and a common measure of the dividend smoothing. The higher the SOA ( $\beta$ ), the lower is the level of dividend smoothing.

### **1.1.3 Ownership Concentration and Dividend Smoothing**

According to Warther (1993), the dividend smoothing behavior of firms was a response to agency costs generated by the separation of ownership and control in the firms. In that view, the stable dividend rate established a minimum performance standard for the managers. Firms with large shareholders were anticipated to more likely follow a consistent dividend policy as dividend changes would be expected to be more sensitive to earnings changes. That would be due to the fact that with the large shareholder in control of the firm, outside shareholders may be skeptical about earnings quality and thus may want earnings increases to be verified by concurrent dividend increases. For negative earnings shocks, the large shareholder would be

more willing to cut dividends since he would be less afraid of disciplinary action by the dispersed shareholders and because maintaining the dividend would increase chances of bankruptcy. As Lintner (1956) observed, firms increase dividends only gradually due to their reluctance to cut dividends in future.

Studies on dividend smoothing have given rise to varying outcomes. In a study by Rahman (2002) on dividend smoothing behavior of firms using a sample of firms covering 28 countries. It was established that the levels of dividend smoothing in the firms varied substantially across countries. The U.S. firms differed materially from the dividend policies of the firms in other countries thus supporting the view that ownership structures were potentially important determinants of the dividend smoothing decisions of the firms.

A study by Yahyaeaa, Phamb and Walterc (2011) was undertaken to establish the dividend smoothing in Oman. The choice of Oman was because there were no taxes on dividends, firms were highly levered mainly through bank loans, there was a high concentration of stock ownership and there was variability in cash dividend payments. The results showed that Omani financial firms had erratic dividend policies.

For a sample of East Asian firms, Fan and Wong (2002) found out that concentrated ownership was associated with low earnings. Large shareholders would be more willing to cut dividends in cases of negative earnings since they were less afraid of disciplinary action by the dispersed shareholders and because maintaining the dividend would increase chances of bankruptcy.

#### **1.1.4 Nairobi Securities Exchange**

Nairobi Securities Exchange is the securities market in Kenya that supports trading, clearing and settlement of equities, debt, derivatives and other associated instruments. The first professional stock brokerage firm in Kenya was established by Francis Drummond in 1951. He together with the finance minister approached London stock officials in 1953 seeking approval and recognition of the NSE as an overseas stock exchange. The NSE was set up and registered under the societies act in 1953 where only Europeans could participate but that changed after independence.

Nairobi Stock Exchange (NSE) was renamed Nairobi Securities exchange in 2011 to reflect its strategic plan which included support in trading, clearing, and settlement of equities, bonds, derivatives and other instruments. NSE underwent demutualization in 2010. Demutualization is the gradual process of converting securities exchanges from Nonprofit and member owned organizations to profit oriented and investor owned organizations. The main objective was to provide investors, both national and international, access to trading and get rid of stock exchange members that derailed trading system expansion attempts ([www.nse.co.ke](http://www.nse.co.ke)).

According to Mule, Mukras and Oginda (2013), NSE is characterized by the existence of firms with a high ownership concentration. This was established from a study on Ownership concentration and financial performance of listed firms in the NSE for the period from 2007 to 2011. The highest ownership concentration was 96.310 %, while the lowest is 11.040%. The average ownership concentration was established to be 64.286 % and a variability of 17.292 %.

The 2010 NSE Hand book indicated that the E.P.S for TPS Serena for the period from 2007 to 2010 was Ksh3.29, 3.26, 2.9&3.93 per share while the D.P.S was Ksh1.25, 1.25, 1.25& 1.25 per share respectively for the same period. This was a likely indication of dividend smoothing by the firm and by extension an indication of dividend smoothing in the NSE.

## **1.2 Research Problem**

Firms that are controlled by large shareholders are said to be concentrated. They are expected to show less dividend stability. Dividends changes are expected to be more sensitive to earnings changes. For negative earnings shocks, the large shareholder may be more willing to cut dividends since they are less afraid of disciplinary action by the shareholders. Thus it is reasonable to expect the earnings sensitivity of dividends to increase as the ownership stake of the large shareholder increases. On the other hand, with diffusely owned firms, shareholders may be skeptical about earnings quality and thus may want earnings increases to be verified by dividend increases.

From the 2015 NSE Handbook, it was noted that firms had varying ownership concentrations and dividend payout ratios. The percentage shareholding of the five major shareholders and the dividend payout ratios of the firms listed at the NSE was an indicator of ownership concentration and dividend smoothing respectively. For example the percentage shareholding in Safaricom by the first three shareholders was 40%, 35.0% and 0.78% while the dividend payout ratio for 2011, 2012, 2013 and 2014 is 60.3%, 69.10%, 64.0% and 71% respectively. According to Abala (2013), profitability and ownership structure of the firm were the main factors that determined dividend smoothing at the NSE. This gave the need to establish the degree in which dividend smoothing was practiced at the NSE.

