How does ownership structure affect the performance of JSE listed companies?

A research report submitted by

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Abstract

Research into corporate governance has shown that there are a number of factors that influence company performance, one of them being ownership structure. The objective of this study is to determine how ownership structure affects the performance of companies listed on the Johannesburg Stock Exchange (JSE). Five categories of shareholders were identified namely, managerial shareholders, institutional investors, family shareholders, government shareholders and foreign shareholders. Some shareholders of a company may be entirely passive whereas others may play a more active role in the company or perform an important monitoring service. The various motivations and abilities of the different types of shareholders may directly impact their ability to influence the major corporate decisions of the company that will ultimately impact the performance of the company. Using return on assets (ROA) and return on equity (ROE) as performance measures this study investigates the effect of ownership structure on the performance of 143 companies from the year 2004 to 2014. The results of the study reveal that of the five different categories of shareholders identified it was only managerial shareholders and institutional shareholders that had a significant impact on a company’s performance.

Key words: Ownership Structure; Performance; ROA; ROE; Shareholding
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Chapter 1

1.1 Introduction

Over many years the issue of corporate governance and ownership structure (which is a mechanism of corporate governance) has become a highly discussed topic in business and finance due to the balance sheet manipulation and collapse of public corporations such as Enron and WorldCom. Since these events corporate governance has undergone various changes such as the introduction of King III report (Agyei and Owusu, 2014).

The corporate governance system is considered by many to be one of the essential factors of growth and development for a company. Fazlzadeh, Hendi and Mahboubi (2011) noted that corporate governance is a philosophy and mechanism that helps facilitate the creation of shareholder value. It does this through the management of corporate affairs in a way that ensures that individuals and collective stakeholders are protected. Research into corporate governance has shown that there are a number of factors that influence corporate governance, one of them being ownership structure.

Some shareholders of a company may be entirely passive whereas others may play a more active role in the company or perform an important monitoring service. The various motivations and abilities of the different types of shareholders may directly impact their ability to influence the major corporate decisions of the company that will ultimately impact the performance of the company (Serdar Karaca and Ekşi, 2012).

Research into ownership structure and performance has however focused primarily on companies in developed economies like the US and Europe. There has not been much research conducted in the context of emerging economies, more specifically South Africa. Using return on assets (ROA) and return on equity (ROE) as performance measures the objective of this study is to determine whether the ownership structure affects the performance of companies listed on the Johannesburg Stock Exchange (JSE). In order to do this, the performance and ownership structure of JSE listed companies over the period 2004 to 2014 was analysed.

1.2 Statement of problem

The ownership structure of a firm and its impact on the performance is a topic that has been researched for quite a number of years. The fundamental insight into this relationship dates back to Berle and Means (1932), who argued that the separation of ownership and control of modern corporations reduces any incentive that managers have to ensure that the firm is run efficiently.
Their concerns were further supported by Jensen and Meckling (1976) who developed the agency theory. The central premise of their theory is that self-interested managers (agents) may engage in decision making behaviour that may be inconsistent with the maximisation of value for shareholders.

As mentioned above, Berle and Means (1932) were among the first to investigate the impact ownership structure has on performance. They noted that performance is inversely affected as the ownership structure of a company becomes more diverse. They asserted that the growing diversification of ownership results in the shareholders losing their power to control management. While legally those shareholders may own the company they may not feel a sense of ownership or control over the firm as their stake in the company is small. They thus concluded that a negative correlation exists between ownership concentration and a firm’s performance (Serdar et al., 2012 and Fazlzadeh et al., 2011).

On the other hand having concentrated ownership has been widely acknowledged to provide incentives for large shareholders to play a role in monitoring the decisions of management and ensure that the managers do not make any decisions that may be detrimental to the company. As the holding of these large investors increases they have a greater incentive to increase firm performance and to monitor management more than dispersed shareholders. The down side is that their presence reduces the liquidity of the stock whereas with widely dispersed ownership liquidity is enhanced. Furthermore because of their controlling position, there is the danger that these shareholders will use their power to extract private benefits at the expense of the smaller shareholders (Fazlzadeh et al., 2011).

Ownership identity

There are generally two main aspects of ownership structure, namely ownership concentration and identity of those owners. Ownership concentration is often defined as the proportion of a company’s shares that are held by a number of shareholders and it is measured by percentage of shares that are held by the first largest or first five largest shareholders (De Jong, 2002). The focus of this study is one the ownership identity.

The effect ownership identity has on firm performance is based on the idea that each of the shareholders have different motivations, goals and abilities, all of which may directly impact their ability to influence the major corporate decisions of the company that will ultimately affect the company’s performance. A review of literature reveals that prior research has focused mainly on the conventional separation of ownership and control, i.e. whether insider ownership or block holding has an impact on financial performance. Under these studies the researchers have assumed that all the shareholders are homogeneous. This assumption was challenged by Kang and Sorensen (1999) as cited in Reddy, Abidin et al (2013) who argued that shareholders cannot be considered homogenous as they all have different
motivations and strategic goals. For example, larger shareholders (which may include institutional investors) may have superior knowledge and resources as compared to your retail investors, which allows them to be better than your retail investors at monitoring the actions of management. Thus depending on the specific characteristics of the shareholder (example their goals, knowledge of the company etc.) their level of involvement and influence on performance will differ.

1.3 Purpose of study
The goal of this study is to understand whether the ownership structure affects the performance of companies listed on the JSE. While research into ownership structure and performance has however focused primarily on companies in developed economies like the US and Europe. There has not been much research conducted in the context of emerging economies, more specifically South Africa. Thus the findings in this paper will help improve our understanding of the impact that shareholder diversity has on the performance of JSE listed companies.

1.4 Research question
The research question that this paper will look to answer is:

Does the ownership structure of JSE-Listed companies impact their performance?

1.5 Delimitations
Black Economic Empowerment (BEE) shareholders

BEE shareholders have been excluded simply due to the fact that not all companies provide information regarding their BEE shareholders. Secondly in order to get an accurate account of the percentage of shares held by the BEE shareholder the BEE scorecards of the company would need to be obtained for the entire period under review, which has proved to be difficult.

While the financial statements of a company often provide information regarding the shareholding, not all companies publish this information (more specifically information relating to BEE shareholders), which again made it difficult to obtain the relevant data.
Chapter 2: Background

2.1 Literature review

As part of the review of literature on this topic the researcher has identified five categories of shareholders, namely managerial shareholders, institutional investors, government shareholders, family shareholders and foreign shareholders. In this chapter the background into these different shareholders and their impact on the performance of the company will be discussed.

2.1.1 Managerial shareholders and performance

Up until the 1980’s the main focus of corporate governance literature was on the conflict that existed between shareholders and managers. It has been widely accepted that the ownership concentration of a company does have the potential to limit the agency conflict and lead to improved performance (Hu and Izumida, 2009).

As managers of a company hold more shares in the company, it assists in aligning their interests with those of the shareholders. This aligning of interests and the relationship between managerial ownership and corporate value was formalized by Jensen and Meckling (1976). They propose that managerial ownership has a positive effect on performance as it aligns the incentives of managers with those of the shareholder, thereby reducing the agency problem. The higher the level of managerial ownership the greater the probability that management will devote a significant amount of time and effort to maximize firm value and performance as that will ultimately be beneficial for them as well (Hu and Izumida, 2009).

