

**INTELLECTUAL CAPITAL, CORPORATE REPUTATION,
CORPORATE CULTURE AND PERFORMANCE OF FIRMS
LISTED AT THE NAIROBI SECURITIES EXCHANGE**

ANNE WANGUI KARIUKI

**A PhD Thesis Submitted in Partial Fulfillment of the Requirements for the
Award of Degree of the Doctor of Philosophy in Business Administration, School
of Business, University of Nairobi**

2014

DECLARATION

I declare that this Thesis is my original work and has not been presented to any university or institution for award of a degree or any other qualification.

Signature: Date:

Anne Wangui Kariuki

D80/80282/2009

This doctoral thesis has been submitted for examination with our approval as the University supervisors.

Signature: Date:

Prof. Peter K'Obonyo, PhD.

Department of Business Administration,

School of Business,

University of Nairobi

Signature: Date:

Prof. Martin Ogutu, PhD.

Department of Business Administration,

School of Business,

University of Nairobi

COPYRIGHT©

All rights reserved. No part of this thesis may be used or reproduced by any means, or stored in a database or retrieval system, without prior written permission of the author or University of Nairobi. Making copies of any part of this thesis for any purpose other than personal use is a violation of Kenyan and International Copyright Laws. For further information please contact Kariuki Anne on the following address:

P.O. Box 104065-00101

Jamia, Nairobi.

Kenya.

Telephone +254 722 424 440

E-mail: w.kariuki@hotmail.com

DEDICATION

This thesis is dedicated to my parents, late father, Jeremia Kariuki and my mother, Lucy Nyambura Kariuki, for their selfless sacrifice and unconditional support in my academic journey. I would not have made it this far if it were not for my parents.

To my late grandmother, Jane Kiragu for her love and encouragement.

ACKNOWLEDGEMENTS

This thesis would not have been possible without the support of numerous people who contributed directly or indirectly towards its completion and to whom I am greatly indebted. I am grateful to God for his grace and blessings in my life so far. His providence, is far beyond what I could acknowledge.

My deepest gratitude goes to my principal supervisor, Professor Peter K'Obonyo, for his commitment, invaluable supervision and dedication of time without which this thesis would not have become a reality. I am forever grateful for his critique and rigorous research attitude. His responsiveness and availability was far beyond what I could acknowledge. Prof, 'You are a selfless teacher and I greatly admire your dedication.' Second, I am grateful to my second supervisor, Professor Ogutu, for his constant encouragement and scholarly support throughout the process. I am gratefully indebted to Professor Gituro Wainana who provided me with essential guidance during my research proposal development. His critique and intolerance to editorial issues shaped my research attitude to a great extent. My sincere thanks go to all lecturers in the school of Business, University of Nairobi.

I am grateful to all open-minded doctoral colleagues; Mary Idua and Lucy Kiowi Without your inspiration, the journey would have been so difficult and would have lost the fun part of the writing of the final thesis. Francis Njenga, Teresa Wambugu, Rose Ambula, Beatrice Ombaka, Patrick Shilisia, Margaret Muthoni and Mary Kibuine, thank you for your friendship. A special word of appreciation goes to Dr. Esther Mungai, 'Your humor in tense moments made life easier'. Dr. Mary Osoro, who constantly checked on my progress and encouraged me to submit my work before the stipulated time. Dr. Vincent Bagire of Makerere University, his constant text messages provided a constant encouragement. I also wish to thank Harry Mege, who provided useful contacts during my data collection and ensured that the relevant information was provided. To Alex Makori, for patiently taking me through data analysis. Thank you all for your priceless support during these years.

My deepest gratitude goes to my beloved family. My dear mum, Lucy Nyambura Kariuki, for her love, spiritual and financial support. To my late Dad, Jeremiah Kariuki, who urged me to take the first step towards the commencement of the PhD but will not be there to celebrate my success. I will be forever indebted to my parents. Their love and financial support which goes hand in hand with selfless sacrifice, ensured that I had a concrete foundation in education. I would not have made it this far if it were not for my parents. To my late grandmother, Jane Kiragu, who without formal education understood the importance of education, and urged me to scale the heights of education. The few days my parents would not have enough money to pay school fees, she would go out of her way to provide financial support. My sister Bancy Kariuki who thought my life was so boring and wondered when the PhD will ever be completed. To my Aunt Teresia Wanjiru, Cousins; Juliet Wachira, Daniel Kinyua and uncle John Wachira, you are all part of my family. Thank you all for always being there.

Thank you all may God Bless you.

TABLE OF CONTENTS

DECLARATION	ii
COPYRIGHT	iii
DEDICATION	iv
ACKNOWLEDGEMENTS	v
LIST OF TABLES	xii
LIST OF FIGURES	xv
ACRONYMS AND ABBREVIATIONS	xvi
ABSTRACT	xvii
CHAPTER ONE: INTRODUCTION	1
1.1 Background of the Study	1
1.1.1 Intellectual Capital	2
1.1.2 Corporate Reputation	4
1.1.3 Corporate Culture	7
1.1.4 Corporate Performance.....	8
1.1.5 Firms Listed on the Nairobi Securities Exchange	9
1.2 Research Problem.....	12
1.3 Research Objectives	15
1.4 Value of the Study	15
CHAPTER TWO: LITERATURE REVIEW	18
2.1 Introduction.....	18
2.2 Theoretical Foundation	18
2.2.1 The Resource Based View of the Firm.....	18
2.2.2 Human Capital Theory.....	20
2.2.3 Social Capital Theory	21
2.2.4 The Signaling Theory	21
2.3 Intellectual Capital	22
2.4 Corporate Reputation	29
2.5 Corporate Culture.....	33
2.6 Corporate Performance	34
2.7 Intellectual Capital and Corporate Performance.....	36
2.8 Intellectual Capital and Corporate Reputation.....	38

2.9 Corporate Reputation and Corporate Performance	39
2.10 Intellectual Capital, Corporate Reputation and Corporate Performance	40
2.11 Intellectual Capital, Corporate Culture and Corporate Performance.....	41
2.12 Intellectual Capital, Corporate Reputation, Corporate Culture and Corporate Performance.....	42
2.13 Conceptual Framework	46
2.14 Conceptual Hypotheses.....	48
CHAPTER THREE: RESEARCH METHODOLOGY	49
3.1 Introduction.....	49
3.2 Research Philosophy	49
3.3 Research Design.....	51
3.4 Population of the Study.....	51
3.5 Data Collection	52
3.6 Operationalization of Variables	53
3.7 Reliability and Validity Tests	56
3.8 Data Analysis	58
3.9 Pretesting for Regression Assumption.....	62
CHAPTER FOUR: DATA ANALYSIS, FINDINGS AND DISCUSSION	63
4.1 Introduction.....	63
4.2 Descriptive Statistics.....	65
4.2.1 Rate of Response.....	65
4.2.2 Respondents Characteristics	66
4.2.3 Respondents Level of Education	66
4.2.4 Respondents length of Service.....	67
4.2.5 Respondents Firm Characteristics.....	67
4.2.6 Age of the Companies Listed on Nairobi Securities Exchange	70
4.2.7 Ownership Structure of the Firms	70
4.2.8 Demographic Characteristics of the Workforce	71
4.2.9 Intellectual Capital	76
4.2.10 Corporate Reputation	79
4.2.11 Corporate Culture.....	81
4.2.12 Non-financial Performance	83

4.3 Test of Hypotheses-Non Financial Measures	86
4.3.1 Intellectual Capital and Non-Financial Performance.....	87
4.3.2 Intellectual Capital, Corporate Reputation and Non-financial Performance	91
4.3.3 Intellectual Capital, Corporate Culture and Non-financial Performance.....	96
4.3.4 Intellectual Capital, Corporate Reputation, Corporate Culture and Non- Financial Performance	100
4.4 Test of Hypotheses on Financial Performance	103
4.4.1 Intellectual Capital and Financial Performance	104
4.4.2 Intellectual Capital, Corporate Reputation and Financial Performance	106
4.4.3 Intellectual Capital, Employee-Oriented Culture and Financial Performance .	110
4.4.4 Joint Effect of Intellectual Capital, Corporate Reputation, and Corporate Culture on Financial Performance	113
4.5 Discussion of the Findings.....	116
4.5.1 Relationship between Intellectual Capital and Corporate Performance	116
4.5.2 Corporate Reputation mediates the relationship between Intellectual Capital and Corporate Performance	120
4.5.3 Corporate Culture moderates the Relationship between Intellectual Capital and Corporate Performance	123
4.5.4 Joint Effect of Intellectual Capital, Corporate Reputation, Corporate Culture on Corporate Performance	125
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.....	127
5.1 Introduction.....	127
5.2 Summary of the Findings.....	127
5.2.1 Intellectual Capital and Corporate Performance.....	129
5.2.2 Intellectual Capital, Corporate Reputation and Corporate Performance	130
5.2.3 Intellectual Capital, Corporate Culture and Corporate Performance.....	131
5.2.4 Intellectual Capital, Corporate Reputation, Corporate Culture and Corporate Performance	132
5.3 Conclusion	133
5.4 Implications for Theory, Policy and Practice	135
5.4.1 Theoretical Implication	135
5.4.2 Policy Implications	137

5.5 Key Contributions of the Thesis	138
5.6 Limitations of the Study.....	139
5.7 Recommendation for Future Research.....	141
REFERENCES.....	142
APPENDICES	154
Appendix 1: Letter of Introduction	154
Appendix 2: Researcher’s Introductory Letter	155
Appendix 3: Questionnaire	156
Appendix 4: Firms Listed on Nairobi Securities Exchange.....	162
Appendix 5a: Histogram of Non-Financial Performance and Intellectual Capital.....	165
Appendix 5b: PP Plot of Non-Financial Performance and Intellectual Capital.....	166
Appendix 5c: Scatterplot of Non-Financial Performance and Intellectual Capital	167
Appendix 6a: Histogram of Mediating Effect of Corporate Reputation on the Relationship Between Intellectual Capital and Non-Financial Performance	168
Appendix 6b: PP Plot of Mediating Effect of Corporate Reputation on the Relationship Between Intellectual Capital and Non-Financial Performance	169
Appendix 6c: Scatterplot of Mediating Effect of Corporate Reputation on the Relationship Between Intellectual Capital and Non-Financial Performance	170
Appendix 7a : Histogram for Moderating Effect of employee oriented culture on the Relationship Between Intellectual Capital and Non-Financial Performance	171
Appendix 7b : PP Plot of Moderating Effect of employee oriented culture on the Relationship Between Intellectual Capital and Non-Financial Performance	172
Appendix 7c: Scatterplot of Moderating Effect of employee oriented culture on the Relationship Between Intellectual Capital and Non-Financial Performance	173
Appendix 8a: Histogram of joint Effect of Intellectual Capital, Corporate Reputation and employee oriented culture on Non-Financial Performance	174

Appendix 8b: P-P Plot of Joint Effect of Intellectual Capital, Corporate Reputation and employee oriented culture on Non-Financial Performance	175
Appendix 8c: Scatterplot of Joint Effect of Intellectual Capital, Corporate Reputation and employee oriented culture on Non-Financial Performance	176
Appendix 9a: Linear Regression Results For the Relationship Between Intellectual Capital and ROE	177
Appendix 9b: Linear Regression Results for Relationship between Intellectual Capital and ROA	178
Appendix 9c: Linear Regression Results for Relationship Between Intellectual Capital and ROE	179
Appendix 10a: Regression Results for Relationship between Intellectual Capital and ROE.....	180
Appendix 10b: Regression Results for the Relationship between Intellectual Capital and Dividend Yield	181

LIST OF TABLES

Table 2.1: Summary of Knowledge Gaps.....	44
Table 3.1: Summary of Operationalization and Measures of Variables	54
Table 3.2: Results of Reliability of the Variables Measures	57
Table 3.3: Summary of Objectives, Hypotheses and Data Analytical Techniques	59
Table 4.1: Distribution of Respondents by Education Level.....	66
Table 4.2: Distribution of Respondents by Length of Service.....	67
Table 4.3: Distribution of Firms by Sector of Economy	68
Table 4.4: Size of companies by Number of Employees.....	69
Table 4.5: Age of Companies since Incorporation and Listing	70
Table 4.6: Distribution of Firms by Ownership Structure	71
Table 4.7: Distribution of local Percentage Ownership in listed Companies in Kenya ..	71
Table 4.8: Summary of Distribution of employees on age bracket	72
Table 4.9: Distribution of employees Education levels	73
Table 4.10: Distribution of Employees length of Service.....	74
Table 4.11: Distribution of Training Ssessions.....	75
Table 4.12: Means and Standard Deviations for Intellectual Capital	77
Table 4.13: Means and Standard Deviations for Corporate Reputation	79
Table 4.14: Means and Standard Deviations for Corporate Culture.....	81
Table 4.15: Means and Standard Deviations for Non-Financial Performance	83
Table 4.16: Summary of Composite Mean Score for Measures of all the Variables	85
Table 4.17: Summary of Regression Results for individual influence of Human	88
Table 4.18: Regression results for the Influence of Intellectual Capital on Non- Financial Performance	90
Table 4.19: Regression Results for the Mediation of Corporate Reputation in the Relationship between Intellectual Capital and Non-Financial Performance	92
Table 4.20: Results of Analysis of Variance (ANOVA) for the Mediating Effect of Corporate Reputation on the Relationship between Intellectual Capital and Non-Financial Performance	93
Table 4.21: Results of Regression Coefficients for the Mediating Effect of Corporate Reputation on the Relationship between Intellectual Capital and Non-financial performance	94

Table 4.22: Summary of Mediated Effect of Corporate Reputation on the Relationship between Intellectual Capital on Non-Financial Performance	95
Table 4.23: Results of Regression Analysis for the Moderating effect of Employee-Oriented Culture on the Relationship between Intellectual Capital and Non-financial Performance	97
Table 4.24: Results of Analysis of Variance (ANOVA) for the Moderating Effect of Employee-Oriented Culture on the Relationship between Intellectual Capital and Non-Financial Performance.....	98
Table 4.25: Results of Coefficients for the Moderating effect of Employee-oriented Culture on the relationship between Intellectual Capital and Non-financial Performance	99
Table 4.26: Results of Regression Analysis for the Joint Effect of Intellectual Capital, Corporate Reputation and Corporate Culture on Non-Financial Performance	100
Table 4.27: Results of Analysis of Variance for Joint Effect of Intellectual Capital, Corporate Reputation, and Corporate Culture on Non-financial Performance	101
Table 4.28: Results of Coefficient for Joint Effect of Intellectual Capital, Corporate Reputation, and Corporate Culture on Non-Financial Performance.....	102
Table 4.29: Summary of Regression Results for individual influence of Human Capital, Social Capital and organization Capital on ROA.....	105
Table 4.30: Regression results for the Relationship between Intellectual Capital and Return on Asset	106
Table 4.31: Regression Results for the mediation of Corporate Reputation in the Relationship between intellectual Capital and ROA	107
Table 4.32: Results of Analysis of Variance (ANOVA) for the Medition Effect of Corporate Reputation on the Relationship between Intellectual Capital and ROA	108
Table 4.33: Results of Coefficients for the Mediting Effect of Corporate Reputation on the Relationship between Intellectual Capital and ROA	109
Table 4.34: Regression Results for the Moderating Effect of Employee-Oriented Culture on the Relationship between Intellectual Capital and ROA	110

Table 4.35: Results of Analysis of Variance (ANOVA) for the Moderation Effect of Employee-Oriented Culture on the Relationship between Intellectual Capital and ROA.....	111
Table 4.36: Results of Coefficients for the Moderating Effect of Employee-Oriented Culture on the Relationship between Intellectual Capital and ROA	112
Table 4.37: Regression Results of Joint Effect of Intellectual Capital, Corporate Reputation and Employee-Oriented Culture on ROA	113
Table 4.38: Results of Analysis of Variance for Joint Effect of Intellectual Capital, Corporate Reputation and Corporate Culture on ROA.....	114
Table 4.39: Results of Coefficient for Joint Effect of Intellectual Capital, Corporate Reputation and Corporate Culture on ROA.....	115

LIST OF FIGURES

Figure 2.1: Conceptual Model	47
Figure 4.1: Relationship between human capital, social capital and organization capital and non-financial performance	89

ACRONYMS AND ABBREVIATIONS

AIMS	Alternative Market Securities
BSC	Balanced Scorecard
CEOs	Chief Executive Officers
CMA	Capital Markets Authority
CSR	Corporate Social Responsibility
DV	Dependent variable
FISM	Fixed Income Securities Market
IV	Independent variable
MIMS	Main Investment Market Security
MV	Mediating variable
NSE	Nairobi Securities Exchange
RBV	Resource Based View
ROI	Return on Investment
ROA	Return on Assets
ROE	Return on Equity
SHRM	Strategic Human Resource Management
TMT	Top Management Teams
USA	United States of America
VIF	Variance Inflation Factor

ABSTRACT

The study focused on intellectual capital, corporate reputation, corporate culture and performance of firms listed on Nairobi Securities exchange. The literature shows that the combined effect of intellectual capital components has an influence on corporate performance. However, most of the literature have shown contradictory results, with some showing that intellectual capital has a positive influence on corporate performance, others show there is no relationship and others negative relationship between intellectual capital and corporate performance. Different from previous studies, the current study introduced corporate reputation as a mediating variable and corporate culture as a moderating variable. The broad objective of this study was to establish the effect of different combinations of predictor variables (Intellectual capital, corporate reputation and corporate culture) on corporate performance. It was guided by four objectives based on the direct influence, mediating effect, moderating effect and joint effect of the study variables on corporate performance. The study was founded on resource based view of the firm theory. The review of literature provided conceptual and empirical gaps that formed the basis of the conceptual model and conceptual hypotheses. The population of the study consisted of fifty (50) companies listed on Nairobi Securities Exchange. The study used cross-sectional survey design where data was collected at one point in time across all the organizations. The survey period covered four financial years from 2009 to 2012. A survey questionnaire was the main tool of data collection and was distributed to the 50 heads of human resource departments in the different firms. The study also utilized secondary data obtained from Capital Market Authority Statistical bulletins and Nairobi Securities Exchange Handbook 2012-2013 to collect data on financial performance. The response rate from the field was thirty four (34) firms (68%). The reliability test showed that study dimensions were reliable, apart from task-oriented culture that had a cronbach alpha of 0.262, thus was not considered for further analysis. The study utilized employee-oriented culture. The researcher divided the hypotheses into two categories; financial and non-financial. Hypotheses were tested one at a time, beginning with non-financial where linear regression analysis were conducted to explain the variation among the variables. Due to the lack of evidence supporting linear relationships between intellectual capital and financial indicators, optimal scaling was used to test the financial measures of performance. The study found that there was significant relationship between intellectual capital and non-financial performance and financial performance measured by return on assets. The findings also indicated that there was no significant relationship between intellectual capital and return on equity and Dividend Yield of firms listed on Nairobi Securities Exchange. It was found that corporate reputation mediates the relationship between intellectual capital and both non-financial performance and financial performance. Employee-oriented culture did not moderate the relationship between intellectual capital and corporate performance. The study established that the joint effect of intellectual capital, corporate reputation, and employee-oriented culture on non-financial performance and financial performance measured by return on assets was greater than individual effect of each predictor variable providing support for the resource based view of the firm. The results have diverse implications for policy, practice and research. There were limitations to the study, but they did not affect the credibility of the results.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The rise of the knowledge economy, one driven by knowledge, information and brainpower as the primary sources of competitive advantage is attributed to increasing prominence of intellectual capital (Quinn, Anderson and Finkelstein, 1996; Stewart, 1997). Ling and Huang (2012) observed that intellectual capital had emerged as a company's key factor for future success and long-term profitability in the age of knowledge based economy where tangible assets are slowly being replaced by intangible assets. The emergent theme among scholars is that combination or integration of intellectual capital components leads to competitive advantage and higher performance (Youndat, Subramanian and Snell, 2004; Cabrita and Bontis, 2008) compared to the isolated effect of the components. This has led to a shift from one dimensional principle of performance evaluation towards a multi-dimensional level incorporating non-financial measures such as customer perspective, learning and growth and internal business process (Kaplan and Norton, 1996).

Despite the recognition of intellectual capital as a key business driver, its profound impact within and external to the company has not been fully explored. In an environment of growing competition, the perception of customers and stakeholders has given added impetus to the role of corporate reputation. As observed by Rindova, Williamson, Petkova, and Sever (2005), the intangibility nature of intellectual capital makes it difficult to observe and organizations have to signal quality by engaging in reputation building activities. Prior research suggests that intellectual capital has influence on corporate reputation (Hitt, Bierman, Shimizu and Kochar, 2001; Greenwood, Li, Prakash and Deephouse, 2005), since intellectual capital components (human capital and social capital) influence reputation leading to improved performance.

Moreover, corporate culture has been recognized as a moderator in intellectual capital research (Cabrita and Bontis, 2008). Chaminde and Johnson (2003) and Rikowski (2007) cite culture as an important organization attribute in intellectual capital

management. They postulate that companies should create a culture of commitment through building of multi-dimensional relationships that lead to cooperation and collaboration rather than compliance. In addition, Nyambegera, Daniels and Sparrow (2001) postulates that employees in developing countries hold values completely different from those of developed countries. The integrated approach of intellectual capital, corporate reputation and corporate culture on performance is founded on the Resource Based View (RBV) assertion that unique configuration of firm resources creates a sustainable competitive advantage that cannot be explained by isolated factors.

Bontis (1998) and Cabrita and Bontis (2008) recommendations of a multi-industry sample that would permit an examination of inter-industry effects and provide a wider generalization, necessitated the study of firms listed on Nairobi Securities Exchange (NSE). The firms listed on NSE provided a wide variation of organization context which assisted in understanding the effect of intellectual capital, corporate reputation, corporate culture and corporate performance.

1.1.1 Intellectual Capital

The management literature provides differing view and definition with regard to intellectual capital. The concept of intellectual capital was first introduced by Galbraith (1969) cited in Bontis (1998) who claimed that intellectual capital was more than pure intellect and included intellectual action (Swart, 2006). Stewart (1997) and Nahapiet and Ghoshal (1998) defined intellectual capital as sum of knowledge and knowing capabilities that can be utilized to give a competitive advantage. According to Bontis (1998), intellectual capital is collective knowledge embedded in people, organization routines and network of relationships. Congruent with the above definition, Youndat et al. (2004) analysis of intellectual capital characteristics, revealed a consensus among scholars that intellectual capital is a multi-dimensional concept that resides at individual level, network and organization.

Whilst a common definition has not been agreed on, Bontis (1998) and Marr, Schiuman and Neely (2004) noted that scholars converge on three categories of intellectual capital: human capital, structural capital and customer capital (Bontis,

1996; Edvinsson and Malone, 1997; Stewart, 1997). The tripartite dimensions coalesce Bontis (1998), definition that intellectual capital resides at individual (human capital), network (customer capital) and organization level (structural capital). Youndat et al. (2004) contended that development of theoretically based subcategories of intellectual capital is necessary in advancing ability to operationalize and understand the concept.

According to Bontis (1996), intellectual capital comprises of human capital, structural capital and introduced relation capital as an example of customer capital. Similarly, Edvinsson and Malone (1997) and Stewart (1997), categorization consists of human capital, structural capital and introduces customer capital. Wright, Dunford and Snell (2001), Youndat, et al. (2004) and Uadiale and Uwigbe (2011) in advancing the previous categorization introduced social capital and organizational capital. This study adopts the conceptual definition proposed by Wright et al. (2001), Youndat et al. (2004), and Uadiale and Uwigbe (2011) that identified three components: human capital, social capital and organization capital.

Human capital refers to the acquired skills, knowledge and abilities held by individuals and obtained through their education; training and experience often cited as an intangible asset that differentiates financial performance among firms (Hitt et al. 2001). Similarly, Becker and Gerhart (1996) defined human capital as knowledge, skills, health or values that unlike physical and financial capital cannot be separated from persons who own it. Becker (1993) defined human capital as the knowledge, information, ideas and skills of individuals. OECD (1998) defined human capital as knowledge, skills, competence and attributes embodied in individual that are relevant to economic activity. In addition, Hatch and Dyer (2004) suggest that human capital reflects knowledge and skills embodied in people. Similar to Bontis (1998) perspectives, human capital requires the support of organization capital and social capital (Youndat et al. 2004).

Nahapiet and Ghoshal (1998) defined social capital as the sum of actual or potential resources embedded within and available through network of relationship possessed or developed by individuals or social units. Bontis (1996) discusses customer capital as one part of relational capital (Roos et al. 1997). His view is similar to what is

referred to as external social capital by sociologist (Coleman, 1998; Burt, 1992) and management theorist (Nahapiet and Ghoshal, 1998). Other writers have used terms such as customer capital (Bontis, 1996) external capital (Roos et al. 1997), relation capital (Edvinsson and Malone, 1997), and alliance capital (Stewart, 1997). Drawing from the RBV of the firm, Nahapiet and Ghoshal (1998) observed that social capital is a source of competitive advantage, because of its tactiness, path dependence and social complexity. Coleman (1988) and Burt (1992) observed that a conceptual consensus on definition of social capital can be formed around social networks. They postulate that social capital theory draws distinction between external and internal sources.

However, despite the importance attached to human capital and social capital, Bontis (1998) noted that structural capital is a critical link that allows intellectual capital to be measured at organization level. Youndat et al. (2004) proposed that organizational capital as compared to structural capital is important in studying intellectual capital because it is capital that is owned by the organization. Stewart (1997) defined organization capital as an institutionalized knowledge and codified experience stored in organization memory devices including operation process, internal organization structure and administrative system.

Drawing from RBV of the firm, this study operationalized intellectual capital as a multi-dimensional construct that creates value through effective combination of human capital, social capital and organization capital. This notion is supported by Youndat et al. (2004) and Cabrita and Bontis (2008) who noted that interaction and interdependencies among sets of intellectual capital variables create complexity that adhere to Barney (1991) criteria of value, rarity, non-imitable and non-substitutable and thereby contributing to overall strategic success.

1.1.2 Corporate Reputation

The concept of reputation has received considerable attention from organization scholars. Fombrun (1996:72) defined reputation as ‘a perceptual representation of a company past action and future prospects that describes the firm’s overall appeal to its key constituents compared to other leading firms’. Corporate reputation has also been described as stakeholder’s perception about an organization ability to create

value relative to competitors (Deepphouse, 2000). Rindova, et al. (2005) drawing from economic and institutional perspective, conceptualized reputation along two dimension: perceived quality which looks at the degree to which stakeholders evaluate an organization based on a specific attribute, and prominence dimension that characterizes reputation as a global impression which represent how stakeholders perceive a firm as a result of information exchange and social influence. The aforementioned definitions agreed with Gotsi and Wilson (2001) and Lee and Roh (2012) notion that reputation is perceptual in nature and largely depends on third party evaluation. Based on the definitions, three features of corporate reputation can be inferred. First, corporate reputation is people-dependent. Second, it is judged internally and externally. Lastly, corporate reputation encompasses assessment of different stakeholder groups (Hall, 1993).

The literature on corporate reputation suggests that corporate reputation is regarded as one of the most enduring intangible assets of a company (Barney, 1991, Hall, 1992, Rhee and Valdez, 2009). A favourable reputation can serve as an effective form of differentiation and source of competitive advantage, since its casual ambiguous nature makes imitation by competitor's impossible (Hall, 1992). There is consensus among scholars that reputation confers benefits to a firm ranging from investment decisions, career decisions to product choice (Weigelet and Camerer, 1988; Fombrun, 1996), while a poor reputation may hurt a firm's prospect significantly.

Despite the numerous benefits attributed to reputable firms, literature points that business world is characterized by asymmetrical information which makes it difficult for stakeholders to fully observe the full range of activities attributed to a firm (Rao, Greve and Davis, 2001). This view is well supported by the signaling theory that propose that in an incomplete information setting, the asymmetrical information forces external observers to rely on proxies to describe preference of rivals and their likely course of action (Weigelet and Camerer, 1988). In search for precise and desirable responses, Fombrun (1996) and Gotsi and Wilson (2001) observed that proactive organizations result in reputation building activities. The activities consist of developing direct experiences with the stakeholders, adopting wide variety of communication and symbolism that provide information about firm's action compared to competitors.

Since organizations have different stakeholders, it is apparent that reputation building activities will vary across firms. Rao et al. (2001) suggests that some companies would be more visible depending on whether they adopted more visible activities. Therefore, corporate reputation can be described in terms of visible signals. Robert and Dowling (2002) studied the 'Fortune most Admired Companies' and revealed that Corporate Social Responsibility (CSR), corporate image and media coverage had the highest impact on corporate reputation. Rindova et al. (2005) and Inglis, Morely and Sammut (2006) highlighted corporate image, media visibility and CSR as the most important signals that influence stakeholder's perception and proved to possess considerable high validity. Building on the work of Rindova et al. (2005) and Inglis et al. (2006), the study focused on corporate image, media visibility and CSR as dimensions of corporate reputation.

There is conceptual confusion on the concept of corporate image and corporate reputation. Gotsi and Wilson (2001) proposed two schools of thoughts: The analogous school and the differentiated school. The analogous school dominated earlier studies and views corporate reputation and corporate image as synonymous constructs. In contrast to the analogous school, the differentiated school of thought considers the concept of corporate reputation and corporate image as different but interrelated, bilateral relationship between the constructs (Barich and Kotler, 1991; Zimmer and Golden, 1998). Based on the differentiated school of thought, Barich and Kotler (1991) and Zimmer and Golden (1998) defined corporate image as the overall impression on the minds of the public about the organization. Fombrun (1996) identified corporate image as the sum of impression stakeholders like customers, vendors, employees and public hold about a company's reputation. Taking into consideration the aforementioned definitions, Ngunyen and Leblac (2001) postulated that stakeholders have different images of the same company, based on different types of experiences and contacts.

Media coverage has been used in a number of studies (Deephouse, 2000; Pollock and Rindova, 2003; Rindova et al. 2005). Rindova et al. (2005) defined media visibility as the degree to which a firm is widely recognized and stands out relative to peers. Rindova, Pollock and Hayward (2006) equated media visibility to the level of public attention.

McWilliam and Siegel (2001) defined CSR as a situation where firms go beyond compliance and engage in actions that appear to further social good, beyond the interest of the firm. The choice of the dimensions is primarily driven by the context of the study. The firms listed on NSE are assessed by multiple stakeholders, and due to intense competition facing the firms, it is conceivable that different actions should be employed to provide signals upon which stakeholders form impression and inferences about the companies. As noted by Deephouse (2000), corporate image, media visibility and CSR appear to be the most visible form of communication.

1.1.3 Corporate Culture

The concept of corporate culture has its roots in studies conducted by Deal and Kennedy (1982) and Peter and Waterman (1982). Corporate culture or organization culture is described as a set of values, beliefs, assumptions and symbols that define the way in which a firm drives its business (Peter and Waterman, 1982). Denison and Mishra (1985) defined corporate culture as a set of values, beliefs, behaviour and sound patterns from the core identity of the organization. According to Hofstede (1991), culture represents the collective programming of the mind which distinguishes members of one organization from another. Based on the above definitions, Hofstede (1991) and Baron and Walter (1994) agree with the assertion that culture bestows a distinct identity to organization members and is congruent with cognitive perspective advanced by Sackman (1991) that focuses on shared meaning. Drawing inference from RBV of the firm, corporate culture is a source of competitive advantage because it cannot be transferred from one organization to another due to its historical conditions and social complexity (Barney, 1991).

Child (1981) asserted that culture has a moderating effect on organizations and noted that culturally driven preferences influence the exercise of choice between alternative practices. In their effort to study culture, scholars have provided different frameworks to make it easier to operationalize. One such categorization by Hofstede (1991) is based on Blake and Mouton's managerial grid that classified culture along six dimensions; process-result, employee oriented-job oriented, open-closed system, loose-tight control, parochial-professional and normative-pragmatic. Aycan et al. (2000) operationalized internal culture along employee and job oriented dimensions.

They categorized employee-oriented culture along five dimensions of malleability, proactivity, participation and responsibility seeking. The task-oriented assumption was characterized along three dimension; task goal, task orientation and competitive orientation. Employee-oriented culture assumes a personalized interaction between employees and employers while task-oriented culture is more result-oriented and concerned about getting results. While the two cultures differ in relation to their assumptions, Aycan et al. (2000) noted that organizations are a combination of the two sets of cultural orientation, but one type of culture will be more dominant.

1.1.4 Corporate Performance

Corporate performance is the most widely used dependent variable in any area of management. Ling and Huang (2012) defined organizational performance as the sum of accomplishments attained by business or departments involved in an organization goal. Venkatraman and Ramanujam (1986) amongst other management theorists observed that there is no agreement on performance measures as scholars operationalize the concept depending on their discipline of study. Their view agrees with Fire and William (2003) who opined that lack of consensus on definition arises because the concept is associated with a variety of firm's overall wellbeing ranging from financial profitability, output levels to market levels.

In spite of differences in conceptualization, literature converges on three common measurement approaches namely; objective and subjective, quantitative and qualitative and financial and non-financial. Quantitative measures are objective whilst qualitative measures are subjective and are based on perceptions often measured using likert-type scales. Financial performance highlights company's profitability (Return on Assets) solvency, liquidity, productivity (turnover over total assets) or market strength (market to book value ratio of net assets). Roos and Roos (1997) and Bontis (2001) contend that financial indicators are not adequate for decision making. In order to mitigate against the shortcomings, Kaplan and Norton (1992; 1996) proposed a balanced approach incorporating financial and non-financial indicators.

Hubbard (2009) cites the Balanced Scorecard (BSC) proposed by Kaplan and Norton (1992, 1996) as the most dominant performance measurement model, based on stakeholder's theory propositions that a firm has multiple responsibility to a wider set

of groups other than the shareholders. The BSC complements information provided by financial measures with three additional measures; customer perspective, internal business process and organization learning and growth. The study adopted financial performance, measured by Return on Assets (ROA), Return on Equity (ROE), dividend yield. ROA measures how much profit a firm can achieve using one unit of assets. It helps to evaluate the results of managerial decisions or use of assets. ROE measures the earnings generated by shareholder's equity of a period usually one year. Dividend yield is an easy way to compare relative attractiveness of various dividends paying stock.

Subjective or non-financial measures of performance seek respondent's opinion about organizational performance. Customer perspective measures how well the business is satisfying the needs of the customer (Kaplan and Norton, 1996). Internal business process measures how efficiently and effectively an organization is meeting its goals and objectives. This perspective measures the innovation and development of business (Kaplan and Norton, 1996). The other non-financial perspective is learning and growth of the firm. This perspective measures the innovation and development of the business in a competitive environment (Kaplan and Norton, 1996).

The choice of both financial and non-financial measures is based on the context of the study. The firms listed on NSE are judged by multiple constituencies such as shareholders, investors and general public. The different interests of the various stakeholders require that performance should be assessed in several areas simultaneously (Kaplan and Norton, 1992).

1.1.5 Firms Listed on the Nairobi Securities Exchange

This study focused on firms listed on NSE for a four year period from 2009 to 2012. The NSE is a member of African Stock Exchange Association and is African's fourth largest stock exchange in terms of trading volumes and fifth in terms of market capitalization (NSE, 2009). The NSE handbook 2012-2013 (Appendix 4) classified the sectors into 11 segments namely; agriculture, banking, insurance, investment, and manufacturing and allied, construction and allied, commercial and service, energy and petroleum, automobile and accessories, telecommunication and technology and growth segment.

Prior to this arrangement, the companies were categorized into five segments namely; agriculture, commercial and services, finance and investment, industrial and allied and alternative market segment (AIMS). The operations of listed companies is regulated by Capital Markets Authority (CMA) which is an independent public agency established by Act of Parliament Cap 485A under the Ministry of Finance. It is expected that listed companies comply with the NSE and CMA regulations for them to continue selling at the bourse. Listing of a company unlocks immense growth opportunity by making the company more visible, strengthening the capital base, making strategic acquisition and attracting more professional managers. This indicates that listed companies have a greater competitive advantage than their counterparts (The Exchange, 2009).

Over a four year period (2009-2012), the number of companies listed has risen from 55 to 61. There has been one delisting over the same period and three suspensions. Table 1.1 gives a summary of key statistics in the Nairobi Securities Exchange on the volumes and values of the shares traded over the same period.

Table 1.1: Key Market Performance Indicators

Indicators	2009	2010	2011	2012
NSE 20 Share Index	3247	7546	5721	5464
Total Volume Traded (Million)	3169	7546	5721	5164
Total Number of Transactions	134,855	127,379	355,788	342,235
Average Market Capitalization (Ksh Billion)	834	1167	868	1272
Total bond turnover (Ksh Billion)	111	479	446	565
Number of listed Companies	55	55	58	61
Number of Suspension	-	-	-	2

Source: Economic Survey (2014).

Table 1.1 shows the performance of various capital market indicators for the period 2009 to 2012. The total number of shares traded decreased by 9.73% to 5164 Ksh billion in 2012, while market capitalization increased by 46.54% in 2012. Nairobi Securities Exchange (NSE) 20-share index went up from Ksh 5721 to Ksh 5464 in 2012. Similarly, the number of transactions registered a decrease of 3.8 percent, decreasing from 355,788 to 342,235. However, the total number of bond turnover, increased from Ksh 446 billion in 2011 to Ksh 565 billion in 2012.

The market capitalization recorded an increase of 46.5 percent; however it is still low when compared to countries like Chile, Korea, Malaysia, South Africa and Singapore (Economic Review, 2013). A number of positive and negative factors have shaped Kenya's economic performance in 2012-2013 affecting the performance of firms listed at NSE. In 2012, the country experienced an inflation of 9.4% and a GDP of 4.6% (Economic Survey, 2014). In 2013, the country witnessed a rebound, albeit slowly as business and private confidence was restored after the political transition following the 2013 general election. The Westgate Mall attack and subsequent terrorist attacks have impacted negatively in the country's GDP. Notwithstanding the above challenges, over a four year period, there have been 6 new listings.