Rahman (2002) undertook a study on dividend smoothing behavior of firms using a sample of firms covering 28 countries. The results varied across countries and indicated that ownership levels were important determinants of the dividend smoothing decisions of the firms. Shinozaki and Uchida (2010) did a study to test dividend smoothing behaviors of seven thousand (7,000) firms from forty two (42) countries. Firms with concentrated ownership structure were found to adjust their dividends quickly. Abala (2013), did a study on the determinants of dividend smoothing at the NSE. It was established size of the firm, firm's earnings and profitability, firm's agency conflict, ownership structure, taxes, information asymmetry and growth stage of the firm as the likely determinants of dividend smoothing by firms listed at the NSE. Studies in the area of ownership concentration and dividend smoothing are limited. Thus there is need for a research to establish whether any relation exists between ownership concentration and dividend smoothing at the NSE. Therefore this study will seek to answer the question; does a relationship exist between ownership concentration and dividend smoothing on firms listed in the Nairobi Securities Exchange?

### **1.3 Research Objective**

The purpose of the study was to establish whether a relationship exists between ownership concentration and dividend smoothing of firms listed at the NSE.

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

This study will contribute to the existing literature by providing new empirical evidence on the effect of ownership concentration on firm's dividend policy in a developing stock market. It will provide guidance to investors on ownership status of

firms before choosing stocks to invest in. It will offer guidance to managers on the expectations and challenges expected.

This study was to be conducted for firms operating in the NSE, thus a context of a developing securities exchange. It was thus to act as a benchmark against which other stock markets in the developing countries would gauge themselves against.

The motivation of the study was to enlighten and inform investors and shareholders on the likely hood of ownership concentration influencing dividend smoothing in the NSE.

The issue of ownership concentration versus dividend smoothing is a relatively new area of study at the NSE. The trend towards greater shareholding concentration with the growing importance of institutional shareholders gives a greater role to the ability of large shareholders to organize their voting power to enforce wealth maximization.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

This chapter focuses on theoretical reviews, determinants of dividend smoothing and the empirical literature review.

### **2.2 Theoretical Review**

Several theories and their criticisms are discussed in this section. The theories are as follows; The Agency Theory by Jensen (1986) and a criticism by Donaldson (1990), the signaling theory by Miller and Modigliani (1961) and the criticism by Fama and French (1988), the Dividend Irrelevance Theory by Miller and Modigliani (1961) and the Bird in The Hand Theory by Gordon (1959) and the criticism by Keown et al (2007).

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

According to Jensen (1986), the agency theory of dividends is based on the idea that dividends act as a bonding and monitoring device that reduces the agency conflicts between managers and shareholders in diffusely held corporations. Agency considerations affect both dividend payout ratio and dividend smoothing which are useful constraints of managerial inclination for overinvestment or other wasteful uses of the firm's resources. A high dividend payout ratio forces the management to pay out free cash or compels the firm to go to the capital markets to fund new projects.

The dividend smoothing behavior by firms is a response to the agency costs generated by the separation of ownership and control. The stable dividends set the minimum expected performance of the management. In diffusely held firms, smooth dividends serve as a low-cost monitoring device (Jensen, 1986; Easterbrook, 1984; and Kumar,

1988). Dewing (1920), suggests that dividend policy of firms with diffuse ownership should be more stable than that of firms where directors have substantial equity interests in the firm. Jensen (1986) noted that, like debt, smoothing performs an important control function by bonding the managers' promise to pay out future cash flows. He noted that, "such promises are weak because dividends can be reduced in the future". That opinion suggested that dividends serve as an important control device precisely because managers find it difficult to reduce dividends.

Donaldson (1990) criticized the agency theory with the fact that it offered little more than looking at known data patterns, and had no capability in providing future oriented guidance. Further criticism was that the teachings of agency theory are treated as best practice making the pursuit of financial success the main corporate value, whilst moral and ethical actions become second-place. The proponents pay no attention to the organizational behavior research and ignore organization theory research thus leading to development of assumptions disregarding essential conclusions from traditional management .Traditional management theory recognizes managerial errors not as calculated actions, but as a result of information insufficiency, knowledge shortage or as a group thinking effect.

More criticism on agency theory is that the theory seems to take some of the worst assumptions about human nature and build them into its central definition of rationality. The theory offers a characterization of an extreme badness, in which opportunistic conduct is rampant. According to this perspective, individuals are capable of acting opportunistically, but are also capable of exhibiting restraint. The

extent to which they do either is very much dependent upon circumstance, institutional context, and background culture.

### **2.2.2 The Signaling Theory**

A firm's management tends to have precise and more information about the firm unlike outside investors. This is against the Miller and Modigliani (1961) assumption that investors and management have perfect knowledge about the firm. Dividends are used as a tool to bridge the gap between the managers and investors. Solomon (1963) and Ross (1977) observed that increase in dividends is often accompanied by increases in the prices of stocks while a decline in dividends often leads to a stock price decline. In an inefficient market, management can use dividend policy to signal important information to the market, which is only known to them. Payment of high dividend signals high-expected profits in future and a message to shareholders that the company is profitable and financially strong.

However, Fama and French (1988) gave a different opinion. They pointed out that more profitable firms tend to have lower levels of dividend payout. They argued that increasing dividends actually signals poor prospects for future earnings and cash flow as there will be less internal financing available to fund development.

### **2.2.3 Dividend Irrelevance Theory**

Miller & Modigliani (1961) proposed the Dividend irrelevance theory which suggests that the wealth of firms' shareholders is not affected by dividend policy. They argued that the value of the firm is subjected to the firm's earning, which comes from company's investment policy. The theory has various assumptions as follows; there is 100 per cent earnings payout by management in every period; there exist perfect capital markets; there is no taxes or transactional costs; the market price cannot be

influenced by a single buyer or seller, there is free and costless access to information about the market, investors are rational and that they value securities based on the value of discounted future cash flow to investors, managers act as the best agents of shareholders and there is certainty about the investment policy of the firm with full knowledge of future cash flows.