One significant study that was conducted to evaluate this relationship was done by Morck, Shleifer and Vishny (1988). This study looked at director shareholding as a measure of ownership concentration against Tobin Q and accounting profit as measures of performance for 500 fortune companies. To capture this relationship, they categorized the managerial shareholding into three different levels: 0%-5%; 5%-25%; and beyond 25%. The results reveal that there is a positive relationship between managerial shareholding and firm value when the percentage shares held by management were between 0% and 5%. This was attributed to the fact that the increase in the number of shares held by the manager led to the alignment of interests between the shareholders and management. This is known as the incentive alignment argument. As management now has a financial interest in the company there is a greater incentive for them to ensure that the company operates to the benefit of the shareholders as any positive performance that the company experiences will benefit them as well. When managerial shareholding was between 5% and 25% a negative relationship was found. The researchers concluded that the negative relationship was as a result of managers becoming complacent and no-longer putting in the required amount of effort to ensure the continued growth of the firm. However at higher levels of ownership (managerial shareholding being more than 25%) the relationship (though not significant) becomes positive again as the manager now has a greater financial interest in the company.
In explaining the negative relationship found when managerial shareholding was between 5% and 25%, the researcher’s also used the entrenchment argument. The entrenchment argument states that as the number of shares held by management increases there is a decrease in performance. The managers in the firm become so powerful that they no longer need to consider the other shareholders. As a result of having greater power, they have greater freedom to pursue their own interests. The managers are able to divert funds away from the company through theft; dilution of outside investor interest by issuing shares; paying themselves excessive salaries or even selling of assets to themselves or other firms which they control at favourable prices (Scholten 2014).

While these two arguments around the entrenchment and incentive alignment may be at opposite ends they can be taken together. The results found in the study suggests that the incentive alignment is more important at both low and high levels of managerial ownership and that entrenchment takes place at medium levels of ownership (Scholten, 2014).

2.1.2 Institutional investors and performance

Over the years institutional investors have become increasingly willing to use their ownership rights to ensure that management act in the best interest of the shareholders. As a result researchers have become increasingly interested in analysing the role they play in the company (Salehi, Hematfar and Heydari, 2011; Cornett, Marcus, Saunders and Tehranian, 2007).

Institutional investors can be defined as specialized financial institutions that manage savings/contributions on behalf of other investors towards a specific objective. The types of institutional investors include pension funds, life insurance companies, and different forms of mutual funds. (Salehi et al., 2011).

A considerable amount of research has been conducted focusing on the role that these investors play as corporate monitors. A hypothesis that has come out of the research is the efficient monitoring hypothesis, which contends that the larger the shareholding of these investors the more efficient monitoring that is exerted by the investor, which increases the probability of success and positive firm performance (Salehi et al., 2011).

The institutional investors are more efficient at monitoring the actions of management as they generally have the resources and ability to monitor, discipline, and influence management. Furthermore Cornett et.al (2007) noted that these institutional investors have a greater incentive to monitor the activities of management as they have more invested in the firm than other investors such retail investors, who may have little or no wealth invested in the firm.
On the other hand these large shareholders are also likely to maintain strategic alliances with management and may be swayed by the voting behaviour of management which could reduce their ability to effectively monitor the actions taken by management. At the same time it is possible that at higher levels of shareholding the institutional investors may be encouraged to make sub-optimal decisions that could be detrimental to the company’s performance. Another concern is whether all the investors have an incentive to actively monitor management. Some investors may be transient and only interested in short term profits. The fund managers of the large institutional firms are often only interested in short term profits as their bonuses may be based on the short-term returns they generate and thus they are less likely to play an active role in monitoring management activities (Salehi et al., 2011).

2.1.3 Family shareholders and performance
A review of literature reveals that family ownership is a very common occurrence in both developed and emerging economies. Chen (2012) found that more than one third on the S&P 500 companies are owned by families. The studies that have been conducted examining the relationship between family ownership and company performance have found that family ownership is positively correlated to company performance. In explaining this relationship the incentive alignment argument was used. Since the family shareholders have a financial interest in the company they have an incentive to monitor and direct management’s decisions in order to ensure that the company is operated for the benefit of the shareholders.

Other studies however have found a negative relationship between family ownership and performance. This negative relationship can be attributed to the entrenchment argument. The high number of shares held by the family shareholder creates an incentive for them to expropriate wealth from the minority shareholders (Iturrdalde, Maseda and Arosa, 2011).

2.1.4 Government shareholders and performance
The literature on government ownership and its impact on firm performance has been limited and thus far there has been no systematic pattern found between their shareholding and performance. A review of literature reveals that there are two discernible strands of research that exist. The first strand proposes that government ownership has no positive impact on performance. This is due to the fact that the presence of government as a shareholder may result in inefficiencies in the running of the company as the state may have its own political or socio-economic goals and may use its control to divert the company’s resources to achieve these goals (Razak, Ahmad and Sivachandran, 2014).
Orden and Garmendia (2005) examined the relationship between ownership type and performance of firms in Spain. As part of their study the ownership structure was analysed in terms of concentration with performance being measured by return on asset (ROA) and return on equity (ROE). Their study revealed that government owned companies showed negative performance when compared to other ownership types. Zeitun and Tain (2007) while examining the impact of ownership structure on default risk, found that government ownership is significantly and negatively related to the performance of the firm based on the ROA and ROE.

The second strand of research argues the opposite of the first strand. This strand of research focuses on the benefits that are associated with government being a shareholder. The presence of government as a shareholder provides the company with opportunities to impact the regulatory policies and enhance the firm’s legitimacy. It allows the company to benefit from preferential treatment or gain access to valuable state controlled resources. With these kinds of connections the company may be able to enhance its performance (Razak et al., 2014).

In the context of South Africa, organizations such as the Government employees’ pension fund (GEPF) and the Public Investment Corporation (PIC) hold shares in a large number of listed companies. The GEPF provides its active members, who are primarily employees working in National and Provincial Government, with death, ill-health, retirement and withdrawal benefits. In order to achieve this, the GEPF invests the funds received through members’ contribution into various asset classes (both in South Africa and Africa) such as equities, properties, bonds and cash/money market instruments (GEPF, 2015).

Due to the size of its investments the GEPF has established various portfolios with separate mandates that are managed by various investment managers e.g. PIC. Even though the GEPF may not be directly invested in the companies themselves, they indirectly have the ability to influence the decisions of the company through their investment manager who is required to act in accordance with the fund mandate. Given the fact that the GEPF’s mandate encompasses a wide range of socio-economic goals, their presence could result in inefficiencies in the running of the company as pressure could be placed on management to pursue certain goals that may not necessarily result in profit maximization. This supports the first strand of research. However, given the nature of the GEPF it is likely that in most of their investments, the mandate will be more long-term focused as their main objective is to ensure that the employees and their dependents are taken care of, supporting the second strand of research (GEPF, 2015).
Public Investment Corporation (PIC)
The PIC is South Africa’s largest investment manager, with close to R1.8 trillion worth of assets managed by them. The PIC is wholly owned by the South Africa government with the minister of finance as shareholder representative. The GEPF is the PIC’s largest client and accounts for 89% of the assets that the PIC manages. All of the investments that are managed by the PIC are directed by the detailed investment mandates that are negotiated with each individual client (PIC, 2015).