Several challenges ranging from boardroom wrangles, poor decision making, lack of oversight to control by various boards of directors, unethical practices and poor corporate governance have marred the companies over the years leading to suspension of some firms from trading. This has resulted in a trend of poor corporate performance which is a threat to the expansion of Kenyan economy as it sends negative signals to potential investors regarding safety of their investment. To address the setbacks, various mechanisms have been put in place which include; instituting a complaint handling unit to bridge the confidence gap with NSE retail investors, instituting a corporate governance mechanism which firms are expected to comply with. Further, under the "guidelines on reporting and disclosure" companies are expected to disclose CSR based on themes of environment, community involvement, human resource management and products and consumers (Ponnu and Okoth, 2009).

Despite the various challenges facing the firms, their contribution to realization of vision 2030, and the economy cannot be ignored. Thus, it would be appropriate to take advantage of intellectual capital in form of human capital, social capital and organization capital to enhance their future earnings and stock price. Furthermore, as competition increases amongst the firms, they have to signal their reputation through their CSR activities such as creating foundations. As the firms listed represent key sectors of the economy, they offer an advantage of comparison of firms within the same industry and across different industries. This study acknowledged the various differences amongst the firms and therefore the NSE presented a good context to study the various study variables.

1.2 Research Problem

Intellectual capital has generated great interest among academicians and practitioners owing to its recognition as an intangible asset that is linked to superior performance and competitive advantage of a firm. Consistent with the notion of RBV, Youndat et al. (2004) and Cabrita and Bontis (2008) support that the combined effect of the components of intellectual capital constructs is more likely to lead to competitive advantage and superior performance than isolated effect of human capital, social capital and organization capital on performance).

Whilst intellectual capital has been proposed as an important intangible asset, scholars argue that the intangible nature of intellectual capital makes it difficult as a possible construct that can communicate to stakeholders (Rao et al. 2001). Prior studies suggest that organizations will invest in reputation building activities that are observable and perceived as reasonable proxies of firms attributes. Chaminde and Johnson (2003) and Cabrita and Bontis (2008) proposed that corporate culture has a moderating effect on the relationship between intellectual capital and corporate performance. Thus, the study postulated that the combined effect of intellectual capital corporate culture and corporate reputation, resulting in more complex interdependencies which are harder to imitate.

The performance of firms listed on NSE plays an important role in economic development of Kenya. The firms listed have encountered challenges ranging from poor leadership, governance issues, to malpractices which have been a common difficulty experienced by other listed firms around the world. This has led to suspension of some firms from trading (The Exchange, 2009). To deal with the challenges and to create value for shareholders, organizations have resorted to recruiting high talented individuals and building social networks within and outside the organization. The reliance on human capital or social capital alone cannot fully account for superior performance, there is need to take into account other factors such as corporate reputation and corporate culture.

Empirical studies on intellectual capital and corporate performance have presented two conflicting strands that yield inconsistent and inconclusive research findings. One strand looks at the isolated effect of intellectual capital constructs on performance. Riahi-Belkaouli (2003) findings on the link between intellectual capital and

performance of multi-national organizations in the United States found a positive and significant relationship. The study did not incorporate non-financial measures and looked at trademark as the only construct of intellectual capital. Amedieu and Vivian (2010) studied the impact of intangible capital on financial and commercial performance of French wine industry. The study revealed a negative relationship between intangible capital and financial performance, and positive relationship between intangible capital and commercial performance.

Among the studies done by scholars in developing countries are Fire and William (2003) who focused on the relationship between constructs of intellectual capital and structural, financial performance of 75 publicly listed companies in South Africa and found a negative relationship. A notable limitation in the study is that they did not include non-financial measures of corporate performance. In a subsequent study, Uadiale and Uwigbe (2011) studied the isolated effect of human capital and structural capital on business performance of 32 quoted firms in Nigeria and found a positive and significant relationship. Shabarati, Jawad and Bontis (2010) established a positive and significant relationship between intellectual capital and performance of pharmaceutical companies in Jordan. Similar results by Ngari, Kamau and Gichira (2011) revealed positive and significant relationship between intellectual capital and financial performance of pharmaceutical companies in Kenya and concluded that relationship was positive and significant. Shabarati et al. (2010) and Ngari et al. (2011), in Jordan and Kenya respectively, relied on homogeneous population that failed to examine inter-industry variations.

From the foregoing discussion, it is clear that previous studies did not incorporate non-financial measures of corporate performance, yet Kaplan and Norton (1992; 1996) postulated that corporate performance is a multi-dimensional construct that requires a balanced approach. The current study incorporated both the financial and non-financial measures of performance. In addition, previous studies selectively focused on organizations that heavily relied on intellectual capital, thus limiting generalization of findings as they do not offer opportunity to examine inter-industry effects. The current study overcame this limitation by incorporating a more representative sample of firms from a variety of sectors.

Studying the independent effect of intellectual capital components denies scholars and practitioners an opportunity to establish how value creating process actually occurs. Ittner and Larcker (1998) asserted that intangible assets affect corporate performance indirectly through complementary and non-linear relationship of cause and effect. In contrast to the first stream of research that focuses on independent effect of intellectual capital constructs on corporate performance, the latter strand proposes that intellectual capital is a component of interaction. In their study, Cabrita and Bontis (2008) examined interrelationship and interaction of intellectual capital components and business performance and found a positive relationship. The study proposed that corporate culture had a moderating effect on the relationship between intellectual capital and corporate performance. Youndat et al. (2004) tested the configuration approach to examine the effect of human capital, social capital and organization capital on financial performance. The study revealed that organizations with high intellectual profile outperformed those with low intellectual capital profile. Youndat et al. (2004) and Cabrita and Bontis (2008) did not look at other possible factors that affect the relationship between intellectual capital and corporate performance.

Beyond intellectual capital, studies point to the fact that inner environment of an organization is an important determinant of performance (Nyambegeera et al. 2001). This line of reasoning is well supported by Chaminde and Johnson (2003) and Cabrita and Bontis (2008) who proposed that corporate culture have a moderating effect on the relationship between intellectual capital and corporate performance. Equally, K'Obonyo and Dimba (2007) asserted that identifying existence of cultural values should be an empirical question not a prior assumption. In addition, Hitt et al. (2001) and Rindova et al. (2005) demonstrated that the relationship between intellectual capital and corporate performance is not direct but through the mediating effect of corporate reputation.

Based on the foregoing discussion, it appears that while scholars have studied the direct relationship between intellectual capital and performance, they have not adequately examined other variables that affect the relationship. Different from previous studies, the present study introduced corporate reputation as a mediating variable and corporate culture as a moderating variable in the relationship between

intellectual capital and performance. One of the questions this study attempted to answer was: what role do corporate reputation and culture play in the relationship between intellectual capital and corporate performance?

1.3 Research Objectives

The broad objective of this study was to establish the effect of different combinations of predictor variables (Intellectual capital, corporate reputation and corporate culture) on corporate performance. The specific objectives of the study were to:

- i) Establish the relationship between intellectual capital and corporate performance of firms listed at Nairobi Securities Exchange.
- ii) Determine whether the effect of intellectual capital on corporate performance was direct or through corporate reputation of firms listed at Nairobi Securities Exchange.
- iii) Determine the moderating effect of corporate culture on the relationship between intellectual capital and corporate performance of firms listed at Nairobi Securities Exchange.
- iv) Establish whether the joint effect of intellectual capital, corporate reputation and corporate culture on corporate performance is greater than individual influence of predictor variables of firms listed at Nairobi Securities Exchange.

1.4 Value of the Study

The attainment of study objectives outlined in the previous section made significant contribution to theory and practice of Strategic Human Resource Management (SHRM). First, the study focused on combined effect of intellectual capital constructs on corporate performance. It was established that the combined effect of intellectual capital on corporate performance has a greater effect than the independent effect of intellectual capital constructs. Further, the study introduced corporate reputation and corporate culture as mediator and moderator respectively on the relationship between intellectual capital and corporate performance. The synergetic effect of intellectual capital, corporate reputation and corporate culture on corporate performance has not been studied especially in the context of developing countries. Thus, the study presented a unique opportunity for expanding theoretical and empirical development on existing literature on the process in which intellectual capital leads to corporate performance.

The study also focused on a holistic perspective of intellectual capital and performance rather than on isolated effect of intellectual capital. The results of the study offered valuable insights to management of firms listed on Nairobi Securities Exchange to understand how they can exploit intellectual capital to create value and hence gain competitive advantage. Further, result findings provided insights on the role of corporate culture and corporate reputation in management of organizations. The results of the study would assist government and institutions both public and private to develop and implement human resource policies that are tailor-made to enhance corporate performance. This is to be achieved by introducing mediating effect of corporate reputation and moderating effect of corporate culture.

1.5 Structure of the Thesis

The thesis is divided into five chapters. Chapter one provides an introduction of the study which covers conceptual definitions as well as contextual background of the study. It also covers the research problem, research objectives and value of the study. The second chapter presents a review of both theoretical and empirical literature. The theoretical anchorage of the study was presented in relation to the concepts of the study. It discusses an overview of intellectual capital concepts and its various sub-components (human capital, social capital and structural capital). The chapter also presents concepts of corporate reputation, corporate culture and corporate performance covering the dimensions discussed herein in the thesis. The relationship between intellectual and corporate performance, the mediating effect of corporate reputation and moderating effect of corporate culture is also discussed. The chapter also presented selected empirical studies to highlight the knowledge gaps which set out the conceptual framework together with the conceptual hypotheses.

Chapter three presents the research methodology which covers the philosophical orientation in social sciences, the research design, and population of the study and data collection methods. The chapter also addresses the operationalization of study variables, measurement of variables as well as data analysis techniques and models that addressed the objectives of the study and assumptions of regression analysis.

Chapter four looks at the descriptive statistics, hypothesis testing and discussion. Prior to data analysis assumptions for linear regressions including normality, linearity and multicollinearity were tested. From the data sets on surveyed organizations,

respondents and response on variables of the study in form of means, standard deviations, frequencies and percentages which forms the basis of hypotheses testing. Hypothesis testing was conducted using techniques such as linear regression analysis and optimal scaling. The results are then discussed and interpreted in view of previous studies in literature. Chapter five covers the summary of findings in view of objectives that guided the study, thereafter, conclusions are drawn and recommendations are provided. The implication of the study to theory and practice are highlighted. The chapter ends with limitations and recommendations for further study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter contains the theoretical foundation of the study, a broad review of literature relating to study variables: intellectual capital, corporate reputation, corporate culture and corporate performance. Finally a summary of literature review which supports the knowledge gaps being addressed by the study and proposed conceptual framework and hypotheses are provided.

2.2 Theoretical Foundation

This study is informed by a number of theories including: the RBV of the firm, human capital theory, social capital theory and signaling theory.

2.2.1 The Resource Based View of the Firm

The study is anchored on the RBV introduced by Wernerfelt (1984) and refined by (Barney, 1991) that borrows heavily from earlier research by Penrose (1959). Central to the proposition of RBV is that a firm represents a collection of unique resources and capabilities that provide basis for sustained competitive advantage so long as they are valuable, rare, non-substitutable and difficult to imitate (Barney, 1991). The theory presumes that firms are a bundle of heterogeneous and capabilities that are imperfectly immobile across firms. According to this view, firm performance can be attributed to unique resources rather than industry structure, a proposition supported by strategy literature (Guthrie, Datta and Wright, 2004). Hall (1992) and Grant (1996) classified resources into tangible assets, intangible assets and human resources, with human being characterized as the most productive asset. Hall (1992) and Carmeli and Tishler (2004) survey of intangible assets revealed that corporate reputation, corporate culture and employee's know how were characterized as more influential than tangible assets as they are likely to meet Barney's (1991) four conditions outlined.

Consistent with strategy and SHRM literature, competitive advantage can be attributed to unique resources particularly intangible ones when they are combined or integrated (Barney 1991; Reed, Lubatikin and Srinivasan, 2006). Teece, Pisano and

Shuer (1997) also note that competitors would have difficulty in duplicating a competitive advantage based on combination of firm specific resources, because the combination arise from organization process that is casually ambiguous, path dependent and socially complex. Building on the work of Barney (1991) and Hall (1992), the current study proposed that the combined effect of intellectual capital components has a greater influence on corporate performance than individual influence of human capital, social capital and organization capital; the joint effect of intellectual capital, corporate reputation and corporate culture on corporate performance is greater than individual influence of predictor variables, thus supporting the proposition of RBV. In support of this proposition Becker and Gerhart (1996) and Wright et al. (2001) noted that a synergetic effect rather than a set of independent practices leads to competitive advantage. This argument discredits the assumption that reliance on a single element like human capital which has been overly emphasized in literature as a source of competitive advantage. RBV is governed by general belief that resource interaction should be more valuable than the sum of its part.

Critics of RBV such as Priem and Butler (2001) suggests that the theory is not prescriptive in that it does not provide managers with appropriate advice on which specific resources they should accumulate to gain a competitive advantage. Barney (2001) claims that RBV is tautological and does not generate testable theories. He notes that majority of the studies applying RBV, has failed to test its fundamental concepts, but have utilized the theory to establish the context of empirical research. In this vein, Wright et al. (2001) recommends that studies in SHRM should test the core concepts of RBV.

Notwithstanding a great room for development, it is clear that the conceptual and application of RBV has impacted on SHRM (Reed et al. 2006). With exception of Swart (2006) critique amongst others, that RBV does not explain how intellectual capital contributes to performance, a series of studies (Riahi-Belkaouli, 2003; Cabrita and Bontis, 2008) have provided empirical support for the RBV theory.

2.2.2 Human Capital Theory

The human capital theory was originally developed to study economic value of education (Schultz, 1961; Becker, 1964) and has become an integral part of SHRM literature that complements RBV theory. The human capital theory uses economic logic to study individual's decisions dealing with investment in productivity enhancing skills and knowledge. The underlying proposition of the theory is that people possess knowledge, skills and abilities that are of economic value to the firm. According to this theory, individuals choose an occupation or employment that maximize their present economic value and consciously make rational choices regarding investments in their time, effort, money in education, training and experience (Becker, 1964). Thus, the returns to a deliberate specific investment should outweigh the cost attached to the investment. This implies that some labour tends to be more productive and commands a higher price premium since more resources in terms of money and time were invested towards its development. A similar logic applies to the firms and, therefore firm investments in form of training and development are only justified if they produce future returns in the form of increased productivity (Truss, 2001).

Nonaka and Takeuchi (1995) contends that the notion of human capital is individualistic as the theory primarily focuses on the role of the individual. They submitted that human capital is a private asset possessed by the individual, but some forms of human capital (firm specific) can only be formed in an organization context through sharing of information (social capital) and through supportive mechanism of the organization (organization capital). In addition, the theory views that higher form of human capital translates into higher performance, based on the assumptions that acquisition and utilization of education is at a point of equilibrium and does not address the inequalities individuals encounter. Bernston, Sverke and Marklund (2006) observed that social class plays a major role and people from poor backgrounds may not have an opportunity for acquiring higher education translating to low employability. Coleman (1988; 1990) contends that social networks provided by extended family, community-based organizations can supplement the effect of education, experience and financial capital. This implies that elites with appropriate cultural capital possess higher human capital than those from poor backgrounds.

2.2.3 Social Capital Theory

The social capital theory emerged from sociology as a potential influence of performance. The central proposition of social capital theory is that network of relationships constitute valuable resource for the conduct of social affairs providing their members with the collectivity-owned capital, a credential which entitles them to credit (Burt, 1992). From the perspective of social capital theory, organizations who acquire greater social capital will occupy central position in social networks and will reap benefits by facilitate exchange across the organization.

However, despite the importance attached to social capital, Swart (2006) points to the dissatisfaction of proper theoretical perspective. Nahapiet and Ghoshal (1998) explained that inadequacy of operationalization of social capital can be attributed to its multi-dimensionality, while Putnam (1995), urges researchers to clarify dimensions of social capital. Proponents of social capital theory considered social capital as asset possessed by the individual and has economic value for the organization if it shared among the members of the organization.

2.2.4 The Signaling Theory

The signaling theory was initially applied in the study of economics of information in the labour market. The theory suggests that signals represent firm's action that conveys information about firm's abilities (Spence, 1973). In the context of corporate reputation, the theory suggests that market transactions occur under condition in which buyers and sellers possess asymmetrical information. The stakeholders result on evaluating firms and prices based on observable characteristics that they presume to be correlated with unobservable quality of employees or founders (Spence, 1973). Thus, proactive firms engage in use of symbolic activities to influence public perception, signaling high forms of human capital. Similar to propositions of RBV, the firms are not homogeneous and have high distinct individual characteristics and resources. Thus, it can be argued that corporate reputation activities underlie performance differential among the firms.

In summation, human capital, social capital and signaling theory complement the RBV theory. Given that each theory has some limitation, this study seeks to integrate the ideas of various theoretical streams to enrich the theoretical framework for the

study. Since intellectual capital, corporate reputation and corporate culture are intangible assets that adhere to Barney (1991) conditions, RBV is proposed as the major theory of the study.

2.3 Intellectual Capital

The concept of intellectual capital became popular in SHRM after the classical study of John Kenneth Galbraith in 1969 (Bontis, 1998) when he postulated that intellectual capital represents collective knowledge embedded in people, organization routines and network relationship of an organization. The concept was further expounded by management guru, Peter Drucker (1993) in his description of a post-capitalistic society. By 1990s, reference to intellectual capital in contemporary business publication was a common theme after the ground-breaking cover story by Thomas Stewart in the Fortune Magazine. This was followed by publication of his book “The new Wealth of Nations” (Stewart, 1997). He defined intellectual capital as intellectual material, knowledge, information, intellectual property and experience that can be put to use to create wealth. Similar definition has been proposed by Lynn (1998) who described intellectual capital as knowledge transformed into something of value to the organization. The definitions imply that intellectual capital is an asset that can be valuable to an organization.

In the late 1990s, numerous writers (Bontis, 1996; Edvinsson and Malone, 1997; Stewart, 1997) presented frameworks to help conceptualize intellectual as well as make it easier to operationalize the concept. Roos Roos, Dragonetti, and Edvinsson (1997) classified intellectual capital into structural and human capital. Their classification is similar to Sveiby (1997) who looked at external (customer related capital), internal structures and human capital. While various scholars have presented different typologies, human capital, social capital and organization capital are the most common in literature and were first evidenced in 1990s (Bontis, 1996; Edvinsson and Malone, 1997; Stewart, 1997). Whilst there are slight variations across the frameworks, there is a great convergence that the subcomponents of intellectual capital encompass the intelligence found in human beings, organizational routines and network relationship.

Borrowing from proponents of RBV theory, the study postulated that intellectual capital is created through combination and exchange of the three elements (Bontis, 1998, 2001). Reflecting this orientation, studies conducted by Youndat et al. (2004) and Cabrita and Bontis (2008) amongst others focused on interaction of intellectual capital components. As noted by Tsai and Ghoshal (1998), previous investigations that examined the independent effect of intellectual capital components resulted in incomplete information about the organization (Youndat et al. 2004). In this vein, Edvinsson and Malone (1997) and Stewart (1997) demonstrated that corporate value arises from interaction and integration of intellectual capital components. Drawing from Barney (1991) that resource integration results to higher rents because a combined set is indivisible and distinctive. The current study proposed that the combined effect of intellectual capital components has a greater influence on corporate performance than the individual influence of human capital, social capital and organization capital. However, each of the components is important in the study of intellectual capital.

Human capital is an important component of intellectual capital. The RBV emphasizes the importance of human capital as it contributes to competitive advantage because it is intangible, socially complex and difficult to imitate (Barney, 1991; Pfeffer, 2005). The origin of human capital can be traced to the work of Schultz and Becker in 1960's. Earlier studies, Schultz (1961) and Becker (1964) focused on economic behaviour especially how accumulation of knowledge and skills enables individuals to increase their productivity and their earnings. Human capital can be considered from two perspectives.

First, the economic perspective that looks at individual decisions regarding productivity-enhancing skills, knowledge and career choices (Wright and McMahan, 2011). According to this view, individuals weigh the benefits and costs associated with the investment and focus on benefits such as career success, promotion and higher wages (Hitt et al. 2001). The second approach is the psychological perspective that focuses on individual differences such as knowledge, skills, abilities and other characteristics of the individual (Ployhart and Molitern, 2011). Drawing from the aforementioned streams of research, this study operationalized human capital as skills, experience and educational levels possessed by an individual that have

economic benefit to the firm. Drawing inference from human capital theory, Schultz (1961) and Becker (1964) submitted that an increase in workers skills, knowledge and ability has an effect on organizational performance.

The education of an employee represents the duration of schooling and levels of qualification, and represents a common standard measure of human capital. Bontis (1999) demonstrated that stock prices reacted to change in management, affirming that investors attach value to skills and expertise of their Chief Executive Officers (CEOs) and other top management. Bontis (1998; 1999) argued that higher levels of education reflect investments in human capital. They observed that investors and financial markets attach value to skills and expertise of CEOs and other top management. The importance of education resonates Becker (1993) notion of investment in education. Their findings are consistent with the human capital theory that proposes that additional investment in education has returns on investment for the individual and the organization. In their study, Bartel and Jackson (1989) reported that more innovative organizations were led by CEOs or management teams that had higher levels of education. In a subsequent study, Blundell, Dearden, Meahir, and Sianesi (1999) demonstrated that individuals who completed schooling with formal qualification had significant larger returns than those with no formal qualifications.

Nahapiet and Ghoshal (1998) found that partners with education from the best institution and with higher levels of experience represented substantial human capital to firms. They argued that the human capital produced highest quality of service to clients, thereby contributing significantly to firm performance. In a study on professional service firms, Hitt et al. (2001) confirmed that highly educated individuals are more knowledgeable and productive than their less educated counterparts. The authors found that the educated individuals have more opportunities for career advancement. Subsequently, the organizations with more educated individual will outperform those firms with less levels of education. This notion was supported by Lin and Huang (2005) who affirmed that more educated workforce increases workers' productivity, innovative behavior and facilitate the adoption and use of new technology. Cabrita and Bontis (2008) study on Portuguese banking industry that revealed that the quality of banking relationship with clients depends on caliber of employees and their ability to satisfy client needs.

In contrast to most previous studies, Mutuku (2012) findings on Top Management Team (TMT) diversity in Commercial Banks in Kenya, indicated a negative association between academic qualification, diversity in tenure and performance. In spite of this counter finding, the prevailing pattern of results suggests that more educated employees are more receptive to competition. Based on the above findings, this study concludes that education level is an important determinant of human capital in organization.

Work experience is a dimension of human capital that refers to number of years an employee has worked in a certain organization. Hitt et al. (2001) and Lin and Huang (2005) observed that it is easier to get reliable measures on experience than skills, thus, several studies have looked into how experience influences productivity. In their study, Hitt et al. (2001) found that more experienced partners contributed more return to firms than new partners. Their finding is consistent with Wright and MacMahan (2011) who contended that individuals with a particular industry experience tend to have a historical perspective that cannot be easily replicated. The authors acknowledge the importance of experience during recruitment and selection.

Blundell, Dearden, Meahir and Sianesi (1999) defined training as courses designed to help individuals develop skills that might be of use in their job. Becker (1993) argued that on-the job training is a process that raises future productivity and differ from schooling in that an investment is made on the job rather than at the institution. In their study, Stovel and Bontis (2002) established that increased training may lead to higher productivity and enhance creativity resulting in satisfied and loyal customers. Lin and Huang (2005) asserted that training contributes to building human capital and improving the performance of the organization.

While it is undisputable that human capital is the most important construct of intellectual capital, Teece, et al. (1997) noted that human capital represents the highest mobility since it is a private good owned by the individual. Thus, an organization should integrate human capital with other complementary resources and use that integration to develop organizational competencies. If a worker leaves the firm, the competitor would need to asses all organizational resources and systems to fully use the knowledge resource that the individual possesses (Curado and Bontis, 2007). Although human capital has different facets, human capital theory supports

that education level, experience and level of training affects performance. Arguments advanced in literature points that human capital is a private good and for it to be valuable to a firm; it must be converted to a public good (social capital).

The concept of social capital originated from sociology to describe the assets that an individual possesses. Later, management scholars (Burt 1992; Nahapiet and Ghoshal 1998; Adler and Kwon, 2002) adopted the concept to explain individual, group and organizational performance. As noted by Coleman (1990), most scholars consider social capital as a resource that is jointly owned rather than controlled by an individual. In addition, Burt (1992) demonstrates that social networks can be described as social resources that facilitate access to information, resource and opportunities. Extensive research on social networks has demonstrated its importance in diverse facets ranging from individual occupation attainment (Lin and Huang, 2005), to a firms business operations (Coleman, 1990; Burt, 1992).

Drawing inference from social network theory, network position is important because it opens an opportunity to gain access to interaction with other parties (Adler and Kwon, 2002). Burt (1992) claimed that social capital is owned jointly by parties in a relationship and has value in the sense that it cannot be traded easily as no one has exclusive ownership rights. An important theme in social capital theory is that difference in networks produces inequalities in respect to individual, team and group performance. This notion corroborates with the finding of Lin and Huang (2005) who established that central networks position was more important than human capital.

Tsai and Ghoshal (1998) suggests that social capital should include perspectives of both the organization as well as the individual, and in this way incorporate aspects of internal and external social networks. Drawing on comprehensive review of previous work on social capital, Burt (1992) and Adler and Kwon (2002) identified two types of social capital; internal social capital and external social capital. Fukuyama (1995) defined internal social capital as the ability of people to work together for a common purpose in groups within organizations. Moreover, Nahapiet and Goshal (1998) claimed that internal social capital is concerned with internal relationship between employees and supervisors and among employees.

Internal social capital is defined by strength of ties, repetitive group activities such as frequency of meetings and other formal interaction as well as informal gatherings and other formal activities. On the other hand, external social capital focuses on direct and indirect relation an actor or participants establish and maintain with other actors outside the organization. Dyer and Singh (1998) posits that a firm's ability to persistently outperforms rivals depends on advantageous access to external information and resources uniquely held by other market participants.

Greenhaus and Callanan (1994) reported that participation in formal organizations, professional association and informal discussion assist in development of contacts. They argue that the contacts enhance performance because the organization is likely to identify new opportunities. Tsai and Ghoshal (1998) examined social interaction, trust, shared vision and found that intra firm network had a significant effect on resource exchange and combination resulting to product innovation. In a similar study, Hitt et al. (2001) finding on law firms indicated that individuals graduating from top institutions develop and maintain elite social networks that can be a valuable source of clients. They posited that the networks created from law schools can be a source of clients to the law firms. In the same vein, Mehra, Kilduff, and Daniel (2001) identified centrality in network position as a result of maneuvering into central network position.

A similar finding by Lin and Huang (2005) indicated that people's role in central network position is positively related to career development. Kor and Sundaramurthy (2009) study on experience-based human capital and social capital of outside directors revealed that external directors had extensive external connectivity through multiple board membership that enhances firm growth. They submitted that the external directors have greater social capital because they have quick access to information and resources through external and internal connections suggesting that external social capital builds on the internal social capital.

Contrary, Uzzi (1997) found that effect of social capital on performance may be u-shaped. He argued that the positive effect may reach threshold after which embeddedness can derail the firm by insulating them from information that exists beyond their networks. Coleman (1990) demonstrated that social capital could

produce inequality in employment through social connection. Portes (1998) cited four negative effects of social capital which are; exclusion of outsiders, excessive claim on group membership, restriction on freedom and downward level of norms. Coleman (1990) observed that social capital could produce inequality, demonstrating how people gain employment through social connections.

Despite the negative effects highlighted in the preceding section, it is widely recognized that social capital stands for the ability of actors to secure benefits by virtue of membership in social networks and other social structures. Coleman (1988) suggested that social capital could produce human capital. He suggested that people during interaction learn from one another. Florin, Lubatkin and Schulze (2003) demonstrated that interaction of human capital and social capital had a positive effect on organizational performance. This complementary role of social capital and human capital facilitates transfer of knowledge resulting into higher economic benefits for the individual and the organization. In addition, Lengnick-Hall and Lengnick-Hall (2003), posited that human resource practices facilitate the formation of social capital. Social capital available to a firm can be built when employees are working in teams and encouraged to learn from their colleagues and parties outside the firm. Further, to leverage human and social capital an organization need to provide supportive mechanism.

Organization capital also referred to as structural capital (Roos and Roos, 1997; Bontis, 1998) comprises mechanisms which help support employees. Edvinsson and Malone (1997) defined structural capital as everything that supports employee's productivity. Roos et al. (1997) defined structural capital as that which is left behind when employee leaves the office to go home. They subdivided structural capital into organizational capital and defined it as a system, tool and operating philosophy that speed the flow of knowledge through the organization. Bontis (1996) and Stewart (1997) defined organization capital as an institutionalized knowledge and codified experience stored in organization memory devices including operation process, internal organization structure and administrative system in a firm.

Organization capital is made of explicit knowledge and reflects the casual ambiguity of organizational resources making it difficult to imitate. In their study, Bontis (2000) demonstrated there is a positive relationship between organization capital and business performance. They opined that proper management of organization capital is important, as it allows human capital, technological capital, business and social capital to be exploited by an organization (Bontis, 1996). Tsen and Goo (2005) suggests that organization capital help a company to establish a good relationship with other participants in the labour market. As noted by Bontis (1998), organization capital comprises mechanisms and structures of the organization that support employees and their performance. They submitted that if an organization has poor systems and procedures, the overall intellectual capital of the organization will not be fully utilized.

2.4 Corporate Reputation

Fombrun and Shanley (1990) suggested that corporate reputation is a public construct that arises from available information about activities originating from the firm, the media or other monitors which may or may not be controlled by the firm. The literature on corporate reputation suggests that reputation is a multifaceted dimension that is based on perception of different stakeholders. Hall (1993) survey on executives indicated that majority of them felt that corporate reputation was one of the most important intangible assets contributing to organizational performance.

Drawing inferences from RBV theory, Barney (1991) and Hall (1992) noted that corporate reputation is a product of years of demonstrated competence, takes time to create and cannot be easily damaged. In addition, Hall (1992; 1993) submitted that reputation reduces stakeholder's uncertainties as suggested by the signaling theory. The argument demonstrated that reputation has an influence upon stakeholder's beliefs, attitudes and behaviour when the groups possess incomplete information concerning organization characteristics of interest (Weigelet and Camerer, 1988).

Inferring from the signaling theory, Basdeo, Smith, Grimm, Rindova and Derfus (2006), explained that reputation formation is a communication process in which industry context and action rival influence how signals of focal firms affect its reputation. Since reputation is an intangible asset, external constituents may not fully

observe the activities that may lead them to form impression of a firm. Rao et al. (2001) noted that past scholars infer the unobservable effect of reputation. This study overcame this limitation by focusing on more visible factors that have direct influence on the stakeholders such as CSR, media coverage and corporate image. Furthermore, the fall of best-world known companies such as Enron, exemplify the importance of CSR, media coverage and corporate image.

Rindova et al. (2005) observed that reputation scholars differ in their explanation on how reputation reduces uncertainty. Consistent with the approach taken by other scholars, the study focused on more visible behaviors such as media visibility (Rindova, Petkova, and Kotha, 2007), corporate image and CSR (lee and Roh, 2012). While reputation scholars have demonstrated that a good reputation generates advantages to a firm competing in the capital market, few studies have focused on how a firm may become more visible. Schaiweger (2004) concurred with other scholars that reputation is based on stakeholder's direct experience with the company as well as process of corporate communication. Based on the above argument, the study operationalized corporate reputation as CSR, corporate image and media visibility.

Corporate image can vary from information on quality of firm products and services, prizes and awards received by the organization, tradition, ideology, company name and price levels. Chung-Fah and Ho-chi (2012) findings on Taiwan construction industry indicated that corporate image is positively related to organizational performance suggesting that organizational performance can be achieved through strong corporate image. Awino (2013) study on influence of corporate image and customer satisfaction among university students in Kenya. The findings indicated that corporate image mediates the relationship between service quality and customer satisfaction among university students in Kenya.

Hutton, Goodman, Alexander and Genert (2001) survey of 72 Fortune 500 companies reported a mean of \$21.6 million in corporate communication budget. Their survey indicated that companies, having a relatively higher budget of \$5 million had a better reputation compared to those with lesser budget. Pharaoh (2003) surveyed CEOs in Belgium and United Kingdom and found that media coverage and industry ranking as

the most important elements of building reputation. He also observed that majority of the CEOs feared negative media coverage. Barbaro (2005) demonstrated that companies like Wal-Mart lost their customers due to negative press and the company had to contract a public relation firm to revamp its image.

Thus, it can be argued that firms devote tremendous effort to establish media visibility by spending substantial amount of money on advertising and sponsorship. Alsop (2004) noted that media exposure of an organization's activities is significantly related to changes in corporate reputation. He argues that newsworthiness of a company's activities, communication, effort, time and memory determines the corporate image and thus reputation. In the same vein, Deephouse (2000) agreed that media influences public knowledge and opinion about firms. Conversely, Rhee and Valdez (2009) and Wang (2013) submitted that high visibility does not necessarily denote positive reputation. They argued that visibility determines the extent to which market audience criticizes a firm when a crisis occurs.

Several scholars (Deephouse, 2000; Rindova, 2003) affirm that media visibility signal reputation to stakeholders. For instance, Rindova et al. (2007) embracing the institutional perspective of reputation, maintained that uncertainty about the true attributes of firms is reduced through exchange of information among diverse action. This corroborates the finding of Pharaoh (2003) that high status actors have superior ability to disseminate information by virtue of their institutional role or structural position. As a consequence, actions of these actors introduce disparities in availability of information to different stakeholders and may induce them to purchase goods and services from them or invest in those organizations.

Deephouse (2000) submitted that the volume of media coverage a firm receives prior to initial public offering was positively related to performance. In a subsequent study, Rindova et al. (2005) found that prominence measured by media exposure had the largest effect on price premiums of business schools. They argued that the volume of media coverage, cost of advertising are important dimensions of reputation building. In summary, the studies imply that media exposure introduces disparities in availability of information about organization making them more prominent than their counterparts with less media coverage (Rao et al. 2001).

Clarkson (1995) argued that CSR signal a firm's responsiveness to social and environmental issues and effective stakeholder's management. Prior studies have focused on a wide range of issues such as plant closures, employee's relations, human rights, corporate ethics, community relations and environment (Moir, 2001). Against the widespread backlash on businesses and their perceived unethical practices, managers have resorted to CSR as a means of protecting and enhancing their corporate reputation.

Fredman (1970) observed that critics claim that CSR is an executive perk that managers use to advance their career. In corporate social performance literature, a good CSR is argued to be an effective means for establishing a good reputation which eventually benefit the financial performance of an organization (McWilliam and Siegel, 2001). Fombrun and Shanley (1990) postulates that a positive perception among different external parties may result to supporting behaviour by these parties towards the firm. Further, Uadiale and Fagbemi (2011) established that CSR is an important driver of corporate reputation and affects firm's performance positively in terms of customer satisfaction and financial returns. Companies that build some goodwill with the public through philanthropy do not suffer so much reputation damage. Consequently, stakeholders may be induced to purchase goods and services from investors of socially responsible firms.

Lee and Roh (2012) survey on 230 firms (108 in high technology versus 22 in low technology) utilized CSR as a dimension of reputation. They found that CSR and performance was partially supported and showed that CSR had a positive impact on market-based performance (Sales growth and Tobin Q) but lack of significant association on accounting based (ROA and ROE). They concluded that CSR positively affect performance by reducing the risk of negative event. For instance, socially responsible firms are less likely to pay heavy fines and be involved in costly lawsuits dimension. This suggests that CSR signals firm responsiveness to effective shareholders management. As a consequence, stakeholders may be induced to purchase goods and services and invest in socially responsible firms.

2.5 Corporate Culture

Corporate culture has been acknowledged as one of the intangible assets that acts as source of competitive advantage (Barney, 1986). Hall (1992) noted that corporate culture constitutes beliefs, knowledge, attitudes and customs to which individuals are exposed in the organization. They in turn acquire habits and behaviour which set them apart from other organizations and may either work to the advantage or disadvantage of the company. Hofstede (1991) noted that corporate culture is soft holistic concept with a presumed hard consequence. Barney (1986) argues that corporate culture is valuable, rare and inimitable and allows firms adaptation to market requirement. Calori and Sarnin (1991) opined that economic performance of organization is directly tied to the strength of corporate culture and match between work-related values of employees. In addition, Peter and Waterman (1991) provide support that strong culture with compelling values has been the underlying reason for corporate success.

Literature contains a variety of taxonomies of culture types. Schein (1992) identified power, role, achievement and support while Handy (1993), classification included role, task, supportive and power culture. A common theme in these classifications is that a strong culture reflects values, beliefs and norms that are widely shared and internalized by people. Hofstede (1991) and Aycan et al. (2000) classification of culture as either employee-oriented or task-oriented culture was adopted in the current study. Employee-oriented culture is concerned with employee's well being characterized by participation and teamwork. The traits are reflected by Schneider (1994) collaboration culture which emphasizes teamwork, partnership and cooperation. Gary (1998) observed that in 1990s, teamwork was a prevalent issue and has become a common practice to most organizations. An emergent theme is that teamwork leads to versatility, adaptability and fostering of individual talent. In addition, employees feel a sense of ownership and pride towards the organization they work in.

Denison (1984), using survey based measures of culture, showed that perceived involvement and participation on part of organization members predicted both current and future performance. Their study demonstrated that organizations with participative culture performed better and predicted both current and future

performance. The argument is supported by Kravetz (1988) who submitted that management practices fostering autonomy and creativity were closely correlated with objective indication of performance. However, Denison and Mishra (1995) reported that Confucianism organization focus on harmonious relationship and hierarchy. The companies do not encourage participation of organization members in business decisions affecting them such as (quality of work life, participation teams. As noted by Hofstede (1991), collectivist culture is more likely to accept team-based work arrangements. Denison and Mishra (1995) surveyed 34 organizations and found that organizations that have participative corporate culture and well-organized workplaces have better performance records. Goffee and Jones (1996) postulated that when members identify with a culture, the work environment tends to be more enjoyable and boosts morale.

Hofstede (1991) task-oriented is similar to Schneider (1994) control culture which was characterized by hierarchy, centralized, goal definition and emphasized on reward, punishment and formal systems. Aycan et al. (2000) classification of task-oriented culture replicated Hofstede (1991) dimension of process-result oriented and pragmatic-normative orientation. The task-oriented culture is formalized, observes top-down communication and requires employees to set procedures set down. This culture is more result-oriented and has little concern for employee's welfare in the organization. Cooley (1994) posited that in UK, 2 of 3 workers have positive orientation towards work and one in every three employees is highly involved in their job. Peter and Waterman (1982) study supports that strong cultures are more result-oriented.