Critics of the theory argue that investors invest in firms in order to earn dividends and that dividends are relevant under the certain conditions as well. Proponents of the theory believe that the shareholder's wealth is not affected by the dividends. However, there are transaction costs associated with the selling of shares to make cash inflows. This makes the investors prefer dividends. According to the theory, taxes are not present, flotation costs are assumed not to exist, there is no difference between internal and external financing all of which is false. Generally, perfect capital markets do not exist as is assumed in the theory.

#### **2.2.4 Bird-In-The-Hand Theory**

The theory was first mentioned by Lintner in 1956. The theory has been supported by various researchers including Gordon(1959) (1963).The Bird-in-the-hand theory argues that investors prefer to receive dividends 'today' because current dividends are more certain than future capital gains that might result from investing retained earnings in growth opportunities. Due to future uncertainties and information asymmetry, dividends are valued differently from retained earnings. Thus “A bird in hand (dividend) is worth more than two in the bush (capital gains)”. Due to the uncertainties of future cash flow, investors often tend to prefer retained earnings.

The main assumptions of the Bird-in-the-hand theory model are that; investors have imperfect information about the profitability of a firm; cash dividends are taxed at a higher rate than when capital gain is realized on the sale of a share; and dividends function as a signal of expected cash flows. Despite the tax disadvantage of paying dividends, management continues to pay dividends in order to send a positive signal about the firm's future prospects. The cost of this signaling is that cash dividends are taxed higher than capital gains. While some investors would rather have capital gains to cut down on tax impact, many prefer dividends because they prefer immediate cash in hand.

Critics and opponents to the bird in hand theory have stated that the theory excludes important factors. Keown et.al (2007) argues against the theory and points out that increases in current dividends do not decrease the riskiness of the company; it does instead work in the opposite direction. Because if an increase in dividend payments are made, the managers have to issue new stocks in order to raise the needed capital. Therefore a dividend payment just transfers the risk from the old to the new shareholders.

### **2.3 Determinants of Dividend Smoothing**

Different factors determine dividend payout and thus determine dividend smoothing. The factors include the firm size, information asymmetry, earnings and profitability of the firm, growth stage of the firm, taxation, ownership structure and the agency conflicts of firm. The determinants are elaborated as below.

#### **2.3.1 The Firm Size**

A study by Titman and Wessels (1988) established that there is a positive relationship between the size of a firm and its dividend smoothing. They argued that the larger

companies are likely to smooth dividends since they have lower variance of their earnings, making them able to tolerate dividend payout ratios.

### **2.3.2 Information asymmetry**

The different information asymmetry models imply that firms with greater information asymmetry are more likely to enact in dividend smoothing than firms with lower information asymmetry (Jeong, 2013). The signaling model emanates from the view that well-informed managers use dividends to signal future performance of the company. By increasing dividends, managers will signal that they believe in a positive development of future performance, and by cutting dividends they signal that the outlook for the future is not as prosperous as before. It is expected for the degree of smoothing to decrease over time as the amount of information generated by market analysts and released by corporations increase with improvements in information technology and market sophistication. Individual investors, who are less informed, prefer to receive dividend payments to minimize their informational disadvantage when trading against more informed institutional investors. When information acquisition is endogenous and firms are held mainly by individual investors, small payouts will be made via dividends and large shocks to earnings are distributed via share repurchases. As a result, dividends will be smoother than the underlying earnings stream. Thus firms with more individual investors will smooth more.

### **2.3.3 Firm Earnings**

According to Lintner (1956), firms with more persistent earnings series smooth less, while those with more cyclical earnings smooth more. Firms that smooth their earnings more smooth dividends less. Firms adjust dividends quicker when they are below their target than when they are above. This result reveals that the profitable

companies use their internal funds in financing their long term investments and use the short term debt in financing their operating activities.

#### **2.3.4 Growth Stage of a firm**

Aivazian et al. (2002) suggest that smooth dividends are signaling instruments and signaling mechanisms are not generally viable in young firms. They argue that this makes smooth dividends less relevant in young firms.

Ellili and Farouk, (2011) studied the Abu Dhabi Stock Exchange and concluded that the profitable companies use their internal funds in financing their long term investments and use the short term debt in financing their operating activities.

#### **2.3.5 Tax Regime**

Varying tax obligations has been noted to affect the degree of dividend smoothing across firms in different jurisdictions. A study by Andres, Betzer, Goergen, and Renneboog (2009) established that German firms adopt more flexible dividend smoothing policy than US firms due to its favorable tax regime. Similarly, Chemmanur, He, Hu, and Liu (2010) established that Hong Kong firms, which have concentrated ownership structures and do not present adverse tax effects on dividends, adjust dividend levels more quickly to the long-term target than US firms.

#### **2.3.6 Ownership Structure**

In a study by Almeida, Campello, and Weisbach (2004), it was noted that Dividend Smoothing can also arise from an effort to avoid costly external finance. Firms that appear to have the least constrained access to external capital and highest dividend levels were noted to have the most prevalent smoothing. Managers manipulate the capital structure of the companies to control a large fraction of voting rights.