The presence of the PIC as a shareholder in a company is likely to result in them being more concerned with the long term profitability of the company. This is due to the fact that much of their clients e.g. the GEPF, have investment mandates that are long term focused. And given the fact that the PIC is there to carry out these mandates, they too will have to encourage long-term profit maximization, supporting the second strand (PIC, 2015; GEPF, 2015).

2.1.5 Foreign shareholders and performance
With the increase in globalization the importance of multi-national enterprises (MNE) and foreign direct investment (FDI) has increased significantly (Swart, 2013).

FDI is defined as a long term investment that is made by an investor in a value-adding activity that is outside the investor’s country of origin. This investment can take place in one of two forms. The first is institutional investment or portfolio investment. This is where the investor doesn’t gain control over the entity but either has shares or has an investment in the shares of the foreign entity that were acquired on behalf of the investor by an investment fund. The second investment is a corporate investment where the investor goes on to take partial or full control over the foreign entity with the intention of adding value (Swart, 2013).

According to FDI and foreign ownership theory, foreign-owned firms have a performance advantage over local firms. It is postulated that the increased performance arises due to the fact that these foreign-owned companies have access to superior technology, organisational improvements and potentially have increased access to foreign markets (Swart, 2013).

Uwalomwa and Olamide (2012) investigated the impact of foreign ownership on profitability (using ROA as a performance measure) on 31 Nigerian listed firms from 2006-2010. The investigation found that foreign ownership had a significantly positive influence on the company’s performance. They attributed this positive relationship to the fact that the foreign owner brought with them improved managerial skills and technology (Uwuigbe and Olusanmi, 2012).

While this study attributed the positive influence to managerial efficiencies and new resources, Ongore (2011) found that the positive relationship was also as a result of ability of the foreign firms to
leverage their global operations to assign their cost and expenses to high tax regimes and profits to low tax regimes (Ongore, 2011).

There has also been empirical work showing that a negative or indifferent relationship exists between performance and foreign ownership. Jiang (2007) studied the effect of foreign ownership on the performance of Chinese listed companies between 2000 and 2004. The study revealed that no relationship existed between foreign ownership and firm performance in the Chinese context. However in the study the researcher postulated that the reason for this was that the foreign owners have rights to assets but have limited or no voting rights over strategic issues (Jiang, 2007).

Aitken and Harrison (1999) used a data set of 43 010 observations covering companies in Venezuela in the period 1976-1986. Their study revealed that there was no evidence to support the spill over of technology from foreign-owned firms to domestic-owned firms that would improve company performance (Aitken and Harrison, 1999).

Konings (2000) tested the effects of FDI on the performance of firms in Bulgaria, Romania and Poland. The results of the study showed that foreign firms in Poland performed better than domestic companies (Konings, 2000).
Chapter 3

3.1 Hypotheses development

In this section we will look to develop relevant hypothesis for the identified groups of shareholders noted in the literature review in chapter 2.

3.1.1 Managerial shareholders

In Thailand, the relationship between managerial shareholders and firm performance (with ROA used as a performance measure) was studied by Wiwattanakantung (2001). The study made a distinction between managerial shareholders (those who hold more than 25% of the shares) and non-managerial controlling shareholders (those who hold less than 25% of the shares). The study found that firms with managerial shareholders have a poorer ROA compared to firms with non-managerial controlling shareholders (Wiwattanakantang, 2001).

Lei and Song (2008) explored the relationship between management ownership and firm performance. Using the panel data of Chinese listed firms from 2000 to 2004 the results showed that the percentage of shares held by top management was positively and significantly related to firm performance.

Thus based on the above the researcher expects that at low levels of managerial shareholding there will be a positive relationship between performance and managerial shareholding, as management's ownership helps resolve the agency problems and improve the firm's performance. However as the shareholding of the management increases the performance of the company will decrease.

*Hypothesis*

*Performance is positively related to managerial shareholding.*

3.1.2 Institutional investors

As mentioned in the literature review institutional investors play an integral part of corporate ownership and have a special influence on the performance of a company. In a study conducted by Abbas, Naqvi and Mirza (2013) they found that performance (measured by ROE and ROA) was positively related to institutional investor’s shareholding, when their shareholding exceeded 10%. This was attributed to the efficient monitoring performed by the institutional investors. However it was also found that when the shareholding was beyond the level required for control, a negative relationship was found as a result of the expropriation of resources and exploitation of minority shareholders by the investors (Sarkar and Sarkar, 2000).
Accordingly the researcher expects that at low levels of shareholding firm performance will increase and at higher levels of shareholding we expect that firm performance will decrease.

*Hypothesis*

*Performance is positively related to institutional investors’ shareholding*

### 3.1.3 Family shareholders

Goh, Rasli, and Rehman (2014) conducted a study to examine the economic incentives of family controlling shareholders and the monitoring role that non-dominant shareholders played in family firms. The results of the study suggest that the presence of family shareholders is not necessarily detrimental to the performance of the firm, as the company can gain access to more resources in wider business networks. However, the more the shares held, the greater the incentive for the family shareholder to expropriate wealth for their own benefit, which in turns harms the performance of the firm. This phenomenon was observed through an inverted U-shaped relationship between control rights and firm performance (Goh et al., 2014).

Rajput and Joshi (2014) in their investigation of the effects of ownership structure on firm performance (using a sample of companies from India) found that family owned firms have a positive and significant impact on the financial performance of the company. The incentive alignment was used by the researchers to explain the positive relationship (Rajput and Joshi, 2014).

Thus based on the above the researcher expects that there will be a positive relationship between family shareholding and performance.

*Hypothesis*

*Performance is positively related to family shareholding*

### 3.1.4 Government shareholders

The PIC is the largest state-owned company in South Africa and yields a considerable amount of power. As previously mentioned their investment mandate is driven by the individual mandates of the clients they service. Since their clients are focused on achieving long-term returns it is likely that the PIC as a shareholder would advocate that long-term profit maximizing decisions be taken. Furthermore given
the nature of their clients the PIC is also likely to assume a monitoring role in order to ensure that decisions taken by management do not destroy shareholder value. (PIC, 2015)

Thus the researcher predicts that there will a positive relationship between government shareholding and company performance.

_Hypothesis_

*Performance is positively related to government shareholding*

### 3.1.5 Foreign shareholders

As previously mentioned many studies have empirically shown the benefits of FDI, however there has been no definitive answer as to whether the proposed theory is correct. The reason for these opposing views has been attributed to the fact that each country/economy is different, and as a result companies may react differently to the presence of foreign owners, therefore the results need to be interpreted in the context of the specific circumstances in that economy/country (Swart, 2013).

In a study conducted by Swart (2013), the researcher looked to determine whether foreign-owned firms performed better than locally owned firms in South Africa. Using ROA and ROE as performance the study revealed that there was no significant difference between the performance of foreign-owned firms and locally owned firms (Swart, 2013).