2.6 Corporate Performance

The debate on performance measures has been a domain of interest for academicians and practitioners. Organizational performance is the ultimate dependent variable of interest for scholars concerned in area of management and also an indicator for evaluating the operational efficiency of a business. Corporate performance in quoted firms is complex and multi-dimensional. The achievement of listed firms is typically judged by multiple constituencies such as shareholders, investors and general public. The different interests of the various groups influence performance and require that

managers review performance in several areas simultaneously (Kaplan and Norton, 1992). Porter (1985) posits that there is a heightened interest in measuring and understanding business performance especially as it relates to market share and product quality.

Delaney and Huselid (1996) opine that organizational performance can be measured using a set of objective performance indicators such as profit per employee, return on sales, productivity per employee or subjective measures (perception of performance relative to similar organizations or relative to product market competitors). Waterhouse and Svendsen (1998) submitted that financial measures are inadequate for decision making and need to be supplemented by non-financial measures such as customer satisfaction and operational efficiency. Acknowledging the inadequacy, Sveiby (1997) recommended the use of both financial and non-financial measures to provide a complete indication of financial success and shareholders value.

Lin and Huang (2012) defined financial performance as output in financial accounting sense, measured by indices concerning corporate growth and profitability. Financial measures highlight specific aspects such as companies' profitability, solvency, liquidity, productivity or market strength. Becker and Gerhart (1996) suggest that market-based measures are superior because they not only reflect historical performance but also present value of estimated cash flow. On the other hand, accounting measures have been criticized for being subject to manipulation. Despite the criticism of traditional accounting measures of performance in terms of consistency, return measures (ROA, ROE) has continued to be widely used.

The use of perceptual measures or non-financial measures is not unique in HRM studies. Huselid (1995) and Guthrie (2001) found that there was little difference between objective and subjective measures. Guthrie (2001) found that the correlation between subjective and objective measures could be as high as 0.81. These findings suggest that researchers should not view the choice of subjective measures as a second-best alternative but instead, the researcher should weigh the tradeoffs between subjective and objective measures against the research context to determine the most favorable under the circumstances (Richard, Devinney, Yip and Johnson, 2009).

2.7 Intellectual Capital and Corporate Performance

Varied literature and theoretical perspectives (RBV, human capital theory and social capital theory) suggest that intellectual capital can create and enhance organizational performance. Empirical studies on intellectual capital and corporate performance have presented two conflicting strands that yield inconsistent and inconclusive research findings. One strand looks at the isolated effect of intellectual capital components on corporate performance. Riahi-Belkaouli (2003) surveyed 81 multinational organizations in the United States on the relationship between intellectual capital (trademark application) and performance. They found a positive and significant relationship between intellectual capital and corporate performance. The population of the study was biased as it included only companies that had been listed on Forbes Magazine “Most International 100 American Manufacturing service”. Furthermore, the use of trademark application as the only component of intellectual capital, contradicts Marr et al. (2004) assertion that intellectual consists of human capital, social capital and organizational capital. In addition, the study did not examine the non-financial measures of performance. The financial measures of performance have been criticized as inadequate for decision making and need to be supplemented by non-financial measures of performance.

In a similar study, Fire and William (2003) examined the relationship between structural, physical and human capital on financial performance of 75 publicly quoted companies in South Africa, and found a negative relationship. Similar to Riahi-Belkouli (2003), the population consisted of a homogeneous sample of industries that extensively relied on intellectual capital. The study also did not incorporate non-financial measures of performance. Shabarati et al. (2010) in their study on pharmaceutical companies in Jordan reported a positive relationship on isolated effect of intellectual capital components and performance. Similarly, Ngari et al. (2011), study on Kenya pharmaceutical companies, demonstrated that isolated effect of intellectual capital components had positive effect on performance. The studies relied on population that was homogeneous and examined only financial measures of performance. In contrast, Amedieu and Vivian (2010) study on the impact of intangible capital on financial and commercial performance on French wine industry, revealed a negative relationship between intangible capital and positive relationship on commercial performance.

Drawing on the above studies, there are several knowledge gaps that need to be addressed. First, the use of homogeneous population, or organization that heavily relies on intellectual capital, raises questions over generalization as it does not offer an opportunity to explain inter-industry effects. The current study incorporated a more representative sample of firms listed on Nairobi Securities Exchange. It is evident that previous studies did not incorporate non-financial and financial measures of performance, yet corporate performance is a multi-dimensional construct that requires a balanced approach. Further, studying the independent effect of intellectual capital components denies scholars and practitioners an opportunity to establish how value creating process actually occurs. Consistent with the propositions of RBV, the study proposed that the combined effect of intellectual capital components has a greater effect on corporate performance than the individual influence of human capital, social capital and organization capital.

Recent, theoretical and empirical research suggests that intellectual capital is a component of interaction leading to the second strand. In their study, Youndat et al. (2004) adopted a configuration approach to examine the effect of human, social and organization capital on financial performance. The general finding from this study was that organization with high intellectual capital outperforms those with low profile of intellectual capital. Equally, Cabrita and Bontis (2008) examined interrelationship and interaction of intellectual capital components and business performance. Their study revealed a positive and significant relationship between intellectual capital and corporate performance. They recommended that future studies should incorporate corporate culture as moderating variable and take into account objective measures of performance. Despite a critical assessment of combined effect of the relationship between intellectual capital components and corporate performance, the studies did not examine other variables such as moderating and mediating variables.

Conclusively, preceding discussion reveals that previous studies have not addressed the process in which intellectual capital leads to performance. Becker and Gerhart (1996, p.781) in their review of human resources practices and organization performance concluded that ‘the mechanisms by which human resource decision creates and sustains value are complicated and not well understood’. This assertion agrees with Bourdeau and Ramastad (1998) who acknowledged that SHRM depict

the complex manner in which human resource management creates firm value through a series of intervening or linked constructs which most empirical studies have not tested. In order to address the gaps in knowledge, the current research sought to study the mediating effect of corporate reputation and moderating effect of corporate culture on the relationship between intellectual capital and corporate performance.

2.8 Intellectual Capital and Corporate Reputation

There is a common agreement among scholars that intellectual capital has an effect on corporate reputation (Hitt et al. 2001; Abysekera, 2010). Malvridis (2004) postulated that investors place higher value to firms with higher intellectual capital. In their study on top notch scientist in biotechnology firms, Andretsch and Stephan (1996) demonstrated that quality of firm's research signal capacity to stakeholders. Hitt et al. (2001) study on professional service firms concluded that partners with prestigious credentials such as graduates from top universities contribute to a firm's positive image and competitive advantage. They suggested that prestigious credentials signal reputation as clients use this information to predict the quality of services they are likely to receive in the firm.

In a similar study on professional service firms Greenwood et al. (2005) demonstrated that an organization should employ highly dedicated professional workforce to customize complex knowledge to client situation. They opined that consumers are obliged to use social proofs of competence in choosing their service providers. Hitt et al. (2001) and Greenwood et al. (2005) focused on professional service firms which are heavily reliant on employee's qualification, whilst the current study focused on firms listed on NSE, where human capital may not be easily observable. Despite the contextual difference, the study established a relationship between intellectual capital and corporate performance.

Petkova et al. (2008) carried an exploratory study on factors influencing reputation of new ventures. Their findings indicated that human capital and social relationships induced positive perception of new ventures. Their study is consistent with human capital theory, Becker (1964) that contends that high levels of human capital signals high quality services and potential clients may use human capital as a screening

device for choosing their service provider. Consequently, the human capital possessed by the individuals may lead to development and maintenance of elite social networks that act as a source of clients. Coleman (1988) indicated that human capital and social capital are complementary resources.

Contradictory arguments presented by Rindova et al. (2005) suggests that typical investors do not have the means to identify intellectual capital or objectify its value due to its intangible nature making it difficult as a possible construct that can communicate to stakeholders. Consistent with the signaling theory, Rao et al. (2001) suggests that a proactive organization would result into investing in reputation building activities. They suggested that the activities should be observable and perceived as reasonable proxies of firms attributes.

Based on evidence above, research findings indicate that a relationship exists between intellectual capital and corporate reputation. However, support for the relationship between intellectual capital and performance is limited in the field of human resource management, hence need for more research on this relationship. This study therefore, proposed that there is a relationship between intellectual capital and corporate reputation, but unlike previous studies that have either looked at the independent effect of human capital or social capital, this study investigated the combined effect of intellectual capital components (Human capital, social capital and organization capital) on corporate reputation.

2.9 Corporate Reputation and Corporate Performance

Several studies concur on positive relationship between corporate reputation and corporate performance (Fombrun and Shanley 1990; Robert and Dowling, 2000; Carmeli and Tishler, 2004). Fombrun (1996) suggested that reputation breeds customer loyalty, repeat business, enhances sales attractiveness and dampens the effect of business downturn in event of crises. This implies that strong reputation signals product quality and enhances a firm to charge price premium.

Using the Fortune's American Most Admired Corporations report from 1994 to 1998, Robert and Dowling (2002) confirmed that firms with better reputation sustain superior performance for a longer period and have an easier time attaining competitive advantage. Owino (2013) examined service quality, corporate image and

customer satisfaction in public universities in Kenya. They established that corporate image had a significant positive influence on customer satisfaction in Public Universities in Kenya. While the study brought some insight into the role of corporate image and satisfaction, they did not focus on financial measures of performance, hence leaving a knowledge gap. Lee and Roh (2012) explained that majority of the studies in corporate reputation lacks an in depth knowledge about multidimensional nature of performance. The studies either focus on non-financial or financial performance which does not provide an overall measure of corporate reputation. In addressing the knowledge gap, the current study incorporated both financial and non-financial measures of performance.

2.10 Intellectual Capital, Corporate Reputation and Corporate Performance

Preceding literature on intellectual capital and corporate performance reported mixed findings which could be attributed to studying isolated effect of intellectual capital components, focusing on either financial or non-financial measures, less is known about other factors that affect the relationship. Bourdeau and Ramastad (1998) urge scholars in SHRM to test for intervening constructs in their studies. This study proposed that intellectual capital has a relationship with corporate reputation and corporate reputation has a relationship with corporate performance.

Empirical evidence yields fairly conclusive findings that intellectual capital has an effect on corporate reputation (Hitt et al. 2001; Greenwood et al. 2005; Rindova et al. 2005). As noted, the studies are in agreement that intellectual capital has an effect on corporate reputation which in turn leads to corporate performance. Rindova et al. (2005) findings revealed that prestige of faculty academic degree had a significant effect on prominence and price premiums charged by universities. This suggests that organizations with high profile of intellectual capital are more attractive and have higher reputation; at the same time they are likely to demand a price that commensurates their perceived value. Therefore, these two relationships can be joined to propose that intellectual capital influences reputation; and reputation influences performance, hence, corporate reputation mediates the relationship between intellectual capital and corporate performance.

2.11 Intellectual Capital, Corporate Culture and Corporate Performance

Culture has become one of the most widely written concept in management literature. Pfeffer (1994) opines that culture is how people are managed and the effects on their behaviour and skills are seen as ‘soft side’ of business occasionally dismissed. Peter and Waterman (1982) study on “What Excellent Companies do” analyzed 62 successful companies and found that corporate culture was one of the underlying reasons for corporate success. They also found out that strong cultures tended to be more result oriented. Their results are consistent with Deal and Kennedy (1982) who reaffirmed that those high performing companies had strong cultures.

Calorin and Sarnin (1991) argue that economic performance of an organization is indirectly tied to strength of culture and work related values. Denison and Mishra (1995) demonstrated that strong culture that encourages participation and involvement of organization members appears to be the most important asset that provides an explanation for differences in productivity among American and Japanese companies. In support of this argument Pfeffer (1994), postulated that successful firms have culture that support both value and contributions of their employees. Sorenson (2002) postulated that a strong culture increases behavioural consistency of its employees and enhance coordination and control, improve goal alignment and increase employee effort. Firms with strong cultures are relatively stable and have higher performance (Denison and Mishra, 1995). This implies that corporate culture has an influence on corporate performance.

Rikowski (2007) argues that intellectual capital requires management attention to a set of organizational attributes including organizational culture, leadership, structure and rewards. The role of these factors lies in creating an organization environment conducive to effective knowledge management process. Musheref (2010) posits that view of whether corporate culture is an asset or liability depends on management subscription to its crucial role. This implies that corporate culture can either be recognized as one of the most important enablers or inhibitors of intellectual capital. Chaminde and Johnson (2003) and Cabrita and Bontis (2008) proposed that corporate culture moderates the relationship between intellectual capital and corporate performance.

However, the relationship between intellectual capital and corporate culture has not been explored in depth in a coherent manner (Rikowski, 2007). If an organization is strong, support knowledge sharing and innovation, it will make a positive impact on both the individual and collective behaviour. Osoro (2013) established that corporate culture had no moderating effect on the relationship between intangible assets and performance of firms listed on Nairobi Securities Exchange. In a different setting, Musheref (2014) studied the moderating role of corporate culture on the relationship between intellectual capital and business performance in Iraq and established that corporate culture moderates the relationship. Based on these findings, the current study proposed that corporate culture moderates the relationship between intellectual capital and corporate performance.

2.12 Intellectual Capital, Corporate Reputation, Corporate Culture and Corporate Performance

Theoretical and empirical research to date on the relationship between intellectual capital and corporate performance has not been concluded. Collectively implied in the preceding discussion, is that the combined effect of intellectual capital components has a greater effect on corporate performance than isolated effect of human capital, social capital and organization capital. This is supported by Bontis (1998) and Cabrita and Bontis (2008) argument that intellectual capital creates value through coordinated effort of human, social and organization capital. Previous studies that studied the combined effect of intellectual capital components on corporate performance (Youndat et al. 2004; Cabrita and Bontis (2008) found a positive relationship. However, they did not investigate other factors that influence the relationship.

A wide review of literature indicates that there is a relationship between intellectual capital and corporate performance (Hitt et al. 2001; Abysekera, 2010) whilst, corporate reputation has a relationship with corporate performance (Robert and Dowlings, 2002). Based on these relationships, it can be inferred that corporate reputation mediates the relationship between intellectual capital and corporate performance. Besides the mediating role of corporate reputation, research indicates that corporate culture moderates the relationship between intellectual capital and corporate performance (Chaminde and Johnson, 2003; Cabrita and Bontis, 2008).

Besides the direct effect of intellectual capital on corporate performance, research suggests that other variables such as corporate reputation and corporate culture mediate and moderate the relationship respectively. Furthermore, it was expected that the moderating and mediating variables would address the inconsistencies in the research findings on the relationship between intellectual capital and corporate performance. Drawing insights from RBV, the study proposed that existence of resources is important, but resources per se do not confer any benefit on an organization. The efficient combination of resources results in more complex interdependencies which are harder to imitate than independent relationships. Thus, the study proposed that the joint effect of intellectual capital, corporate reputation and corporate culture on corporate performance has a greater influence than the individual influence of each predictor variables.

Carmeli and Tishler (2004) established that organizational performance was explained by managerial capability, human capital, internal auditing, labour relations, organization culture and perceived organization reputation. They demonstrated that competitive positioning is derived from complex combination of organization elements. Whereas their study focused on six intangible assets, the current study focused on three predictor variables. In addition, the study by Carmeli and Tishler (2004) measured performance as self-income ratio, collecting efficiency ratio, employment rate and municipal development, whilst the current study utilized both financial and non-financial measures of performance. Despite the differences, both by Carmeli and Tishler (2004), the current study performed multivariate regression analysis to test the joint effect of the variables. Table 2.1 presents a summary of knowledge gaps that were reviewed in literature.

Table 2.1: Summary of Knowledge Gaps

Author (s)	Focus of the Study	Main Findings	Knowledge gaps	Focus of current study
Firer and William (2003)	Structural capital, physical, human capital and corporate performance of 75 public traded firms in South Africa	- Relationship was negative -Physical capital had the most significant effect on corporate performance	-Study did not examine the interaction of intellectual capital components - Focused on homogenous population	-Examined the interrelationship among the intellectual capital components -Focused on a heterogeneous population
Riahi-Belkaouli (2003)	Intellectual capital (trademark application) and firm performance of 81 USA Multinational firms	Intellectual capital has a positive and significant relationship on firm performance	-Study failed to take into account non-financial measures -The study focused on trademark application as only component of intellectual capital	-Study incorporated both financial and non-financial measures -Incorporated human capital, social and organization capital -Studied NSE which is a more representative population
Youndat Subramanian and Snell (2004)	Configuration approach to examine human, social and organization capital impact on financial returns and Tobin q	-Organization with high intellectual profiles outperform those with low overall profile	-The study did not take into account non-financial measures. -Study failed to look at other variables that affect the relationship	-The study included non-financial and financial measures -Incorporated mediating and moderating variables
Cabrita and Bontis (2008)	Interrelationships and interactions on intellectual capital and business performance in Portuguese Banking industry	-Intellectual capital components interact to influence performance. -Moderation exists	-Study did not focus on objective measures of performance -Failed to take into account the moderating effect of culture	-Included financial measures of performance -Inclusion of corporate culture as moderating variable
Amedieu and Vivian (2010)	intangible capital on financial and commercial performance of French Wine industry	-There is a negative relationship between intellectual capital and performance	-Study did not take into account interaction of variables -	-Inclusion of diverse industries for purpose of generalization and comparison -Study focused on interaction of intellectual capital variables

Shabarati, Jawadal and Bontis (2010)	Human capital, structural and relational capital on business performance with 132 top and middle level managers from pharmaceutical sector of Jordan	- Intellectual capital has a positive and significant relationship on business performance -Relation capital had the highest impact on business performance	-Failed to focus on interaction of intellectual capital components. - population of the study was biased since pharmaceutical companies are knowledge intensive	-Inclusion of diverse industries for purpose of generalization and comparison -Study focused on interaction of intellectual capital variables
Ngari, Kamau and Gichira (2011)	Intellectual capital and financial performance of Kenya pharmaceutical companies	Intellectual capital has a positive relationship on financial performance	-Study did not examine interaction intellectual capital components - study population was homogeneous	-Study examined firms listed on Nairobi securities exchange -Study examined interaction among the components
Uadiale and Uwigbe (2011)	Human capital, structural capital and business performance of 32 quoted companies in Nigeria	Intellectual capital has a positive and significant relationship on business performance	- Study failed to examine the interaction of intellectual capital components	Focused on interaction among the variables

Source: Author (2014).

Table 2.1 provides an analysis of knowledge gaps evident in literature pertaining to relationship between intellectual capital and corporate performance. First, studies have concentrated on independent effect of intellectual capital components on corporate performance, denying scholars and practitioners an opportunity to establish how value creating process actually occurs. Informed by RBV of the firm, the study focused on the intellectual capital measured as a composite index of human capital, social capital and organization capital.

Corporate performance is a multi-dimensional construct that requires a balanced approach. Consistent with the BSC approach, the study proposed integrating both financial and non-financial measures. In addition, studies have selectively focused on organizations that heavily relied on intellectual capital thus limiting generalization of findings as it does not offer an opportunity to examine inter-industry effects. The current study overcame the limitation by incorporating a more representative sample of firms listed on NSE.

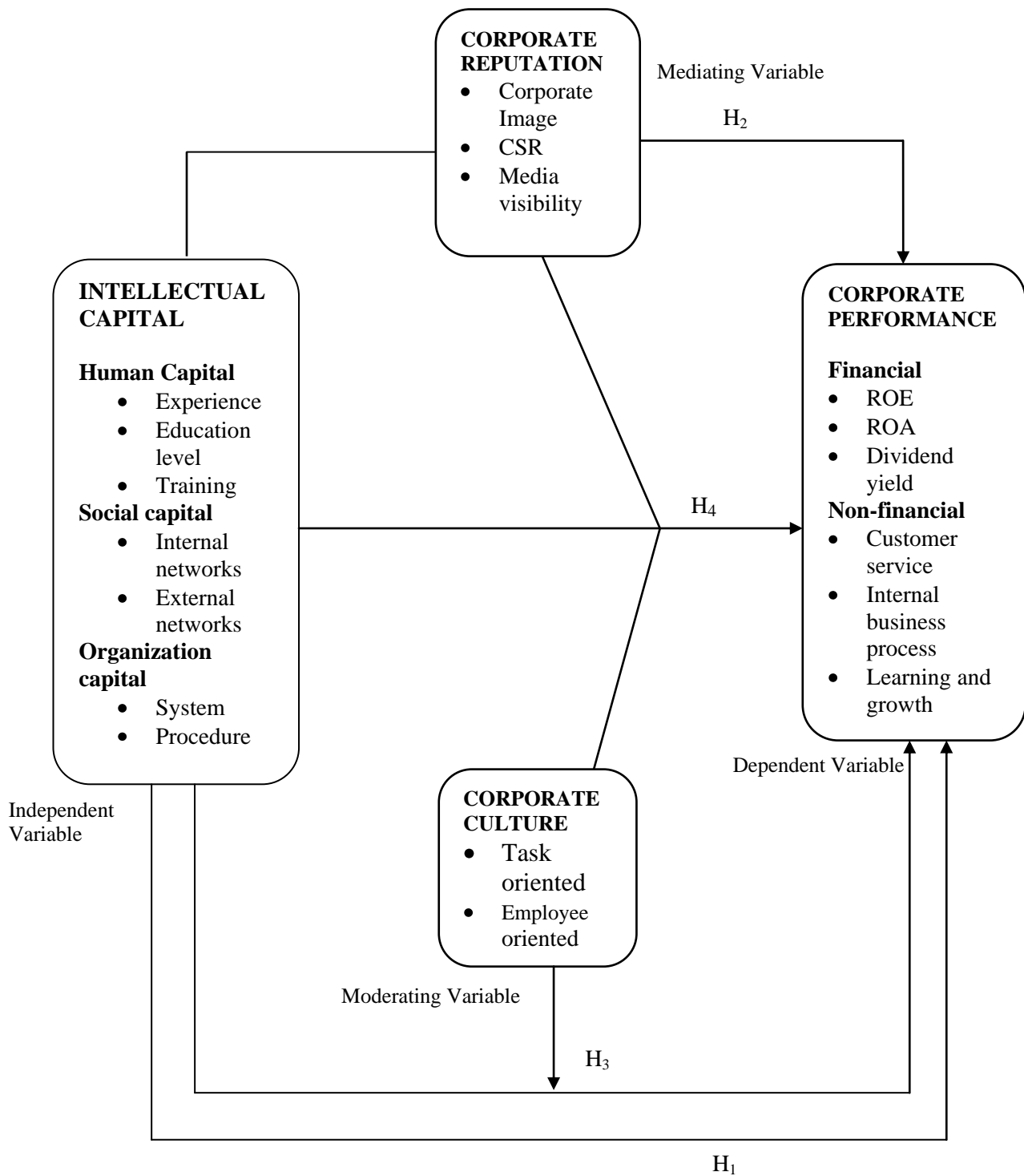
Further, scholars have not adequately studied other factors that affect the relationship between intellectual capital and corporate performance. In contrast to past studies, the present study introduced corporate reputation as a mediating variable and corporate culture as a moderating variable and their effect on the relationship between intellectual capital and corporate performance were tested respectively. Drawing from the RBV theory, the study proposed that the joint effect of intellectual capital, corporate reputation and corporate culture on corporate performance should be measured to establish whether it is greater than each of the predictor variable.

2.13 Conceptual Framework

The conceptual framework is drawn from theoretical underpinnings of RBV and knowledge gaps identified from empirical literature which affirm that integration of firm resources is crucial in achieving competitive advantage. In order to enrich understanding of intellectual capital and their interaction, the conceptual model was founded on a mixed theoretical foundation. The model integrated the ideas of RBV, human capital theory, social capital and signaling theory. Drawing from foundations of RBV, this study conceptualized intellectual capital as a multi-dimension construct consisting of human capital, social capital and organization capital. The study proposed that the synergetic effect of human capital, social capital and organization capital on corporate performance would offer a greater influence on corporate performance than independent influence of the components. The relationship however, is affected by other factors such as corporate reputation and corporate culture as suggested in the literature.

In the schematic diagram, the direct influence of intellectual capital on corporate performance forms the basis of the study (H₁). In line with theoretical and empirical literature, the study proposed that corporate reputation mediates the relationship between intellectual capital and corporate performance (H₂). On the other hand, corporate culture moderates the relationship between intellectual capital and corporate performance (H₃). Central to this study, was that the joint effect of intellectual capital, corporate reputation and corporate culture on performance had a greater influence than independent influence of the predictor variables (H₄). The interrelationship forming the bases of conceptual model are presented in Figure 2.1.

Figure 2.1: Conceptual Model



2.14 Conceptual Hypotheses

The following hypotheses were derived from the conceptual model. The hypotheses are in line with the research problem and research objectives in the previous sections. They were outlined as follows:

H₁: Intellectual capital has a relationship with corporate performance.

H₂: Corporate reputation mediates the relationship between intellectual capital and corporate performance

H₃: Corporate culture moderates the relationship between intellectual capital and corporate performance

H₄: The joint effect of intellectual capital, corporate reputation and corporate culture on corporate performance is greater than individual influence of each predictor variable.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research methodology of the study. It gives a description and approaches which were applied in conducting the research. They include the research philosophy, research design, population of the study, data collection method and tests of validity and reliability of research instruments. The chapter also elaborates on operationalization of study variables and summary of proposed data analysis models for testing the hypotheses and assumption of regression analysis.

3.2 Research Philosophy

Research philosophy or paradigm is the underlying assumption upon which research and development in the field of inquiry is based. A critical step in planning a research project is consideration of both philosophy and underpinning research design. The paradigm represents the overall philosophy and methodological approach of the research (Guba, 1990). Sobh and Perry (2006) suggest that the research paradigm or philosophical perspective is important for scholars as it plays an integral role in choice of research design and subsequent data collection, analysis and interpretation of results. In addition, Creswell (2003) noted that assumptions made inform the research world view, the researcher place in it, range of potential alternatives and techniques for examining relation within the world view.

The dominant philosophical orientation in social sciences are phenomenology and positivism. Positivism, also called empiricism, was first introduced by 19th century mathematician, Auguste Comte, who stressed the importance of scientific rigor in quest for knowledge. Creswell (2003) suggests that the positivist approach is based on traditional scientific method that seeks to prove hypotheses and test theories in situations where absolute truth or a form can be seen to exist. A major premise in positivist philosophy is that the researcher is independent of the research and neither affects nor is affected by the subject. In other words, under the positivist approach, the observer or researcher is independent of what is being observed.

In addition, positivism is concerned with numbers and quantified results, and thus there is more weight for quantitative data. The researcher follows a pattern of deductive reasoning beginning with a linear approach of formulating hypotheses and operational definition about the characteristics of phenomena being observed based on existing theory. Hypotheses are stated in propositional form and then subjected to empirical testing using statistical approaches that focus on measuring and analysing relationship among variables, leading to approval or rejection of hypotheses (Guba, 1990; Muganda, 2010). Kolb and Frohman (1970) opined that there is higher likelihood to produce reliable, relevant and unbiased results in positivist approach. Critics of positivist research pinpoint its inadequacy and inappropriateness in explaining social matters which surround human activity, leading to phenomenology orientation.

The phenomenology orientation is qualitative based research that adopts interpretive paradigm. It purports to gain understanding of social context by attempting to understand social processes of an organization and how they are perceived by employees. The researcher interacts with the case being investigated. Comparing positivism and phenomenology approach, Kolb and Frohman (1970) submitted that phenomenology is directed more towards qualitative data, whilst positivism focuses on quantitative data. The phenomenologists focus on immediate experience, open and trust their own experiences and rely more on case study design which is characterized by open and unstructured interviews. The weakness of this approach compared to positivist approach is that it leads to unclear conclusions characterized with less precision, rigor and credibility prone to distortions imposed by researchers' intention and values (Stiles, 2003). Thus, the phenomenology was not appropriate for the current study since the study was quantitative as opposed to qualitative.

This study was consistent with the positivist paradigm. First, the study was theory-based and conceptual framework guiding the study was developed through an exhaustive review of literature. Further, the research hypotheses were subjected to empirical testing using statistical techniques such as regression analysis. The study deduced and formulated variables, hypotheses and operational definition based on the existing theories.

3.3 Research Design

Nachamias and Nachamias (1996) defined research design as the way a study is planned, conducted, the procedures and techniques employed to answer the research question. Creswell (2003) cited survey as frequently used research under the positivism approach. The study adopted a cross sectional survey design which involved collecting data from the phenomenon at the time of the study and allowed conclusions to be drawn. The cross-sectional approach represents a snapshot of one point in time across a large number of response units. Thus, consistent with the positivist approach, the cross-sectional survey was the most appropriate research design.

The cross sectional survey design was deemed appropriate for this study because it enhanced uniform data collection and comparison across many respondents at one point in time. Further, the design offered the researcher an opportunity to capture population characteristics and test hypotheses quantitatively. Scholars such as Firer and William (2003), Cabrita and Bontis (2008) and Shabarati et al. (2010) utilized this type of design to test hypotheses and drew plausible conclusions.

3.4 Population of the Study

The population of the study comprised all firms listed at the NSE for a four year period from 2009 to 2012. According to the NSE Handbook (2012-2013), the total number of listed companies at the bourse was 62 (Appendix 4). However, the study targeted the companies that had been listed in NSE for a four year period (2009-2012). In 2009 there were 55 companies, and of the 55 companies listed before 2009, five companies were ineligible for the study as preliminary review of their records revealed that they did not have the required data for the study. A census survey of the companies was carried out since the population was very small. In total 50 companies were studied.

The firms listed on the NSE were considered appropriate because they represented key sectors of the economy. The listed companies were also selected because they are leading in terms of market capitalization and compliance to statutory requirements for listing by CMA, thus objective and reliable financial performance data was available.

Further, consistency in reporting requirement for publicly traded firms offered advantage of comparison within the same industry and across different industries. Lastly, the firms had good access to capital which is raised through public offering, which is not only necessary for their survival but also for improving their performance and competitive position.

3.5 Data Collection

The study used both primary and secondary data. Primary data was obtained through a survey questionnaire (Appendix 3) developed from a wide review of literature. The questionnaire consisted of five sections. Section one sought general information pertaining to the respondents, organization profile and demographic characteristics of the workforce. Section 2, 3, 4 and 5 addressed intellectual capital, corporate reputation, corporate culture and non-financial measures of performance respectively, designed on a five point likert-type scale. The responses ranged from 1= not at all, 2= to a small extent, 3= to a moderate extent, 4= to a large extent to 5= to a very large extent.

There were various methods that were used in the administration of the questionnaire. First, the researcher made telephone calls and visits to the targeted companies to facilitate communication. To enhance cooperation from respondents, an introductory letter from Doctoral studies office, school of business, University of Nairobi stipulating the intent of the study was presented to the companies (Appendix 1). The researcher also provided an introductory letter seeking authorization to collect data from respective companies. Drawing from Cooper and Schindler (2009), the researcher principally administered the questionnaire in order to enhance the response rate and quality of data collected.

After initial contact with the firms, appointments dates were agreed on with the respondents and the questionnaires were personally delivered to the human resource managers. A description of the questionnaire items was provided either orally or through a telephone call. As Cooper and Schindler (2008) asserts, a self-administered survey method is appropriate when it is important for the respondents to have adequate time to carefully consider their responses. If questionnaires were not received within two weeks, an extensive follow up procedures were undertaken which

included telephone calls, e-mails and follow up visits to respective companies. However, the researcher experienced difficulties in getting responses from some respondents who set dates but refused to honour the appointments on account that they had very tight work schedules. Companies whose questionnaires had not been returned at the end of four months were considered non-respondent.

The respondent was the human resource manager. The choice of the respondents is consistent with studies by Cabrita and Bontis (2008) and Shabarati et al. (2010) who argued that organization characteristics measured were known to selected members in upper echelons, thus they were likely to provide more reliable information. The view of key informant is widely used in human resource management studies (Huselid et al. 1997; Cabrita and Bontis, 2008). The targeted respondents were deemed knowledgeable about issues under investigation for which they are directly responsible.

Secondary data relating to financial performance was obtained from the listed companies audited accounts, NSE handbooks and CMA yearly reports. The data included ROA, ROE and dividend yield as an average of four year performance from 2009 to 2012. The use of both primary and secondary data has been supported by Bagire (2012) and Osoro (2013) who opined that the combination of both overcomes problems of data aggregation from surveys.

3.6 Operationalization of Variables

This section describes the operationalization of the research variables as depicted in the conceptual model (Figure 2.1). These variables were operationalized using a five point likert-type scale which is commonly applied in research employing questionnaires. To operationalize these constructs, the study measured the extent to which the respondents agreed with the statement related to intellectual capital, corporate reputation, corporate culture and non-financial performance of firms listed on NSE. Financial indicators of performance were obtained from secondary data.

Kannan and Aulbur (2004) applauded the usage of likert-type scale in intellectual capital management research. Bollen, Vergauwen, and Schnieders (2005) observed that the five point likert-type scale has inherent advantage and disadvantage. First,

questions used are easy to understand and may lead to consistent answers. It also offers a simple way of gauging specific opinions especially when the information sought is of such sensitive nature that respondents would not answer categorically in large range. In contrast, Bollen et al. (2005) submitted that responses elicited are not static but dynamic and continuous. Further, the scales do not sufficiently address or account for cases of respondents who have sufficient knowledge about the subject of study. To mitigate the shortcoming of likert-type scale the study utilized a self-administered questionnaire. A summary of operationalization is presented in Table 3.1.

Table 3.1: Summary of Operationalization and Measures of Variables

Variable	Operational Definition	Construct/ Indicators	Questionnaire Item
Intellectual Capital (Independent variable)	Human capital	- Extent to which company values employees with high levels of education, many years of experience, adequate job skills	5 point likert-type scale Section 2: 1-7
	Social capital	-Internal networks –frequency and type of relationship maintained within the organization through consulting with colleagues, formation of social clubs, attending parties, -External networks – establishing and maintaining contacts outside the organization through building relationships with clients, attending seminars and conferences	5 point likert-type scale Section 2: 8-14
	Organization capital	-Extent to which systems such as intranet allows access and sharing of information amongst employees and customers	5 point likert-type scale Section 2:15-17
Corporate Reputation (Mediating Variable)	Corporate image	- Perception regarding products as distinct and unique, company positively regarded by stakeholders and employees	5 point likert-type scale Section 3: 1-3
	Media Visibility	- Extent to which an organization activities are mentioned positively in electronic and social media, has won a number of industry awards	5 point likert-type scale Section 3: 4-6
	CSR	-Recognition of a company for its CSR activities such as charitable foundation, employment of minority	5 point likert-type scale Section 3:7-9
Corporate culture (Moderating Variable)	Employee-Oriented Culture	- Freedom to participate in decision making, -importance attached to teams in the organization -employees feel obliged to fulfill their responsibilities towards colleagues without expecting any reward	5 point likert-type scale Section 4: 1-6

	Task-oriented culture	- Decisions are made by top management without consulting employees, emphasize of technical and bureaucratic routines, organization concerned with results, -strict hierarchy of authority, degree of formality is high	5 point likert-type scale Section 4: 7-11
Corporate Performance (Dependent Variable)	Non-financial Customer perspective	-Extent to which customers retention is high, high repeat business, customer referrals, business solutions based on customers feedback	5 point likert-type scale Section 5: 1-4
	Internal business process	-Extent to which a company actively engages in research and development, higher number of products and services launched, high level of creativity	5 point likert-type scale Section 5: 5-8
	Learning and growth	- Extent to which an employee can perform challenging task, task that gives them a sense of achievement and responsibility over resources	5 point likert-type scale Section 5:9-12
	Financial	-ROA (measured as annual net income divided by total assets) -ROE (Measured as annual net income divided by issued shares) -Dividend Yield (measured as Annual dividend per share divided by market price per share)	Secondary Data

The independent variable for the current study was intellectual capital measured as a composite score of human capital, social capital and organizational capital. The components of human capital, social capital and organization capital were operationalized using various items modified from literature. Human capital was measured using seven (7) items drawn from Huselid et al. (1997), Youndat et al. (2004) and Reed et al. (2006). The adapted measures captured the competence of employees in general. Five measures adapted from Youndat et al. (2004) were found to be reliable with cronbach alpha of 0.81. The wordings of human capital from Youndat et al. (2004) and Reed et al. (2006) were slightly modified to make them applicable to firms listed on NSE and to accommodate the anchorage of five point likert-type scales. On social capital the study adopted Adler and Kwon (2002) conceptualization of internal and external social networks. Internal social capital was measured with two (2) items drawn from Youndat et al. (2004) with a cronbach alpha of 0.88, five items on external social capital were drawn from wide review of literature. Organization capital was measured using three measures which were adapted from Youndat's et al. (2004) items which were found to be moderately reliable with a cronbach alpha of 0.62.

The mediating variable for the study was corporate reputation which was measured using ratings adapted from Fombrun and Shanley (1996). The study utilized three dimensions; media visibility, corporate image and CSR. Corporate image was measured using three measures which were adapted from Lee and Roh (2012). Media coverage utilized measures adapted from Rindova et al. (2007). Three items on CSR were drawn from wide review of literature. Moderating variable for the study was corporate culture modified from Hofstede (1991) and Aycan et al. (2000). Employee-oriented culture was measured on six items and task-oriented culture on five (5) items.

The dependent variable of the current study was corporate performance measured along the BSC measures proposed by Kaplan and Norton (1996) that captured financial and non-financial measures. Non-financial measure included customer perspective, internal business process and learning and growth that were measured on a five point likert-type scale. The financial measures included ROE, ROA and dividend yield obtained from NSE Handbook (2011-2012) and CMA reports.

3.7 Reliability and Validity Tests

Validity of an instrument is the ability of a scale to measure what it is intended to measure (Muganda, 2010). There are different measures of validity that include construct, content and discriminant validity. Construct validity measures the degree to which operational definition of variables reflects the theoretical meaning of concept. This was conducted through exhaustive literature review of academic research papers. In addition, a multi-item scale item adapted from various management disciplines was applied.