### **2.3.7 Agency conflicts of the firm**

In Allen, Bernardo, and Welch (2000), institutional investors are valued for their monitoring abilities. Managers can use dividends to attract these investors because of their tax status. Once institutional investors have been attracted, they have the ability to impose a large penalty in response to dividend cuts, so managers are forced to smooth their dividends. Easterbrook (1984) and Jensen (1986) suggest that paying a dividend that is both high and smooth forces firms to raise external capital to meet any financing needs. This continual exposure to the discipline of external financial markets reduces agency costs.

Easterbrook (1984) predicted a positive relationship between smoothing and the level of dividends, and between smoothing and the severity of the free cash flow problem in a firm. Highly profitable firms with low market to-book ratios are likely to have excess cash relative to profitable investment opportunities (Jensen 1986; Fama and French 2002). Likewise, firms that are cash cows (firms that are profitable, have high credit ratings, and have low P/E ratios) are likely to be more sensitive to agency problems (Brav et al. 2005).

### **2.4 Empirical Literature Review**

Larkin, Leary, and Michaely (2013) did a study to establish whether U.S. investors value dividend smoothing stocks differently by exploring the implications of dividend smoothing for firms' stock prices and cost of capital. The sample comprised the firms trading on NYSE, AMEX and NASDAQ for the period of 1970-2011 but excluded financial firms. Speed of adjustment (SOA) and relative volatility (RelVol) for each firm for the period of 1979-2011 was used to compute dividend smoothing. High dividend smoothing firms were found to be larger, older, more tangible and more

liquid in terms of share turnover than the low-smoothing firms. Firms that smooth more also tend to pay higher dividend. Institutional ownership is significantly higher for the high-smoothing firms than for the low-smoothing ones. Public firms do smooth dividends over time through a policy of gradual increases in dividends and infrequent decreases in dividends. Private firms, on the other hand, follow relatively erratic dividend policies that are more sensitive to earnings shocks both positively or negatively.

Rahman (2002) undertook a study on dividend smoothing behavior of firms using a sample of firms covering 28 countries. The World scope database that covers only the S & P 500 firms was used from a population of 43 countries. Restrictions resulted to the decrease of firms from 43,204 firm-years to 33,400 firm years. A descriptive research design was used. The results indicated that the levels of dividend smoothing in the firms varied substantially across countries. The findings confirmed that the dividend policy of the U.S. firms differs materially from the dividend policies of the firms in many other countries. The results supported the view that ownership structures are potentially important determinants of the dividend smoothing decisions of the firms and that the effects of country-level ownership are much stronger than the effects of firm level ownership.

Yahyaeea, Phamb and Walterc (2011) undertook a study on dividend smoothing in Oman. Data for this study was obtained from the “Share-Holding Guide” of Muscat Stock Market (MSM) for the entire life of the MSM from 1989 to 2004. The stability of dividend behavior was established using the Lintner model. The markets lintner speed of adjustment was 0.9412. The results show that Omani financial firms adjust

their dividend policies quickly, are willing to cut their dividends and that the firms have unstable dividend policies. The choice of Oman was due to its distinctive institutional background which offered a valuable opportunity to investigate the stability of the dividend policy as there are no taxes on dividends, firms are highly levered mainly through bank loans, there is a high concentration of stock ownership and there is variability in cash dividend payments. These factors suggest a diminished role of dividend smoothing in Oman. The results showed that Omani financial firms have erratic dividend policies which meant that the results outcome was inconsistent with the predictions suggested by government ownership and dividend signaling.

Knyazeva and Knyazeva (2014) did a study for the U.S. Securities and Exchange Commission on dividend smoothing. The paper was to provide an agency interpretation of dividend smoothing and offer evidence that variation in corporate governance and managerial incentive conflicts explain the differences in intertemporal properties of dividends. The sample was based on Compustat Annual from 1993 to 2004 and excluded foreign firms, firms with total assets less than Usd 20 million, financials, regulated utilities, and firms with missing Compustat, governance or compensation data. The study findings provide an agency interpretation of dividend smoothing. It was argued that smooth dividends are an alternative to traditional corporate governance mechanisms. The findings documented a greater degree of dividend smoothing, fewer dividend cuts, and a trend towards regular incremental dividend increases at firms with weak traditional monitoring mechanisms. Consistent patterns for total shareholder payout and overall commitment to external claimholders were documented.

Gugler (2001) undertook a study to investigate the relationship between dividends, the ownership and control structure of a panel of some Austrian firms over the period from 1991 to 1999. The sample consisted of 214 non-financial firms drawn from the 600 largest non-financial firms in Austria on the basis of data availability. The sample covered around 10% of Austrian private sector employment. Firms were categorized according to their control structures. The different control categories for owners were banking, state, foreign firm, and family/individual controls. To determine the ultimate owners of a company, owners were identified at each consecutive level until the top layer of the company ownership was reached. It was established that state controlled firms engaged in dividend smoothing, while family-controlled firms did not. The latter chose significantly lower target payout levels. Consistently, state-controlled firms were most reluctant and family-controlled firms were least reluctant to cut dividends when cuts were warranted. The dividend behavior of banks and foreign-controlled firms lied in between state and family-controlled firms.

Lau and Hu (2010) did a study to examine the relation between ownership structure and dividend smoothing by comparing the degree of dividend smoothing engaged in by family and non-family firms. A sample of S&P 500 firms from 1997 to 2007 was used. A descriptive design was used. The speed of adjustment based on all firm observations was 9.25% ( $1-0.90754$ ) which indicates that on average the firms require almost 11 years to adjust their dividend to their target payout ratio. Family owned firms exhibited less dividend smoothing behavior than non-family firms due to lower agency conflicts and less information asymmetry they experience. It was also found that the source of the difference arose from the family firms' willingness to increase their dividends, rather than their willingness to cut dividends in response to significant

earnings changes. Overall results indicated a strong interaction between ownership and dividend smoothing.