The findings of Swart (2013) were in line with that of Mihai (2012) who investigated the effect of foreign ownership on a sample of Romanian firms and found that there was no difference between performance of local and foreign owned firms.

Although the results of Swart (2013) are in line with the Mihai (2012), the results contradict many of the results from other studies that show a more positive financial performance for foreign-owned firms (Swart, 2013). One of the reason the FDI theory does not hold in the context of South Africa could be that the technological and management gap between the investor’s country of origin and South Africa is too large to facilitate any transfer of benefits to the local firms (Swart, 2013).

Thus based on the above the researcher expects there to be no relationship between foreign ownership and performance.

_Hypothesis_

*Performance is not related to foreign ownership*
Chapter 4

4.1 Methodology
In order to test the stated hypotheses the researcher examined all the companies listed on the JSE. The secondary data required for the study was primarily obtained from the McGregor BFA, JSE and OSIRIS financial database. The data used in the study consists of all basic material, industrial, consumer goods, consumer services, healthcare, oil & gas, technology, utilities and telecommunications companies listed on the JSE main board for which the historical shareholding patterns for the period of the study could be obtained. The benefit of having used the secondary data was that the data was readily available at a low cost. Where the data was not in the correct form for the research the data was re-worked to obtain the required ratios and information.

The study excludes companies where the data was missing for the period of the research. Furthermore companies that were not listed for the entire period of research have also been excluded. The final dataset for the study included, in total, 151 companies belonging to nine industries as depicted in Table 1 below:

<table>
<thead>
<tr>
<th>Industry</th>
<th>No. of companies</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic materials(BM)</td>
<td>28</td>
<td>19.58</td>
</tr>
<tr>
<td>Industrial(Ind)</td>
<td>31</td>
<td>21.68</td>
</tr>
<tr>
<td>Financial(Fin)</td>
<td>30</td>
<td>20.98</td>
</tr>
<tr>
<td>Consumer Goods(CG)</td>
<td>13</td>
<td>9.10</td>
</tr>
<tr>
<td>Consumer Services(CS)</td>
<td>28</td>
<td>19.58</td>
</tr>
<tr>
<td>Technology(Tech)</td>
<td>8</td>
<td>5.59</td>
</tr>
<tr>
<td>Telecommunications(Tele)</td>
<td>2</td>
<td>1.40</td>
</tr>
<tr>
<td>Oil and gas(O&amp;G)</td>
<td>1</td>
<td>0.69</td>
</tr>
<tr>
<td>Healthcare(Health)</td>
<td>2</td>
<td>1.40</td>
</tr>
<tr>
<td>Utilities(Utilities)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>143</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

4.2 Dependent and Independent Variables
4.2.1 Dependent variables
The most commonly used performance measures are either accounting measures such as ROE and ROA or market based measures such as Tobin Q. Accounting measures generally reflect the historical
performance of the company, whereas market related measures capture the expected future performance of the company (Haldar and Rao, 2011).

Tobins Q is the most commonly used market based measure and is calculated as the market value of the firm over its replacement cost. While Tobins Q is a widely accepted proxy for firm valuation and performance, it has its disadvantages. Hu and Izumida (2009) argued that the Q (being the market value of the firm) distorts the ability of the researcher to compare the performance of firms with different intangible assets as the figure partly reflects a firm’s intangible assets whereas the denominator only includes the firm’s tangible assets. Furthermore determining the replacement cost can be a strenuous task and as a result some studies have substituted the replacement cost with the depreciated book value, which is itself an accounting measure and suffers the same disadvantages as any other accounting measures that one may choose to employ (Hu and Izumida, 2009).

This study made use of accounting measures as proxies for company performance. Much like Tobin Q, accounting measures also have their advantages and disadvantages. Many researchers argue that accounting information only reflects short-term profitability and does not necessarily reflect the agency cost or the long-term returns, however both ROA and ROE are appropriate measures as they are not influenced by the market nor are the fluctuations in the market absorbed in the measures. Secondly these measures are a reflection of the performance of the company in that year and thus cannot necessarily be reflective of past or future performance (Sarkar and Sarkar, 2000).

The accounting measures present the outcome of management action and thus preferred over a market based measure such as Tobin Q as changes in the market value of a company are not always in control of management and often changes in market value are driven by sentiment and not actually due to a change in the underlying fundamentals of the company. Based on the underlying theory that was outlined in the literature review it was identified that the company shareholders can influence the decisions that are taken by management (e.g. Government shareholders asking the company to invest various government projects instead of profit maximising activities). One of the ways in which the impact of these decisions can be evaluated is through the use of accounting measures, as these measures often reflect the outcome of those decisions taken. Since the purpose of the study is to understand how ownership structure affects company performance it is appropriate to make use of ROA and ROE as measures of performance (Al-Matari, Al-Swidi and Fadzil, 2014).

For the purpose of the study, ROA and ROE have been calculated as follows:

Return on assets:
\[
\text{Profit before interest and tax (EBIT) - Extraordinary profits - Taxation} \quad \frac{\text{Total Assets}}{\text{Income Statement}}
\]

\[
\text{Return on equity:} \quad \frac{\text{Profit after tax}}{\text{Total owners interest}}
\]

Extraordinary profits are defined as gains or losses in the financial statements of the company which are infrequent and unusual in nature. These have been removed from the EBIT in order to get to a normalized profit figure.

4.2.2 Independent variables
As mentioned in the literature review, there are five types of shareholders that past studies have identified as having an impact on performance. The five ownership variables that have been used in the study are as follows:

- Managerial shareholding
- Institutional investors shareholding
- Government shareholding
- Family shareholding
- Foreign shareholding

For this study shareholding will be measured as the percentage of the issued share capital held by that shareholder. This information will be obtained from the various financial databases mentioned above.

**Managerial shareholding**
For the purpose of determining the percentage of shares held by managers the percentage of shares held by directors has been used as a proxy.

**Government shareholding**
In determining the government shareholding the percentage of shares held by the PIC and GEPF were included. We have also identified and included the percentage of shares held by local and provincial branches of government as well Municipalities'. Furthermore the percentage of shares held by state owned enterprises such as Transnet, SABC, Eskom, Prasa and the Industrial development Corporation (IDC) were included as part of the percentage of shares held by government.
Family shareholding

Much like BEE shareholders it was difficult to identify which of the shareholders were in fact family shareholders. On the McGregor BFA database it provides information regarding various categories of shareholders, one of them being trusts. Many of these trusts are in fact family trusts that hold shares in the company. Therefore for the purpose of this study the researcher has assumed that percentage of shares held by the trust represent the percentage of shares held by family shareholders.

4.3 Control variables

Apart from ownership structure there are a number of other variables that may impact company performance. These variables have been included as control variables and were selected with reference to prior empirical studies into the topic.

4.3.1 Age of firm

Age of firm is defined as the number of years that the company has been listed on the JSE. The performance of a company may be dependent on the accumulated knowledge about the market; experience and the reputation of the company. As a result one would expect a positive relationship between the age of the company and its profit margins. The age of the firm controls for life-cycle effects as the profits of older companies may be enhanced due to reputation-building; learning; experience and knowledge (Sarkar and Sarkar, 2000; Driffield, Mahambare and Pal, 2005).