Reliability is the degree to which measures are free from error and therefore yield consistent measures (Muganda, 2010). The study adopted a two-step approach to test reliability. First, a pilot test with 10 organizations was carried out prior to data collection to ensure that managers interpret and understand the questions. Editorial issues, structure as well as the overall design of the questionnaire were addressed. The version of the final questionnaire administered contained 49 items. The questionnaire was tested for reliability through computation of cronbach's alpha (α) which ranges from 0 to 1. The results of the internal consistency tests are presented in Table 3.2.

Table 3.2: Results of Reliability

Part of Instrument	Variable	Number of items	Alpha Coefficients	Remarks
Whole Instrument	All Variables	49	0.935	Reliable
Part 2	Human Capital	6	0.774	Reliable
	Social Capital	8	0.844	Reliable
	Organizational capital	3	0.948	Reliable
	Intellectual Capital	17	0.861	Reliable
Part 3	Corporate image	3	0.726	Reliable
	Media visibility	3	0.720	Reliable
	CSR	3	0.751	Reliable
	Corporate Reputation	9	0.850	Reliable
Part 4	Employee-oriented culture	6	0.849	Reliable
	Task-oriented Culture	5	0.262	Not Reliable
	Corporate Culture	11	0.546	Reliable
Part 5	Customer Service	4	0.741	Reliable
	Internal business process	4	0.677	Reliable
	Learning and growth	4	0.916	Reliable
	Non-financial Performance	12	0.877	Reliable

Source: Primary data

The results in Table 3.2 show that cronbach's alpha coefficient ranged between 0.948 and 0.262. The whole instrument had a cronbach alpha of 0.935 revealing a very high degree of reliability. Intellectual capital had 17 items and reliability of cronbach alpha 0.861. The constructs of human capital had a cronbach alpha of 0.774, social capital had a reliability of 0.844, and organization capital 0.948. This implies that all constructs of intellectual capital had acceptable reliability. These values are in line with the results of Youndat et al. (2004) and Reed et al. (2006).

Corporate reputation was operationalized as the mediating variable and the 9 items had reliability of 0.850 and the constructs of media visibility 0.720, corporate image 0.726 and CSR 0.751, implying that the constructs of corporate reputation had acceptable reliability levels. Non-financial performance was measured using 12 items and had a reliability of 0.877 and constructs of customer service 0.741, internal business process 0.677 and learning and growth 0.916. Corporate culture the

moderating variable had the lowest reliability of 0.546 and constructs of employee-oriented culture 0.849 and task-oriented culture was 0.262 which fell below the recommended threshold of 0.70 by Nunnally (1978). Nunnally (1978) recommended that only constructs with threshold of 0.7 and above should be considered for further analysis. After exclusion of variables with a non-significant value (task-oriented culture) the value of cronbach's alpha increased.

3.8 Data Analysis

This section entailed data preparation, analysis and reporting. Data preparation encompassed questionnaire checking, editing, coding and data cleaning. Data were analyzed using both descriptive (mean, percentages and measures of dispersion) and inferential statistics (regression analysis).

Descriptive statistics was used to present the demographic characteristics and the organization characteristics. As the study consisted of a combination of independent, mediating, moderating and dependent variables, it was apparent that different kinds of regression analysis were required to test hypotheses. To further investigate the findings, regression analyses were performed separately for financial and non-financial measures of performance. Table 3.3 provides a summary of objectives, hypotheses and data analytical models.

Table 3.3: Summary of Objectives, Hypotheses and Data Analytical Techniques

Research Objectives	Research Hypotheses	Data Analysis Method	Interpretation
<p>Objective 1</p> <p>To establish the relationship between intellectual capital and corporate performance</p>	<p>H₁</p> <p>Intellectual capital has a relationship with corporate performance.</p>	<p>Simple regression analysis</p> <p>CP = f (IC)</p> <p>CP = $\beta_0 + \beta_1 IC + \varepsilon$</p> <p>Where</p> <p>CP = corporate performance</p> <p>β_0 = Constant</p> <p>β_1 = Regression coefficient for intellectual capital</p> <p>IC = Composite index of intellectual capital</p> <p>ε = Error term</p>	<p>R² to assess how much of dependent variable variation is due to its relationship with the independent variable</p> <p>F test to assess overall significance of the model</p> <p>Beta (β) to determines the contribution of each predictor variable to the significance of the model</p> <p>P-Value < than 0.05 to check on statistical significance</p>
<p>Objective 2</p> <p>To determine whether the effect of intellectual capital and corporate performance is direct or through corporate reputation.</p>	<p>H₂:</p> <p>Corporate reputation mediates the relationship between intellectual capital and performance</p>	<p>Stepwise Regression Analysis</p> <p>Four step Procedure</p> <p>Step 1: CP = $\beta_0 + \beta_1 IC + \varepsilon$</p> <p>Step 2: CR = $\beta_0 + \beta_1 IC + \varepsilon$</p> <p>Step 3: CP = $\beta_0 + \beta_1 CR + \varepsilon$</p> <p>Step 4: CP = $\beta_0 + \beta_1 IC + \beta_2 CR + \beta_3 IC + CR + \varepsilon$</p> <p>Where</p> <p>$\beta_0$ = Constant</p> <p>β_1, β_2 = Regression coefficient</p> <p>CP = Corporate performance</p> <p>IC = composite index of intellectual capital</p> <p>CR = composite index of Corporate reputation</p> <p>ε = Error term</p>	<p>R² to assess how much dependent variables is due to its relationship with the dependent variable</p> <p>F test to assess overall significance of the model</p> <p>P-value < 0.05 to assess whether step one to 3 are statistically significant</p> <p>Some form of mediation is supported when IC is no longer significant when CR is controlled</p>

<p>Objective 3</p> <p>Determine the effect of corporate culture on the relationship between intellectual capital and corporate performance</p>	<p>H₃</p> <p>Corporate culture moderates the relationship between intellectual capital and corporate performance</p>	<p>Stepwise Regression analysis</p> <p>Step 1: $CP = \beta_0 + \beta_1 IC + \varepsilon$</p> <p>Step 2: $CR = \beta_0 + \beta_1 IC + CC + \varepsilon$</p> <p>Step 3: $CP = \beta_0 + \beta_1 IC + \beta_2 CC + \beta_3 IC * CC + \varepsilon$</p> <p>$\beta_0$=Constant $\beta_1, \beta_2, \beta_3$, =Regression coefficient</p> <p>CP = corporate performance</p> <p>IC = composite index of intellectual capital CC =composite index of Corporate culture ε=Error term</p>	<p>R² to assess how much of dependent variable variation is due to its relationship with the independent variable</p> <p>A significant change in adjusted R² upon the interaction of moderating variable confirms moderating effect</p> <p>F test to assess overall significance of the model</p> <p>Beta (β) to determines the contribution of each predictor variable to the significance of the model</p> <p>P-value<0.05 to assess whether step one to 3 are statistically significant</p>
<p>Objective 4</p> <p>Establish whether the joint effect of intellectual capital, corporate reputation and corporate culture on corporate performance is greater than the individual predictor variables.</p>	<p>H₄</p> <p>The joint effect of intellectual capital, corporate reputation and corporate culture on corporate performance is greater than individual influence of each predictor variable.</p>	<p>Simple and multiple regression analysis</p> <p>$CP = f(IC + CR + CC)$</p> <p>$CP = \beta_0 + \beta_1 IC + \beta_2 CR + \beta_3 CC + \varepsilon$</p> <p>Where β_0=Constant β_1, \dots, β_3=Regression coefficient CP = Corporate performance IC = composite index of intellectual capital CR =composite index of Corporate reputation ε=Error term</p>	<p>R² change to assess how much of the dependent variable variation is due to its relationship with the independent variable.</p> <p>F test to assess overall significance of the model</p> <p>Beta to determine determines the statistical significance of individual variables</p> <p>P-Value < than 0.05 to check on statistical significance</p>

H₁ involved testing the relationship between intellectual capital and corporate performance. Intellectual capital was computed as a composite index of human capital, social capital and organization capital. The composite index of non-financial performance was also computed. The hypothesis was tested using simple regression analysis starting with non-financial measures of performance and then financial measures of performance.

H₂ involved testing the mediating effect of corporate reputation on the relationship between intellectual capital and corporate performance. The hypothesis was tested using stepwise regression analysis. The model set forth by Baron and Kenny (1986) involves four step procedures in which several regression analyses are conducted and the significance of the coefficient in each step determined. In the first step, the influence of independent variable (intellectual capital) on the dependent (corporate performance) was tested using simple regression analysis. Second step involved testing the influence of independent variable (Intellectual capital) on mediating variable (corporate reputation) using simple regression analysis. Third step involves testing the influence of mediator (corporate reputation) on the dependent variable (corporate performance) using simple regression analysis. In step four, influence of independent variable (intellectual capital) on dependent variable (corporate performance) when controlling for mediation (corporate reputation) is tested using multiple regression analysis. The criterion for establishing mediation is, when controlling for mediator, the influence of independent variable on dependent variable becomes insignificant.

H₃ involved testing the moderating effect of corporate culture on the relationship between intellectual capital and corporate performance. The model set forth by Baron and Kenny (1986) which involved three steps. The first step involved testing the relationship between intellectual capital and corporate performance. The second step involved standardizing the independent variable (intellectual capital) and moderating variable (corporate culture). The third step involves creating an interaction term as a product of standardized independent variable*standardized moderating variable that is included in the model for testing the influence on corporate performance. Moderation is assumed to take place if the interaction term in step three is statistically significant.

H₄ involved testing of the joint effect of study variables and was both simple regression and multiple regression analysis were performed. Simple regression analysis tested the effect of each predictor variable, while multiple regressions tested the joint effect of the predictor variables on performance simultaneously.

3.9 Pretesting for Regression Assumption

Data was analyzed using regression analysis as the main method for testing hypotheses. Several conditions are required to be met before proceeding with regression analysis. Data was pretested for normality, linearity, multicollinearity and homoscedasticity. In research, when the assumptions are met, the models derived accurately represent population of interest.

Normality was undertaken by use of histograms and probability-probability (P-P plots) were used for visual test of normality of data. Data is assumed to be normal when the histogram appear symmetrical, bell-shaped curved, with greatest frequency of scores in the middle and smaller frequencies to, the extremes. Data that exhibits non-normality characteristics may lead to inaccuracy of the results.

Multicollinearity describes a high degree of association between independent variables. The explanatory variables should be correlated to some degree, however when they are highly correlated it is not possible to determine separate effect of an explanatory variable on criterion variable. To test for multicollinearity Variance Inflation Factor (VIF) and tolerance values were used. The VIF indicates whether a predictor has a strong linear relationship with other predictor variables with concerns raised if VIF is 10 and above (Hair, Anderson, Tatham and Black, 2008).

Heteroscedacity means that variance of errors is not constant. Variance of residuals is indicated by the width of the scatter plot of the residuals as explanatory variable increases. If the width of the p-p plots of the residuals increases or decreases as explanatory variable increases, then the assumption of constant is not met.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND DISCUSSION

4.1 Introduction

The broad objective of this study was to establish the effect of different combination of predictor variables (Intellectual capital, corporate reputation and corporate culture) on corporate performance. To achieve the broad objective, four specific objectives and corresponding hypotheses were formulated. The statistical results of this study were based on methodological recommendations suggested by Bontis (1998). First, a Cronbach alpha test was computed to evaluate the reliability measures as suggested by Nunnally (1978). Churchill (1979) suggests that this calculation should be the first measure one uses to measure the quality of research instrument. Before proceeding to data analysis, data was examined for violation of the assumptions underlying regression analysis namely; normality, multicollinearity and heteroscedacity.

The chapter is divided into three parts: Part one present's descriptive statistics which discussed and the profile of the companies and demographic characteristics of respondents. The descriptive statistics encompassed frequency distributions, central tendency (means) and measures of dispersion (standard deviations). The descriptive statistics provided a thorough understanding of the nature of data and formed the basis of hypotheses testing. The variables of study include intellectual capital, corporate reputation, corporate culture and performance.

Part two presented the hypotheses testing. The study utilized both financial and non-financial measures, and since it was not possible to combine both, the researcher divided the hypotheses into two categories; financial and non-financial. Separate analyses were performed for non-financial and financial indicators of corporate performance respectively. Hypotheses were tested one at a time, beginning with non-financial where linear regression analysis comprising of simple regression analysis, stepwise regression and multiple regression analysis were conducted to explain the variation among the variables. Due to the lack of evidence supporting linear relationships between intellectual capital and financial indicators, optimal scaling was used to test the financial measures of performance. The indicators employed for testing financial measures were, ROA, ROE and dividend yield.

In the final part, the results are discussed and meaningful patterns derived based on confirmatory and inconsistent results in previous studies. The discussion is narrowed to research gaps identified in literature review which formed the basis for conceptual hypotheses. The section is arranged according to the study objectives and corresponding hypotheses.

4.1.1 Preliminary Findings

Data was cleaned and then pretested for normality, linearity and multicollinearity and heteroscedacity. In this study, normality of data was tested using histograms while linearity was tested using scatter plots. The normality was assessed by checking the shape of the histograms in Appendices 5a, 6a, 7a and 8a. The histograms appear symmetrical, bell-shaped curved, with greatest frequency of scores in the middle and smaller frequencies to, the extremes. Thus, the scores appear to follow the shape of normal curve, and it can be presumed that data was normally distributed. The normality of data was also supported by normality plots (Normal P-P) plots. In the P-P plots the observed value for each score is plotted against the expected value from the normal distribution. A reasonably straight line as observed in Appendices 5b, 6b, 7b, 8b.

Multicollinearity describes a situation when a high correlation is detected between two or more predictor variables that cause problems when trying to draw inferences about the relative contribution of each predictor variable to the success of the model. Multicollinearity was checked in the model by examining the variance inflation factor (VIF) as shown in all coefficient tables. As a rule of thumb, if VIF of a variable exceeds 10, that variable is highly collinear (Hair et al. 2008). The VIF for this study (Tables 4.19, 4.22, 4.26, 4.29) ranged from 0.532 to 2.484 indicating no problem of multicollinearity between the study variables. Tolerance values were above 0.2 and ranged between 0.403 to 0.88. This confirms there was no threat of multicollinearity.

Heteroscedacity was tested using p-p plots and scatter plots in Appendices 5c, 6c, 7c and 8b. The scatter plots diagram show points that are randomly and evenly dispersed throughout the plots. The pattern is indicative of a situation in which assumptions of linearity and heteroscedacity were met and thus proceeded with other analysis.

4.2 Descriptive Statistics

Descriptive statistical techniques were used to present information on demographic characteristics of respondents and profile of the companies. The dimensions of study variables (intellectual capital, corporate reputation, corporate culture and non-financial performance). The statistics used were frequency distribution, means and standard deviation.

4.2.1 Rate of Response

The data was gathered on a four month period from January 2014 to April of 2014. The population of firms listed on Nairobi securities exchange for a four year period was 50 firms, divided into 10 sectors of the economy. Out of the 50 survey questionnaires that were hand delivered to the firms, 34 (68%) completed and returned the questionnaires. The response rate compares well with similar studies on performance of firms listed on Nairobi Securities Exchange. For example, Ongore (2008) 87.5%, Letting' (2011) 85% and Osoro (2013) 87.5%.

Although there is no consensus among scholars on acceptable response rate, Saunders, Lewis and Thornhill (2009) posit that response rates vary depending on the attributes of the chosen questionnaire. For delivered and collected questionnaires as was done in this study, they considered a response rate of 30% to 50% as reasonable and moderately high hence acceptance for use. The response rate of 68%, hence becoming an acceptable response rate. This is typical for research using senior management as respondents.

Indeed the attained response rate represented better results compared to similar studies that used smaller samples in international settings. Bollen et al. (2005) study on the relationship between intellectual capital property and corporate performance in German pharmaceutical industries had a response rate of 14%. In this study, some respondents cited lack of time, confidentiality clause, especially divulging information on demographic characteristics of employees which seemed too personal while others simply refused to participate without citing any reason. Thus, the response rate seemed acceptable as noted in both international and local research.

4.2.2 Respondents Characteristics

The survey questionnaire was distributed to human resource managers of firms listed on Nairobi Securities Exchange. The respondents comprised of staff of different formal education levels and tenure. In the study, the respondents were asked to indicate their level of formal education and years of experience in the current firm.

4.2.3 Respondents Level of Education

The use of key informant methodology requires employees who have attained minimum levels of education as it signifies ability to respond to survey items. The education level attained was captured by categorizing highest level of education into six categories with PhD as the highest level and secondary education level as the lowest level. Table 4.1 presents a summary of education level attained by the respondents.

Table 4.1: Distribution of Respondents by Education Level

Level of Education	Frequency	Percentage (%)
Secondary Education	0	0
Certificate	0	0
Diploma	2	5.9
Bachelor's Degree	14	41.2
Master's Degree	18	52.9
PhD	0	0
Total	34	100.0

Source: Primary Data (2014)

The results in Table 4.1 show that majority of respondents 52.9% had a master's degree, 41.2% had a Bachelor's degree and 5.9% had a Diploma. None of the respondents had education level below a diploma, and none had attained PhD level of education. This suggests that the respondents have basic minimum qualifications that are required for the position. The respondents were considered relatively knowledgeable in the areas of operations within the firms listed on Nairobi Securities Exchange. As human resource management issues become integrated into strategic issues of the organization, there is need for more educated practitioners who can align human resource strategies with the business strategies of the firm.

4.2.4 Respondents length of Service

The study also sought to establish length of service in the current firm. Tenure is deemed as a critical aspect in evaluating a respondent's suitability. Length of service measures ability to articulate issues of the firm, especially in focus of human resource management issues in the firm. The respondents were asked to indicate the number of years they had worked in the company. The years worked was subdivided into five categories. A summary of findings is presented Table 4.2.

Table 4.2: Distribution of Respondents by Length of Service

Number of years worked	Frequency	Percentage (%)
Less than 10 yrs	18	52.9
11-15yrs	12	35.3
16-20yrs	2	5.9
21-25yrs	1	2.9
Over 31yrs	1	2.9
Total	34	100.0

Source: Primary Data (2014)

As shown in Table 4.2, majority of respondents 52.9% had served in their respective organizations for a period of less than 10 years, 35.3 % had 11-15 years, 5.9% had 16-20 years, 2.9% had 21-25 years and 2.9% had served for over 31 years. From the results, 47 % had over 11 years of experience indicating a good spread in terms of length of service. It implies that employees with a long tenure have a better understanding of systems within the organization and therefore able to relate with human resource management practices within the organization. Coupled with high levels of education, it can be argued that respondents had a good understanding of the items in the questionnaire and thus provided reliable responses.

4.2.5 Respondents Firm Characteristics

The key firm factors of interest to the study were the age of the firm measured by the year of incorporation, size of the firm measured by number of permanent employees employed by the firms listed, sector of the economy; and the ownership structure measured in terms of whether the firm is locally owned, foreign owned or both locally owned and foreign owned.

4.2.5.1 Distribution of Firms by Sector

The firms that were listed on Nairobi Securities Exchange represented 11 sectors of the economy as presented in NSE handbook 2012-2013 (Appendix 4). The key sectors were agriculture, banking, insurance, investment, and manufacturing and allied, construction and allied, commercial and service, energy and petroleum, automobile and accessories, telecommunication and technology and growth segment. Table 4.3 provides a classification of the investment segment as classified at the Nairobi Securities Exchange.

Table 4.3: Distribution of Firms by Sector of Economy

Sector of Economy	Expected Outcome	Frequency	Percentage (%)	Cumulative Percentage
Agriculture	7	4	11.8	11.8
Automobiles	3	2	5.9	17.6
Banking	10	10	29.4	47.1
Commercial and service	6	4	11.8	58.8
Construction and Allied	5	3	8.8	67.6
Energy and Petroleum	4	2	5.9	73.5
Insurance	4	3	8.8	82.4
Investment	2	1	2.9	85.3
Telecommunication and Technology	2	1	2.9	88.2
Manufacturing and Allied	7	4	11.8	100.0
Total	50	34	100.0	

Source: Primary Data (2014)

As shown in Table 4.3, banking sector had the largest representation with 10 companies (29.4%), followed by commercial and services, manufacturing and allied with four listed companies (11.8%), construction and allied with 3 companies (8.8%), automobile with 2 companies (5.9%), investment, telecommunication and technology had one company respectively (2.9 %) accounting for the lowest response rate. This information reveals that firms listed are diverse and represent major sectors of the economy despite low numbers in some sectors.

4.2.5.2 Size of the Companies

The study sought to measure the size of the company by number of employees permanently employed by the firm. Respondents were required to indicate the number of employees in their company. For some companies, the number of employees was indicated in their financial statement while some did not provide the information in the annual reports. Thus, information was sought through a survey questionnaire. From the field survey, three firms declined to divulge information regarding the number of employees.

To facilitate the analysis of the size of the company, the study utilized the Ministry of Industrialization and Medium and Small Enterprise Act 2012 that categorized firms as small, medium and large based on number of employees and company's annual turnover. Small firms have 10 to 50 employees; medium firms have 50 to 100 employees and large firms have more than 100 employees. Table 4.4 presents information regarding the number of employees in the firms.

Table 4.4: Size of companies by Number of Employees.

Number of employees	Frequency	Percentage (%)
less than 200	7	20.6
201-400	3	8.8
401-600	1	2.9
601-800	2	5.9
801 and above	18	52.9
Total	31	91.2
Missing System	3	8.8
Total	34	100.0

Source: Primary Data (2014)

The results in Table 4.4 show that 52.9% of the companies listed on Nairobi Securities Exchange had over 801 employees indicating large firms. 20.6% had less than 200 employees, 8.8% had 201 to 400 employees, 5.9% had 601-800 employees and 2.9% had 401-600 which was the lowest category. 8.8% percent did not indicate the number of employees in their organizations. The finding corroborate the studies by Musyoka (2012) and Osoro (2013) who measured the size of the companies listed on Nairobi Securities Exchange by number of employees and established that majority of the firms can be classified as large.

4.2.6 Age of the Companies Listed on Nairobi Securities Exchange

The age of the firm was measured by number of years the firm has been in operation in Kenya and the year of listing on the Nairobi Securities Exchange. Thirty four companies (34) comprised the study population for the current study. The age of the company was measured by the number of years since incorporation and listing which was limited to four year period (2009-2012). Study results on firm's age are presented in Table 4.5.

Table 4.5: Age of Companies since Incorporation and Listing

Age of the Firm	Frequency	Percentage (%)
Below 20 Years	1	2.9
21-40 Years	6	17.6
41-60 Years	11	32.4
61-80 Years	9	26.5
81 Years and above	7	20.6
Total	34	100.0

Source: Primary data

The results in Table 4.5 show that seven companies (20.6%) have been in existence for over 81 years since they were incorporated. Nine companies (26.5%) had been in existence for 61-80 years, eleven companies (32.4%) had operated for 41-60 years, six companies (17.6%) had operated for 21-40 years, and one company (2.9 %) had operated below 20 years. The information indicates that most of the firms (97.1%) are well established; having operated for more than 21 years, thus have developed relevant human resource management practices. The firms represented an adequate population of the study.

4.2.7 Ownership Structure of the Firms

The ownership structure was established from both primary and secondary data. Primary data was obtained from the questionnaire while secondary data was obtained from Capital Market Authority Quarterly Statistical Bulletin (2013). Both sets of data were compared and where there were deviations, secondary data prevailed. Ownership structure was defined by classifying the firms listed in three categories: fully locally owned, fully foreign owned and both local and foreign owned. The findings on the ownership structure are presented on Table 4.6.

Table 4.6: Distribution of Firms by Ownership Structure

Ownership structure	Frequency	Percentage (%)
Fully locally owned	16	47.1
Fully foreign owned	1	2.9
Both local and foreign	17	50.0
Total	34	100.0

Source: CMA Quarterly Statistical Bulletin (2013).

As shown in Table 4.6, 50% of companies were both local and foreign owned, 47.1% were fully locally owned and 2.9% were fully foreign owned. It was presumed that ownership structure is presumed to influence the human resource practices of an organization and especially the corporate culture of the firm. The summarized results on ownership are presented in Table 4.7.

Table 4.7: Distribution of local Percentage Ownership in listed Companies in Kenya

Local Ownership	Frequency	Percentage (%)
25 and less	1	2.9
26-50	9	26.5
51-75	7	20.6
76-100	17	50.0
Total	34	100.0

Source: CMA Quarterly Statistical Bulletin (2013).

Table 4.7 shows that 50% of the firms had local ownership of 76-100, 26.5% had ownership of 26-50. The lowest percentage of local ownership was 2.9% with less than 25 percent of local ownership. The result corroborates the finding on distribution of firms by ownership (Table 4.6) that revealed that 50% of the firms were both locally and foreign owned.

4.2.8 Demographic Characteristics of the Workforce

This section required the companies to provide demographic information pertaining to age brackets of employees, years of experience in the organization and levels of education. The purpose of this section was to cross validate the likert-type scale information in section two of the questionnaire (Appendix 2). Data pertaining to length of service and levels of education represents human capital possessed by the employees.

4.2.8.1 Age of workforce

Age was an important factor in this study as it explained the impact of different human resource management practices. Young employees are likely to have higher levels of education while older employees could possess relatively lower qualification. Research reveals that older workers are seen as incompetent, less flexible and adaptable, less willing and able to learn new things and less physically capable. They are also seen as having lower propensity to job turnover, absenteeism, fewer accidents compared to younger workers. The age bracket was categorized into five categories as shown in the Table 4.8.

Table 4.8: Summary of Distribution of employees on age bracket

Age bracket	Frequency	Percentage (%)
less than 30 years	20870	33.65
31-40 years	20638	33.28
41-50 years	13336	21.50
51-60 years	7095	11.44
61 years and above	77	0.12
Total	62016	100.00

Source: Primary Data (2014)

As shown in Table 4.8, 33.65% of employees in firms listed on Nairobi Securities Exchange were less than 30 years, 33.28% falls between 31-40, 21.50% falls on 41-50 age bracket, 11.44% falls on 51-60 years and only 0.12 were 61 years and above. The retirement age in Kenya is 60 years, but occasionally it can be extended especially for long term serving employees who have expertise in certain areas.

Costa and Catsouphies (2009) categorized the workforce into distinct demarcation of ten year period. These include generation Yers (born after 1980), generation Xers (1970 and 1980) and Boomer (1960 and below). These generation cohorts have different characteristics and they largely influence the human resource practices. Arguments made in a related research by Benson and Brown (2011) were that Generation Xers and Yers were techno-savvy, team-oriented and flexible. The findings of the study indicate that majority of the employees, 66.93 % are below 40 years, thus constitute a relatively younger generation. The results imply that the age

of the workforce is likely to influence intellectual capital, corporate culture and corporate reputation of firms listed on Nairobi Securities exchange. Although generation cohorts have been commonly used to explain workplace differences based on age, caution should be taken as the various generation cohorts advanced in literature are time specific. Furthermore, the commonly referred generation of boomers is either about to, or has exited the workforce.

4.2.8.2 Education Level of Employees

The study sought to establish the highest level of education of employees in the respective organizations. The duration of schooling and levels of qualification have been a common standard measure of human capital studies (Burt, 1997; Hitt et al. 2001). In the words of Bontis (1998; 1999), high levels of education reflect an investment in human capital. The education levels were categorized into six categories. Study results on employee education level are presented in the Table 4.9.

Table 4.9: Distribution of employees Education levels

Level of education	Frequency	Percentage (%)
O or A Level	12864	20.30
Certificate	9872	15.58
Diploma	7845	12.38
Bachelors	29172	46.04
Masters	3528	5.57
PhD	75	0.12
Total	63356	100.00

Source: Primary Data (2014)

As shown in Table 4.9, 46.04% of the workforce had a Bachelor's degree, 20.30% had O' level or A'level education, 15.58 % had a certificate, 12.38% had a diploma, 5.57% had a Master's degree. The lowest score was 0.12% representing employees holding a PhD as their highest level of education. The findings indicate that a relative high number of employees have high levels of education representing high human capital.

Drawing on the finding of Benson and Brown (2011), the study equates the education levels to various age groups. Generation Xers have better credentials (education and experience) and would be more marketable than the Baby Boomers who are nearing retirement and Generation Yers who are new entrants in the workforce with less experience. It follows from this classification that within the workplace, Generation Xers and Generation Yers are likely to have higher qualifications compared to their Boomers counterparts. This can be explained by competition for human resources for most firms and can therefore be expected that majority of Generation Xers and Generation Yers have at least a college education, while the Boomers entered into workforce when no college education was required.

4.2.8.3 Employees length of Service

Experience refers to number of years an employee has worked in a certain organization. Hitt et al. (2001) postulated that employees who have served for long in a certain organization are more productive than their counterparts who have not. The study categorized the length of service into five classes as presented in the Table 4.10.

Table 4.10: Distribution of Employees length of Service

Length of service	Frequency	Percentage (%)
less than 5 years	24266	39.18
6-10 years	14761	23.83
11-15 years	9950	16.06
16-20 years	6758	10.91
21 years and above	6205	10.02
Total	61940	100.00

Source: Primary Data (2014)

The findings in table 4.10 show that 39.18 % of employees had less than 5 years of experience, 23.83 % had 6-10 years, 16.06 % had 11-15 years of experience, 10.91 % had 16-20 years and 10.02 % had 21 years and above. The finding show that majority of employees had over 10 years of experience. Earlier results of the study established that most of the firms, 97.1% have operated in Kenya for more than 21 years. However, the results of the study seems to suggest that there is high mobility of employees as explained by 63.01% of employees who had served in the firms for less than 10 years.

This implies that within the firms, the Boomers will occupy more senior positions in terms of managerial rank because of experience acquired over years. While some Boomers are beginning to leave the workplace, often induced by attractive voluntary early retirement packages, others opt to remain encouraged by upgrading of retirement age to 60 years and the desire to maintain their standard of living given the recent economic downturn. GenXers are younger and more technologically savvy and are beginning to enter ranks of senior management. However, with Boomers staying at work longer, some GenXers may feel their promotional and advancement opportunities are limited and may opt to leave the organizations to seek better benefits, greater appreciation or a new challenge (Benson and Brown, 2011). On the other hand, GenYers desire flexibility, collective action and achievement-oriented. Although, they are less experienced than GenXers, they don't expect to spend a great length of time with one company. This explains dominance of employees with less than five years, implying that generation cohorts have an impact on mobility of employees.

4.2.8.4 Training of Employees

Blundell et al. (1999) defined training as courses designed to help individuals develop skills that might be of use in their job. Training contributes to building human capital and improving the performance of the organization. Training session in this study implied the frequency of conducting training as per the firms and was classified into six distinct categories. The response of the various firms is presented in Table 4.11.

Table 4.11: Distribution of Training Sessions

Frequency of Training	Frequency	Percentage (%)
Weekly	5	14.7
Monthly	8	23.5
Quarterly	13	38.2
Once a year	1	2.9
On needs basis	7	20.6
Total	34	100

Source: Primary Data (2014)

The findings in Table 4.11 show that 38.2% of firm's conducted training on quarterly basis, followed by monthly basis 23.5%, 20.6% on needs basis, 14.7% on weekly basis and the lowest score was 2.9% representing once a year. From the respondents, no company indicated that they conducted training after six months. Training is important to the firms listed as it is a form of human capital and likely to have an effect on the overall performance of the firms listed.

4.2.9 Intellectual Capital

Intellectual capital was operationalized as a measure of human capital, social capital and organization capital. The measurement scale consisted of 17 items. The respondents were asked to indicate the extent to which the items were true regarding the intellectual capital, measured by human capital, social capital and organization capital. Items were measured on a five point likert-type scale ranging from 1 'not at all', to 5 being 'to a very large extent'. The higher score (>3.00) was associated with higher levels of intellectual capital while the lower score (<3.00) was an indication of low scores of intellectual capital. The scale for intellectual capital had a good internal consistency with a cronbach alpha of 0.86.

Consistent with previous studies, human capital was measured in terms of education level, training and experience. However, to complement this section, the study also sought information about demographic characteristics of employees in terms of education level, age and adequacy of training. Human capital was measured using seven (7) items adapted from five measures of Youndat et al. (2004) anchored on a five point likert-type scale.

The study also sought to find the respondents perception of social capital. The study operationalized social capital as internal and external networks (Adler and Kwon, 2002). Internal social capital was measured with two (2) items drawn from Youndat et al. (2004) and five items on external social capital drawn from wide review of literature. Social capital is important as it builds on the human capital of the firms and creates an environment for sharing information internally and externally.

In the study, organization capital was operationalized as systems and procedures of the company. Organization capital allows for interaction of human capital and social capital at the level of the organization. The dimension of organization capital was measured using three items adapted from Youndat's et al. (2004). The results of the three dimensions of intellectual capital are presented in Table 4.12.

Table 4.12: Means and Standard Deviations for Intellectual Capital

Human Capital	N	Mean	Standard Deviation
Employees are required to undergo at least one skill enhancement training per year	34	4.12	0.84
Competence of employees matches their work requirements and responsibilities	34	3.91	0.75
Level of education of our employees is among the best in the industry	34	3.82	0.83
Competence of employees is above the industry average	34	3.79	0.64
Employees have suitable education to perform their job	34	3.76	0.70
Employees have adequate skills for their jobs	34	3.65	0.73
Most of our employees have more than five years' experience	34	3.47	0.86
Grand mean Cronbach alpha (0.774)		3.79	
Social Capital			
Employees interact and exchange ideas with members of other departments	34	3.59	0.99
Professional employees are required to participate in conferences, seminars and workshops	34	3.47	1.02
Professional and technical employees are encouraged to join professional and social clubs	34	3.47	1.08
Employees interact with customers and suppliers to develop solutions to problems	34	3.44	0.93
Employees interact and exchange information with clients	34	3.38	0.95
Professional and technical employees are members of their respective professional associations	34	3.15	0.96
Company organizes get together such as dinners for the employees to share ideas and bond	34	2.88	1.01
Grand Mean Cronbach alpha (0.844)		3.79	
Organization Capital			
The company intranet allows employees to access information that facilitates their work	34	3.85	1.21
The company has intranet that facilitates sharing of information among employees	34	3.76	1.16
The systems allow information sharing	34	3.62	1.35
Grand mean Cronbach alpha (0.948)		3.74	

Source: Primary Data (2014)

The respondents were asked to rate the level of human capital in their firm in terms of experience, education levels and experience. The skill enhancement obtained the highest mean of 4.12 (standard deviation = 0.84), implying that there is an effort by the firms to provide training for their employees so as to match the job with the skills requirement of the job. This can be explained by the high mean of 3.91 on matching the work requirement and responsibility. The cronbach alpha was 0.77 which compares well with Youndat et al. (2004) reliability measures of cronbach alpha of .81. This finding corroborates earlier data on frequency of training which provided that 76.5% of the firms provide training on a weekly, monthly and quarterly basis. The lowest mean of 3.47 on employees having more than five years of experience, corroborates the findings on employee's length of service, where majority of employees had less than five years of experience. A higher level of education and training reflects greater investment in human capital.

The highest mean for social capital was 3.59 (standard deviation= 0.99) on employees interacting and exchanging information with members of other departments, implying there is high agreement amongst the respondents. The lowest mean of 2.88 is (<3.00) implying low appreciation on firms' organizing dinners for employees to share ideas and bond. This is a testament to the fact that firms are willing to create social networks with minimum cost implication. The firms have low appreciation for get-togethers and instead concentrate on building internal and external networks by encouraging employees to interact internally participate in professional and social clubs and interact with suppliers to develop solution to problems facing the firms. The items had a good reliability of 0.88.

The results on organization capital indicate a higher appreciation that company intranet allows employees to access information that facilitates their work with a mean of 3.85 (standard deviation =1.21). The other two aspects, company intranet facilitating sharing of information among employees had a mean of 3.76 (standard deviation =1.16) and system allows information 3.62 (standard deviation=1.35) highlighted importance attached to sharing information. Organization capital was moderately high with an overall mean score of 3.74 with the highest cronbach of 0.948.

4.2.10 Corporate Reputation

Corporate reputation was measured using 9 items anchored on a five point likert- type scale. The higher the score (>3.00) were associated with higher corporate reputation while the lower score (<3.00) were an indication of low scores of corporate reputation. Corporate reputation was operationalized as corporate image, media visibility and corporate social responsibility.

Corporate image was measured using three measures adapted from Lee and Roh (2010). Information on quality of firm products and services is reflected in prizes and awards received by the organization and measure the overall image of the organization. Media visibility measured the degree of public attention received by a firm through advertising in the media, industry awards won and interaction in the social media. 3 measures represented media visibility, 3 measures pertaining to how the company is regarded for its CSR activities were developed based on a wide review of literature. The results are presented in Table 4.13.

Table 4.13: Means and Standard Deviations for Corporate Reputation

Corporate Image	N	Mean	Standard Deviation
Products and services enjoy higher ratings by customers relative to competitors	34	4.03	0.67
This company is highly valued by stakeholders	34	3.94	0.78
Labour turnover is low	34	3.65	0.73
Grand mean Cronbach alpha (0.726)		3.87	
Media Visibility			
The company is mentioned positively in print and electronic media	34	3.74	0.79
The company has won various industry awards	34	3.65	0.77
Interaction in social media such as Facebook and twitter is positive	34	2.97	1.24
Grand mean Cronbach alpha (0.720)		3.45	
Corporate Social Responsibility			
Company is highly regarded in the industry for its social responsibility activities	34	3.65	0.95
Company has gained popularity amongst stakeholders from its charitable foundations	34	3.50	0.83
Policy on employment from minority groups has received a wide recognition	34	2.79	0.98
Grand mean Cronbach alpha (0.751)		3.31	

Source: Primary Data (2014)

As shown in Table 4.13, the highest mean of 4.03 (standard deviation = 0.67) on corporate image implies that respondents had a higher agreement on companies having higher ratings on products and services of the firms compared to their competitors. This was followed by high value placed on the company by stakeholders with a mean of 3.94 (standard deviation=0.78). The lowest mean was on low labour turnover which had a mean of 3.65 (standard deviation=0.73). This is an indication that level of labour turnover maybe higher than the acceptable levels in the industry. This can be evidenced by the length of tenure that most employees have attained. This rating shows that firms listed on Nairobi Securities Exchange are concerned about their products and services and how they are valued by their competitors. This is due to information asymmetry faced by stakeholders in regard to the products and services.