Karuitha, Onyuma and Mugo (2013) did a study with the objective of establishing whether stock splits affect ownership concentrations for firms listed in the NSE. Secondary data was collected using a data collection sheet from the published financial statements of listed firms, which had conducted stock splits between 2004 and 2010. A Herfindahl-Hirschman Index was used to measure ownership concentration among the top ten shareholders before and after the split. The overall change in ownership structure was analyzed using the Wilcoxon Rank Sum Test at 95% confidence level. The results showed that the change in ownership structure was not in favor of retail investors. The holding by institutional investors increased in most cases, implying that stock splits do not cause enough interest in the shares amongst retail investors. To the contrary, stock split encourages retail investors to off load their shares in a bid to lock in profits due to the appreciation in the value of the shares after the split.

Abala (2013) did a study on the determinants of dividend smoothing at the NSE. A census of firms listed in the NSE was used where it was narrowed to the sample of firms that had paid out dividends from 2008 to 2012. The study employed the use of a multiple regression analysis to establish the relationship between variables. It was established that the size, sales (earnings) and growth rate of the firms did not in any way contribute to the dividend smoothing but profitability which includes the return on assets determined dividend smoothing by the companies studied.

Odero (2012), sought to establish the relationship between types of ownership structure and dividend payments of firms listed in the NSE. An analysis of 33 sample firms for the years 2009 to 2011 was used. The study examined the possible effects of four types of ownership structure, namely ownership concentration, institutional ownership, managerial ownership and foreign ownership. It was found that ownership concentration was the only variable that was positively and statistically significant in influencing dividends in every type of dividend model. The finding has policy implication since high dividend payments can be used for mitigating agency conflict as dividends can be substituted for shareholder monitoring. Hence, large shareholders have strong incentives to require higher dividend payments in order to reduce monitoring costs.

Mulinge (2009) did a study on the effect of Block holders on dividend policy of firms. She sought to establish whether a firm's ownership structure had an effect on the dividend policies of quoted companies and also to establish whether financial decision makers were sensitive to the influence of block holder owners while making dividend decisions and whether the fear of expropriation by minority investors lead to payment of higher dividends by quoted firms. Descriptive secondary data from NSE data base and the financial statements from the firms were used. The dividends declared and paid earnings per share and ownership structures were analyzed using regression and correlation analysis. The results indicate that firms with block holders tend to give higher dividends compared to firms with higher state ownership, foreign ownership and individual ownership. It was concluded that a positive relationship existed between the block holders and dividend policy.

## **2.5 Summary Literature Review and Research Gaps**

Larkin, Leary, and Michaely (2013) noted that high dividend smoothing firms were larger, older, more tangible and more liquid in terms of share turnover than the low-smoothing firms. They also tend to pay higher dividend and they mainly have an Institutional ownership. Rahman (2002) sampled 28 countries and the results indicated that the level of dividend smoothing in the firms varied substantially across countries. Knyazeva and Knyazeva (2012), argued that dividend smoothing was practiced by most firms in the U.S. Mulinge (2009), argued that firms with block holders tend to give higher dividends compared to firms with higher state ownership. In a study by Gugler (2001), it was noted that the degree of dividend smoothing engaged in by the family firms is much less than for the non-family firms.

Most empirical studies on ownership status and dividend smoothing have focused on non-African firms. These findings confirm and extend the findings of previous researches that the dividend policy of the U.S. firms differs materially from the dividend policies of the firms in other countries. The results supported the view that ownership concentration is potentially an important determinant of the dividend smoothing decisions of the firms.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

This chapter explains the research design, the population and the sample size that was used when carrying out the study. It further explains the data collection method and the techniques used to analyze the collected data together with the model and software package used.

### **3.2 Research Design**

The research used a descriptive research design as in McConnell and Servaes (1990). Descriptive studies are the best methods for collecting information that demonstrate relationships and describe the behavior or type of a subject. According to Bickman and Rog (1998), descriptive studies can answer questions such as “what is” or “what was.”

Descriptive design was used in the research since its main purpose is to determine and report things the way they are. It establishes the current status of the population under study as it describes, explains and gives the status of two or more variables.

### **3.3 Study Population**

A census of the 64 firms (Appendix A) that were trading as at 31<sup>st</sup> December 2014 was conducted. The firms were classified in their various listed sectors.

Two selection criteria were imposed on the sample as follows; the company should have been listed for at least four years and also having paid dividends for all of the sampling years. Thirty one firms qualified the selection criteria and were used in the studies.

### 3.4 Data Collection

Secondary data mainly from the NSE and the Capital market authority (CMA) was used in the study. A data collection form (Appendix B) was used for initial recording of the data. Data was collected for the four year period ending 31<sup>st</sup> Dec 2014.

### 3.5 Data Analysis

Firms that qualified the selection criteria were classified on sector basis. Dividend smoothing and ownership concentration variables of qualified firms were computed. Firm size and net asset value per share of the qualified firms was used as the control variables. Their means of all variables per sector was computed. A Statistical Package for the Social Sciences (SPSS) was used to run the multiple regression model to analyze the combined sectors results and to establish the associations and relationships between Dividend smoothing and Ownership concentration together with the control variables.