4.3.2 Size of the firm

Size of firm is defined as average sales over a 3 year period. Large companies may exercise economies of scale, have better knowledge of the markets, all of which can improve the performance of the company (Driffield et al., 2005). Thus we have included standardized sales as a control variable to control for the impact that size may have on performance. Many of the companies listed on the JSE publish their financial results in a currency other than Rands. For those companies the turnover/sales figures were translated into Rands using the average exchange rate for their financial year. The average exchange rate was calculated by taking the sum of the spot rates at the end of each month during the relevant financial year and finding the average of those spot rates. The exchange rates used were obtained from Global financial Data. This is consistent with the financial reporting guidelines that are provided in IAS 21.

4.3.3 Leverage

Leverage is defined as the ratio of long-term debt to total equity. The increase of debt financing by the company increases the pressure on management to perform as it reduces the moral hazard behaviour by
reducing the free cash-flow at the disposal of the management. As a result firms with high levels of debt are more inclined to improve their performance. On the other side the high level of debts gives rise to higher agency cost as the shareholders and debtholders interest begin to diverge, resulting in company profits being negatively impacted. Given this, the study will use leverage as a control variable due to its potential impact on a company’s performance (Weill, 2003).

For the purpose of the study, debt equity has been calculated as follows:

\[
\frac{Total\ long\ term\ loan\ capital+Total\ current\ liabilities}{Total\ owners\ interest} \quad \text{equation [3]}
\]

4.3.4 Dummy year

A dummy year has been included in order to control for various macroeconomic events that may affect all companies (Grosfeld, 2006).

4.3.5 Industry

Given the fact that companies from the various industries will have different levels of performance, an indicator variable will be used to control for this. The companies used in the study will be categorized into their respective industries. Where a company falls within a specific industry the value of 1 will be given to that company for that industry and a value of 0 will be given to each of the other industries that the company does not fall into. The categories of industry used will be those per the JSE mainboard that have been derived from the Industry Classification Benchmark. The inclusion of the industry dummy variable will also account for cyclicality within certain industries. Furthermore as part of our research we have specifically excluded banking companies. This is due to the fact that banks businesses model is heavily dependent on their capital structure. Thus their debt/equity ratio is likely to have a greater impact on performance as a bank’s performance is linked to the debt that they have in their financial statements.

4.4 Model Specification

The study adopts a panel data regression model which incorporates all company data over the period 2004-2014 into a single model. The model can extract relationships across time and between different companies. With regards to this methodology there are two models that can be used, namely the fixed effects model and random effects model. In terms of deciding which of the models would be chosen, a Hausman test was run. This test enabled the researcher to determine which of the models would be more efficient and more consistent in terms of the results that are generated. The software program that was used to run the model was Stata.
This leads to the estimation of the following equation:

\[
\text{ROA}_{it} = \alpha + \beta_{it}(\text{Manhold})_t + \beta_{it}(\text{Instihold})_t + \beta_{it}(\text{Forhold})_t + \beta_{it}(\text{Govhold})_t + \beta_{it}(\text{Famhold})_t + \sum N_{it}(\text{IndicatorVariable})_t + \sum N_{it}(\text{ControlVariable})_t + \epsilon_{it} \\
\]

\[
\text{ROE}_{it} = \alpha + \beta_{it}(\text{Manhold})_t + \beta_{it}(\text{Instihold})_t + \beta_{it}(\text{Forhold})_t + \beta_{it}(\text{Govhold})_t + \beta_{it}(\text{Famhold})_t + \sum N_{it}(\text{IndicatorVariable})_t + \sum N_{it}(\text{ControlVariable})_t + \epsilon_{it} \\
\]

\[\text{equation [4]} \]

\[\text{equation [5]} \]

**Where**

i denotes the company with \(i=151\)

t denote the time period. The yearly observations are from 2004-2014.

**ROA** = Average Return on Assets

**ROE** = Average Return on Equity

**\(\epsilon\)** = Standard Error term

\(\alpha\) is the constant

\(\beta\) is the coefficient for independent variable

The following are the ownership variables:

\(\text{Manhold}\) = Managerial shareholding

\(\text{Instihold}\) = Institutional investor’s shareholding

\(\text{Forhold}\) = Foreign shareholding

\(\text{Govhold}\) = Government shareholding

\(\text{Famhold}\) = Family shareholding

And the following are the control variables:

\(\text{Average Sales}\) = Size of firm

\(\text{Average DE}\) = Leverage

\(\text{Years}\) = No of years listed on JSE

For indicator variables please refer to **Table 1**
Chapter 5

The objective of this study is to understand whether the ownership structure of JSE listed companies affects the performance. In order to do this, the performance and ownership structure of JSE listed companies over the period 2004 to 2014 was analysed. The performance measures used in the study were ROA and ROE. Based on the review of prior literature and availability of information five categories of shareholders where identified, namely managerial shareholders, institutional investor’s, government shareholders, foreign shareholders and family shareholders.

The first part of this chapter reports on the descriptive statistics of both the dependent and independent variables for the sample over the period under consideration. The second part of the chapter highlights the results of the panel data regression analysis that was used to identify the effect of ownership on the performance of JSE listed companies.

5.1 Descriptive Statistics analysis

Table 2 below contains mean, median, standard deviation and max and min for each variables used in the study.

Table 2: Summary of Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>standard deviation</th>
<th>min</th>
<th>max</th>
<th>mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>De</td>
<td>116,24986</td>
<td>0,0242</td>
<td>9,7500</td>
<td>2,3092</td>
</tr>
<tr>
<td>Roa</td>
<td>59,7586</td>
<td>-246,6512</td>
<td>24,1806</td>
<td>9,4774</td>
</tr>
<tr>
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<td>72,5821</td>
<td>-60,3611</td>
<td>18,5581</td>
<td>15,2682</td>
</tr>
<tr>
<td>manhold</td>
<td>83,4518</td>
<td>0,0036</td>
<td>18,6388</td>
<td>14,5823</td>
</tr>
<tr>
<td>instihold</td>
<td>91,4148</td>
<td>2,3976</td>
<td>20,9063</td>
<td>48,2312</td>
</tr>
<tr>
<td>forhold</td>
<td>69,7128</td>
<td>0</td>
<td>13,2536</td>
<td>11,83450</td>
</tr>
<tr>
<td>govhold</td>
<td>23,7622</td>
<td>0</td>
<td>5,9910</td>
<td>7,2755</td>
</tr>
<tr>
<td>famhold</td>
<td>66,3655</td>
<td>0,0618</td>
<td>8,8977</td>
<td>6,1142</td>
</tr>
<tr>
<td>Sales</td>
<td>363977522,6</td>
<td>-8657,5757</td>
<td>43507435</td>
<td>19965053</td>
</tr>
</tbody>
</table>
The results of the descriptive statistics presented in table 2 reveal that the average percentage held by managers, institutional investors, foreign shareholders, government shareholders and family shareholders was 14.58%; 48.23%; 11.83%; 7.27% and 6.11% respectively. The above table highlights that on average a large number of the shares in a company are held by institutional investors. A further analysis was done looking at the average shareholding in each of the various industries. Figures 3.1-3.9 (found in the appendix) shows the average shareholder mix for the period under review for each of the various industries. These graphs show that on average your institutional investors hold close to 50% of the shares.