The findings on media visibility showed that majority of companies made an effort to have a positive impact on print and electronic media with a mean of 3.74 (standard deviation=0.79). This was followed by winning a variety of industrial award and the lowest mean was interaction in the social media with a mean of 2.97 (standard deviation=1.24) indicating there was no agreement among the respondents. From the results, it can be concluded that majority of the firms have not adopted social media marketing. The results on media visibility show that despite the introduction of new technology such as social media and Facebook, the companies listed on Nairobi Securities Exchange largely depend on traditional method of communication such as print media and electronic media. The overall mean of 3.45 on media visibility implies that there is moderate visibility meaning that the general public holds a certain extent of knowledge about the firms.

The findings on CSR showed that there was higher appreciation of the firms for involvement in their CSR activities with a mean of 3.65 (standard deviation =0.95), followed by gaining popularity amongst stakeholder on their charitable foundation with a mean of 3.50 (standard deviation=0.83). The lowest rating was on recognition on employment of minority with a mean of 2.79 (<3.0) indicating low CSR. The non-recognition of employment on minority is in line with Letting' (2010) who established that women representation on boards of firms listed on Nairobi Securities Exchange was low compared to other developed countries. Generally, the results imply that policies that focus on minority are not put into practice.

4.2.11 Corporate Culture

This study sought to establish the type of corporate culture that prevail in the firms listed on Nairobi Securities Exchange through a review of two typologies; employee-oriented and task-oriented culture. The corporate culture was assessed by eleven items (11) to measure respondent's perception of corporate culture anchored on a five point Likert-type scale. Employee-oriented culture was measured along six dimensions operationalized adopted from Hofstede (1991) and Aycan et al. (2000) dimension of employee-oriented culture. The study utilized 6 items on employee-oriented culture and 5 items on task-oriented culture. The results are presented in the Table 4.14.

Table 4.14: Means and Standard Deviations for Corporate Culture

Employee-Oriented Culture	N	Mean	Standard Deviation
Cooperation across different parts of the company is actively encouraged	34	3.97	0.76
Teamwork rather than hierarchy is used to get the work done	34	4.00	0.85
Teams are primarily building blocks	34	3.91	0.83
Employees prefer delegation of work at all levels	34	3.29	0.97
Employees have sufficient influence on decisions made within the company	34	3.08	1.03
Employees feel obliged to help their colleagues in work related issues	34	3.56	0.93
Grand Mean Cronbach alpha (0.849)		3.56	
Task-Oriented Culture			
Decisions are made at the top level then cascaded at lower levels	34	4.24	0.86
Procedures govern the behaviour of employees	34	4.00	0.74
Structures are very formalized	34	3.94	0.69
Hierarchy of authority has to be followed when solving grievances	34	3.53	0.96
Company is more concerned about results without personal involvement	34	2.91	1.14
Grand mean Cronbach alpha (0.262)		3.72	

Source: Primary Data (2014)

The results in Table 4.14 show that the ratings on teamwork rather than hierarchy was used to get the work done had the highest mean on employee-oriented culture. It was the highest with a mean of 4.00 (standard deviation=0.85), teamwork as primary building block had a mean of 3.91 (standard deviation=0.83) and company allows cooperation across different parts of the company with a mean of 3.97. The firms listed are moderate in term of citizenship behaviour with a mean of 3.56, preference for delegation, 3.29 showing employees are indifferent on delegation. The lowest score was on employees having influence on decisions made within the company with a 3.09. Overall, the mean score of 3.56 is considered moderate.

From the results it can be implied that teamwork is an important characteristics in the firms listed on Nairobi securities exchange. The firms operate in a very competitive environment and hence, it is important to organize the workforce around teams so that they can identify opportunities and threats and come up with appropriate solutions. The results show that majority of the decisions are made by top managers and cascaded to the lower level employees with a mean of 4.24 (standard deviation=0.86) which might impede the performance of the firms. This was followed by a mean of 4.00 on structures governing the behaviour of employee as very formalized with a mean of 3.94 and hierarchy of authority followed on solving grievances had a mean of 3.53 implying that hierarchy does not apply when solving grievances. The lowest mean was 2.91 on companies being concerned about results without personal involvement.

Overall the companies can be characterized as being highly formalized. This represents a true picture of firms listed on NSE as there are stringent rules that the companies are expected to comply with and thus, they are likely to institute formalized structures in the organizations. While the firms are organized around teams, decisions are made at the top level and sent back to the employees to be executed. The task-oriented culture seems to impede performance in the firms. Furthermore, ownership of companies is likely to affect the resolving of grievances especially where part of the company is foreign owned.

4.2.12 Non-financial Performance

Non-financial performance was measured using 12 items anchored on a five point likert type scale. The level of customer service was assessed through 4 items representing customer retention, modification of services and repeat business and customer referral. Internal business process utilized 4 items. The measures focused on research and development, levels of creativity, rate of introducing products and services and market share. The study utilized four (4) items to measure learning and growth. Learning and growth is an outcome of job design. In line with the job characteristic model by Oldman and Hackman (1980) the study focused on intrinsic factors such as responsibility, challenging jobs and sense of achievement. The means and standard deviation for each item are presented and discussed in Table 4.15.

Table 4.15: Means and Standard Deviations for Non-Financial Performance

Customer Service	N	Mean	Standard Deviation
Customer retention is higher compared to our competitors	34	3.79	0.81
Company constantly modifies its services based on response from customers	34	3.65	0.95
Repeat business is higher compared to our competitors	34	3.53	0.86
The company get a percentage of new customers through customer referral	34	3.03	0.93
Grand mean Cronbach alpha (0.741)		3.50	
Internal Business Process			
large number of new products and services have been introduced compared to competitors	34	3.35	0.98
levels of creativity and innovation is high	34	3.32	0.88
Our main product gained market share over major competitors in the last year 5 years	34	3.12	1.20
Research and development is a functional department in our organization	34	2.62	1.07
Grand mean Cronbach alpha (0.677)		3.10	
Learning and Growth			
Employees perform task that allow them to acquire new knowledge and skills	34	3.35	0.92
Employees perform task that provide high degree of responsibility	34	3.29	0.91
Employees perform task that give them a sense of achievement	34	3.29	0.84
Company ensures that employees perform task that are challenging	34	3.24	0.78
Grand mean Cronbach alpha (0.961)		3.29	

Source: Primary Data (2014)

The findings in Table 4.15 show that firms focus on maintaining customers are high with a mean of 3.79 (standard deviation=0.808). The respondents also indicated that the company constantly modified their services based on response from customers which can be said to lead to repeat business compared to their competitors with a mean score of 3.53. The lowest score was referral customers with a mean score of 3.03 (standard deviation=0.937). This shows that most of the employees do not use referrals. It can be presumed that in a competitive environment, teamwork is an efficient mechanism that can be utilized to respond to customer needs and complaints. This is an indication that the appreciation of teams in the firms has an effect on customer service.

Respondents highly rated introduction of new products and services compared to competitors with a mean of 3.335 (standard deviation=0.98). On levels of creativity and innovation, the mean was 3.32 (standard deviation=0.88) implying that there was agreement on moderate levels of creativity, a reason which can be explained by formalized structures. Main products gaining market share for the last 5 years, the mean was 3.12 (standard deviation=1.20) implying that there were differing opinions on whether their products had gained market shares. Research and development being a functional department in the organization had the lowest mean of 2.62 (standard deviation=1.07) implying that research and development is not appreciated in most of the companies.

From the results, it is evident that differentiation of products is minimal and instead the firms seem to be pursuing service differentiation. This can be explained by the relatively low rating for internal business process with a mean of 3.10. The company has low appreciation for new products and service, creativity and innovation and research and development. The result suggests that despite appreciation of teamwork, the cascading of decisions from top-downwards seem to overall internal business process resulting in low introduction of new products and services, innovation and creativity. While teamwork has been applauded by scholars and practioners, it may sometimes have a negative impact in an organization. The results imply that teamwork has hindered creativity, and innovation with mean of 3.32

The results on learning and growth show that rating on employees' capability to perform task that allowed them to acquire knowledge and skills had the highest mean of 3.35 which is moderate, implying that task performed are routine and training conducted in the firms is geared towards customer satisfaction. On employees performing task that gives them a sense of achievement and provide high degree of responsibility, the mean was 3.29 (standard deviation=0.91 and 0.84) respectively. The ratings on employees performing task that are challenging had the lowest mean of 3.24 (standard deviation=0.78) suggesting the employees have structured job descriptions limiting levels of learning and growth.

The results suggest that there is moderate room for learning and growth in firms listed on Nairobi Securities Exchange. Although the respondents agreed that competence of employees matches their work requirements and responsibilities with a mean of 3.91, the jobs seem to be too structured allowing no room for learning and limited career development. Routine and unchallenging jobs can be a contributor to mobility of employees especially amongst Generation Y and X. The overall mean score for each variable is presented in Table 4.16

Table 4.16: Summary of Composite Mean Score for Measures of all the Variables

Variable	Item	N	Composite mean
Intellectual Capital	Human Capital	34	3.79
	Social capital	34	3.79
	Organization Capital	34	3.74
Corporate Reputation	Corporate image	34	3.87
	Media Visibility	34	3.45
	Corporate Social Responsibility	34	3.31
Corporate Culture	Employee-oriented Culture	34	3.56
	Task-oriented culture	34	3.72
Non-Financial Performance	Customer service	34	3.50
	Learning and Growth	34	3.10
	Internal Business Process	34	3.29

Source: Primary Data (2014)

The results in Table 4.16 show that the mean ratings for the variables measured on a five point Likert-type scale ranged from 3.79 to 3.74 out of a possible maximum of 5.00. This implies that intellectual capital comprising human capital, social capital and organization capital were relatively rated high suggesting that the firms had high levels of intellectual capital in the firms listed on Nairobi Securities Exchange. The highest mean on dimension of corporate reputation was on corporate image at 3.87, followed by media visibility with a mean of 3.45 and the lowest was on CSR 3.31. On corporate culture, task-oriented culture had a higher mean of 3.72 while employee-oriented culture had a mean of 3.56. Lastly, on non-financial performance (criterion variables), customer had a higher mean of 3.50, followed by internal business process 3.29 and the lowest was on learning and growth 3.10.

4.3 Test of Hypotheses-Non Financial Measures

This section presents the results of test of hypotheses as guided by the objectives of the study. The study was based on the premise that there is a relationship between intellectual capital and performance. The relationship was hypothesized to be mediated by corporate reputation and moderated by corporate culture. Composite index were computed for the study variables. Intellectual capital, was computed as a composite index of human capital, social capital and organization capital. Corporate reputation was measured as a composite index of corporate image, media visibility and corporate social responsibility. Following, the reliability tests the study focused on employee-oriented culture because of the low reliability of task-oriented culture. Further, the dependent variable (corporate performance) was measured as financial and non-financial performance. Non-financial performance was measured as a composite index representing customer service, learning and growth and internal business process obtained from responses in the questionnaire. Financial measures of performance consisting of ROA, ROE and dividend yield were obtained from NSE Handbook 2012-2013 and companies annual reports.

Thus, it was not possible to combine both financial and non-financial measures and hence, the researcher divided the hypotheses under two categories; financial and non-financial. Separate analyses were performed for non-financial and financial indicators of performance. Hypotheses were tested one at a time, beginning with non-financial performance followed by financial performance.

To test the hypotheses, various regression analyses tests conducted at 95 percent confidence interval ($\alpha=0.05$). Regression analysis consisting of simple regression, stepwise regression and multiple regressions were used to test the hypotheses. To test H_1 , simple regression analysis was conducted, H_2 which involved the mediation effect of corporate reputation was subjected to stepwise regression analysis, H_3 which tested the moderation effect of employee-oriented culture was tested through stepwise regression analysis. H_4 on joint effect of intellectual capital, corporate reputation, and corporate culture on non-financial performance was tested using stepwise regression analysis.

4.3.1 Intellectual Capital and Non-Financial Performance

Objective one of the study was designed to establish the relationship between intellectual capital and corporate performance. A major gap presented in literature was that scholars have concentrated on the isolated effect of human capital, social capital and organization capital on corporate performance, denying other interested parties an understanding of how combined effect of intellectual capital components influence non-financial performance. Although previous studies have examined the isolated effect of the components, and was not a major concern for the current study, there was need to ascertain the individual effect of each predictor variable and compare it with the combined effect. Sub-hypothesis 1_a, 1_b and 1_c tested the effect of each predictor variable on non-financial performance. The sub-hypotheses were stated as follows.

H_{1a} : Human capital has a relationship with non-financial performance

H_{1b} : Social capital has a relationship with non-financial performance.

H_{1c} : Organization capital has a relationship with non-financial performance.

Simple regression analysis was performed for each sub-hypothesis. A composite index was computed each dimension for human capital, social capital and organization capital. The summarized results for the sub-hypothesis are presented in Table 4.17.

Table 4.17: Summary of Regression Results for individual influence of Human Capital, Social Capital and Organization Capital on Non-Financial Performance

	Model	R ²	ANOVA		Coefficients			Resulting Model
			F	Sig.	Beta	t	Sig.	
1	(Constant)				.298	2.069	.047	Y=0.298+0.477 Human capital
	Human capital	.167	6.398	.017	.477	2.529	.017 ^a	
2	(Constant)				.353	4.068	.001	Y=0.353+0.459 social capital
	Social capital	.290	13.067	.001	.459	3.615	.001 ^b	
3	(Constant)				.472	7.564	.001	Y=0.472+0.251 organization capital
	Organization Capital	.238	9.95	.001	.251	3.162	.000 ^c	

^a. Predictors: (Constant), Human capital

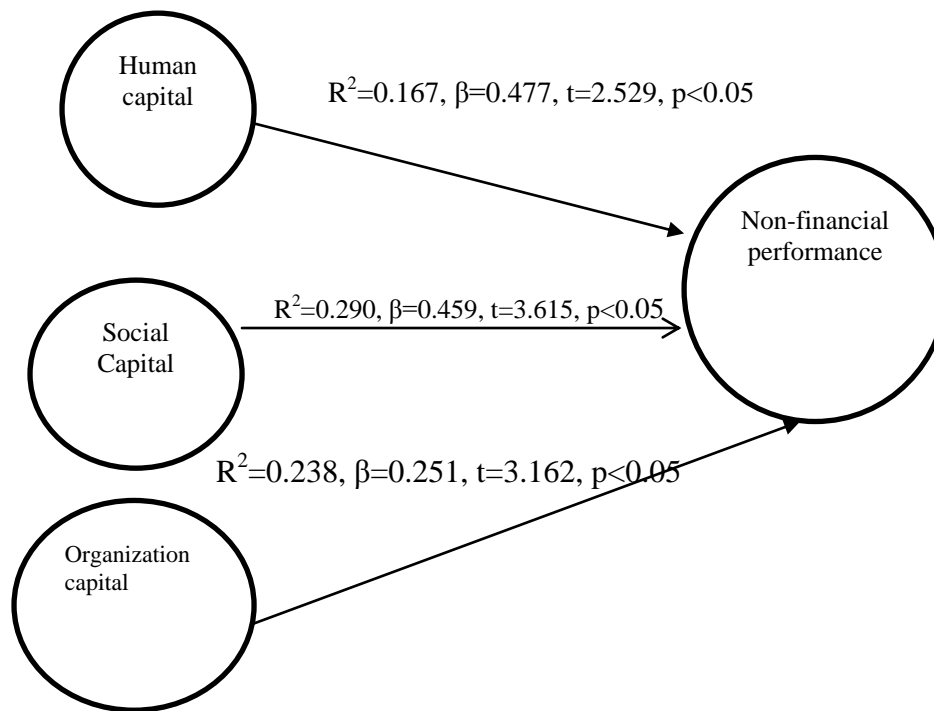
^b. Predictors: (Constant), Social capital

^c. Predictors: (Constant), organization capital

Dependent Variable: non-financial performance

The findings in Table 4.17 show that human capital explained 16.7% of the variance in non-financial performance ($R^2=0.167$). The results suggest a statistically significant influence of human capital on non-financial performance with the overall model ($F=6.98$, $P<0.05$) and individual parameters ($\beta=0.477$, $t=2.529$, $P<0.05$) were statistically significant. Social capital accounted for 29.0% of variation in non-financial performance ($R^2=0.290$). The overall model was statistically significant ($F=13.067$, $P<0.05$) and the individual variables were statistically significant ($\beta=0.459$, $t=3.615$, $P<0.05$). Organization capital accounted for 23.8% of variance in non-financial performance ($R^2=0.238$). The overall model was statistically significant ($F=9.995$, $P<0.05$) and individual variables were statistically significant ($\beta=0.251$, $t=3.162$, $P<0.05$). The summarized results of the three analyses are presented in Figure 4.1.

Figure 4.1: Relationship between human capital, social capital and organization capital and non-financial performance



From figure 4.1, the contribution of human capital to non-financial performance was the highest ($\beta=0.477, p<0.05$), followed by social capital ($\beta=.459, p<0.05$) and the lowest was organization capital ($\beta=0.251, p<0.05$). For every unit increase in human capital, non-financial performance increases by 0.477, while a unit increase in social capital causes a 0.459 increase in non-financial performance and a unit increase in organization capital causes a 0.259 unit increase in non-financial performance. The results suggest that each of the dimensions of intellectual capital significantly contributes to non-financial performance. Based on latter streams of research proposition that the combined effect of intellectual capital constructs have a greater influence on corporate performance than individual effect of each construct. The analysis was performed using composite scores computed from measures of intellectual capital and non-financial performance. The data was used for the test of the following hypotheses:

H_1 : There is a relationship between intellectual capital and corporate performance of firms listed on Nairobi Securities Exchange.

A simple regression analysis was performed to test the hypotheses. The results are presented in Table 4.18.

Table 4.18: Regression results for the Influence of Intellectual Capital on Non-Financial Performance

Model	R	R Square	Adjusted R Square		Std. Error of the Estimate			
1	.650	.423	.404		.09388			
ANOVA								
Model		Sum of Squares	Df	Mean Square	F	Sig.		
1	Regression	.206	1	.206	23.411	.000		
	Residual	.282	32	.009				
	Total	.488	33					
Coefficients								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.127	.111		1.146	.260		
	Intellectual Capital	.740	.153	.650	4.839	.000	1.000	1.000

Predictors: (Constant), intellectual capital

Dependent Variable: corporate performance (non-financial)

The regression results in Table 4.18 show that intellectual capital accounted for 42.3% of variance in non-financial performance ($R^2=0.423$). The overall model was statistically significant ($F=23.441$, $p<0.05$) and individual variables were statistically significant ($\beta=0.740$, $t=4.839$, $p<0.05$). From the results, there is sufficient statistical evidence to support the relationship between intellectual capital and non-financial performance. The relationship was presented by the following model:

$$Y (\text{non-financial performance}) = 0.740 \text{ Intellectual Capital}$$

The regression equation indicates that a unit change in intellectual capital causes an increase of 0.740 in non-financial performance. The results imply that human capital, social capital and organization capital combined cause an increase in non-financial performance. The results further provide sufficient evidence to support the proposition that the combined effect of intellectual capital on non-financial performance is greater than individual effect of human capital, social capital and organization capital. This finding lends support to previous studies that found positive relationship between intellectual capital and non-financial performance (Youndat et al. 2004; Cabrita and Bontis, 2008).

4.3.2 Intellectual Capital, Corporate Reputation and Non-financial Performance

The second objective was to establish whether the relationship between intellectual capital and performance is direct or through corporate reputation. The mediating effect was determined by testing the following hypothesis:

H₂: Corporate reputation mediates the relationship between intellectual capital and performance.

The hypothesis was tested using stepwise regression method proposed by Baron and Kenny (1986). In order to confirm this relationship, four regression analysis were conducted and significance of the coefficients examined at each step. Step 1, testing the relationship between predictor variable (intellectual capital) and criterion variable (non-financial Performance), step 2 testing the influence of predictor variable (Intellectual capital) on mediating variable (corporate reputation), in this test, the mediator takes the role of criterion variable, step 3 testing the relationship between the mediator (corporate reputation) and the criterion variable (non-financial performance), step 4 involves testing the influence of predictor variable (intellectual capital) on criterion variable (non-financial performance) when controlling for mediation (corporate reputation).

In order to confirm a mediating effect, steps 1, 2 and 3 must be significant. In step 4, the initial independent variable loses its significance, meaning reduction of relationship between initial predictor variable and criterion variable when mediator is included in the model. Four regression analyses were performed, following the methods specified by Baron and Kenny (1986). Step one through three involved simple regression analyses, while inn step 4, a multiple regression analysis was performed. The summarized results for the four regression results are presented in Table 4.19.

Table 4.19: Regression Results for the Mediation of Corporate Reputation in the Relationship between Intellectual Capital and Non-Financial Performance

Step	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change
Step 1	.650	.423	.404	.09388	
Step 2	.684	.468	.451	.08745	.045
Step 3	.763	.582	.569	.07989	.114
Step 4	.783	.613	.588	.07810	.031

- a) Predictors: Intellectual Capital
- b) Predictor: Intellectual capital
- c) Predictors: Corporate reputation
- d) Predictors: corporate reputation, Intellectual Capital

Dependent Variable: corporate performance (non-financial)

Step 1 shows the results of stepwise regression analysis when only intellectual capital and non-financial performance are entered in the analysis. These results indicate that intellectual capital explained 42.3% of the variance in non-financial performance ($R^2=0.423$). In step 2, corporate reputation becomes the dependent variable, and intellectual capital the predictor variable. The results indicate that intellectual capital explained 46.8% of the variance in corporate reputation ($R^2=0.468$). The R^2 changes from 0.423 in step 1 to 0.468 in step 2 (R^2 change=0.0450). In step 3, the relationship between the mediator and dependent variable is tested and the results show that corporate reputation accounted for 58.2% of the variance in non-financial performance ($R^2=0.582$). There was a change in R^2 from 0.468 to 0.582 in step 3 (R^2 change=0.114).

In step 4, multiple regression analysis was performed to assess whether the relationship between intellectual capital and performance is direct or through corporate reputation. Corporate reputation added significantly to non-financial performance as the variation changed from 0.582 in step 3 to 0.613 in step 4 (R^2 change=0.031). This demonstrates that intellectual capital accounts for 61.3 % of variance in non-financial performance, after controlling for corporate reputation ($R^2=0.423+0.045+0.114+0.031=0.613$).

Further, a comparison between step 1 when only the predictor variable and criterion variable were entered in the analysis and step 4 when the mediating variable was controlled, indicate that the variance in non-financial performance explained by intellectual capital changed from 42.3% in step 1 to 61.3 % in step 4 that is when corporate reputation was introduced (R^2 change = 0.19). These results indicate that 19% of variance in non-financial performance was explained by corporate reputation.

The results were further analyzed using ANOVA to confirm the statistical significance of the overall model. The results of analysis of variance for the four models are presented in Table 4.20.

Table 4.20: Results of Analysis of Variance (ANOVA) for the Mediating Effect of Corporate Reputation on the Relationship between Intellectual Capital and Non-financial Performance

Step		Sum of Squares	Df	Mean Square	F	Sig.	F change
Step 1	Regression	.206	1	.206	23.411	.000 ^a	
	Residual	.282	32	.009			
	Total	.488	33				
Step 2	Regression	.215	1	.460	28.103	.000 ^b	4.692
	Residual	.245	32	.008			
	Total	.460	33				
Step 3	Regression	.284	1	.284	44.522	.000 ^c	16.419
	Residual	.204	32	.006			
	Total	.488	33				
Step 4	Regression	.299	2	.150	24.530	.000 ^d	-19.992
	Residual	.189	31	.006			
	Total	.488	33				

- a) Predictors: Intellectual Capital
 b) Predictor: Intellectual capital
 c) Predictors: Corporate reputation
 d) Predictors: corporate reputation, Intellectual Capital
 Dependent Variable: corporate performance (non-financial)

The results in Table 4.20, step 1 shows that with only one predictor variable, intellectual capital had a significant contribution to non-financial performance ($F=23.411$, $P<0.05$). Results in step 2 which involves mediator (corporate reputation) acting as a criterion variable indicate that the model was significant ($F=28.103$, $P<0.05$), the F changes from 23.411 in step 1, to 28.103 in step 2 (F change=4.692).

In step 3, the model was statistically significant ($F=44.522$, $P<0.05$). There was an observed change in F from 28.103 in step 2 to 44.522 in step 3 (F change=16.419). Finally in step 4, when controlling for corporate reputation, F changes from 44.522 in step 3 to 24.530 in step 4, there is a meaningful reduction in F (F change= -19.992) but the overall model was statistically significant ($F=24.530$, $P<0.05$). Overall the F statistic for step 1, 2, 3 and 4 are statistically significant and meet the criteria proposed by Baron and Kenny (1986).

The next criteria involve checking for regression coefficient and the t -statistics. The results of regression coefficients of the four models are presented in Table 4.21.

Table 4.21: Results of Regression Coefficients for the Mediating Effect of Corporate Reputation on the Relationship between Intellectual Capital and Non-financial performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
Step 1	Constant)	.127	.111		1.146	.260		
	Intellectual Capital	.740	.153	.650	4.839	.000 ^a	1.000	1.000
Step 2	(Constant)	.166	.104			.119		
	Intellectual Capital	.755	.142	.684	5.301	.000 ^b	.532	.532
Step 3	(Constant)	.102	.085		1.207	.236		
	Corporate Reputation	.786	.118	.763	6.672	.000 ^c	1.000	1.000
Step 4	(Constant)	.025	.096		.262	.795		
	Corporate Reputation	.616	.158	.598	3.903	.000 ^d	.532	1.878
	Intellectual Capital	.275	.174	.241	1.575	.125	.532	1.878

^a Predictors: (Constant): intellectual capital

^b Predictors: (Constant): intellectual capital

^c Predictors: (Constant): corporate reputation

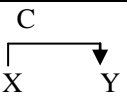
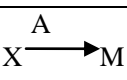
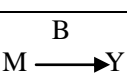
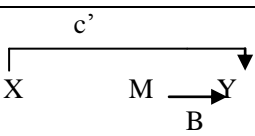
^d Predictors: (Constant): corporate reputation, intellectual capital
Dependent Variable: corporate performance (non-financial)

The results in Table 4.21, step 1 show that with only one predictor variable, intellectual capital had a significant contribution to non-financial performance ($\beta=0.740$ $t=0.4839$, $P<0.05$). Results in step 2 indicate that intellectual capital had a significant contribution to corporate reputation ($\beta=0.755$, $t=0.763$, $p<0.05$). The

inclusion of corporate reputation in step 3 contributed significantly to non-financial performance ($\beta=0.786$, $t=3.903$, $p< 0.05$). Finally in step 4 when controlling for corporate reputation, intellectual capital becomes statistically insignificant ($\beta=0.275$, $t=1.575$, $p>0.05$). Notably, when controlling for corporate reputation, the beta coefficient reduces from $\beta= 0.740$ in step 1 to $\beta=0.275$ in step 4 (β change= 0.465). Thus, the reduced value of regression coefficient for effect of intellectual capital, when corporate reputation was entered into the model supported the hypothesis that the corporate reputation mediates the relationship between intellectual capital and corporate performance.

The results in Table 4.21 reveal that all the Betas (β) for step 1, 2, 3 are statistically significant and met the criteria for a mediation effect proposed by Baron and Kenny. In step 4, the initial predictor variable (intellectual capital) loses its significance when mediator (corporate reputation) was added into the model. Table 4.22 presents a summary of mediated effect of corporate reputation.

Table 4.22: Summary of Mediated Effect of Corporate Reputation on the Relationship between Intellectual Capital on Non-Financial Performance

	Regression Model	Visual Depiction*
Step 1:Non-financial performance on intellectual capital	Conducted a simple regression analysis with X predicting Y to test path c alone. $Y (\text{Non-financial}) = 0.125 + 0.740 \text{ IC}$	C 
Step 2:Corporate reputation on intellectual capital	Conducted a simple regression analysis with X predicting M to test path a. $M = 0.166 + 0.755 \text{ IC}$	A 
Step 3:Non-financial performance on corporate reputation	Conducted a simple regression analysis with M predicting Y to the significance of path b alone $Y = 0.102 + 0.786 \text{ CR}$	B 
Step 4: Non-financial performance on corporate reputation and intellectual capital	Conduct a multiple regression analysis with X and M predicting Y. $Y = 0.025 + 0.616 \text{ CR} + 0.275 \text{ IC}$	

*Y (Non-financial performance, IC (intellectual capital), M (Mediator), CR (Corporate Reputation)

The results in Table 4.22 provide a summary of the four steps in testing for mediation as provided by Baron and Kenny (1986). Step 1, 2, 3 were statistically significant and thus proceeded to step 4. In step 4, mediation was supported since the effect of M (Path b) remains significant after controlling for X (predictor variable).

4.3.3 Intellectual Capital, Corporate Culture and Non-financial Performance

Objective three of the study was designed to establish the moderating effect of corporate culture on the relationship between intellectual capital and corporate performance. Chaminde and Johnson (2003) and Cabrita and Bontis (2008) suggested that corporate culture moderates the relationship between intellectual capital and performance. According to Baron and Kenny (1986) moderation implies an interaction effect, where introducing a moderating variable changes the direction or magnitude of relationship between two variables which can have three possible effects. First, enhancing the effect of predictor on criterion variable. Second, involves buffering by decreasing the effect of predictor on criterion variable. Lastly, antagonistic where the value of the moderator would reverse the effect of predictor on criterion variable

The corporate culture was operationalized along task-oriented culture and employee-oriented culture. However, as noted in Table 3.2, the reliability of task-oriented culture ($\alpha=0.262$) was below 0.7 threshold proposed by Nunnally (1978), thus was excluded from further analysis. Hypothesis three was stated as follows:

H₃: Corporate culture moderates the relationship between intellectual capital and corporate performance.

The moderating effect was performed using the method proposed by Baron and Kenny (1986). The first step involves testing the influence of predictor variable (intellectual capital) on non-financial performance. The second step involves standardizing all variables to make interpretations easier and thus, avoid multicollinearity. Further, the standardized variables of predictor (intellectual capital) and moderator (employee-oriented culture) were tested on non-financial performance. The third step involves creating an interaction term (Standardized score- intellectual capital* Standardized score- employee-oriented culture) and testing the interaction on criterion variable (non-financial performance). Moderation is assumed to take place if the interaction term in step 3 is significant. The regression results are presented in the Table 4.23.

Table 4.23: Results of Regression Analysis for the Moderating effect of Employee-Oriented Culture on the Relationship between Intellectual Capital and Non-financial Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	DF1	DF2	Sig. F Change
Step 1	.650	.423	.404	.09388		23.411	1	32	.000 ^a
Step 2	.773	.597	.571	.07965	.175	13.457	1	31	.001 ^b
Step 3	.779	.606	.567	.08008	.009	.669	1	30	.420 ^c

- a. Predictors: (Constant): Intellectual Capital
 - b. Predictors: (Constant): Z score Intellectual capital, Z score Employee-oriented culture
 - c. Predictors: (Constant): Interaction term for z score intellectual capital*employee-oriented culture
- Dependent variable: Corporate performance (Non-financial)

The results in Table 4.2, step 1 shows that intellectual capital alone accounted for 42.3% of the variance in non-financial performance ($R^2=0.423$, $P<0.05$). In step 2, the results show that the standardized values of intellectual capital and employee-oriented culture accounted for 59.7% of the variance in non-financial performance ($R^2=0.597$, $P<0.05$). The R^2 in step 2 is higher than step 1 by 0.175 (R^2 change = 0.175). In step 3, the interaction term was formed as a product of standardized score intellectual capital*standardized score employee-oriented culture and entered into the model. The interaction term accounted for 60.6% of variance in non-financial performance ($R^2=0.606$, $P<0.05$). The results in step 3 shows that when interaction term was entered into the model, it added, albeit small significantly to non-financial performance as the variation increased from 0.597 to 0.606 (R^2 change=0.009).

The next process involves checking for the significance of the overall models. An F value was computed to determine whether the overall models are significant. The results of analysis of variance for the three models are presented in Table 4.24.

Table 4.24: Results of Analysis of Variance (ANOVA) for the Moderating Effect of Employee-Oriented Culture on the Relationship between Intellectual Capital and Non-Financial Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
Step 1	Regression	.206	1	.206	23.411	.000 ^a
	Residual	.282	32	.009		
	Total	.488	33			
Step 2	Regression	.292	2	.146	22.991	.000 ^b
	Residual	.197	31	.006		
	Total	.488	33			
Step 3	Regression	.296	3	.099	15.386	.000 ^c
	Residual	.192	30	.006		
	Total	.488	33			

a. Predictors: (Constant), Z score: Intellectual Capital

b. Intellectual capital, Z score: employee-oriented culture

c. Intellectual capital, Z score: employee-oriented culture, interaction term for intellectual capital and employee culture

Dependent Variable: corporate performance (non-financial)

The results obtained indicate a statistical significance for the direct influence of intellectual capital on non-financial performance ($F=23.411$, $P<0.05$). Similarly significant results are reported for the influence of standardized values of intellectual capital and employee-oriented culture ($F= 22.991$, $P< 0.05$). In the third step when the interaction term was added in the model, the overall model remained statistically significant ($F= 15.386$, $P< 0.05$). The results in Table 4.25 reveal that all the F ratios for step 1, 2, 3 are statistically significant.

Further analysis was carried to determine the significance of the individual predictor parameters as well as the direction of regression coefficient. The results are presented in Table 4.25.

Table 4.25: Results of Coefficients for the Moderating effect of Employee-oriented Culture on the relationship between Intellectual Capital and Non-Financial Performance

Steps		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.	Collinearity	
		B	Std. Error				Tolerance	VIF
Step 1	(Constant)	.660	.016		40.979	.000		
	Intellectual capital	.079	.016	.650	4.839	.000 ^a	1.0000	1.000
Step 2	(Constant)	.660	.014		48.302	.000		
	Intellectual capital	.045	.017	.374	2.735	.010 ^b	.696	1.437
	Employee-oriented culture	.061	.017	.501	3.668	.001	.696	1.437
Step 3	(Constant)	.653	.016		40.561	.000		
	Intellectual capital	.041	.018	.334	2.289	.029	.618	1.619
	Employee-oriented culture	.065	.017	.533	3.734	.001	.645	1.551
	Interaction term for intellectual capital and employee culture	.013	.016	.100	.818	.420 ^c	.880	1.137

^a. Predictors: (Constant): Intellectual Capital

^b. Predictors: Intellectual capital, Z score: employee-oriented culture,

^c. Interaction term for intellectual capital and employee culture

Dependent Variable: corporate performance (non-financial)

The results in Table 4.25 indicate that intellectual capital had a significant contribution to non-financial performance ($\beta=0.079$, $t=4.839$, $P<0.05$). Results in step 2 indicate that standardized values of intellectual capital ($\beta=0.045$, $t=2.735$, $P<0.05$) and employee-oriented culture ($\beta=0.061$, $t=3.668$, $P<0.05$) had a significant contribution to non-financial performance. In the third step when the interaction term was added in the model, the regression coefficient of the interaction term was statistically insignificant ($\beta=0.013$, $t=0.818$, $P>0.05$) hence, the criteria for step 3 was not met. The results thus indicated insufficient evidence to support the hypothesis that the influence of intellectual capital on non-financial performance is moderated by employee oriented culture. The findings of the study contradict assertion proposed by Chaminde and Johnson (2003) that suggested that culture had moderating effect on the relationship between intellectual capital and corporate performance.

4.3.4 Intellectual Capital, Corporate Reputation, Corporate Culture and Non-Financial Performance

The study sought to determine whether the joint effect of intellectual capital, corporate reputation, and corporate culture on non-financial performance had a greater influence than independent influence of each predictor variable. The composite index was computed for each variable. The effect was determined by testing the following hypothesis.

H₄: The joint effect of intellectual capital, corporate reputation, and corporate culture on non-financial performance is greater than the individual influence of each predictor variable.

To test the hypothesis, simple regression and multiple regression analysis was performed. For each predictor variable, simple regression was used to test the variance and model significance. The results for the regression analyses are shown in Table 4.26.

Table 4.26: Results of Regression Analysis for the Joint Effect of Intellectual Capital, Corporate Reputation and Corporate Culture on Non-Financial Performance

Model	R	R Square	Adjusted R Square	Standard Error of Estimate	Change Statistics
					Sig. F
1	.650	.423	.404	.09388	.000 ^a
2	.763	.582	.569	.07989	.001 ^b
3	.707	.500	.485	.08734	.420 ^c
4	.817	.667	.634	.07361	.035 ^d

^a. Predictors: Intellectual Capital,

^b. Predictors: Corporate Reputation,

^c. Predictors: Employee-Oriented culture,

^d. Predictors: Intellectual Capital, Corporate Reputation, Employee-Oriented culture
Dependent Variable: Corporate Performance (non-financial)

Model 1 shows that intellectual capital as a predictor accounted for 42.3% of the variance in non-financial performance. In model 2, corporate reputation accounted for 58.2% of the variation in non-financial performance. In model 3, employee-oriented culture accounted for 50.0% of the variance in non-financial. In model 4, all the three predictor variables were entered simultaneously to assess whether the joint effect is greater than the influence of each predictor variable. The joint effect explained 66.7% of the variation in non-financial performance. The R^2 in model 4 is greater than each of the predictor variables of intellectual capital ($R^2=0.423$), corporate reputation ($R^2=0.582$) and employee-oriented culture ($R^2=0.50$).

Further analysis was carried out to determine the significance of the overall model. The summarized results are presented in Table 4.27.