The model was as follows;

$$Y = \alpha + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \varepsilon$$

Where;

Y represented the dependent variable –Speed of adjustment (SOA).

$\alpha$  represented a constant amount ( Dividend smoothing at Zero concentration).

$\beta$  represented the regression coefficients.

X represented the independent /control variables of Ownership concentration explained as follows;

$X_1$  represented the ownership concentration of the firms

$X_2$  represented the firm size and was computed as the logarithm of profit before tax of the firms.

$X_3$  defined as the Net asset value per share.

$\varepsilon$  represented the “noise” term reflecting other factors that influence dividend smoothing.

### 3.5.1 Operationalization of the variables

The computed dividend smoothing and ownership concentration values were analyzed in a regression analysis model. The basic objective for using regression models was to measure the extent that changes in one or more variables jointly affected changes in another. Regression models help to build a prediction model that is consistent and accurate and also help to better understand them and possibly lead to the use of the understanding to affect policy or to make decisions about appropriate actions to take.

The dependent variable ( $Y$ ) in the regression model was the variable representing the speed of adjustment (SOA) which is the measure of dividend smoothing. Following Leary and Michaely (2011), a firm’s dividend smoothness was measured using the following equation model.

$$D_{it} - D_{it-1} = \alpha + \beta \times (TPRi \times E_{it} - D_{it-1}) + e_{it}$$

Where  $D_{it}$ , refers to firm  $i$ ’s dividend per share,  $E_{it}$ , refers to earnings per share,  $t$  time now,  $t - 1$  previous time,  $TPRi$  is the firm’s target dividend payout ratio, which is defined as the median dividend-to-earnings ratio for firm for the period under study,  $\beta$  is the Lintner speed of adjustment coefficient (SOA) and  $e$  refers to the error term. In a hypothetical case where a firm always lets its dividends fluctuate proportionately

with earnings,  $\beta$  will have an estimated value of 1. On the other extreme, if a firm keeps its dividend per share constant regardless of its earnings changes, then  $\beta$  will take the value of 0. In reality, a firm's dividend adjustment usually lies in between these two extremes, with a lower SOA implying that the dividends are smoother and less responsive to earnings changes.

In the regression model, the independent/Explanatory variable ( $X$ ) was the variable used to model or to predict the dependent variable values. The dependent variable is a function of the explanatory variables.

In the regression model, the regression coefficient ( $\beta$ ) was computed by the regression tool. It is a value that represents the strength and type of relationship the explanatory variable has to the dependent variable. When the relationship is positive, the sign for the associated coefficient is also positive. Coefficients for negative relationships have negative signs. When the relationship is a strong one, the coefficient is large. Weak relationships are associated with coefficients near zero.

The parameters  $\alpha$  and  $\beta$  are unobservable and the regression analysis produced an estimate of these two parameters.

### **3.5.2 Tests of Significance**

The study made use of t tests. These tests require that the measures analyzed meet the normality assumption. Statistical significance indicates whether the difference between sample averages is likely to represent an actual difference between populations and the effect on size indicates whether that difference is large enough to be practically meaningful.

The R Square ( $R^2$ ) is a statistical measure of how close the data are to the fitted regression line. It is also called the coefficient of determination. It is the proportion of variance in the dependent variable that can be explained by the independent variables (the proportion of variation accounted for by the regression model above and beyond the mean model). The  $R^2$  statistic takes on a value between zero and 100%. A high value of  $R^2$  is important if one wishes to use the model for predictive or forecasting purposes and less important if one is simply interested in particular parameter estimates.

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

### **4.1 Introduction**

This chapter outlines the analysis done to enable achieve the objective of the study which was to establish whether a relationship existed between dividend smoothing and ownership concentration in the in the NSE. The analysis was done using the mean values of the dividend smoothing, ownership concentration, firm size and net asset value for all the different sectors of the NSE. The data was analyzed using the Statistical Package for the Social Sciences (SPSS) to establish the trend.

### **4.2 Descriptive Statistics**

Thirty one firms that had issued dividends for four consistent years from 2011 to 2014 qualified for the research. The mean dividend smoothing results per sector was computed. The mean ownership concentration for 2011 and 2014 was used as the ownership concentration for the qualified firms. The control variables means were established as follows: Size of the firms in a sector mean was computed using the mean of logarithm of profits before tax. The Net asset value per share was computed as each sector mean net assets values per share.

The data per firm was analyzed and classified on firm basis categorized under sector headings (see Appendix C). The data classification gave the raw status of the firm's variables. The means of the firm data were further analyzed and categorized into the respective sectors operating at the NSE (see Appendix D). An analysis of the mean sector data was subjected to analysis using SPSS for regression models analysis to establish the relationship between dividend smoothing and Ownership concentration. Control variables of firm size and net asset value per share were used.

### 4.3 Regression and Correlation analysis

**Table 1.1 Regression Analysis Summaries**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.951 <sup>a</sup>	.905	.762	8.859567	.905	6.332	3	2	.139

a. Predictors: (Constant), Net Asset Value, Owners Concentration, Firm Size  
(Source: Research data)

From the table 1.1 the coefficient of determination (R Square) from the model is 0.905. That means that 90.5% of the variations in dividend smoothing are explained by the model while 9.5% of the variations are explained by variables outside the model. The large coefficient of determination indicates a high variability in the outcome.