Further analysis (as presented in figure 1) reveals that on average companies in the Industrial sector have the highest debt-equity ratio, while companies in the consumer goods industry have the lowest debt-equity ratio. Looking at ROA and ROE (figure 2), it can be seen that over the period under review the companies operating within the industrial sector have performed better than their peers.

Figure 1: Average Debt equity ratio for the period (2004-2014)

Figure 2: Average ROA and ROE for the Period: 2004-2014
Multicollinearity

This study assessed for the risk of multicollinearity by inspecting the correlation between variables to identify large correlations. Multicollinearity could largely influence the model that is used. To evaluate the possible degree of collinearity among variables the correlation matrix of the variables is examined and presented in Table 3 below:

Figure 3: Shareholder composition for the period 2004-2015

Figure 3: Shareholder composition for the period 2004-2015
Table 3: Cross-sectional analysis – correlation matrix

<table>
<thead>
<tr>
<th></th>
<th>de</th>
<th>roa</th>
<th>roe</th>
<th>manhold</th>
<th>instihold</th>
<th>forhold</th>
<th>govhold</th>
<th>famhold</th>
<th>sales</th>
<th>years</th>
</tr>
</thead>
<tbody>
<tr>
<td>de</td>
<td>1</td>
<td>-0.0074</td>
<td>-0.1499</td>
<td>-0.0276</td>
<td>0.0380</td>
<td>-0.0151</td>
<td>0.0866</td>
<td>-0.0232</td>
<td>-0.0176</td>
<td>-0.0308</td>
</tr>
<tr>
<td>roa</td>
<td>-0.0074</td>
<td>1</td>
<td>0.2791</td>
<td>0.0124</td>
<td>-0.0450</td>
<td>0.0150</td>
<td>0.0454</td>
<td>-0.0221</td>
<td>0.0288</td>
<td>-0.0518</td>
</tr>
<tr>
<td>roe</td>
<td>-0.1499</td>
<td>0.2791</td>
<td>1</td>
<td>0.0164</td>
<td>0.0159</td>
<td>-0.0509</td>
<td>-0.0190</td>
<td>0.0571</td>
<td>0.0186</td>
<td>-0.0888</td>
</tr>
<tr>
<td>manhold</td>
<td>0.0276</td>
<td>0.0124</td>
<td>0.0164</td>
<td>1</td>
<td>-0.4559</td>
<td>-0.2238</td>
<td>-0.4120</td>
<td>0.2708</td>
<td>-0.1724</td>
<td>-0.0526</td>
</tr>
<tr>
<td>instihold</td>
<td>0.0380</td>
<td>-0.0450</td>
<td>0.0159</td>
<td>-0.4560</td>
<td>1</td>
<td>-0.3184</td>
<td>0.0087</td>
<td>-0.2638</td>
<td>0.0222</td>
<td>0.0309</td>
</tr>
<tr>
<td>forhold</td>
<td>-0.0151</td>
<td>0.0150</td>
<td>-0.0509</td>
<td>-0.2238</td>
<td>-0.3184</td>
<td>1</td>
<td>0.2990</td>
<td>-0.1634</td>
<td>0.2103</td>
<td>0.2406</td>
</tr>
<tr>
<td>govhold</td>
<td>0.0866</td>
<td>0.0454</td>
<td>-0.0190</td>
<td>-0.4120</td>
<td>0.0087</td>
<td>0.2989</td>
<td>1</td>
<td>-0.2323</td>
<td>0.1880</td>
<td>-0.0235</td>
</tr>
<tr>
<td>sales</td>
<td>-0.0232</td>
<td>-0.0221</td>
<td>0.0571</td>
<td>0.2708</td>
<td>-0.2638</td>
<td>-0.1634</td>
<td>-0.2323</td>
<td>1</td>
<td>-0.1522</td>
<td>0.0022</td>
</tr>
<tr>
<td>years</td>
<td>-0.0176</td>
<td>0.0288</td>
<td>0.0186</td>
<td>-0.1724</td>
<td>0.0222</td>
<td>0.2103</td>
<td>0.1880</td>
<td>-0.1522</td>
<td>1</td>
<td>0.0292</td>
</tr>
</tbody>
</table>

The results noted in table 3 from the correlation matrix reveal that majority of the variable correlations are generally moderate with absolute values less than 0.45. Thus the correlation matrix suggests that there is no significant evidence of multicollinearity.

**Normality**

Using the Shapiro-Wilk W test, the data collected was tested for normality. The results of the test reveal that the data is not normally distributed however, this is not a concern as the regression model is robust.

**5.2 Analysis of Results**

The use of either the fixed effects model or the random effects model hinges on whether the cross section specific error component is correlated with any of the explanatory variable (Independent variables). If there is a correlation then the use of the random effects model would be inappropriate, and thus the fixed effects model would be used instead. As mentioned above the Hausman test would need to be run to determine which of the two models would be used. The Hausmen test determines whether the unique error terms are correlated to the explanatory variables. For the purpose of this study a Hausman test was run for independent variables and ROA and then for independent variables and ROE.
Table 4: Results of the Hausman Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Hausman-ROA</th>
<th>Hausman-ROE</th>
</tr>
</thead>
<tbody>
<tr>
<td>de</td>
<td>0.04958858</td>
<td>-.16989419**</td>
</tr>
<tr>
<td>manhold</td>
<td>-0.03916018</td>
<td>-0.04124834</td>
</tr>
<tr>
<td>instihold</td>
<td>-.17846683**</td>
<td>0.03682951</td>
</tr>
<tr>
<td>forhold</td>
<td>-0.12484403</td>
<td>-.15579842*</td>
</tr>
<tr>
<td>govhold</td>
<td>-0.05047738</td>
<td>-0.07726316</td>
</tr>
<tr>
<td>famhold</td>
<td>-0.13762769</td>
<td>0.15379198</td>
</tr>
<tr>
<td>stdsales</td>
<td>-.23899427***</td>
<td>-0.08199983</td>
</tr>
<tr>
<td>bm</td>
<td>-15.785275</td>
<td>-15.183878</td>
</tr>
<tr>
<td>cg</td>
<td>1.8697467</td>
<td>-4.6088532</td>
</tr>
<tr>
<td>cs</td>
<td>0.27251503</td>
<td>7.0906614</td>
</tr>
<tr>
<td>fin</td>
<td>-14.711197</td>
<td>-10.825979</td>
</tr>
<tr>
<td>health</td>
<td>-6.8919601</td>
<td>-21.174218</td>
</tr>
<tr>
<td>ind</td>
<td>-5.9539247</td>
<td>-4.7597584</td>
</tr>
<tr>
<td>og</td>
<td>-42.576076</td>
<td>-60.062161**</td>
</tr>
<tr>
<td>tech</td>
<td>-8.7582778</td>
<td>-4.6184294</td>
</tr>
<tr>
<td>utility</td>
<td>(omitted)</td>
<td>(omitted)</td>
</tr>
<tr>
<td>tele</td>
<td>(omitted)</td>
<td>(omitted)</td>
</tr>
<tr>
<td>_cons</td>
<td>36.178096*</td>
<td>24.579248*</td>
</tr>
<tr>
<td>chi2</td>
<td>36.783417</td>
<td>71.959361</td>
</tr>
<tr>
<td>p</td>
<td>0.001361</td>
<td>0.000000001995</td>
</tr>
</tbody>
</table>

The results of the Hausman test, as noted in Table 4, reveal that for ROA and ROE the p-value was significantly less than 0.05, thus the fixed effects model was used.