Table 4.27: Results of Analysis of Variance for Joint Effect of Intellectual Capital, Corporate Reputation, and Corporate Culture on Non-financial Performance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.206	1	.206	23.411	.000 ^a
	Residual	.282	32	.009		
	Total	.488	33			
2	Regression	.215	1	.460	28.103	.000 ^b
	Residual	.245	32	.008		
	Total	.460	33			
3	Regression	.244	1	.244	32.021	.000 ^c
	Residual	.244	32	.008		
	Total	.488	33			
4	Regression	.326	3	.109	20.042	.000 ^d
	Residual	.163	30	.005		
	Total	.488	33			

^a. Predictors: (Constant), Intellectual capital,

^b. Predictors: Corporate reputation,

^c. Predictors: Employee-oriented culture,

^d. Predictors: Intellectual capital, Corporate reputation, Employee-Oriented culture
Dependent Variable: corporate performance (non-financial)

In model 1, which involves testing relationship between intellectual capital and non-financial, the overall model was statistically significant ($F=23.411$, $P<0.05$). Model 2, involving corporate reputation and non-financial performance model was statistically significant ($F=44.522$, $P<0.05$). Model 3 involving employee-oriented culture and non-financial performance was statistically significant ($F=32.021$, $P<0.05$). Lastly, model 4 which involved testing simultaneously all the three predictor variables on non-financial performance, to assess whether the joint effect was greater than the individual influence of each predictor variable, show that the model was statistically significant ($F=20.042$, $p<0.05$).

Further analysis was carried to determine the significance of the individual predictor parameters as well as the direction of regression coefficient. The results are presented in Table 4.28.

Table 4.28: Results of Coefficient for Joint Effect of Intellectual Capital, Corporate Reputation and Corporate Culture on Non-Financial Performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
Step 1	(Constant)	.127	.111		1.146	.260		
	Intellectual Capital	.740	.153	.650	.4839	.000 ^a	1.000	1.000
Step 2	(Constant)	.102	.085		1.207	.236		
	Corporate Reputation	.786	.118	.763	6.672	.000 ^b	1.000	1.000
Step 3	(Constant)	.199	.083			.236		
	Employee-oriented culture	.634	.112	.707	.569	.000 ^c	1.000	1.000
Step 4	(Constant)	-.008	.092		-.089	.930		
	Intellectual Capital	.214	.167	.188	1.285	.209	.518	1.930
	Corporate Reputation	.429	.171	.416	2.509	.018	.526	1.900
	Employee-oriented culture	.288	.130	.321	2.213	.035	.403	2.84

a. Predictors: (Constant), intellectual capital,

b. Predictors: corporate reputation,

c. Predictors: corporate reputation,

d. Predictors: intellectual capital, corporate reputation, employee-oriented culture

Dependent Variable: corporate performance (non-financial)

The results in Model 1 reveal that coefficients for intellectual capital were statistically significant ($\beta=0.740$, $t=4.839$, $p<0.05$). In model 2 the regression coefficients for corporate reputation were statistically significant ($\beta=0.786$, $t=6.673$, $p<0.05$) and in model 3, the individual predictor coefficients for employee-oriented culture were statistically significant ($\beta=0.634$, $t=5.69$, $p<0.05$). In model 4, which involved testing the joint effect of the predictor variables, presents the individual contribution of the individual predictor variables to the dependent variable. Corporate reputation had the largest contribution to non-financial performance ($\beta=0.416$, $t=1.285$, $P<0.05$), followed by employee-oriented culture ($\beta=0.321$, $t=2.2.13$, $p<0.05$). On the other hand, the contribution of intellectual capital was the lowest and insignificant ($\beta=0.214$, $t=1.285$, $p>0.05$).

The regression model that was used to estimate non-financial performance of firms listed on Nairobi Securities Exchange taking into consideration the joint effect of intellectual capital, corporate reputation and employee-oriented culture is stated as follows.

$$Y(\text{non}) = 0.429\text{CR} + 0.288\text{EOC}$$

Where Y= non-financial performance

CR=Corporate reputation

EOC= Employee-oriented culture

The regression equation indicates that a unit change in corporate reputation causes a 0.429 increase in non-financial performance. It means that firms which invest in corporate reputation achieve a 0.429 increase in non-financial performance. On the other hand, a unit change in employee-oriented culture causes a 0.288 increase in non-financial performance.

4.4 Test of Hypotheses on Financial Performance

The tests of hypotheses were carried on financial indicators of performance. The indicators employed for testing were return on assets (ROA), return on equity (ROE) and dividend yield. Intellectual capital was regressed on financial performance. Results yielded relationships that were statistically insignificant. Due to the lack of evidence supporting linear relationships between intellectual capital and financial indicators (Appendix 9a, 9b and 9c), further testing on these relationships was deemed not viable. However in a bid to test if there was any characteristic that would define the relationship, categorical regression was employed.

Optimal scaling was used to test the relationship. In optimal scaling both the independent and dependent variables are grouped into categories bearing similar characteristics defined by the system (SPSS). The method chosen for analysis was spline ordinal based on the assumption that the variables were in the same category in terms of the intellectual capital score but possibly did not have similar results with regard to the financial indicators while there were those that belonged to the same categories with regard to both intellectual capital scores and financial indicators. In optimal scaling, the model significance is tested by F-statistic and the significance of variables is also tested using F because it is testing the variation within groups of variables as opposed to individual variables. The analysis is presented in the preceding sections.

4.4.1 Intellectual Capital and Financial Performance

In hypothesis one, the categories defining intellectual capital were regressed against financial performance (ROA, ROE and dividend yield). The financial indicators were calculated for a four year period based on information from financial statements filed with Nairobi Securities Handbook 2012-2013. Similar to test for non-financial performance the isolated effect of human capital, social capital and organization capital was tested and compared to the combined effect. Hypothesis 1_a, 1_b and 1_c tested the effect of each predictor variable on non-financial performance.

H_{1a}: Human capital has a relationship with financial performance.

H_{1b}: Social capital has a relationship with financial performance.

H_{1c}: organization capital has a relationship with financial performance.

Hypothesis 1a, b, c were tested using simple regression analysis. The results of the hypothesis are presented in Table 4.29.

Table 4.29: Summary of Regression Results for individual influence of Human Capital, Social Capital and organization Capital on ROA

Model		ANOVA			Coefficients	
		R ²	F	Sig.	Beta	Sig.
1	Human Capital	.115	2.017	.150	.339	.028 ^a
2	Social capital	.285	6.179	.006	.534	.028 ^b
3	Organization Capital	.115	2.006	.152	-.339	.028 ^c

a. Predictor: Human capital

b. predictors: Social capital

c. Predictors: organization capital

Dependent Variable: Return on Assets

Results in Table 4.29 show that human capital accounted for 11.5% of variance on ROA ($R^2=0.115$). The overall model was statistically insignificant ($F=13.067$, $P>0.05$) but the coefficient were statistically significant ($\beta=0.459$, $P<0.05$). In model 2, social capital accounted for 28.5% of variance on ROA ($R^2=0.285$). The overall model was statistically insignificant ($F=13.067$, $P>0.05$) and regression coefficient were statistically significant ($\beta=0.459$, $P<0.05$). In model 3, organization capital accounted for 11.5% of the variance in ROA ($R^2=0.115$), overall the model was statistically insignificant ($F=2.006$, $P>0.05$), the regression coefficients were statistically significant ($\beta=-0.339$, $P<0.05$).

After ascertaining the individual contribution of each variable, the next step was to measure the combined effect of human capital, social capital and organization capital on financial performance. The composite index of intellectual capital was computed as a sum of human capital, social capital, and organization capital divided by the sum of possible outcomes. Hypothesis one was stated as follows:

H₁: Intellectual capital has a relationship with corporate performance of firms listed on Nairobi Securities Exchange.

The hypothesis was tested using simple regression analysis. The results are presented in Table 4.30.

Table 4.30: Regression results for the Relationship between Intellectual Capital and Return on Asset

Multiple R	R Square		Adjusted R Square		
.427	.183		.130		
ANOVA					
	Sum of Squares	DF	Mean Square	F	Sig.
Regression	6.210	2	3.105	3.464	.044 ^a
Residual	27.790	31	.896		
Total	34.000	33			
Coefficients					
	Standardized Coefficients		DF	F	Sig.
	Beta	Std. Error			
Intellectual Capital	.427	.162	2	6.928	.003 ^a

^a Predictors: intellectual capital

Dependent Variable: ROA

The regression results in Table 4.30 show that the overall model was statistically significant ($F=3.464$, $p<0.05$) and explained 18.3 % of variation in ROA ($R^2= 0.183$). The regression coefficient was statistically significant ($\beta=0.427$, $p<0.05$). This suggests that for every unit increase in intellectual capital, return on assets increases by 0.427. This indicates that a company that invests in intellectual capital achieves a 0.427 increase in their return on assets.

The results for the relationship between intellectual capital, ROE and dividend yield were statistically insignificant as shown in Appendices 10a, 10b and 10c. This suggests that there seems to be no sufficient evidence to support variation in intellectual capital and dividend yield and ROE. Previous studies that utilized financial measures of performance in their research focusing on firms listed on Nairobi Securities Exchanged reported mixed results (Ongore, 2008; Letting, 2011; Osoro, 2013) reported mixed results on ROE, ROA and dividend yield.

4.4.2 Intellectual Capital, Corporate Reputation and Financial Performance

The second objective was to determine the mediating effect of corporate reputation on the relationship between intellectual capital and corporate performance. Corporate reputation was operationalized as a composite index of corporate image, media visibility and corporate social responsibility. Baron and Kenny's (1986) method was used to test for mediation. Hypothesis two was stated as follows:

H₂: Corporate reputation mediates the relationship between intellectual capital and corporate performance.

The hypothesis was tested using stepwise method proposed by Baron and Kenny (1986). In order to confirm this relationship, four regression analysis were conducted and significance of the coefficients examined at each step. Step 1, testing the relationship between predictor variable (intellectual capital) and criterion variable (non-financial Performance), step 2 testing the influence of predictor variable (Intellectual capital) on mediating variable (corporate reputation), in this test, the mediator takes the role of criterion variable, step 3 testing the relationship between the mediator (corporate reputation) and the criterion variable (non-financial performance), step 4 involves testing the influence of predictor variable (intellectual capital) on criterion variable (non-financial performance) when controlling for mediation (corporate reputation). The summarized results for the four regression results are presented in Table 4.31.

Table 4.31: Regression Results for the mediation of Corporate Reputation in the Relationship between intellectual Capital and ROA

Model	R Square	Adjusted R Square	R Square Change
Step 1	.183	.130 ^a	
Step 2	.720	.702 ^b	.537
Step 3	.335	.269 ^c	-.385
Step 4	.379	.269 ^d	.044

^a Predictors: Intellectual Capital

^b Predictors: intellectual capital

^c Predictors: Corporate Reputation

^d Predictors: corporate reputation, intellectual capital

Dependent Variable: ROA

The results in Table 4.31 in step 1 show that intellectual capital alone accounts for 18.3% of the variance on ROA. In step 2, the results indicate that intellectual capital (predictor variable) accounts for 72% of variation in corporate reputation, R² changes from 0.183 in step 1 to 0.72 (R² change=0.537). In step 3, corporate reputation accounts for 33.5% of the variation in ROA. The R² changes from 0.720 in step 2 to 0.335 in step 3 (R² change= -0.385). The results in step 4 show that when corporate reputation was controlled, intellectual capital accounted for 37.9% of variation on

ROA. From the results, R^2 changes from 18.3% in step 1 to 37.9 in step 4(R^2 change=19.6%) when controlling for corporate reputation, suggesting that corporate reputation accounted for 19.6% of the variance in ROA, while intellectual capital accounted for 18.3% of the variance of ROA.

The next step in stepwise regression involves checking the significance of the overall models. According to Baron and Kenny (1986), to meet the criteria for mediation, the overall models must be statistically significant. The results of analysis of variance for the four models are presented in Table 4.32.

Table 4.32: Results of Analysis of Variance (ANOVA) for the Mediation Effect of Corporate Reputation on the Relationship between Intellectual Capital and ROA

Model		Sum of Squares	Df	Mean Square	F	Sig.	F change
Step 1	Regression	.206	2	3.105	3.464	.044 ^a	
	Residual	.282	31	.896			
	Total	.488	33				
Step 2	Regression	24.471	2	12.235	39.805	.000 ^b	-36.341
	Residual	9.529	31	.307			
	Total	34.000	33				
Step 3	Regression	11.402	2	3.801	5.046	.006 ^c	34.759
	Residual	22.598	31	.753			
	Total	34.000	33				
Step 4	Regression	12.902	2	2.580	3.424	.000 ^d	1.622
	Residual	21.098	31	.754			
	Total	34.000	33				

^a. Predictors: Intellectual Capital

^b. Predictors: intellectual capital

^c. Predictors: corporate reputation

^d. Predictors: corporate reputation, intellectual capital

Dependent Variable: ROA

The results in Table 4.32, step 1 shows that with only one predictor variable, intellectual capital had a significant contribution to ROA ($F=3.464$, $P<0.05$). Results in step 2 which involves mediator (corporate reputation) acting as a criterion variable indicate the model was significant ($F=39.805$, $P<0.05$), the F changes from 3.464 in step 1, to 39.805 in step 2 (F change=-36.341). In step 3, the model was statistically significant ($F=5.046$, $P<0.05$).

There is an observed change in F from 39.805 in step 2 to 5.046 in step 3 (F change=34.759). Finally in step 4, when controlling for corporate reputation, F changes from 5.046 in step 3 to 3.424 in step 4, (F change= 1.622) but the overall model was statistically significant (F=3.424, P<0.05). Overall the F statistic for step 1, 2, 3 and 4 are statistically significant.

Further analysis was carried to determine the significance of the individual predictor parameters as well as the direction of regression coefficient. The results are presented in Table 4.33.

Table 4.33: Results of Coefficients for the Mediting Effect of Corporate Reputation on the Relationship between Intellectual Capital and ROA

Model		Standardized Coefficients		DF	F	Sig.
		Beta	Std. Error			
Step 1	Intellectual Capital	.427	.162	2	6.928	.003 ^a
Step 2	Intellectual Capital	.848	.095	2	79.610	.000 ^b
Step 3	Corporate Reputation	.579	.149	3	15.137	.000 ^c
Step 4	Corporate Reputation	.667	.161	3	17.107	.000 ^d
	Intellectual Capital	-.264	.161	2	2.678	.086

^a Predictors: Intellectual capital

^b Dependent Variable: Corporate Reputation

^c Predictors: Corporate Reputation

^d Predictors: corporate reputation, intellectual capital
Dependent Variable: Return on Assets

The results in Table 4.33, step 1 show that with only one predictor variable, intellectual capital had a significant contribution to non-financial performance ($\beta=0.427$, $P<0.05$). Results in step 2 indicate that intellectual capital had a significant contribution to corporate reputation ($\beta=0.848$, $p<0.05$). In step 3, corporate reputation had a significant contribution on ROA ($\beta=0.579$, $p<0.05$). Finally in step 4 when controlling for corporate reputation, the model becomes statistically insignificant ($\beta=-0.262$, $p>0.05$). There was a reduction in betas from $\beta=0.427$, $p<0.05$ in step 1 to $\beta=0.275$, $p>0.05$ in step 4 (β change=0.152). The result provided sufficient support that the corporate reputation mediates the relationship between intellectual capital and financial performance measured as ROA.

4.4.3 Intellectual Capital, Employee-Oriented Culture and Financial Performance

This study sought to assess the moderating effect of corporate culture on the relationship between intellectual and financial performance using optimal scaling. The hypothesis was stated as follows:

H₃: Corporate culture moderates the relationship between intellectual capital and corporate performance

The moderating effect was computed using the method proposed by Baron and Kenny (1986). The first step involved testing the influence of predictor variable (intellectual capital) on financial performance. The second step involves standardizing all variables to make interpretations easier and to avoid multicollinearity. Further, the standardized variables of predictor (intellectual capital) and moderator (employee-oriented culture) were tested on financial performance. The third step involves creating an interaction term (z-score intellectual capital* z-employee-oriented culture) and adding it to the standardized variables to test the amount variance accounted for by the interaction term. Moderation is assumed to take place if the interaction term in step 3 is significant. Results of regression analysis are displayed in Table 4.34.

Table 4.34: Regression Results for the Moderating Effect of Employee-Oriented Culture on the Relationship between Intellectual Capital and ROA

Model	R Square	Adjusted R Square	R Square change
Step 1	.183 ^a	.130	-
Step 2	.182 ^b	.069	-.001
Step 3	.189 ^c	.077	.007

^a Predictors: intellectual capital

^b Predictors: Z score- intellectual capital , Z score- employee-oriented culture

^c Predictors: Interaction term (Z score- intellectual capital * Z score- employee-oriented culture)

Dependent Variable: ROA

The results in Table 4.34, step 1 shows that intellectual capital alone accounts for 18.3% of the variance on ROA ($R^2=0.183$). In step 2, the results show that the standardized values of employee-oriented culture and intellectual account for 18.2% ($R^2= 0.182$) on ROA. In step 3, cross product of (z-intellectual capital *z-employee-oriented culture) were added into the model to determine whether employee-oriented

culture moderated the relationship between intellectual capital and ROA. The interaction term accounted for 18.9% of variation in ROA ($R^2 = 0.606$). The results in step 3 showed that when interaction term was entered into the model, it added albeit, small significantly to ROA as the variation increased from 0.182 to 0.189 (R^2 change=0.007).

To further investigate the findings, Analysis of Variance (ANOVA) was computed to determine the significance of the overall models. According to Baron and Kenny (1986), to meet the criteria for moderation steps 1, 2, 3 need to be statistically significant. An F value was computed to determine whether the changes in R^2 are significant. The results of analysis of variance for the four models are presented in Table 4.35.

Table 4.35: Results of Analysis of Variance (ANOVA) for the Moderation Effect of Employee-Oriented Culture on the Relationship between Intellectual Capital and ROA

Model		Sum of Squares	Df	Mean Square	F	Sig.
Step 1	Regression	.206	2	3.105	3.464	.044 ^a
	Residual	.282	31	.896		
	Total	.488	33			
Step 2	Regression	6.176	4	1.544	1.609	.199 ^b
	Residual	27.824	29	.959		
	Total	34.000	33			
Step 3	Regression	6.4264	4	1.606	1.690	.179 ^c
	Residual	27.574	29	.959		
	Total	34.000	33			

^a. Predictors: intellectual capital

^b. Predictors: Z score: intellectual capital Z score: employee-oriented culture

^c. Predictors: Interaction term (intellectual capital* employee-oriented culture)

Dependent Variable: ROA

The results in Table 4.35, indicate a statistical significance for the direct influence of intellectual capital on ROA ($F=3.464$, $P<0.05$). In step 2, overall model of the standardized values intellectual capital and ROA was statistically insignificant ($F=1.609$, $P>0.05$). In step 3, the overall model was statistically insignificant ($F=1,690$, $P>0.05$). The results in Table 4.35 indicate that all the F statistic for step 2 and 3 were statistically insignificant.

Further analysis was conducted to determine the significance of the individual predictor parameters as well as the direction of regression coefficient. The results are presented in Table 4.36.

Table 4.36: Results of Coefficients for the Moderating Effect of Employee-Oriented Culture on the Relationship between Intellectual Capital and ROA

Model		Beta	Standard error	Df	F	Sig.
Step 1	Intellectual Capital	.427	.162	2	6.928	.003 ^a
Step 2	Intellectual Capital	.230	.194	2	1.609	.259 ^b
	Employee-oriented culture	.262	.194	2	1.825	.179
Step 3	Z score: intellectual capital	.253	.189	1	1.789	.191 ^c
	Z score: employee-oriented culture	.289	.180	2	2.572	.094
	interaction term for intellectual capital and employee-oriented culture	.100	.184	1	.295	.591 ^c

a. Predictors: intellectual capital

b. Predictors: Z score, intellectual capital, Z score, employee –oriented culture

c. Predictors: Z score: Intellectual capital, Z score: employee culture, interaction term for intellectual capital and employee culture

Dependent Variable: ROA

The results in Table 4.36 in step 1 show that with only one predictor variable, intellectual capital had a significant contribution to ROA ($\beta=0.427$, $P < 0.05$). Results in step 2 indicate that standardized values of intellectual capital ($\beta=0.230$, $P > 0.05$) and employee-oriented culture ($\beta=0.262$, $P < 0.05$) had no significant contribution to ROA. In step 3, when the interaction term was added in the model, the coefficient for the interaction term was not statistically insignificant ($\beta=0.100$, $p > 0.05$). The results of the ANOVA and regression coefficients, there was no sufficient evidence to support the moderating effect of employee-oriented culture on the relationship between intellectual capital and ROA.

4.4.4 Joint Effect of Intellectual Capital, Corporate Reputation, and Corporate Culture on Financial Performance

The study sought to determine whether the joint effect of intellectual capital, corporate reputation, and corporate culture on non-financial performance has a greater influence than independent influence of each predictor variable. The composite index was computed for each variable. The effect was determined by testing the following hypothesis.

H₄: The joint effect of intellectual capital, corporate reputation, and corporate culture on corporate performance is greater than the individual influence of each predictor variable.

To test the hypothesis, simple regression and multiple regression analysis was performed. For each predictor variable, simple regression was used to test the variance and model significance. Multiple regression analysis was performed with the study variables entered simultaneously to examine the joint effect of intellectual capital, corporate reputation and corporate culture on financial performance. The results for the regression analyses are shown in Table 4.37.

Table 4.37: Regression Results of Joint Effect of Intellectual Capital, Corporate Reputation and Employee-Oriented Culture on ROA

Model	R Square	Adjusted R Square
1	.183 ^a	.130
2	.335 ^b	.269
3	.152 ^c	.097
4	.434 ^d	.308

^a. Predictors: (Constant), intellectual capital,

^b. Predictors: corporate reputation,

^c. Predictors: Employee-oriented culture,

^d. Predictors: intellectual capital, corporate reputation, employee-oriented culture

Dependent Variable: corporate performance (non-financial)

Model 1 shows that intellectual capital as a predictor accounts for 18.3% of the variance on ROA. In model 2, corporate reputation was entered and it accounted for 33.5 % of the variance on ROA. In model 3, employee-oriented culture was hypothesized as a moderator and a simple regression and employee-oriented culture

accounted for 15.2% of the variance on ROA. In model 4, all the three predictor variables were entered simultaneously to assess whether the joint effect is greater than the influence of each predictor variable. As shown in the table, the joint effect accounts for 43.4% of the variation on ROA. The R^2 in model 4 is greater than each of the predictor variables of intellectual capital ($R^2=0.434$, $p<0.05$), corporate reputation ($R^2=0.335$, $p<0.05$), employee-oriented culture ($R^2=0.153$ $p<0.05$). The results presented show that the variation of the joint effect is greater than the individual predictor variable.

The results for Analysis of Variance (ANOVA) were computed to determine the significance of the overall models. The summarized results are presented in Table 4.38.

Table 4.38: Results of Analysis of Variance for Joint Effect of Intellectual Capital, Corporate Reputation and Corporate Culture on ROA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.206	2	3.105	3.464	.044 ^a
	Residual	.282	31	.896		
	Total	34.00	33			
2	Regression	11.402	2	3.801	5.046	.000 ^b
	Residual	22.598	31	.753		
	Total	34.00	33			
3	Regression	5.162	2	2.581	2.74	.078 ^c
	Residual	28.838	31	.930		
	Total	34.000	33			
4	Regression	14.743	6	2.757	3.445	.012 ^d
	Residual	19.257	27	.713		
	Total	34.000	33			

^a Predictors: (Constant), intellectual capital,

^b Predictors: corporate reputation,

^c Predictors: Employee-oriented culture,

^d Predictors: intellectual capital, corporate reputation, employee-oriented culture

Dependent Variable: corporate performance (ROA)

The results of the significance of the model show model 1 was statistically significant ($F=3.464$, $P<0.05$). In model 2, corporate reputation was statistically significant ($F=5.046$, $P<0.05$). In model 3, employee-oriented culture was statistically insignificant ($F=2.74$, $p>0.05$). In model 4, the joint effect of intellectual capital, corporate reputation and employee-oriented culture was statistically significant ($F=3.445$, $P<0.05$).

Table 4.39 presents results of beta coefficients to determine the significance of the individual predictor parameters as well as the direction of regression coefficient.

Table 4.39: Results of Coefficient for Joint Effect of Intellectual Capital, Corporate Reputation and Corporate Culture on ROA

Model		Beta	Standard error	Df	F	Sig.
1	Intellectual Capital	.427	.162	2	6.928	.003 ^a
2	Corporate reputation	.579	.149	3	15.137	.000 ^b
3	Employee-oriented culture	.390	.165	2	5.549	.009 ^c
4	Intellectual capital	-.305	.166	2	3.388	.049 ^d
	Corporate Reputation	.541	.155	3	12.190	.000
	Employee-Oriented culture	.323	.177	1	3.581	.069

^a. Predictors: Intellectual capital,

^b. Predictors: Corporate reputation,

^c. Predictors: Employee-oriented culture,

^d Predictors: Intellectual capital, Corporate reputation, Employee-oriented culture

Dependent Variable: corporate performance (ROA)

In Model 1, the coefficients for intellectual capital are statistically significant ($\beta=0.427$, $F=6.928$, $p<0.05$). In model 2, coefficients for corporate reputation are statistically significant ($B=0.7579$, $F= 15.137$, $p<0.05$). In model 3, the coefficients for employee-oriented statistically significant ($\beta=0.390$, $F=5.549$, $p<0.05$). In model 4, when all the predictors were entered simultaneously, the coefficient of intellectual capital was statistically significant ($\beta=-0.305$, $F=3.388$, $p<0.05$), corporate reputation was statistically significant ($\beta=0.541$, $F=12.190$ $P<0.05$) but the coefficient of employee-oriented culture ($\beta=0.323$, $F=3.581$, $p<0.05$) was statistically insignificant on ROA. The regression model that used to estimate to financial performance of firms listed on Nairobi Securities Exchange taking into consideration the joint effect of intellectual capital, corporate reputation and employee-oriented culture is stated as follows.

$$P(\text{financial}) = -0.305 \text{ IC} + 0.549 \text{ CR}$$

Where P = Financial performance

IC =intellectual capital

CR=Corporate reputation

The results suggest that for every unit change in intellectual capital, there is -0.305 decrease on return on assets, suggesting that investing in human capital, social capital and organization capital has a negative effect on return on assets. In addition, the study shows that for every unit change in corporate reputation, there is 0.549 increases on return on assets.

4.5 Discussion of the Findings

The study set out to accomplish four objectives. First, to establish the relationship between intellectual capital and corporate performance. Second, to determine whether the relationship between intellectual capital and corporate performance is direct or through corporate reputation. Third, to determine the moderating effect of corporate culture on the relationship between intellectual capital and corporate performance. The fourth objective was to establish whether the joint effect of intellectual capital, corporate reputation and corporate culture on corporate performance was greater than the individual influence of predictor variables. The objectives were derived from various research gaps identified from a wide review of literature, leading to conceptual model and conceptual hypotheses.

The study performed various statistical tests such as regression analyses to test the hypotheses. This study measured performance along the dimensions of the balanced Scorecard, consisting of financial and performance and separate analyses were performed for non-financial and financial indicators of performance. Hypotheses were tested one at a time, beginning with non-financial performance and financial performance respectively. In the discussion of the result, confirmatory patterns with previous studies were identified while inconsistencies were highlighted. The discussion was then narrowed down to research gaps. The sections are arranged according to the objectives and hypotheses of the study.

4.5.1 Relationship between Intellectual Capital and Corporate Performance

Empirical findings on the relationship between intellectual capital and performance have yielded mixed research findings. There are two conflicting strands in literature. One strand examined the isolated effect of human capital, social capital and organization capital on corporate performance. Based on this assumption, there was need to test the influence of each component on performance. Three sub-hypotheses

were formulated and simple regression analysis was performed. The latter studies suggest that the combined effect of intellectual capital, computed as a composite index of the three components and simple regression was performed on both financial and non-financial measures of performance. In line with the development of performance measurement which suggests that organizations need to implement multiple performance measures the study adopted the balanced scorecard measures in respect to both non-financial and financial performance indicators.

The findings of the study established that human capital ($R^2=0.167$, $F=6.398$, $\beta=0.477$, $p<0.05$), social capital ($R^2=0.290$, $F=13.06$, $\beta=0.459$, $p<0.05$) and organization capital ($R^2=0.238$, $F=9.95$, $\beta=0.259$, $p<0.05$) had a statistically significant relationship with non-financial performance. On the other hand, the relationship between intellectual capital (computed as a composite index of human capital, social capital and organization) was statistically significant ($R^2=0.423$, $F=23.41$, $\beta=0.650$, $p<0.05$) and accounted for 42.3% of the variance in non-financial performance. The results suggest that the combined effect of intellectual capital was greater than the individual influence of human capital, social capital and organization capital on non-financial performance.

Findings on financial measures revealed that human capital explained 11.5% of variation in ROA. The model was statistically insignificant ($F=2.017$, $p>0.05$) and coefficients were statistically significant ($\beta=0.339$, $p<0.05$). Social capital explained 28.5% of the variation in ROA, the model was statistically insignificant ($F=2.006$, $p>0.05$) and coefficient were statistically significant ($\beta=0.534$, $p<0.05$). Organization capital accounted for 11.5% of the variance in ROA. The model was statistically significant ($F=2.006$, $p>0.05$) and regression coefficients were statistically significant ($\beta=-0.339$, $p<0.05$). The result on relationship between intellectual capital and ROA revealed that intellectual accounted for 18.3% of variance in ROA. The overall model was statistically significant ($F=3.464$, $p<0.05$) and the coefficients were statistically significant ($\beta =0.427$, $p<0.05$), while the model for social capital and human capital were insignificant. Thus it can be concluded that the combined effect of intellectual capital components has a greater effect on ROA than isolated effect of each of the constructs. The findings are consistent with observations made by Becker and Gerhart (1996) that synergetic effect rather than independent practices leads to competitive advantage.

Based on the above findings, there is sufficient evidence to support that there is a statistically significant relationship between intellectual capital and non-financial performance and financial measures of performance measured as ROA. These findings are consistent to a greater extent with previous findings of Youndat et al. (2004). The researchers established that organizations with high intellectual capital outperform those with low profile of intellectual capital. They proposed that scholars should adopt a configuration approach to examine the effect of human, social and organization capital on financial performance. Similarly, a study by Cabrita and Bontis (2008) on the banking sector in Portugal established a positive significant relationship between intellectual capital and perceptual measures of performance. They tested for interrelation and interaction of human capital, structural capital and customer capital. In a subsequent study, Choundhury, (2010) findings indicated a significant positive relationship between intellectual capital and performance in the Indian Information Technology sector. Riahi-Belkouli (2003) studied relationship between intellectual capital and corporate performance of multinational firms in the United States. He found a positive and significant relationship.

Contradictory evidence presented by Fire and William (2003) on the relationship between intellectual capital and performance, revealed a negative relationship between intellectual capital (structural, physical and human capital) and performance of 75 publicly listed companies in South Africa. A major difference between the study by Fire and William and the current study is that their study focused on financial measures of performance, while the current study focused on both financial and non-financial measures. Another notable difference is that their study looked at the interaction between the components of variables, while the current study focused on all firms listed on Nairobi Securities Exchange for a four year period. Their study also established that physical capital had a greater effect on corporate performance, while the findings of the current study did not focus on physical capital. However, their study is in line with the findings of the current study that indicated no significant relationship between intellectual capital ROE and dividend yield.

The results of the study are in line with the findings of Bontis (1998) and Cabrita and Bontis (2008) who demonstrated that an organization has to integrate human capital with complementary resources to develop organization competencies. The findings

revealed that human capital alone is not enough and requires the complementary role of social capital and supportive mechanism of organization capital. The findings indicated that social capital in form of internal and external capital was an important determinant for both financial and non-financial performance. A study by Lin and Huang (2005) established that central networks position was more important than human capital. They argued that networks provide better utilization of internal knowledge resource, while at the same time gaining access to the knowledge of partnering organizations. On the other hand, organizational capital is capital that is owned by the organization. In the study, organization capital explained 23.8% of variation in non-financial performance and 11.5% on ROA.

The findings of this study on the relationship between intellectual capital and corporate performance are significant for several reasons. First, they support the recent argument of some organization and human resource management scholars regarding the importance of intellectual capital to firm performance (Bontis, 1998; Cabrita and Bontis, 2008). Drawing on theoretical insights of resource based view of the firm, the study complements and extends the arguments that competitive advantage can be attributed to unique resources particularly intangible ones when they are combined or integrated. This finding lends support that combined effect of intellectual components have a greater effect on corporate performance than isolated effect of individual components. The results suggest that it would be difficult for a competitor to imitate the three components compared to a single component.

The results of the study reinforced conclusion from other studies which have supported resource based view theory (Riahi-Belkaoui, 2003; Cabrita and Bontis, 2008). A key variation that is inherent in resource based view is the distinction between resources and capabilities, and how they interplay to create competitive advantage. The regression results on composite index of intellectual capital and isolated effect of human, social capital and organization were reflective of this assertion. The results further reaffirmed the position of Stewart (1997) who asserted that the three constructs affect each other and deficiency in any of the factors can affect overall firm performance. The empirical findings of this hypothesis serve to augment the proposition of the human capital theory that proposed that people possess knowledge, skills and abilities that are of economic value to the firm. In

addition, the findings complement the arguments advanced by social capital theory that suggested that network of relationship constitute a valuable resource for conduct of social affairs. Social capital had a relationship with both ROA and non-financial performance. In conclusion, the human capital and social capital theory complements the resource based view of the firm that intangible resources are valuable, rare, inimitable and non-substitutable.

4.5.2 Corporate Reputation mediates the relationship between Intellectual Capital and Corporate Performance

The second objective was to determine whether the relationship between intellectual capital and corporate performance was direct or through corporate reputation. There were no systematic studies that had been undertaken on mediating effect of corporate reputation on relationship between intellectual capital and performance. This research therefore relied on studies that established some linkages between intellectual capital and performance, intellectual capital and corporate reputation and corporate reputation and performance. Hitt et al. (2001) and Greenwood et al. (2005) emphasized the connection between intellectual capital and corporate reputation. The study utilized the four steps proposed by Baron and Kenny (1986) to discuss the results of the mediating effect.

The first step involved testing the relationship between intellectual capital and both financial and non-financial measures of performance which were tested and discussed in the hypothesis one and discussed in section 4.5.1. The second step tested the relationship between intellectual capital and corporate reputation. Assuming intellectual capital as independent variable and corporate reputation as dependent variable a simple regression analysis was performed. The results of relationship between intellectual capital and corporate reputation indicated that intellectual capital accounted for 46.8% of variation in corporate reputation in non-financial performance and overall model was statistically significant ($F=28.103$, $\beta=0.755$, $t=5.30$, $p<0.05$). On corporate reputation and non-financial performance the explanatory power was 58.2% and the model and beta coefficients was statistically significant ($F=44.522$, $\beta=0.786$, $p<0.05$).

The results were statistically significant reaffirming the position of other scholars (Hitt et al. 2001; Greenwood, 2005; Petkova et al. 2008) that alluded to the significance of intellectual capital in predicting corporate reputation. Petkova et al. (2008) established that investment in human capital, social capital and product development has an impact on reputation of new ventures. A similar finding by Hitt et al. (2001) established that human capital possessed by employees lead to development and maintenance of elite social networks that help a firm to capture information asymmetry and contribute to a firm's positive reputation.

The results equally supported those obtained by Penning, Kyungmook, Van and Wittellostuijin (1998) indicating that employee's role is critical in creation and maintenance of corporate reputation. The result suggests that intellectual capital is an antecedent in building corporate reputation. In addition, the study corroborates the findings of Rindova et al. (2005) who established that hiring an individual with high levels of symbolic capital including education degree may enable an organization to increase its prominence and pay-off. They observed that clients who have established a strong positive relationship with a firm may adopt new products on basis of trust and satisfaction with prior services provided by the firm. The results of this study not only support the argument of the importance attached to human capital and social capital, also extends it by adding organization capital to reflect the tripartite constructs that make up intellectual capital. In contrast to past studies that have focused on Fortune rating's (Osoro, 2013), the current study overcame this limitation by focusing on more visible factors that have direct influence on the stakeholders such as corporate social responsibility, media visibility and corporate image.

The study is in line with the works of (Robert and Dowling, 2002; Carmeli and Tishler, 2004; Lee and Roh, 2012) who attested that better reputation sustain superior performance for a longer period and have an easier time attaining competitive. Robert and Dowling (2002) confirmed that corporate reputation is an intangible asset which differentiate a firm from others and attract customers to repurchases and willingly pay higher prices for products (Rindova et al. 2005). Locally, Owino (2013) established that corporate image had a significant positive influence on customer satisfaction among university students in Kenya.

Inglis et al. (2001) in a study of 77 Australian firms listed at Stock Exchange, did not find a relationship between corporate reputation and organization performance measured by market-to-book value, ROA and ROE. This differs from the current study that established a positive relationship between corporate reputation and ROA. The findings are however consistent with Osoro (2013) who established a relationship between eight reputation attributes based on Fortune Magazine Annual Survey of Americas Most that Admired Companies and performance of firms listed on Nairobi Securities Exchange. The study found statistically significant relationship between corporate reputation and customer satisfaction and insignificant relationship with ROA, ROE and dividend yield.

The increasing number of negative attacks on firms listed coupled with public distrust creates trouble for companies listed on Nairobi Securities Exchange and the world all over. Reputation scholars such as Fombrun (1990) and Rindova et al. (2005) suggest that a good reputation generates advantage to a firm competing in the capital market. The study extends the findings by Deephouse (2000) who found that corporate reputation plays a role in attracting investors which ensures a long term good performance. A positive reputation can help a firm build a competitive advantage because of information asymmetries experience by clients. The findings of the study suggest that media visibility, corporate image and corporate social responsibility developed over time contribute to client acceptance of goods and services offered by a firm. The expense incurred in building the reputation is then passed over to the client. In addition to being a part of differentiator among competitors, reputation also acts as a signal informing existing and potential investors and customers, and in this way has an economic value.

Furthermore, in response to backlash against the firms perceived unethical practices, the companies have taken up corporate social responsibility activities. The position of this study is that having employees with high human capital, social capital and organization capital should add to a firm's reputation. In order to achieve an adequate and stable share-price, it is in a company's interest to ensure a sufficiently high level of information among its capital market target groups by transparently communicating non-financial factors. In capital markets, non-financial corporate factors do not only enhance information transparency, but also affect capital market

markets perception of the company contributing the development of positive reputation. The findings of the study suggest that the use of media visibility, corporate image and corporate social responsibility simultaneously could allow a firm to develop a reputation that is difficult to imitate by competitors.