Since the significance level was 0.139, which is by far more than the threshold of 0.05 that shows that the model was not reliable in predicting the outcome. Thus the overall model was not that good fit for the data.

**Table 1.2 Correlation Analysis**

		Dividend Smoothing	Owners Concentration	Firm Size	Net Asset Value
Pearson Correlation	Dividend Smoothing	1.000	-.807	-.732	-.657
	Owners Concentration	-.807	1.000	.334	.203
	Firm Size	-.732	.334	1.000	.959
	Net Asset Value	-.657	.203	.959	1.000
Sig. (1-tailed)	Dividend Smoothing	.	.026	.049	.078
	Owners Concentration	.026	.	.259	.350
	Firm Size	.049	.259	.	.001
	Net Asset Value	.078	.350	.001	.
N	Dividend Smoothing	6	6	6	6
	Owners Concentration	6	6	6	6
	Firm Size	6	6	6	6
	Net Asset Value	6	6	6	6

(Source: Research data)

From the table 1.2 a correlation analysis indicates the association and significant tests between the dividend smoothing and owner’s concentration, firm size and net asset value. The association between dividend smoothing and owners concentration shows a negatively strong association of -0.807. The test of significance gives a value of 0.026 which is less than 0.05. Thus the association between dividend smoothing and ownership concentration is negative and with a significant relationship.

The association between dividend smoothing and firm size shows a negatively strong association of -0.732. The level of significance is 0.049 which is less than 0.05. Thus the association between dividend smoothing and firm size is negative and with a significant relationship.

The association between dividend smoothing and net asset value shows a negatively strong association of -0.657. The test of significance gives a value of 0.078 which is greater than 0.05. Thus the association is strongly negative and the relationship is not significant.

**Table 1.3 Regression Model Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-6.277	6.385				
	Owners Concentration	-6.451	2.404	-0.692	2.683	.115	-16.795 3.893
	Firm Size	-.560	6.814	-.073	-.082	.942	-29.876 28.756
	Net Asset Value	-86.706	167.188	-.446	-.519	.656	-806.057 632.644

a. Dependent Variable: Dividend Smoothing  
(Source: Research data)

From table 1.3 above, the un-standardized coefficients show how the dependent variable varies with independent variables when all the other factors are held constant.

The final equation can be established to be as follows;

$$Y = -6.277 - 6.451x_1 - 0.560x_2 - 86.706x_3 + 6.385$$

From the model it can be established that a positive change in Ownership concentration ( $X_1$ ) will cause a decrease in dividend smoothing by -6.451. A positive change in firm size ( $X_2$ ) will cause a decrease in dividend smoothing by -0.560 and a positive increase in net Asset Value ( $X_3$ ) will cause a decrease in dividend smoothing by -86.706.

The significance test levels indicate values higher than 0.05, thus the variables are not statistically significant in predicting dividend smoothing indicated as the dependent variable Y.

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

### **5.1 Summary of the Findings**

The objective of the study was to investigate whether a relationship existed between dividend smoothing and ownership concentration for firms listed at the NSE. To achieve the objective, statistical analysis was done for 31 firms that had qualified the selection criteria out of a population of 64 companies quoted at the NSE at the period ending December 2014.

The coefficient of determination was established to be 90.5%. The large coefficient of determination indicates a high variability in the outcome-test used to measure if the model was significant to be used. The association between dividend smoothing and owner's concentration showed a negative association with a significant relationship. The association between dividend smoothing and net asset value showed that the association was a negative one while the relationship was not significant.

The coefficients model indicated various results as follows. A positive change in Ownership concentration caused a decrease in dividend smoothing, while a positive change in firm size caused a decrease in dividend smoothing and a positive increase in Net Asset Value per share caused a decrease in dividend smoothing.

### **5.2 Conclusion of the Findings**

From the correlation analysis it was established that there was a negative strong association between dividend smoothing and the ownership concentration by the companies listed at the NSE. An increase in ownership concentration led to a decrease in dividend smoothing. The correlation relationship between dividend smoothing and

owner's concentration showed a significant relationship. Thus it was concluded that the ownership concentration and dividend smoothing were inversely related with a significant relationship.

Since the significance level was by far more than the threshold level in the regression analysis model, it was concluded that the model was not reliable in predicting the outcome. Thus the overall model was not that good fit for the data and thus not suitable for use for prediction.

The coefficient of determination from the model was very high. That meant that most (about 90.5%) of the variations in dividend smoothing were explained by the model while the rest of the variations were explained by variables outside the model. The large coefficient of determination indicates a high variability in the outcome.

### **5.3 Recommendations**

To make the relationships positive, a diffused ownership structure is highly preferred. It is recommended for stock investors to invest in firms where ownership is diffused. According to Lintner (1956) firms with diffused ownership smooth their dividends more. Dividend smoothing allows shareholders to continuously and reliably earn dividends irrespective of the economic performance of the economy.

It is recommended that the board of directors to firms should adopt dividend smoothing strategies as part of their dividend payment policies. Such policies would enable shareholders plan and anticipate dividend receivables.

### **5.3 Limitation to the study**

Available data was acquired expensively from the NSE contacts coupled with much delay in getting the data in good time.

Only thirty one firms out of the sixty four firms listed at the NSE qualified for the Selection criteria of the study. Thus more studies could be conducted using different selection criteria that could yield more samples to test for more correctness.