Heteroscedasticity

With regard to heteroscedasticity, Letsoenya and Negash (2013) note that this occurs when the calculated error variance correlates with the values of independent variable, thus affecting statistical inference. A test for heteroscedasticity indicated that the errors were homoscedastic.

Table 4.1: Heteroscedasticity-consistent regression

<table>
<thead>
<tr>
<th></th>
<th>ROA</th>
<th></th>
<th>ROE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coef./t</td>
<td>s.e.</td>
<td>Coef./t</td>
<td>s.e.</td>
</tr>
<tr>
<td>DE</td>
<td>-0.08</td>
<td>0.07</td>
<td>0.06</td>
<td>0.10</td>
</tr>
<tr>
<td>Manhold</td>
<td>-0.03</td>
<td>0.07</td>
<td>-0.04</td>
<td>0.05</td>
</tr>
<tr>
<td>Instihold</td>
<td>0.00</td>
<td>0.07</td>
<td>-0.26</td>
<td>0.24</td>
</tr>
<tr>
<td>Forhold</td>
<td>-0.26**</td>
<td>0.10</td>
<td>-0.18</td>
<td>0.14</td>
</tr>
<tr>
<td>Govhold</td>
<td>-0.24</td>
<td>0.18</td>
<td>-0.23</td>
<td>0.13</td>
</tr>
<tr>
<td></td>
<td>(-1.38)</td>
<td>(-1.69)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>---------</td>
<td>---------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Famhold</td>
<td>0.38**</td>
<td>0.14</td>
<td>-0.10</td>
<td>0.23</td>
</tr>
<tr>
<td>(2.66)</td>
<td>(0.44)</td>
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<td></td>
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<td>sales</td>
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<td>0.00</td>
<td>0.00</td>
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<td>(-0.31)</td>
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<td></td>
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<td>BM</td>
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<td></td>
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<td>CG</td>
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</tr>
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<td>(. )</td>
<td></td>
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<td></td>
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<tr>
<td>CS</td>
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</tr>
<tr>
<td>(. )</td>
<td>(. )</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fin</td>
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</tr>
<tr>
<td>(. )</td>
<td>(. )</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health</td>
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</tr>
<tr>
<td>(. )</td>
<td>(. )</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ind</td>
<td>13.20</td>
<td>26.74</td>
<td>19.72***</td>
<td>4.18</td>
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<td>O&amp;G</td>
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<tr>
<td>(. )</td>
<td>(. )</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tech</td>
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<td>.</td>
</tr>
<tr>
<td>(. )</td>
<td>(. )</td>
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<td></td>
</tr>
<tr>
<td>Utility</td>
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<td>.</td>
</tr>
<tr>
<td>(. )</td>
<td>(. )</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Tele</td>
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</tr>
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<td>(. )</td>
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<td>Constant</td>
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<td>Observations</td>
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<td>Groups</td>
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<td>143</td>
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<tr>
<td>Prob&gt;F</td>
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<td>R^2 within</td>
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<td>-0.54</td>
<td></td>
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<td>R^2 between</td>
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<td>0.03</td>
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<tr>
<td>R^2 overall</td>
<td>0.04</td>
<td>0.01</td>
<td></td>
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</tr>
<tr>
<td>Corr (e_i, X_b)</td>
<td>0.01</td>
<td>0.00</td>
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<tr>
<td>rho=Corr (e_u, e_u)</td>
<td>0.47</td>
<td>0.53</td>
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<tr>
<td>Sigma_u</td>
<td>23.62</td>
<td>29.31</td>
<td></td>
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<tr>
<td>Sigma_e</td>
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<td>27.73</td>
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<td>Root mean SE</td>
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<td>26.42</td>
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t statistics in parentheses; s.e. – standard error corrected for heteroscedasticity
Legend: * p<0.05, ** p<0.01, *** p<0.001
Results of the panel data regression

The model summaries of the panel data regression output indicate the following regarding ROA; ROE and ownership structure.

Table 5: Panel regression data

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<th></th>
<th>ROA</th>
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<th>ROE</th>
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<tr>
<td></td>
<td>coef./t</td>
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<td>coef./t</td>
<td>s.e.</td>
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<td>DE</td>
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<td>(-0.57)</td>
<td>(-0.46)</td>
<td>(-3.57)</td>
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</tr>
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<tr>
<td></td>
<td>(-3.57)</td>
<td>(0.06)</td>
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<tr>
<td>Forhold</td>
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<td>0.11</td>
<td>-0.26**</td>
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<td></td>
<td>(-1.63)</td>
<td>(-2.65)</td>
<td>(-1.17)</td>
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<td></td>
<td>(-1.17)</td>
<td>(-1.38)</td>
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<tr>
<td></td>
<td>(-0.65)</td>
<td>(2.66)</td>
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<td>0.00</td>
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<td></td>
<td>(...)</td>
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<tr>
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<td>(2.01)</td>
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<td>1,548***</td>
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<td>R² within</td>
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<td></td>
<td>-0.61</td>
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<td>R² between</td>
<td>0.03</td>
<td></td>
<td>0.02</td>
<td></td>
</tr>
</tbody>
</table>
Ownership structure and ROA

The results in *table 5* reveal that there is a significant negative relationship between managerial shareholding and ROA as p-value is less than 0.05. However there is an insignificant relationship between family shareholding, institutional investor’s shareholding and foreign shareholding and ROA as the p-values of the respective variables are greater than 0.05

Ownership structure and ROE

The result of regression (as presented in *table 5*) between ownership structure and ROE reveals that there is a significant negative relationship between managerial shareholding and ROE, as the p-value is less than 0.05 and that there is a significant positive relationship between institutional shareholding and ROE as the p-value is also below 0.05. However there is an insignificant relationship between family shareholding, foreign shareholding and government shareholdings and ROE as the p-values of the respective variables are greater than 0.05.

5.3 Discussion of findings

Managerial shareholding and performance

The results of the regression analysis reveal that there is a significant negative relationship between ROA and managerial holding and ROE and managerial shareholding.

A previous study by Morck, Shleifer and Vishny (1988) has shown that when management held between 5% and 25% of the shares a negative relationship between ownership and performance was found. The researchers concluded that the negative relationship was as a result of managers becoming complacent and no-longer putting in the required amount of effort to ensure the continued growth of the firm. In explaining the negative relationship found when managerial shareholding was between 5% and 25%, the researcher’s also used the entrenchment argument. The entrenchment argument states that as the number of shares held by management increases there is a decrease in performance. The managers in the firm become so powerful that they no longer need to consider the other shareholders. As a result of having greater power, they have greater freedom to pursue their own interests. The managers are able
to divert funds away from the company through theft; dilution of outside investor interest by issuing shares; paying themselves excessive salaries or even selling of assets to themselves or other firms which they control at favourable prices (Scholten 2014). Therefore the results of the regression are in line with the study that was conducted by Morck, Shleifer and Vishny (1988), indicating that perhaps management holding more shares in the company does not have the intended outcome of improving performance. Therefore based on the above data, we reject the hypotheses that performance is positively related to managerial shareholding.