The results of the study lend support to the broader communication perspectives advanced in the study of the signaling process through which reputation is formed. The signaling theory proposed that market transaction occur under conditions in which buyers and sellers possess asymmetrical information. The value of corporate reputation as suggested by the signaling theory is to reduce stakeholder's uncertainty about the quality of products and services offered by a company.

A major contribution to the research on intellectual capital and performance is the mediating effect of corporate reputation on both non-financial performance and financial measures of performance measured by ROA. As noted earlier, the study relied on studies that established some linkages between intellectual capital and corporate performance, intellectual capital and corporate reputation and corporate reputation and performance. The findings suggest building a high intellectual capital base and improving on corporate reputation (corporate image, media visibility and CSR) influences customer satisfaction, learning and growth and internal business process and ROA.

4.5.3 Corporate Culture moderates the Relationship between Intellectual Capital and Corporate Performance

Although literature relating to the link between intellectual capital, corporate culture and corporate performance is limited, it has been argued that corporate culture can contribute or inhibit intellectual capital management. Following the proposition of Chaminde and Johnson (2003) and Cabrita and Bontis (2008), the study hypothesized corporate culture as a moderating variable. They recommended that scholars should investigate the phenomenon of organization culture in different cultural context particularly in non-western nations. Equally, K'Obonyo and Dimba (2007) asserted that identifying existence of cultural values should be an empirical question not a prior assumption.

The results of the study did not provide sufficient evidence to support moderating effect of corporate culture, on the relationship between intellectual capital and non-financial performance and financial performance (ROA, ROE and dividend yield). The results of the current study are fairly comparable to other empirical studies that did not establish the moderating effect of corporate culture. Kandie (2009) established that organization culture did not provide significant moderating effect on the link between strategy and performance of small and medium enterprises in Kenya. Similar to the current study, the research proposed corporate culture as a moderator. A similar result by Mulabe (2013) established that organization culture did not moderate the relationship between human resource strategic orientation and employee outcome of State Corporation in Kenya.

However, the study contradicts Chaminde and Johnson (2003) assertion that cultural diversity has a significant impact on intellectual capital development at both the firm and national level. The finding is inconsistent with Mutuku (2012) who established that involvement culture (empowerment, capacity development and team-orientation) has a significant moderating effect on the relationship between top management team diversity and organizational performance in commercial banks in Kenya. Mutuku (2012) findings differ from the current study because the study was conducted in a single industry while the focus of the current study is on different industries. The firms listed on Nairobi Securities Exchange are regulated by Capital Market Authority and thus have to adhere to stringent rules which are not within the control of the organization. Teamwork is encouraged and there is cooperation amongst the employees, decisions are made at the top and cascaded to the employees. This suggests that the role of employees is limited to that of executing orders from top management. Trust is an important element, and although employees seem to be moderately trusting to their colleagues (citizenship behaviour), the same may not apply to the top management.

The inconsistencies in the findings can also be explained by differences in conceptualization. Previous studies (Stewart, 1997; Edvinsson and Malone, 1997; Bontis, 1998) have conceptualized culture as a construct of organization capital. Employee-oriented culture is thus supposed to provide a supporting mechanism in which human capital and social capital can be developed.

4.5.4 Joint Effect of Intellectual Capital, Corporate Reputation, Corporate Culture on Corporate Performance

This thesis was based on the premise that the relationship between intellectual capital and performance is not as direct as implied in literature. The study proposed that the relationship between intellectual capital and corporate performance is not direct but through corporate reputation. On the other hand, based on extensive literature review, the study proposed that corporate culture has a moderating effect on the relationship between intellectual capital and performance. In line with the propositions of the resource based view, the study hypothesized that the joint effect of intellectual capital, corporate reputation and corporate culture had a greater influence on corporate performance than the individual influence of each predictor variables.

Simple regression analysis tested the influence of each predictor variable on both financial and non-financial performance, while multiple regression analysis was performed for the joint effect. The results demonstrated that the joint effect of intellectual capital, corporate reputation and employee-oriented culture on non-financial performance ($R^2= 0.667$) was greater than the independent effect of intellectual capital ($R^2=0.423$), corporate reputation ($R^2=0.582$) and employee-oriented culture ($R^2=0.500$). Further the study established that the joint effect on return on assets was greater ($R^2=0.434$) than predictor variables including intellectual capital ($R^2=0.183$), corporate reputation ($R^2=0.335$) and employee-oriented culture ($R^2=0.152$). A notable observation was that the explanatory power of the joint effect was greater for non-financial performance ($R^2=0.667$) than on return on assets ($R^2=0.434$).

The results of the study confirmed that the joint effect of intellectual capital, corporate reputation and corporate culture on corporate performance had a greater effect than individual effect of each predictor variables. This can be regarded as an important contribution to resource based view of the firm. In this study, intellectual capital, corporate reputation and corporate culture can be regarded as important intangible assets that are valuable, rare, non-substitutable and difficult to imitate and thus enable a firm to achieve competitive advantage. The results reinforce the finding of Carmeli and Tishler (2004) examined a set of intangible organization elements and

organizational performance in a sample of local government in Israel. Their study established that organizational performance was explained by managerial capability, human capital, internal auditing, labour relations, organization culture and perceived organization reputation. They demonstrated that competitive positioning is derived from complex combination elements.

Drawing insights from resource based view; the study suggests that intangible assets per se do not confer any benefit of on an organization. It is the efficient combination of resources that result in more complex interdependencies which are harder to imitate than isolated effect. The aforementioned results resonate Teece et al. (1997) who noted the difficulty that competitors would have in duplicating a competitive advantage based on a combination of valuable specific resources, because the combination arise from an organization stock of resources.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This is the final chapter of the thesis. The results are summarized, conclusions drawn and recommendations given in view of the research objectives. The chapter begins with a summary of major findings covering the four objectives and conceptual hypotheses. The chapter also presents the major conclusions derived from summaries. Finally, a presentation is made of the main recommendations from the study including the implication of the study on theory, policy and practices. The challenges and limitations that were encountered during the study are discussed and suggestions made for further studies.

5.2 Summary of the Findings

In the previous chapter, the findings of the study were analyzed and discussed. Results were given under the objective and hypotheses that guided the study. In this section the results are summarized. The broad objective of this study was to establish the effect of different combination of predictor variables (Intellectual capital, corporate reputation and corporate culture) on corporate performance. The study was guided by four specific objectives; to establish the relationship between intellectual capital and corporate performance, to determine whether the effect of intellectual capital on corporate performance was direct or through corporate reputation, to determine the moderating effect of corporate culture on the relationship between intellectual capital and corporate performance and lastly, to establish whether the joint effect of intellectual capital, corporate reputation and corporate culture on corporate performance is greater than the individual predictor variables.

In line with the gaps identified in theoretical and empirical studies, a conceptual model was developed. The conceptual model linked intellectual capital and performance. The mediating effect of corporate reputation and moderating effect of corporate culture were also established. Based on these relationships, hypotheses were formulated and tested. A summary of objectives and hypotheses, findings and interpretation are presented in Table 5.1.

Table 5.1: Summary of Results of Hypotheses Testing

Objective	Hypothesis	Results	Decision
Objective 1. Determine the relationship between intellectual capital and corporate performance	H ₁ : Intellectual capital has a relationship with corporate performance	There is a statistically significant relationship between intellectual capital, non-financial performance and return on Assets	Supported
Objective 2 Establish whether the relationship between intellectual capital and corporate performance is direct or through corporate reputation.	H ₂ : Corporate reputation mediates the relationship between intellectual capital and corporate performance	Corporate reputation has a mediating effect on the relationship between intellectual capital and non-financial performance and financial measures of performance measured by return on assets	Supported
Objective 3 Determine the moderating effect of corporate culture on the relationship between intellectual capital and corporate performance	H ₃ : Corporate culture moderates the relationship between intellectual capital and corporate performance	Employee-oriented culture has no moderating effect on the relationship between intellectual capital and non-financial performance and return on assets	Not supported
Objective 4 Establish whether the joint effect of intellectual capital, corporate reputation, corporate culture on corporate performance is greater than individual influence of predictor variables	H ₄ : The joint effect of intellectual capital, corporate reputation and corporate culture is greater than individual influence of each predictor variable	Intellectual capital, corporate reputation and employee-oriented culture have a greater effect on performance than individual effect of the predictor variables.	Supported

Source: Primary data

The summary of results in Table 5.1 shows that study had four objectives and four hypotheses. As evidence in the table 5.1, three out of the four hypotheses tested, were supported and one was not supported. The summaries are elaborated in section 5.2.1 to 5.2.4.

5.2.1 Intellectual Capital and Corporate Performance

The first objective was to determine the relationship between intellectual capital and corporate performance. Earlier studies explored the independent effect of human capital, social capital and organization on corporate performance. The study tested for the independent effect of human capital, social capital and organization capital on corporate performance. The study established that social capital had the highest explanatory power, ($R^2=29.0\%$), followed by organization capital ($R^2=23.8\%$) and human capital was the lowest ($R^2=16.2\%$) on non-financial performance. The overall models and regression coefficients were significant for the three constructs. The study established that combined effect of the three constructs was greater than the individual effect in respect to non-financial performance as the dependent variable ($R^2=0.423$, $F= 23.411$, $\beta=0.740$, $t=4.839$, $p<0.05$). This suggests that intellectual capital contribute significantly to non-financial performance.

Results of optimal scaling on financial performance indicated that intellectual capital accounted for 18.3% on financial performance measured as ROA ($R^2=.0183$) and was statistically significant ($F=3.64$, $\beta=0.421$ $p<0.05$) for ROA. However, the results showed non-significant relationship between intellectual capital, Dividend yield and ROE. The study established that intellectual capital was a better predictor for non-ROA, since the overall models for human capital and social capital were insignificant. Thus there was sufficient evidence to support the hypothesis under objective one that there was positive and statistically significant relationship between intellectual capital and corporate performance of firms listed on Nairobi Securities Exchange.

The strength of the relationship between intellectual capital and corporate performance in this study implies that other variables could possibly enhance the relationship. This study tested the moderating effect of employee-oriented culture and mediating effect of corporate reputation in respect of the relationship between intellectual capital and corporate performance. In other words, besides the direct effect of intellectual capital on corporate performance, moderating and mediating effect of corporate culture and corporate reputation respectively, there are other variables influencing the said relationships which are not accounted for in this study and form basis for future studies.

5.2.2 Intellectual Capital, Corporate Reputation and Corporate Performance

The second objective was to determine whether the relationship between intellectual capital and corporate performance was direct or through corporate reputation. This was tested by the second hypothesis which stated that corporate reputation mediates the relationship between intellectual capital and corporate performance. The Baron and Kenny (1986) model was adopted in testing for the mediating effect. The criteria for establishing mediation were met which included; (1) the influence of criterion variable (corporate performance) on predictor variable (intellectual capital), (2) the relationship between mediator and predictor variable, (3) the influence of mediator (corporate reputation) on criterion variable (corporate performance) should be significant; (4) when controlling for mediator (corporate reputation), the influence of predictor variable (intellectual capital) on criterion variable (corporate performance) becomes insignificant.

Intellectual capital accounted for 42.3% of variation in non-financial performance ($R^2=0.423$, $F=23.411$, $\beta=0.740$, $t=8.839$, $p<0.05$). The results of relationship between intellectual capital and corporate reputation indicated that intellectual capital accounted for 46.8% of variation in corporate reputation and the overall model and regression coefficients were statistically significant ($F=28.103$, $\beta=0.755$, $t=5.301$, $p<0.05$). On corporate reputation and non-financial performance the explanatory power was 58.2% and overall model and regression coefficients were statistically significant ($F=44.522$, $\beta=0.786$, $t=5.30$, $p<0.05$). In the last step, when controlling for mediation, the influence of intellectual capital was 61.3% of variation in non-financial and the overall model was statistically significant ($F=24.530$, $P<0.05$) and the predictor variable for corporate reputation was statistically significant ($\beta=0.616$, $t=6.672$, $p<0.05$), while the predictor variable for intellectual capital was statistically insignificant ($\beta=0.27$, $t=1.575$, $p>0.05$).

Intellectual capital accounted for 18.3% of variation on ROA ($R^2=0.423$, $F=3.464$, $\beta=0.427$, $p<0.05$). The results of the relationship between intellectual capital and corporate reputation indicated that intellectual capital accounted for 72.0% of variation in corporate reputation and the overall model and regression coefficients were statistically significant ($F=39.805$, $\beta=0.848$, $p<0.05$). On corporate reputation and ROA the explanatory power was 33.5% and overall model and regression

coefficients were statistically significant ($F=5.046$, $\beta=0.579$, $p<0.05$). In step 4, which involved controlling corporate reputation, intellectual capital accounted for 37.9% of the variance in non-financial performance. The overall model was statistically significant ($F=3.424$, $P<0.05$) and the predictor variable for corporate reputation were statistically significant ($\beta=0.667$, $p<0.05$), while the predictor variable for intellectual capital were statistically insignificant ($\beta=-0.264$, $p>0.05$). However, the results showed non-significant relationship between intellectual capital and Dividend yield and ROE.

Thus, the test met the criterion for establishing mediation proposed by Baron and Kenny (1986) providing sufficient evidence to support full mediation. The hypothesis under second objective provided support that the relationship between intellectual and corporate performance was not direct but through the mediating effect of corporate reputation. Thus, the results supported the mediating effect of intellectual capital on non-financial performance and financial performance measured by ROA.

5.2.3 Intellectual Capital, Corporate Culture and Corporate Performance

The third objective was to determine the effect of corporate culture on the relationship between intellectual capital and corporate performance. This was tested by the third hypothesis which stated that corporate culture moderates the relationship between intellectual capital and performance. Corporate culture was measured along two dimensions; employee-oriented culture and task-oriented culture. The results of reliability test established that task-culture had reliability with a cronbach alpha of 0.262 which was below the 0.7 threshold recommended by Nunnaly (1978).

The results of the moderating effect of employee-oriented culture did not provide sufficient support for the moderating effect of employee-oriented culture on return on assets and non-financial performance. The findings did not meet the criteria set for moderation. The overall models for non-financial performance were statistically significant ($p<0.05$) while the regression coefficient for the interaction term standardized-score employee-oriented culture*standardized score-intellectual capital, was statistically insignificant ($\beta=0.13$, $t=0.818$, $P>0.05$) for non-financial performance, thus failing to support moderation effect of employee-oriented culture on the relationship between intellectual capital and performance. The hypothesis under objective three was therefore, not supported.

5.2.4 Intellectual Capital, Corporate Reputation, Corporate Culture and Corporate Performance

The fourth objective was to establish whether the joint effect of intellectual capital, corporate reputation and corporate culture on corporate performance was greater than the individual influence of each predictor variables. This was tested by the fourth hypothesis which stated that the joint effect of intellectual capital, corporate reputation and corporate culture had a greater effect on corporate performance than individual variables. The testing of the significance of the joint effect was important for the overall model and for the thesis of this study. There was no systematic study identified that has tested the joint effect of intellectual capital, corporate reputation and employee-oriented culture on both non-financial and financial measures of performance.

Overall, the results confirmed that the joint effect of intellectual capital, corporate reputation and employee-oriented culture explained 66.7% of the non-financial performance. The overall model was statistically significant ($F=20.042$, $p<0.05$), while the regression coefficients for corporate reputation ($\beta=0.429$, $P<0.05$) and employee-oriented culture ($\beta=0.288$, $P<0.05$) were significant, and intellectual capital had no significant contribution ($\beta=0.214$, $P>0.05$). On the other hand, the results for the joint effect of intellectual capital, corporate reputation and employee-oriented culture on ROA accounted for 43.4%, the overall model was statistically significant ($F=3.445$, $p<0.05$) and the individual predictors of intellectual capital ($\beta=-0.305$, $P<0.05$) and corporate reputation ($\beta=0.541$, $P<0.05$) were significant, while beta coefficient for employee-oriented culture ($\beta=-0.323$, $P>0.05$) was statistically insignificant. The highest and most significant contribution was corporate reputation both for financial and non-financial measures of performance. The results affirmed the resource based view theory and answered the research question that intellectual capital, corporate culture and employee-oriented culture had a greater influence on non-financial performance and return on assets than the individual influence of the predictor variables. The hypothesis was thus confirmed.

5.3 Conclusion

A conceptual model and framework was developed from extensive literature review to enable the study achieve the research objectives and conceptual hypotheses. The hypotheses were tested and results and findings discussed. This research focused on intellectual capital, corporate reputation, employee-oriented culture and effect of these factors on corporate performance. The study utilized both financial and non-financial measures of performance. Thus, separate analyses were carried on financial and non-financial measures.

The first objective of the current study was to determine the relationship between intellectual capital and corporate performance. This was achieved by ascertaining whether the combined effect measured as a composite index of predictor variables had a greater effect on performance compared to the individual predictor variables (human capital, social capital and organization capital) on corporate performance. The results revealed that there was a statistically significant relationship between intellectual capital and non-financial performance and return on assets. The findings also revealed that the combined effect of intellectual capital constructs had a greater effect than individual predictor variable, supporting recent stream of literature that argues that organizations cannot generate sustainable performance without the coordinated effect of the three constructs. The results support the tenets of resource based view of the firm that the synergetic effect has a greater effect than independent effect. Based on the results, it can be concluded that the combined effect among set of intellectual capital variables create complexity that would be difficult to imitate and therefore contribute to overall corporate performance of firms listed on Nairobi Securities Exchange.

The second objective was to establish the mediating effect of corporate reputation on the relationship between intellectual capital and performance. Corporate reputation was measured as a composite value of corporate social responsibility, corporate image and media visibility. The mediating effect was tested using stepwise regression analysis. The results provided sufficient evidence to support that there is a relationship between intellectual capital and corporate performance, intellectual capital and corporate reputation, corporate reputation and corporate performance and when controlling for mediating effect of corporate reputation, the effect of intellectual

capital on corporate performance was insignificant, supporting a full mediation. Based on the above findings, it can be deduced that corporate reputation has a mediating effect on the relationship between intellectual capital and corporate performance.

The third objective was to establish the moderating effect of corporate culture on the relationship between intellectual capital and corporate performance. Corporate culture was operationalized as task-oriented culture and employee-oriented culture. However, preliminary tests revealed the reliability of task-oriented culture ($\alpha=0.261$) was below the 0.7 threshold recommended by Nunnally (1978). The results from stepwise regression analysis reveal that the interaction term formed as a product of standardized intellectual capital*standardized employee-oriented culture were insignificant, thus failing to provide sufficient evidence to support the moderating effect of employee-oriented culture on the relationship between intellectual capital and non-financial performances and return on assets.

The fourth objective was to establish whether the joint effect of intellectual capital, corporate reputation and employee-oriented culture on corporate performance had a greater influence than individual effect of the predictor variables. Stepwise regression analysis was performed to test this hypothesis. The findings revealed that the explanatory power of the joint effect was greater than individual effect for both non-financial performance and financial performance measured as ROA.

The results of regression coefficient (β) indicated that corporate reputation had the greatest contribution to non-financial performance, followed by employee-oriented culture ($\beta=0.288$, $P<0.05$) and intellectual capital had no significant contribution to non-financial performance ($\beta=0.214$, $P>0.05$). This demonstrates that employee-oriented culture and corporate reputation had a significant joint effect on non-financial performance whereas intellectual capital had an insignificant contribution to non-financial performance. The results imply that the relationship between intellectual capital and non-financial performance depends on other factors including corporate reputation and employee-oriented culture.

On financial performance, the results indicated that corporate reputation ($\beta=0.541$, $p<0.05$) had the greatest contribution to ROA, followed by intellectual capital which had a negative contribution ($\beta=-0.305$, $p>0.05$), and employee culture ($\beta=0.323$

$p > 0.05$) had no significant contribution to ROA. The study findings demonstrate that intellectual capital and corporate reputation had a significant contribution to ROA whereas employee-oriented culture had an insignificant contribution. This finding supported the importance attributed to combine effect of intangible assets such as intellectual capital, corporate reputation and employee-oriented culture.

Conclusively, the results supported the relationship between intellectual capital and corporate performance of firms listed on Nairobi Securities Exchange. The findings indicated that the combined effect of intellectual capital constructs had a greater influence on corporate performance as compared to isolated effect of human capital, social capital and organization capital. In addition, the study demonstrated that corporate reputation mediates the relationship between intellectual corporate performance. However, the findings did not provide sufficient evidence in support for the moderating effect of employee-oriented culture on both financial and non-financial performance. The finding provides empirical support for theoretical understanding of the value of intangible resources and has potential significant implication for strategic human resource management as well as management practice.

5.4 Implications for Theory, Policy and Practice

The current study confirms that there is evidence to support influence of intellectual capital on non-financial performance and return on assets. It also supports the mediating effect of corporate reputation on the relationship between intellectual capital and corporate performance. However, there was no sufficient evidence to support the moderating effect of employee-oriented culture. The results of the study therefore have implication for theory, practice and policy as discussed below.

5.4.1 Theoretical Implication

The study makes contribution to the resource based view of the firm which has been instrumental to development of strategic human resource management. Wright et al. (2001) argues that due to the advantage associated with internal resources the resource based is often used by strategic human resource management scholars both in development of theory and rationale for empirical research. First, it provides support to the growing body of knowledge and research that attest to the importance

of integration of intellectual capital as a source of competitive advantage. As discussed in literature and consistent with the results of the study, the combined effect of intellectual capital components is greater than the individual effect of components of intellectual capital. This implies that it would be difficult for a company to imitate human capital, social capital and organization capital. For instance, if an employee moves to the competing firm, they would have to acquire the social capital and organization capital which are not easily imitable or transferable from one firm to another. Thus, it would be difficult for that firm to develop competitive advantage based only on human capital.

The findings of the study indicated that the corporate reputation mediates the relationship between intellectual capital and corporate performance. Whilst previous studies, showed that intellectual capital influences performance, it is apparent that typical investors do not have the means to identify the intellectual capital or objectify its value due to its intangible nature. Since market transactions occur under conditions in which buyers and sellers possess asymmetrical information, proactive firms resort to visible reputation activities to influence stakeholder's perceptions about their ability as service providers. The results of the study indicated that actions such as media visibility, corporate image and corporate social responsibility act as signals that have economic benefits to the firms. The study did not identify an elaborate study that has tested the mediating effect of corporate reputation on the relationship between intellectual capital and performance. Thus, the current study provides empirical and theoretical support for the mediating effect of corporate reputation and theoretical support for the signaling theory.

The results of this study did not support the moderating effect of employee-oriented culture. The objective on the moderating effect of employee-oriented culture on the relationship between intellectual capital and performance did not predict the resource based theory proposition that corporate culture is a source of competitive advantage because it cannot be transferred from one organization to another due to its historical conditions and social complexity.

The study analyzed the simultaneous effect of intellectual capital, employee-oriented culture and corporate reputation on corporate performance. The findings demonstrate that the explanatory power of the joint effect of intellectual capital, corporate

reputation and employee-oriented culture was greater than the predictor variables in regard to non-financial performance and ROA. This implies that efficient combination of intellectual capital, corporate reputation, corporate culture on performance results in more complex interdependencies which are harder to imitate than isolated effect of predictor variables. Thus, potential competitors would have difficulty in duplicating competitive advantage based on combination of intellectual capital and corporate reputation because this combination arise from organization process that is casually ambiguous and socially complex. Indeed and consistent with the results of the joint effect, the study provides evidence for the resource based view of the firm especially in a developing country context.

5.4.2 Policy Implications

Vision 2030 singles out human capital as one of the drivers into becoming a middle income country (Economic Report, 2013). This can only be realized when majority of the citizens are equipped with the necessary skills, abilities and capabilities, thus. human capital is important towards realization of economic recovery stated in Vision 2030. The firms listed in Nairobi Securities Exchange are likely to play a crucial role in achieving vision 2030 targets. For the firms to perform, they need competent human resource that can contribute to performance of the companies and therefore competitiveness of the country. Efficient use of people turns into more economic output, higher income and economic development. High educational attainment, high literacy level and higher levels of human capital are likely to improve business environment and create a competitive environment that attracts Foreign Direct Investment (FDI). However, human capital alone does not; in itself bring forth competitive advantage. The creation of networks within and outside the organization facilitates the transfer of knowledge from the individual to groups in the firm. Further, the organization should put into place appropriate structures that will facilitate the performance of the companies.

To this end, the policy and institutional factors plays a role in development of capital market. Investors require confidence, ease of entry so that they can invest in a firm. Thus, the companies should invest in corporate reputation in order to strengthen and attract investors into the companies. In addition, companies with positive reputation

can be perceived as more attractive and would attract employees with high human capital provide a company with a competitive advantage over competitors. such as corporate image, corporate social responsibility and media visibility.

5.4.3 Managerial Implications

The study demonstrates importance of the influence of intangible assets on performance of firms listed on Nairobi Securities Exchange. First, the results show that interplay among human capital, social capital and organization capital is important for firms listed on Nairobi Securities Exchange. Traditionally, organizations have solely relied on the employee's knowledge. The results imply that isolated effect of human capital is not a sufficient predictor of corporate performance. An organization must nurture the employees into sharing their knowledge by creating internal and external networks and also creating support system within the organization to retain the knowledge. This implies that to effectively leverage investment in human capital, companies should also invest in development of social capital to provide necessary conditions for employees to network and share knowledge.

Based on the findings, the study established that corporate reputation has a mediating effect on the relationship between intellectual capital and financial and non-financial performance. This suggests that corporate image, media visibility and corporate social responsibility are important means of communication to firms listed on Nairobi Securities Exchange as it reduces information asymmetries experienced by different stakeholders. The results implied that corporate reputation has an effect on non-financial measures and return on assets, thus firms should invest in corporate reputation. Further, this study confirmed that intangible assets provide a superior explanation of performance than isolated effect of individual variables. The strength of different combination has been highlighted and practitioners have an empirical basis to pursue.

5.5 Key Contributions of the Thesis

First, the results supported a significant relationship between intellectual capital and non-financial performance and return on assets respectively. The results make a theoretical and empirical contribution in a developing country context. Unlike

previous studies that have utilized isolated measures of performance, the study utilized measures that capture the multi-dimensionality of organizational performance.

Secondly, the study established that corporate reputation mediates the relationship between intellectual capital and performance measured as non-financial and return on assets. The study hypothesized the mediating effect of corporate reputation from extensive literature review as there was no an elaborate study that identified the mediating effect of corporate reputation and corporate performance. The results further extended contribution on signaling theory that suggest that market conditions occur under conditions of uncertainty, and proactive firms engage in reputation building activities to impress the stakeholders. The study established that media visibility, corporate image and corporate social responsibility are important constructs of corporate reputation. Different from previous studies on corporate reputation, the current study focused on both financial and non-financial measures of performance.

Thirdly, the study established that employee-oriented culture had no moderating effect on the relationship between intellectual capital and both non-financial and return on assets respectively. Lastly, the study investigated the joint effect of intellectual capital, corporate reputation, and corporate culture on performance. The results of the study indicated that the combined effect of intellectual capital, corporate reputation and employee-oriented culture was greater than individual influence of the predictor variables. The results implied that no organization is likely to outperform its rivals based on a single variable providing support for the resource based view of the firm. There was no elaborate study identified that had studied similar variables, thus, the current study makes significant contribution to both theory and empirical findings on resource based view of the firm.

5.6 Limitations of the Study

While this study makes several contributions, there are number of ways in which it can be improved and advanced from a methodological and theoretical perspective. First, the data was gathered from a single respondent in each firm. Based on the items in the survey questionnaire and previous studies, the respondents were the best placed in the study. The results confirm that they had relatively high levels of education

coupled with years of experience, thus had a good knowledge of the study variables. While key informant methodology could have questionable reliability, the results established that the respondents had high-levels of education and had worked for a number of years in the companies implying they had a good knowledge of management practices in their respective organizations. The study could not completely rule out the possibility of biases arising out of the likert-type scale that might have inflated the results. For this study, potential method biases were addressed by using a self-administered questionnaire.

Another limitation was that the variables of study, intellectual capital, corporate reputation, corporate culture and non-financial performance were perceptions based on key informant methodology. The study relied on perceptual measures because it was difficult to obtain relevant objective measures capturing the variation in the study variables across multiple industries with the kind of precision that was required. Bollen et al. (2005) submitted that reaction of respondents influence the respondents meaning that some people tend to give extreme answers whereas others prefer cautious answers. Although the study attempted to collect objective data pertaining to employees age, levels of education and years of experience, there was high resistance from the human resource practitioners, most of them citing the sensitivity of the information.

The entire population of firms listed on Nairobi securities Exchange was 62, which are relatively small compared to other countries. Due to confidentiality clause in some firms and respondents resistance, the final set comprised of only 34 firms. The size of the firms was also limited by firms that were listed by 2009. Although a larger sample would have given more power to the finding, the difficulty of collecting managerial-level data imposed limits on the size.

In measuring financial performance, the study used accounting based measures such as return on assets, return on equity and dividend yield. Huselid et al. (1997) noted that accounting based measures represent the impact of past success. The indicators are subject to numerous biases not present in market based measures which are considered to be more accurate reflection of a firm's financial status. The major concern with the accounting measures is that they are historical and lag actual actions that actually bring about results.

Notwithstanding the limitations mentioned above, the current study does hold contribution to the understanding of strategic human resource management and especially on the influence of intellectual capital, corporate reputation on performance. The study also does hold implication for future research on intellectual capital management.

5.7 Recommendation for Future Research

The need to develop a better understanding of the results suggest avenues for future research that are worthwhile. First, Becker and Gerhart (1996) advocates that broader, more qualitative methods are needed to study phenomenon of human resource management utilizing multiple sources of information and respondents. Thus, future studies should take into account more respondents to avoid potential biases that arise from key informant methodology. The study population was small, and it would be appropriate that future studies should include more respondents or study different settings like the public sector.

The study examined the impact of return on assets, return on equity and dividend yield on study variables. Return on assets provided partial support for the hypotheses while return on equity and dividend yielded insignificant results. It may be useful that future researchers re-examine this further by using other market based measures such as Tobin Q and share price.

Methodologically, more advanced statistical techniques such as structural equation modeling may be used to test the moderating and mediating effect in a single analysis instead of separate regression analyses. The structural equation modeling analysis provides information about the consistency of meditational model to the data. Measurement error which is a potential concern in mediation testing can be addressed.

The conceptualization of task-oriented culture should provide a basis for further study. The task-oriented culture raised reliability concerns. An extension of moderating effect of task-oriented culture in future research could provide a better understanding of factors that moderate the influence of intellectual capital on performance. Future researchers could consider rewording the concept of culture so as to detect contradictory opinion often inherent in likert-type scale.

REFERENCES

- Abeyssekera, I. (2010). The influence of board size on intellectual capital disclosure by Kenyan listed firms. *Journal of Intellectual Capital*, 11 (4), 504-518.
- Adler, S., & Kwon, S.W. (2002). Social capital: Prospects for a new concept *Academy of Management Review*. 27, 17–40.
- Alsop, R. J. (2004). *The 18 immutable laws of corporate reputation*. New York: Free Press.
- Amadiou, P., & Vivian J. (2010). Intangible effort and performance: The case of French wine industry. *Agribusiness Journal*, 2, 280-306.
- Andretsch, D., & Stephan, P. E. (1996). Company-scientist location links: The case of biotechnology. *American Economic Review*, 88, 641-652.
- Aycan, Z., Kanungo, R., Mendonca, M., Yu, K., Deller, J., Stahl, G. & Kurshid, A. (2000). Impact of culture on human resource management practices: A 10 country comparison. *An International Review. Applied Journal of Psychology*, 49 (1), 192-221.
- Bagire, V. A. (2012). Strategic configuration and performance of large non-governmental organizations in Uganda. (*Unpublished PhD Thesis*). School of Business, University of Nairobi.
- Basdeo, D.K., Smith, K. G., Grimm, C. M., Rindova, V., & Derfus, P. (2006). The impact of market actions of firm reputation. *Strategic Management Journal*, 27, 1205-1219.
- Barbaro, M. (2005). *A new weapon for Wal-Mart: A war room*. The New York Times.
- Barich, H., & Kotler, R. (1991). A framework for marketing image management. *Sloan Management Review*, 32(2), 94-104.
- Barney, J. B. (1986). Organization culture: Can it be a source of competitive advantage. *Academy of Management Review*, 11, 656-665.
- Barney J. B. (1991). Firm resources and sustainable competitive advantage. *Journal of Management*, 17 (1), 99-120.
- Barney, J. B. (2001). Is the resource based view a useful perspective of strategic management research? Yes. *Academy of Management Review*, 26 41-56.
- Baron, A. & Walter, M. (1994). *The culture factor*. London: IDP.
- Baron, R. M., & Kenney, D. A. (1986). The moderator-mediation variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.

- Becker, G. S. (1964). *Human capital*. New York: Columbia University Press.
- Becker, G. S. (1993). Human capital: A theoretical and empirical analysis with special reference to education. *Economic and Industrial Democracy*, 27(2), 240-60.
- Becker, B. E., & Gerhart, B. (1996). Human resources and organization performance: Progress and prospects. *Academy of Management Journal*, 39, 779-801.
- Benson, J., & Mitchell, M. (2011). Generations at work: Are there differences and do they matter? *International Journal of Human Resource Management*, 22(9), 1843-1865.
- Bernston, E., Sverke, M., and Marklund, S. (2006). Predicting perceived employability: Human capital or labour market opportunities? *Economic and Industrial Democracy*, 27(2), 223-244.
- Black, E., Canes, T., & Richardson, V. (2000). The market value of corporate reputation. *Corporate Reputation Review*, 1, 31-42.
- Black, S.E., & Lynch, M. (1996). Human capital investment. *The American Economic Review*, 86 (2), 263-267.
- Blundell, R., Dearden, L., Meahir, C., & Sianesi, B. (1999). Human capital investment: The returns from education and training to the individual, the firm and the economy. *Fiscal Studies*, 20 (1), 1-23.
- Bollen, L., Vergauwen, P. & Schnieders, S. (2005). Linking intellectual capital and intellectual property to company performance. *Management Decisions*, 43(9), 1161-1185.
- Bontis, N. (1996). There's a price on your head: Managing intellectual capital strategically. *Business Quarterly*, 40-47.
- Bontis, N. (1998). Intellectual capital: An exploratory study that develops measures and models. *Management Decision Journal*, 36 (2), 63-76.
- Bontis, N. (1999). Managing organizational knowledge by diagnosing intellectual capital: Framing and advancing the state of the field. *International Journal of Technology Management*, 18 (5/6/7/8), 433-462.
- Bontis, N. (2001). Assess knowledge assets: A review of the models used to measure intellectual capital. *International Journal of Management Review*, 3 (1), 41-60.
- Boudreau, J., & Ramastad, P. (1998). Human resource metrics: Can measures be strategic? *CAHRS Working Paper Series 123*.

- Bourdieu, P., & Wacquant, L.J.D. (1992). *An invitation to reflexive sociology*. Chicago, IL: The University of Chicago, Press.
- Burt, R. S. (1992). *Structural Holes: The social structure of competition*. Cambridge, MA: Harvard University Press.
- Burt, R.S. (1997). The contingent value of social capital. *Administrative Science Quarterly*, 42: 339-365.
- Cabrita, R., & Bontis, N. (2008). Intellectual capital and business performance in Portuguese banking industry. *International Journal of Technology Management*, 43, 212-237.
- Calori, R., & Sarnin, P. (1991). Corporate culture and economic performance. *Organization studies*, 12 (1), 49-74.
- Carmeli, A., & Tishler, A. (2004). Relationship between intangible organizational elements and organizational performance. *Strategic Management Journal*, 25, 1257-1278.
- Chaminde, C., & Johnson, J. (2003). Can guidelines for intellectual capital management and reporting be considered without addressing cultural differences. *Journal of Intellectual Capital*, 437-455.
- Child, J. (1981). Culture, contingency and capitalism in the cross-national study of organizations. *Research in Organization Behavior*, 3, 303-356.
- Choundhury, J. (2010). Performance impact of intellectual capital: A study of Indian IT sector. *International Journal of Business and Management*, 5(9), 72-80.
- Chung-Fah, H., & Ho-Chi, L. (2012). An empirical analysis of the influence of corporate social responsibility on organizational performance of Taiwan's construction industry: Using corporate image as mediator. *Construction Management and Economics*, 30(4), 263-275.
- Churchhill, G. (1979). A paradigm for developing better measures of making constructs. *Journal of Marketing Research*, 16, 64-73.
- Clarkson, M. B. (1995). A stakeholder framework for analyzing and evaluating corporate social performance. *Academy of Management Review*, 20, 92-117.
- Coleman, J. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 94, S95-S120.
- Coleman, J. (1990). *Foundations of social theory*. Cambridge: Belkna press.
- Cooper, D. R., & Schindler, P.S. (2008). *Business research methods*. 10th Edition, McGraw-Hill Higher Education.
- Coopey, J. (1994). Managerial culture and the stillbirth of organizational commitment. *Human Resource Management Journal*, 5 (3), 56-76.

- Curado, C., & Bontis, N. (2007). Managing intellectual capital: The mic matrix. *International Journal of Knowledge and learning*, 2(3), 316-326.
- CMA Quarterly Statistical Bulletin (2013).
- Costo, N. M., & Catsoupes, L. (2007). Understanding people dynamics: competitiveness and beyond. *Academy of Management Journal*, 39 (3), 211-213
- Creswell, J.W. (2003). *Research design: Qualitative, quantitative and mixed methods approaches (2nd Edition)*. Thousand Oaks; USA: Sage Publications.
- Deal, T. E., & Kennedy, A. A. (1982). *Corporate Cultures: The Rites and rituals of corporate life*. Readings, M.A: Wesley Publishing Company.
- Deephouse, D. (2000). Media reputation as a strategic resource: An integration of mass-communication and resource-based theories. *Journal of Management*, 26, 1091-112.
- Denison, D. R. (1984). Bringing corporate culture to the bottom line. *Organization dynamics*, 13(2), 4-22.
- Denison, D.R., & Mishra, A. K. (1995). Towards a theory of organization culture and effectiveness. *Organization Science*, 6 (2), 204-223.
- Delaney, J., & Huselid, M. A. (1996). The impact of human resource management practices on perceptions of organizational performance. *Academy of Management Review*, 11, 656-665.
- Drucker, P. (1993). *Post-capitalist society*. New York: HarperCollins.
- Dyer, J. H., & Singh, H. (1998). The relational view: Cooperative strategy and source of organizational competitive advantage. *Academy of Management Review*, 23 (4), 660-679.
- Economic Review (2013)*. Nairobi: Kenya Institute for Public Policy Research and Analysis.
- Economic Survey (2014)*. Nairobi: Kenya National Bureau of Statistics.
- Edvinsson, L., & Malone. (1997). *Intellectual capital: Realizing your company's true value by finding its hidden roots*. New York: Harper Business.
- Firer, S., & Williams, S. (2003). Intellectual capital and traditional measures of corporate performance. *Journal of Intellectual Capital*, 4 (3), 348-360.
- Florin, J., Lubatkin, M. & Schulze, W. (2003). A social capital model of high-growth ventures. *Academy of Management Journal*, 46 (3), 374-84.
- Friedman, M. (1970). The social responsibility of business is to increase its profits. *New York Times Magazine*, September 13, 33.