In the study, all the firms of the NSE that qualified for the selection criteria had their variables combined together and their mean used on sector by sector basis for ease of analysis. This was done to give manageable data for analysis. A challenge with that was that the mean per sector meant that all firms represented in the sector had similar characteristics despite the fact that different firms had different individual results.

### **5.4 Suggestions for further studies**

The research factored the mean variables of the firms in the different sectors of NSE for Data analysis. It is suggested that another study be conducted on a firm by firm basis to establish the relationships.

Similar studies could be undertaken in other developing stock exchanges and developed economies to establish their relationships. That will help to draw a comparison between the status at the NSE and other markets.

Studies could be conducted to compare relationships of dividend smoothing and other variables that were not considered in this study. That will aid firm managers financial

analysts and economists generate dividend policies that can be supported by economic and financial facts.

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**Manufacturing And Allied**

- 52 A.Baumann CO Ltd
- 53 B.O.C Kenya Ltd
- 54 British American Tobacco Kenya Ltd
- 55 Carbacid Investments Ltd
- 56 East African Breweries Ltd
- 57 Eveready East Africa Ltd
- 58 Flame Tree Holdings
- 59 Kenya Orchards Ltd
- 60 Mumias Sugar Co. Ltd
- 61 Unga Group Ltd

**Growth Enterprise Market Segment**

- 62 Atlas Development and Support Services
- 63 Home Afrika Ltd
- 64 Kurwitu Ventures



### Appendix C. Sector and Variables Coefficients

	SECTOR AND FIRMS	Dividend	Mean Ownership	Mean Size	Asset Value
		Smoothing	Concentration	In Log	Per Share
		Y	X1	X2	X3
	<b>Agricultural Sector</b>				
1	Kapchorua Tea Co. Ltd	0.9660	19.6950	5.1254	402.5375
2	Limuru Tea Co. Ltd	0.0040	18.0375	4.7961	58.5400
3	Sasini Ltd	0.0120	16.3925	5.4583	43.7775
	<b>Automobiles And Accessories Sector</b>				
4	Car and General (K) Ltd	0.8760	17.5100	5.3182	9.3200
5	Sameer Africa Ltd	0.5620	19.0625	5.3182	9.3200
	<b>Banking Sector</b>				
6	Barclays Bank Ltd	0.9160	17.9493	7.0833	4.6125
7	CFC Stanbic Holdings Ltd	0.5500	19.0338	6.7459	78.7225
8	Diamond Trust Bank Kenya Ltd	0.8790	10.4188	6.8144	101.7050
9	Equity Bank Ltd	1.0000	10.3113	7.2530	12.9975
10	Housing Finance Co Ltd	1.0000	12.5950	6.0423	-
11	Kenya Commercial Bank Ltd	1.0000	7.3063	7.2580	19.7825
12	NIC Bank Ltd	1.0000	10.3475	6.6849	31.0025
13	Standard Chartered Bank Ltd	1.0000	19.0713	7.0747	105.0450
14	The Co-operative Bank of Kenya Ltd	1.0000	16.9650	6.9793	6.3243
	<b>Commercial And Services</b>				
15	Nation Media Group	1.0000	14.7575	6.5025	46.8250
16	Scangroup Ltd	1.0000	16.2750	6.0238	18.9150
17	TPS Eastern Africa (Serena) Ltd	0.1040	14.7750	5.8046	74.9100
	<b>Telecommunication And Technology</b>				
18	Safaricom Ltd	1.0000	18.9133	7.3810	0.4564
	<b>Construction And Allied</b>				
19	Athi River Mining	0.9410	14.7750	6.2535	72.0850
20	Bamburi Cement Ltd	1.0000	19.8113	6.8286	93.4325

21	Crown Berger Ltd	0.4160	18.7100	5.3568	53.6925
22	E.A.Cables Ltd	0.3480	17.7800	5.7627	14.9225
	<b>Energy And Petroleum</b>				
23	KenGen Ltd	0.3790	17.9700	6.5988	78.9100
	<b>Insurance</b>				
24	Jubilee Holdings Ltd	0.9800	12.3713	6.8926	191.5925
25	Kenya Re	0.5140	16.2088	6.4832	23.0000
26	Pan Africa Holdings Ltd	0.3820	19.1463	6.0061	12.2050
	<b>Manufacturing And Allied</b>				
27	B.O.C Kenya Ltd	1.0000	19.1438	5.4346	85.2825
	British American				
28	Tobacco Kenya Ltd	1.0000	24.0188	6.7155	97.0250
29	Carbacid Investments Ltd	0.0600	13.2000	5.7287	59.2275
	East African Breweries				
30	Ltd	1.0000	13.2825	7.0884	41.8600
31	Unga Group Ltd	0.0140	20.9225	5.7203	59.5200

## Appendix D. Sector means of Variables

<b>NSE SECTOR</b>	<b>Dividend Smoothing</b>	<b>Ownership Concentration x1</b>	<b>Firm Size x2</b>	<b>Net Asset Val/ Share x3</b>
Agriculture	0.327	18.042	5.127	168.285
Automobile and Vehicles	0.719	18.286	5.318	9.320
Banking	0.927	13.778	6.882	40.021
Commercial & Services	0.701	15.269	6.110	46.883
Telecommunication and Technology	1.000	18.913	7.381	0.456
Construction & Allied	0.676	17.769	6.050	58.533
Energy & Petroleum	0.379	17.970	6.599	78.910
Insurance	0.625	15.909	6.461	75.599
Manufacturing and Allied	0.615	15.474	6.137	68.583