**Institutional investors’ shareholding and performance**

The results of the study reveal two different sets of information. There is an insignificant relationship between ROA and institutional investors’ shareholding. However for the relationship between ROE and institutional investors’ shareholding a positive relationship was found. As previously mentioned, it is the institutional investors who are more efficient at monitoring the actions of management as they generally have the resources and ability to monitor, discipline, and influence management. These results show that by having such capabilities they are able to influence the operations of the entity and thus directly affect the performance. Therefore, we accept the hypotheses that performance is positively related to institutional investors’ shareholding.

**Foreign shareholding and performance**

The results of the regression analysis reveal that there is an insignificant relationship that exists between ROA and foreign shareholding and ROE and foreign shareholding. These results are in line with a previous study conducted by Swart (2013) who looked to determine whether foreign-owned firms performed better than locally owned firms in South Africa. The findings of his study showed no significant difference between the performance of foreign-owned firms and locally owned firms indicating that having foreign owners does not significantly affect the performance of the company. The results of our study also show that foreign shareholders do not have a significant influence on both ROA and ROE. Therefore, we accept the hypothesis that performance is not related to foreign ownership. A reason for this could be that the technological and management gap between the investor’s country of origin and South Africa is too large to facilitate any transfer of benefits to the local firms.

**Family shareholding and performance**

The results reveal that there is an insignificant relationship that exists between family shareholders and both ROA and ROE. These results are not consistent with the results that were found by Goh, Rasli, and Rehman (2014), who noted that the presence of family shareholders is not necessarily detrimental to the performance of the firm. Nor are the results consistent with studies that found a negative relationship between family ownership and performance (Iturralde, Maseda and Arosa, 2011).
As noted in **table 2** there average shareholding associated with family shareholders was 6.11% which is significantly less that the percentage held by other categories of shareholders. Therefore given there smaller shareholding it can be said that in the context of South Africa these shareholders may not have sufficient ability able to influence the performance of the company. Thus based on the above the researcher rejects the hypothesis that there is a positive relationship between family shareholding and performance.

**Government shareholding and performance**

The results of the regression analysis reveal that there is an insignificant relationship that exists between ROA and government shareholding and ROE and government shareholding

As mentioned there are two discernible strands of research that exist. The first strand proposes that government ownership has no positive impact on performance, as government shareholders may use their control to divert company resources to achieve their own political or socio-economic goals. The second strand focuses on the benefits that are associated with government being a shareholder. The results of the regression analysis do not support the above mentioned strands of research. As noted in **table 2** it was found that the average percentage of shares held by government was 7.28%. Which is less than the shareholding of both management and institutional investors who were found to have an influence on performance. Therefore given their smaller shareholding it is likely that government shareholders are not able to influence the operations of the company, and thus there is no benefit that the company derives as noted in second strand of research, nor is there diversion of company resources to achieve political or socio-economic goals that will result in the company performing badly. Therefore we reject the hypothesis that performance is positively related to government shareholding.
Chapter 6

6.1 Conclusion

The purpose of this study was to understand whether the ownership structure of JSE listed companies affects the performance of those companies. In order to understand this relationship the study applied a panel data regression model to various measures of performance namely ROA and ROE and five ownership variables namely, managerial shareholding, institutional investor’s shareholding, foreign shareholding, family shareholding and government shareholding. The study examined 143 companies over the period 2004-2014.

The results of the study reveal that of the five different categories of shareholders identified it was only managerial shareholders and institutional shareholders that had a significant impact on a company’s performance. This supports the main point under the entrenchment argument. Under this argument as the number of shares held by management increases there is a decrease in company performance. As a result of having greater power, they have greater freedom to pursue their own interests. The managers are able to divert funds away from the company through theft; dilution of outside investor interest by issuing shares; paying themselves excessive salaries or even selling of assets to themselves or other firms which they control at favourable prices. For institutional investors their resources and ability to monitor, discipline, and influence management makes them more suited to influence the performance of the company.

Family shareholders and government shareholders were found to have an insignificant impact on the performance of the company. As noted in table 2 the average shareholding associated with family shareholders in 6.11% and government shareholding of 7.23% both of which are significantly less that the percentage held by other categories of shareholders. Therefore given their smaller shareholding it can be said that they may not be able to influence the performance of the company.

With regards to foreign shareholders, the results show that foreign shareholders had no significant impact on performance. This is in line with the evidence found by Swart (2013), that technological and management gap between the investor’s country of origin and South Africa is too large to facilitate any transfer of benefits to the local firms.

Overall, based on the results obtained, the study has provided us with insight as to how ownership structure affects the performance of the company. While the results are not consistent with prior research in the topic, the results do indicate that the roles played by these shareholders in South Africa
may be different to those played by similar shareholders around the world, thus prompting further research to understand these roles and the impact on performance.

6.2 Areas for Further research
An area of further research would be to look into what role these categories of shareholders play in the company and potentially assess whether there are any differences or similarities between what is being done by the same shareholders in other parts of the world.

A significant limitation of the study has been the lack of information regarding BEE shareholders. The mid-2000s saw a significant increase in BEE ownership of many JSE-listed companies. Thus an area for further research would be to look at how the BEE shareholders impact the performance of the investee company. Furthermore the dimensions of the current study could be broadened to include other ownership variables such as nominee companies, retail/private investors and evaluate whether they have any impact on performance of the company.
References


Appendix

Figure 3: Average Shareholder composition per industry (for the period 2004-2014)

Figure 3.1: Average Shareholder composition - Basic Material (%)

![Pie chart showing shareholder composition for Basic Material]

Figure 3.2: Average Shareholder composition - Industrial (%)

![Pie chart showing shareholder composition for Industrial]

Figure 3.3: Average Shareholder composition - Financial (%)

![Pie chart showing shareholder composition for Financial]
**Figure 3.4: Average Shareholder composition-Consumer goods (%)**
**Figure 3.5: Average Shareholder composition-Consumer Services (%)**

Average Shareholder composition-Consumer services

Manhold  Instihold  Forhold  Govhold  Famhold

**Figure 3.6: Average Shareholder composition-Healthcare (%)**

Average Shareholder composition-Healthcare

Manhold  Instihold  Forhold  Govhold  Famhold
**Figure 3.7:** Average Shareholder composition - Telecommunications (%)

```plaintext
Average Shareholder composition - Telecommunications

- Manhold: 0.13%
- Instihold: 0.25%
- Forhold: 15.80%
- Govhold: 24.24%
- Famhold: 49.00%
```

**Figure 3.8:** Average Shareholder composition - Oil and gas (%)

```plaintext
Average Shareholder composition - Oil and gas (%)

- Manhold: 19.09%
- Instihold: 21.27%
- Forhold: 3.93%
- Govhold: 8.63%
- Famhold: 1.23%
```
Figure 3.9: Average Shareholder composition - Technology (%)