- Fombrun, J. (1996). *Reputation: Realizing value from corporate image*. Boston, MA: Harvard Business School Press.
- Fombrun, C., & Shanley, M. (1990). What's in a name? Reputation building and corporate strategy. *The Academy of Marketing Journal*, 33 (2), 233-258.
- Fukuyama, F. (1995). *Trust. The social virtues and creation of prosperity*. New York: Free Press.
- Gary, R. J. (1998). *Organization culture and the psychological contract: A review of literature*. Kumpania Consulting. www. Kumpania. co.uk.
- Guba, E. (1990). *The alternative paradigm design*. London: Sage Publication.
- Goffee R., & Jones, G. (1996). What holds the modern company together? *Havard Business Review*, 74(6), 133-48.
- Gotsi, M., & Wilson, A.M. (2001). Corporate definition: Seeking a definition. *Corporate Communication Journal*, 6, 24-30.
- Grant, R. (1996). Towards a knowledge-based theory of the firm. *Strategic Management Journal*, 17 (Special issue), 109-112.
- Greenhaus, J. H., & Callaman G. A. (1994). *Career management* (2nd edition). London: Dyrden Press.
- Greenwood, L., Li, S., Prakash, R. & Deephouse, D. (2005). Reputation, diversification and organization explanation of performance. *Organization Science*, 16, 661-667.
- Guthrie, J. P. (2001). High involvement work practices, turnover and productivity: Evidence from New Zealand. *Academy of Management Journal*, 44, 180-190.
- Guthrie, J.P., Datta, D.K. & Wright, P.M. (2004). *Peeling back the onion Competitive advantage through people: Test of casual model*. CAHRS Working Paper 04-09.
- Hackman, J. R., & Oldham, G. R. (1980). *Work redesign*. Readings, MA: Addison-Wesley.
- Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W.C. (1998). *Multivariate data analysis*, 5th Edition, Upper Sadddle River: NJ, Prentice Hall.
- Hall, R. (1992). The strategic analysis of intangible resources. *Strategic Management Journal*, 13 (2), 135-144.
- Hall, R. (1993). A framework linking intangible resource and capabilities to sustainable competitive advantage. *Strategic Management Journal*, 14, 607-618.
- Handy, C. B. (1993). *Understanding organizations*. New York: Oxford University Press.

- Hatch, W. N., & Dyer, H. J. (2004). Human Capital and learning as a source of competitive advantage. *Strategic Management Journal*, 25, 1155-1178.
- Hitt, M. A., Bierman L., Shimizu, K., & Kochar, R. (2001). Direct and moderating effects of human capital on strategy and performance in professional service firms: A resource-based perspective. *Academy of Management Journal*, 44 (1), 13-28.
- Hubbard, G. (2009). Measuring organization performance: Beyond the triple bottom line. *Business Strategy and the Environmental Journal*, 19, 177-191.
- Huselid, M. A. (1996). The impact of human resource management practices on turnover, productivity and corporate financial performance. *Academy of Management Journal*, 38, 635-672.
- Huselid, M. A., Jackson, S. E. & Schuler, R. S. (1997). Technical and strategic human resource management effectiveness as determinants of firm performance. *Academy of Management Journal*, 40(1), 171-188.
- Hutton, J. G., Goodman, M.B., Alexander, J.B., & Genert, C.M. (2001). Reputation management: The new face of public relation? *Public Relation Review*, 27, 247-261.
- Hofstede, G. (1991). *Culture and organizations*. London: McGraw-Hill.
- Inglis, R., Morely, C. & Sammut, P. (2006). Corporate Reputation and Organization Performance. An Australian study. *Management Auditing Journal*, 21 (9), 934-947.
- Ittner, C., & Larcker, D. (1998). Are non-financial measures leading indicators of financial performance? An analysis of customer satisfaction. *Journal of Accounting Research*, 36, 1-35.
- Kandie, P. Y. (2009). *The link of organization's strategy and institutional factors on performance of Small and Medium Enterprises in Kenya*. (Unpublished PhD Thesis), School of Business, University of Nairobi.
- Kannan, G., & Aulbur, W. (2004). Intellectual capital: Measurement effectiveness: *Journal of Intellectual Capital*, 5 (3), 389-413.
- Kaplan, R., & Norton, D. (1992). The balance scorecard. Measures that drives performance. *Harvard Business Review*, 70, 71-79.
- Kaplan, R., & Norton, D. (1996). *The balance scorecard. Translating strategy into action*. Boston: Harvard Business, School Press.
- K'Obonyo, P., & Dimba, B. (2007). *Influence of culture on strategic human resource management practices in multinational companies in Kenya: A Critical Literature Review*. www.strathmore.edu. September. 14, 2012.
- Kolb, D. A., & Frohman, A. L. (1970). An organization development approach to consulting. *Sloan management Review*, 12, 51-65.

- Kor, Y. Y., & Sundaramurthy, C. (2009). Experience-based human capital and outside directors. *International Journal of Strategic Change Management*, 1(3), 186-211.
- Kravetz, D.J. (1988). *The human resource revolution*. San Francisco CA: Jossey-Bass.
- Lee, J., & Roh, J. J. (2012). Revisiting corporate reputation and firm performance link. *An International Journal*, 19 (4), 649-664.
- Letting, N. K. (2011). *Board of directors attributes, strategic decision-making and corporate performance of firms listed on the Nairobi Stock Exchange*. (Unpublished PhD Thesis), School of Business, University of Nairobi.
- Lengnick-Hall, M. L. B., & Lengnick-Hall, C. A. (2003). *Human resource management in the knowledge economy: New challenges, new roles, new capabilities*. San Francisco: Berrett-Koehler Publishers.
- Lin, S., & Huang, Y. (2005). The role of social capital in relationship between human capital and career mobility. *Journal of Intellectual Capital*, 6 (2), 191-205.
- Ling, S., & Huang, L. (2012). How intellectual capital management affects organization performance: Using intellectual capital as the mediating variable. *Journal of Human Resource Management*, 10 (1), 1-27.
- Lynn, B. (1998). Intellectual Capital. *CMA Magazine*, 72 (1), 10-15.
- Malhotra, N. K. (2010). *Marketing research: An applied orientation* (6th ed.). London: Pearson Education.
- Malvridis, G. (2004). The intellectual capital performance of Japanese banking sector. *Journal of Intellectual capital*, 5 (1), 92-115.
- Marr, B., Schiuman, G., & Neely, A. (2004). The dynamics of value creation: Mapping your intellectual capital performance drivers. *Journal of Intellectual capital*, 5 (2), 312-325.
- McWilliams, A., & Siegel, D. (2001). Corporate social responsibility: Theory of the firm perspective. *Academy of Management Review*, 26, 117-27.
- Mehra, A., Kilduff, M. & Daniel, J. B. (2001). The social networks of high and low self-monitors: Implications for workplace performance. *Administrative Science Quarterly*, 46, 121-146.
- Moir, L. (2001). What do we mean by corporate social responsibility? *Corporate Governance*, 1(2), 16-22.
- Muganda, N. (2010). *Applied business and management research: Exploring the principles and practices of research within the context of Africa*. Africa: Nicorp Publication.

- Mulabe, J. K. (2013). *Human resource strategic orientation, employee outcomes, organizational factors and performance of state corporations in Kenya*. (Unpublished PhD Thesis). School of Business, University of Nairobi.
- Musheref, A. M. (2014). The moderate role of organizational culture between intellectual capital and business performance: An empirical study in Iraq industry. *Net Journal of social sciences*, 2(3), 82-91.
- Musteen, M., Datta, D. & Kemmerer, B. (2010). Corporate reputation: Do board characteristics matter? *British Journal of Management*, 21, 498-510.
- Musyoka, M. (2012). *Factors influencing the relationship between stress and corporate performance publicly quoted companies at the Nairobi stock exchange*. (Unpublished PhD Thesis), School of Business, University of Nairobi.
- Mutuku C. M. (2012). *Factors influencing relationship between top management team diversity and performance of commercial banks in Kenya*. (Unpublished PhD Thesis), School of Business, University of Nairobi.
- Nachamias, C.F., & Nachamias, D. (1996). *Research methods in social sciences*, 5th ed. London: Arnold Publishing.
- Nairobi Stock Exchange (2009). *Annual Reports 2009*. Nairobi: Nairobi Stock Exchange
- Nairobi Stock Exchange (2013). *Annual reports 2013*. Nairobi: Nairobi Stock Exchange.
- Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital and the organization advantage. *Academy of Management Review*, 23 (2), 242-265.
- Ngari, J. M., Kamau, J. N., & Gichira, R. (2011). Relationship between intellectual capital accounting and financial performance: An empirical review of Kenya pharmaceutical companies. *International Journal of Practice*, 2 (4), 21-35.
- Nguyen, N., & Leblanc, G. (2001). Corporate image and reputation in customer's retention decisions in services. *Journal of Retailing in Customer Service*, 84 (4), 227-236.
- Nunnally, J. (1978). *Psychometric Theory* (2nd edition). New York: McGraw Hill.
- Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company. How Japanese companies' create the dynamics of innovation*. New York: Oxford Press.
- Nyambegera, S., Daniels K., & Sparrow, P. (2001). Why fit doesn't always matter: The impact of human resource management on job involvement of Kenya employees. *An International Review: Applied Psychology Journal*. 5 (1), 109-140.

- OECD (1998). *Human capital investment. An international comparison*. Paris: Organization for economic cooperation centre for educational research and innovation.
- Ongore, V. K. (2008). *The effects of ownership structure, Board Effectiveness and managerial discretion on performance of listed companies*. (Unpublished PhD Thesis). School of Business, University of Nairobi.
- Osoro, M. K. (2013). *Intangible assets, firm characteristics, competitive strategy and performance of companies listed at the Nairobi securities exchange*. (Unpublished PhD Thesis). School of Business, University of Nairobi.
- Owino E.O. (2013). *The Influence of service quality and corporate image on customer satisfaction among university students in Kenya*, Unpublished PhD Thesis). School of Business, University of Nairobi.
- Penning J. M., Kyungmook, L. & Van Wittellostuijin, A. (1998). Human capital, social capital and firm dissolution. *Academy of Management Journal*, 4. 425-440.
- Penrose, E.T. (1959). *The theory of the growth of the firm*. New York: Wiley.
- Peter, T. & Waterman, R. (1982). *In Search of excellence: lessons from America's best run companies*. New York; Harper and Row.
- Petkova, A. P., Rindova, V.P. & Gupta, A. K. (2008). How can new ventures build reputation? An exploratory study. *Corporate Reputation Review*, 11(4), 320-334.
- Pharaoh, A. (2003). Corporate reputation: The boardroom challenge. *Corporate Governance*, 3 (4), 46-51.
- Pfeffer, J. (1994). *Competitive advantage through people: Unleashing the power of the workforce*. Boston: Havard Business School Press.
- Pfeffer, J. (2005). Producing sustainable competitive advantage through the effective management of people. *Academy of Management Executive*, 19, 95-106.
- Ployhart, R. E., & Moliterno, T. P. (2011). Emergence of the human capital: A multilevel model. *Academy of management Review*, 36 (1), 127-150.
- Pollack, T. G., & Rindova, V. P. (2003). Media legitimation effect in the market for initial public offering. *Academy of Management Journal*, 46 (2), 631-642.
- Ponnu, C. H., & Okoth, M. O. (2009). Corporate social responsibility disclosure in Kenya: The Nairobi Stock Exchange. *African Journal of Business Management*, 3(10), 601-608.
- Porte, A. (1998). Social capital: Its origins and application in modern sociology. *Annual Review of Sociology*, 24, 1-24.

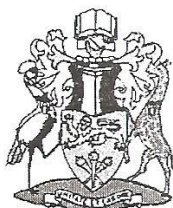
- Porter, M. (1985). *Competitive advantage: Creating and sustaining superior performance*. New York: Free Press.
- Priem, R. L., & Butler, J. E. (2001). Is the resource based view a useful perspective for strategic management research? *Academy of Management Review*, 26 (1), 22-40.
- Putnam, R. D. (1995). Bowling alone. American declining social capital. *Journal of Democracy*, 6, 65-78.
- Quinn, J. B., Anderson, P., & Finkelstein, S. (1996). Managing the professional intellect. Making most of the best. *Harvard Business Review*, 74 (2), 71-80.
- Rao, H., Greve, H., & Davis, G. (2001). Fool's gold: Social proof in the initiation and abandonment of coverage by wall street analyst. *Administrative Science Quarterly*, 46, 502-526.
- Reed, K. K., Lubatkin, M., & Srinivasan, N. (2006). Proposing and testing an intellectual-based view of the firm. *Journal of Management Studies*, 43 (4), 0022-2380.
- Rhee, M., & Valdez, M. E. (2009). Contextual factors surrounding reputation damage with potential implication for reputation repair. *Academy of Management Review*, 34(1), 146-68.
- Riahi-Belkhouli, A. (2003). Intellectual capital and firm performance of US multinational firms: A study of resource-based and stakeholders view. *Journal of Intellectual Capital*, 4 (2), 215-226.
- Richard, P.J., Devinney, T.M., Yip, G.S., & Johnson, G. (2009). Measuring organizational performance: Social behaviour and personality. *An International Journal*, 36 (6), 827-40.
- Rikowski, R. (2007). *Knowledge management: Social, cultural and theoretical perspectives*. Great Britain: Chadros Publishing, Oxford Limited.
- Rindova, V. P., Williamson, I., Petkova, A., & Sever, J. (2005). Being good or being known. An empirical investigation of the dimensions, antecedents and consequences of organization's reputation. *Academy of Management Journal*, 48 (6), 1033-1049.
- Rindova, V. P., Petkova, A. P., & Kotha, S. (2007). Standing out: How new firms in emerging markets build reputation. *Strategic Organization*, 5 (1), 31-70.
- Rindova, V. P., Pollock, T. G., & Hayward, M.L.(2006). Celebrity firms: The social construction of market popularity. *Academy of Management Review*, 31(1), 50-71.
- Robert, P. W., & Dowling, G. R. (2002). Corporate reputation and sustained superior Performance. *Strategic Management Journal*, 23 (2), 1077-1093.
- Roos, J., & Roos, G. (1997). Measuring your company's intellectual performance. *Long Range Planning*, 30 (31), 413-436.
- Roos, J., Roos, G., Dragonetti, N. C., & Edvinsson, L. (1997). *Intellectual capital: navigator in the business landscape*. London: Macmillan.

- Sackman, S. (1991). *Cultural knowledge in organizations*. London: Sage Publications.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students*. Edinburgh: Prentice Hall.
- Scheinder, W.E. (1994). The reengineering alternative a place for making your current work. Illinois: Irwin.
- Schultz, T.W. (1961). Investment in human capital. *American Economic Review*, 51, 1-17.
- Shabarati, A., Jawad, J. & Bontis, N. (2010). Intellectual capital and business performance in pharmaceutical sector of Jordan. *Management Decision Journal*, 48 (1), 105-131.
- Spence, M. (1973). Job market signaling. *Journal of Economics Quarterly*, 87 (3), 355-374.
- Sobh, R., & Perry, C. (2006). Research design and data analysis in realism research. *European Journal of Marketing*. 40(11/13), 1194-1209.
- Sorenson, J. B. (2002). The strength of corporate culture and reliability of firm performance. *Administrative Science Quarterly*, 47(1), 70-91.
- Sveiby, K. E. (1997). *The new organizational wealth, managing and measuring knowledge-based assets*. San Francisco: Barret-Kohler Publishers.
- Stewart, T. A. (1997). *Intellectual capital: The new wealth of organization*. New York: Doubleday.
- Stiles, P. (2003). The Impact of board on Strategy: An empirical examination. *Journal of Management Studies*, 38, 627-50.
- Stovel, M., & Bontis, N. (2002). Voluntary turnover: Knowledge management friend or foe? *Journal of Intellectual Capital*, 3, 303-322.
- Swart J. (2006). Intellectual capital: Disentangling an enigmatic concept. *Journal of Intellectual capital*, 7, 136-159.
- Teece, D., Pisano, G., & Shier, A. (1997). Dynamics, capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-534.
- The Exchange* (2009). Nairobi: Grey Owl Ltd.
- Tsai, W., & Ghoshal, S. (1998). Social capital and value creation: The role of intra-firm networks. *Academy of Management Journal*, 41(4), 464-476.
- Tsen, C., & Goo, Y. J. (2005). Intellectual capital and corporate value in an emerging economy empirical study of Taiwanese manufacturing, *Research and Development Management*, 35 (2), 187-201.
- Truss, C. (2001). Complexities and controversies in linking human resource management with organization outcomes. *Information and Knowledge Management Journal*, 38 (8), 1121-1149.

- Uadiale, O. M., & Fagbemi T. O. (2011). *Corporate social responsibility and financial performance in developing economies*. The Nigerian experience. The 2011 New Orleans International Academic Conference.
- Uadiale, O. M., & Uwigbe, U. (2011). Intellectual capital and business performance evidence from Nigeria. *Interdisciplinary Journal of Research in Business*, 1(10), 49-56.
- Uzzi, B. (1997). Social structure and competition in interfirm networks: The Paradox of embeddedness. *Administrative Science Quarterly*, 42, 35–67.
- Venkatraman, N., & Ramanujam, N. (1986). Measurement of business performance in strategy and research: A comparison of approaches. *The Academy of Management Review*, 11(4), 801-814.
- Wang, Y. (2013). *Corporate reputation management: Reaching out for financial stakeholders*. Rotterdam: Erasmus Research Institute of Management.
- Wartick, S. L. (1992). The relationship between intense media exposure and change in corporate reputation. *Business and Society*, 31, 33-42.
- Waterhouse, J., & Svendsen, A. (1998). *Strategic performance, monitoring and management*. Toronto: CICA.
- Weigelet, K., & Camerer, C. (1988). Reputation and corporate strategy. A recent theory and application. *Strategic Management Journal*, 9, 443-454.
- Wenerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5, 171-180.
- Wright, P. M., Dunford, B. B. & Snell, S. A. (2001). Human resources and resource-based view of the firm. *Journal of Management*, 27 (6), 701-721.
- Wright P. W., & McMahan G.C. (2011). Exploring human capital: Putting human resources back into strategic human resource management. *Human Resource Management Journal*, 10, 1-12.
- Youndat, M., Subramanian, M., & Snell, S. (2004). Intellectual profiles: An examination of investment and returns. *Journal of Management Studies*, 41 (2), 0022-238.
- Zimmer, M. R., & Golden, L. (1998). Impression of Retailing Stores: A content analysis of consumer images. *Journal of Retailing*, 64 (3), 265-293.

APPENDICES

Appendix 1: Letter of Introduction



UNIVERSITY OF NAIROBI
COLLEGE OF HUMANITIES AND SOCIAL SCIENCES
SCHOOL OF BUSINESS
DOCTORAL STUDIES PROGRAMME

Telephone: 4184160/1-5 Ext. 225
Email: dsp@uonbi.ac.ke

P.O. Box 30197
Nairobi, Kenya

06th January, 2014

TO WHOM IT MAY CONCERN

RE: ANNE WANGUI KARIUKI:D80/80282/2009

This is to certify that, ANNE WANGUI KARIUKI:D80/80282//2009 is a Ph.D student in the School of Business, University of Nairobi. The title of her study is: **“The Effect of Corporate Reputation and Corporate Culture on the Relationship Between Intellectual Capital and Performance of Firms Listed on Nairobi Securities Exchange”**

The purpose of this letter therefore, is to kindly request you to assist and facilitate in carrying out the research/study in your organization. A questionnaire is herewith attached for your kind consideration and necessary action.

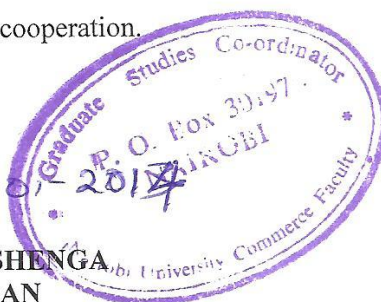
Data and information obtained through this exercise will be used for academic purposes only. Hence, the respondents are requested not to indicate their names anywhere on the questionnaire.

We look forward to your cooperation.

Thank you.

A handwritten signature in blue ink, appearing to read 'Josephat L. Lishenga'.

DR. JOSEPHAT L. LISHENGA
FOR: ASSOCIATE DEAN
GRADUATE BUSINESS STUDIES
SCHOOL OF BUSINESS



JM/nwk

Appendix 2: Researcher's Introductory Letter

To Whom It May Concern

10th January, 2014.

Dear Sir/Madam,

RE: Intellectual Capital, Corporate Reputation, Corporate Culture and Performance of Firms Listed on Nairobi Securities Exchange.

I am a PhD candidate at the Department of Business Administration, School of Business, University of Nairobi. As part of the requirement for the award of degree, I am expected to undertake a research study. This questionnaire is aimed at collecting data on intellectual capital, corporate reputation, corporate culture and performance on firms listed in Nairobi Securities Exchange. Kindly, respond to each item in the questionnaire.

The attached questionnaire will take about twenty minutes only to complete. Kindly answer all the questions. The research results will be used for academic purposes only and will be treated with utmost confidentiality. No one, except the institution will have access to these records.

Yours sincerely,

Anne Kariuki,

Doctoral Candidate

E-mail: w.kariuki@hotmail.com

Mobile No. +254 722 424 440

P.O. Box 104065-00101,

Nairobi.

Appendix 3: Questionnaire

SECTION ONE: GENERAL INFORMATION

I. RESPONDENTS INFORMATION

- 1) Title/designation.....

- 2) What is your highest level of formal education?
O'levels/ A' levels []
Diploma []
Bachelor's degree []
Master's degree []
Postgraduate Diploma []
Doctorate []

- 3) How many years have you worked in this company (Please tick One)
Less than 10 years []
11-15 years []
16-20 years []
21-25 years []
26-30 years []
Over 31 years []

2. ORGANIZATION INFORMATION

- 1) Name of the organization.....
 - 2) How long has the firm been in operation.....
 - 3) Year of listing on Nairobi Securities Exchange.....
 - 4) Ownership structure [Tick one]
 - a) Fully locally owned
 - b) Fully foreign owned
 - c) Both local and foreign owned
- % of ownership: Local..... Foreign.....

5) In what sector of economic activity is your corporation engaged? [Tick one]

- i) Agriculture.....
- ii) Industrial and Allied.....
- iii) Automobiles.....
- iv) Banking.....
- v) Construction and Allied.....
- vi) Energy and Petroleum.....
- vii) Insurance.....
- viii) Investment.....
- ix) Telecommunication and communication.....

3. DEMOGRAPHICS CHARACTERISTICS OF EMPLOYEES

Please provide some information regarding employee’s personal demographic characteristics.

1. How many full time employees are currently employed in your organization

- Below 500 []
- Between 501-999 []
- Between 1000- 14999 []
- 1500-19999 []
- Over 2000 []

2. Please indicate in the table below, the number of employees in each age bracket

Less than 30 years	31-40	41-50	51-60	61-70	71 and above

3. Specify in numbers the years of experience in each category

Less than 5 years	6-10	11-15	16-20	21-25	26 and above

4. Please indicate the number of employees with the following as their highest academic qualification

O’level/ A level	Certificate	Diploma	Bachelors	Masters	PhD

5. How often are training sessions carried out in the organization

- Weekly []
- Quarterly []
- Once an year []
- Monthly []
- After six months []
- On needs basis []

SECTION TWO: INTELLECTUAL CAPITAL

Indicate the extent to which the following statements describe intellectual capital in your company.

Use the scale where 1= not at all 2=to a small extent 3=to a moderate extent 4= to a large extent 5= to a very large extent

	Human Capital	1	2	3	4	5
1	Competence of employees is high					
2	Competence of employees matches their work requirements and responsibilities					
3	Employees have suitable education to perform their job					
4	The level of education of our employees is high					
5	Employees have adequate skills for their jobs.					
6	Most of our employees have more than five years' experience of their respective jobs					
7	Employees are required to undergo at least one skill enhancement training per year					
	Social Capital					
8	Professional and technical employees are encouraged to join professional and social clubs					
9	The company regularly organizes get together such as dinners for the employees to share ideas and bond					
10	Professional employees are required to participate in conferences, seminars and workshops organized by their respective professional bodies					
11	Our professional and technical employees are members of their respective professional associations					
12	Employees interact and exchange ideas with members of other departments					
13	Employees interact and exchange information with clients					
14	Employees interact with customers and suppliers to develop solutions to problems					
	Organization Capital					
15	The company has intranet that facilitates sharing of information among employees					
16	The company intranet allows employees to access information that facilitates their work					
17	The systems allow information sharing					

SECTION THREE: CORPORATE REPUTATION

To what extent do the following statements describe the corporate reputation in your company.

Use the scale: 1=not at all 2=to a small extent 3= to a moderate extent 4= to a large extent 5=to a very large extent

	Corporate Image	1	2	3	4	5
1.	Our products and services enjoy higher ratings by customers relative to those of competitors					
2	This company is highly valued by stakeholders					
3	Employees are proud to be associated with the company (labour turnover is low)					
	Media visibility					
4	The company is mentioned positively in print and electronic media than competing firms					
5	Interaction in social media such as Facebook and twitter is positive					
6	The company has won various industry awards					
	Corporate Social Responsibility					
7	The company is highly regarded in the industry for its social responsibility activities					
8	The company has gained popularity amongst stakeholders from its charitable foundations					
9	The company policy on employment from minority groups has received a wide recognition in the country					

SECTION FOUR: CORPORATE CULTURE

Specify to what extent the following statements describe the corporate culture in your company.

Use the scale where 1=not at all 2=to a small extent 3=to a moderate extent 4= to large extent 5=to a very large extent

	Employee-oriented culture	1	2	3	4	5
1	Cooperation across different parts of the company is actively encouraged					
2	Teamwork rather than hierarchy is used to get the work done					
3	Teams are primarily building blocks					
4	Employees prefer delegation of work at all levels					
5	Employees have sufficient influence on decisions made within the company					
6	Employees feel obliged to help their colleagues in work related issues					
	Task-oriented culture					
7	Structures are very formalized					
8	Decisions are made at the top level then cascaded at lower levels					
9	Procedures govern the behaviour of employees					
10	The company is more concerned about results without personal involvement					
11	Hierarchy of authority has to be followed when solving grievances					

SECTION FIVE: CORPORATE PERFORMANCE

Indicate the extent to which the following statement refers to non-financial indicators in your company.

Use the scale where 1=not at all 2=to a small extent 3=to a moderate extent 4=to a large extent 5=to a very large extent

	Customer service	1	2	3	4	5
1	Customer retention is higher compared to our competitors					
2	The company constantly modifies the way it provides its services based on response it gets from customers					
3	Repeat business is higher compared to our competitors					
4	The company get a percentage of new customers through customer referral					
	Internal Business process					
5	Research and development is a functional department in our organization					
6	large number of new products and services have been introduced compared to our competitors					
7	our main product gained market share over major competitors in the last year 5 years					
8	levels of creativity and innovation is high					
	Learning and growth					
9	The company ensures that employees perform task that are challenging					
10	Our employees perform task that give them a sense of achievement					
11	Our employees perform task that provide them with high degree of responsibility over resources, facilities and results					
12`	Our employees perform task that allow them to acquire new knowledge and skills					

Appendix 4: Firms Listed on Nairobi Securities Exchange

AGRICULTURAL

1. Eaagads Ltd
2. Kakuzi
3. Kapchorua Tea Co. Ltd
4. Limuru Tea Co. Ltd.
5. Rea Vipingo Plantations Ltd.
6. Sasini Ltd
7. Williamson Tea Kenya Ltd

AUTOMOBILES & ACCESSORIES

8. Car & General (K) Ltd
9. CMC Holdings Ltd
10. Marshalls (E.A.) Ltd
11. Sameer Africa Ltd

BANKING

12. Barclays Bank Ltd
13. CFC Stanbic Holdings Ltd
14. Diamond Trust Bank Kenya Ltd
15. Equity Bank Ltd
16. Housing Finance Co Ltd
17. I&M Holdings Ltd
18. Kenya Commercial Bank Ltd
19. National Bank of Kenya Ltd
20. NIC Bank Ltd
21. Standard Chartered Bank Ltd
22. The Co-operative Bank of Kenya Ltd

COMMERCIAL AND SERVICES

23. Express Ltd

24. Hutchings Biemer Ltd
25. Kenya Airways Ltd
26. Longhorn Kenya Ltd
27. Nation Media Group
28. Scangroup Ltd
29. Standard Group Ltd
30. TPS Eastern Africa (Serena) Ltd
31. Uchumi Supermarket Ltd

CONSTRUCTION & ALLIED

32. ARM Cement Ltd
33. Bamburi Cement Ltd
34. Crown Berger Ltd
35. East African Cables Ltd
36. East African Portland Cement Ltd

ENERGY & PETROLEUM

37. KenGen Ltd
38. Kenol Kobil Ltd
39. Kenya Power & Lighting Co Ltd
40. Total Kenya Ltd
41. Umeme Ltd

INSURANCE

42. British-American Investments Co (Kenya)
43. CIC Insurance Group Ltd
44. Jubilee Holdings Ltd
45. Kenya Re-Insurance Corporation Ltd
46. Liberty Kenya Holdings Ltd
47. Pan Africa Insurance Holdings Ltd

INVESTMENT

- 48. Centum Investment Co Ltd
- 49. Olympia Capital Holdings Ltd
- 50. Trans-Century Ltd

MANUFACTURING & ALLIED

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

TELECOMMUNICATION & TECHNOLOGY

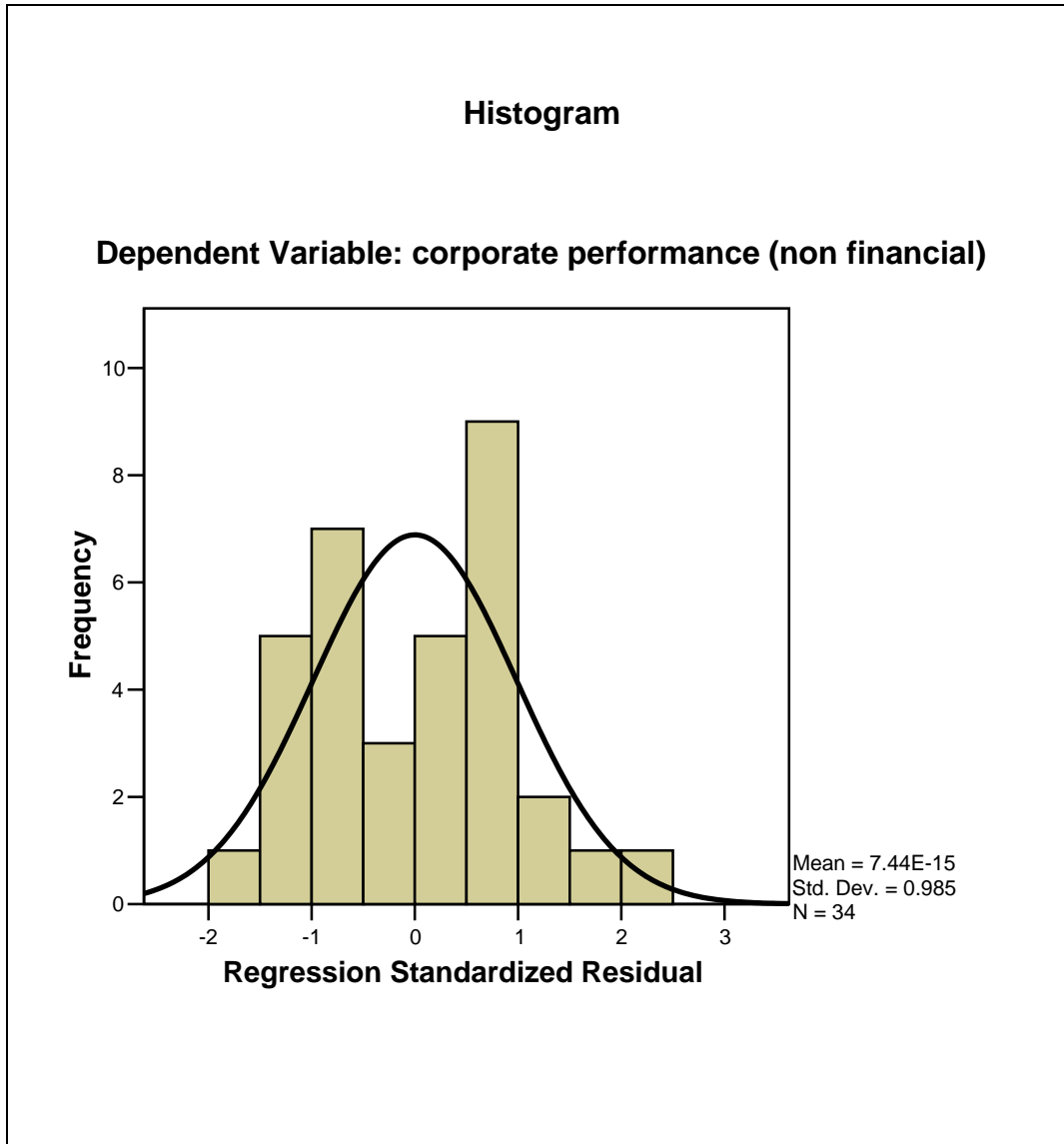
- 60. Access Kenya Group Ltd
- 61. Safaricom Ltd

GEMS

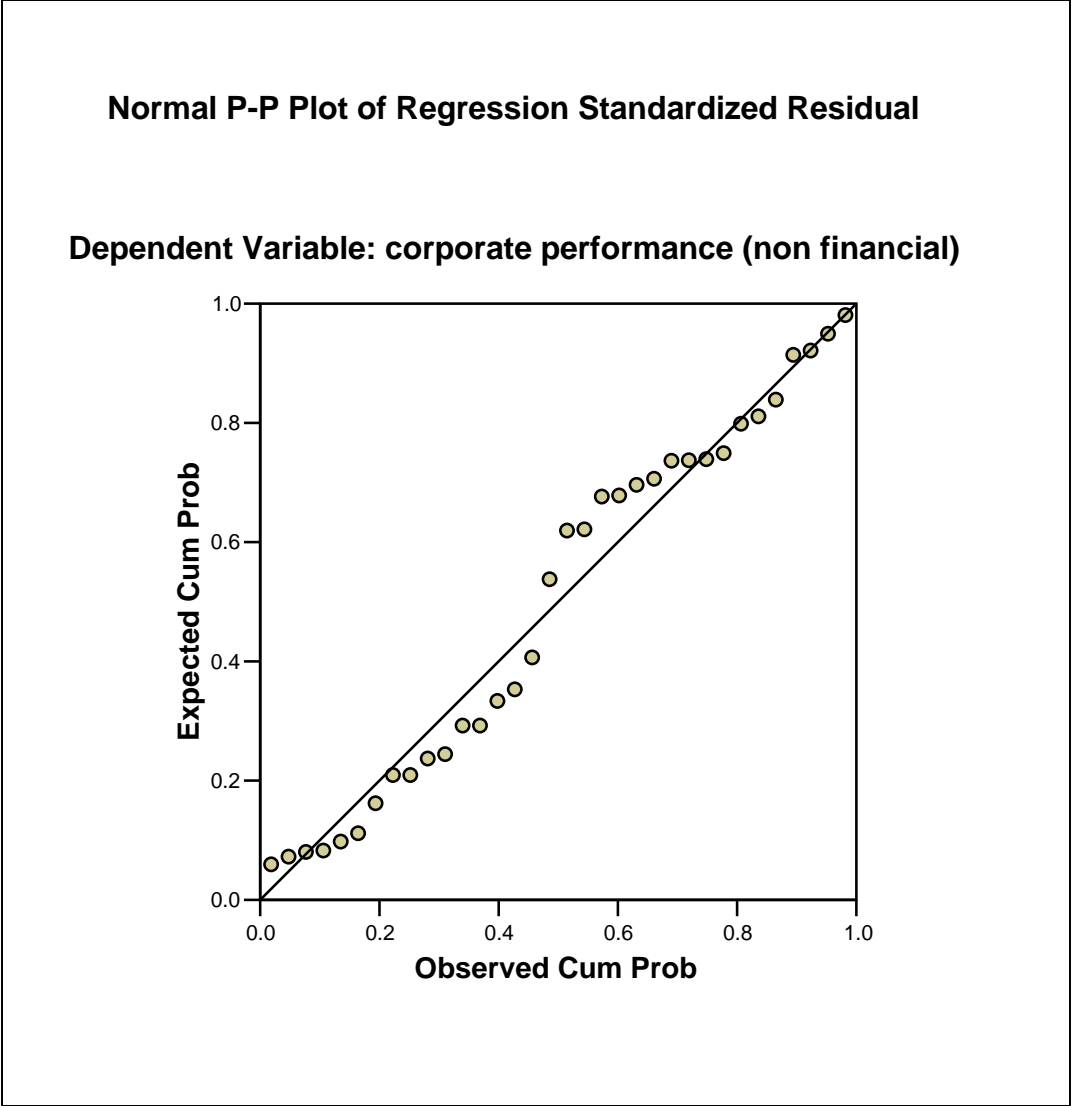
- 62. Home Afrika Ltd

Source: Listed Companies (accessed, 24 October, 2013) available from <http://www.Nse.co.ke/> Listed Companies.

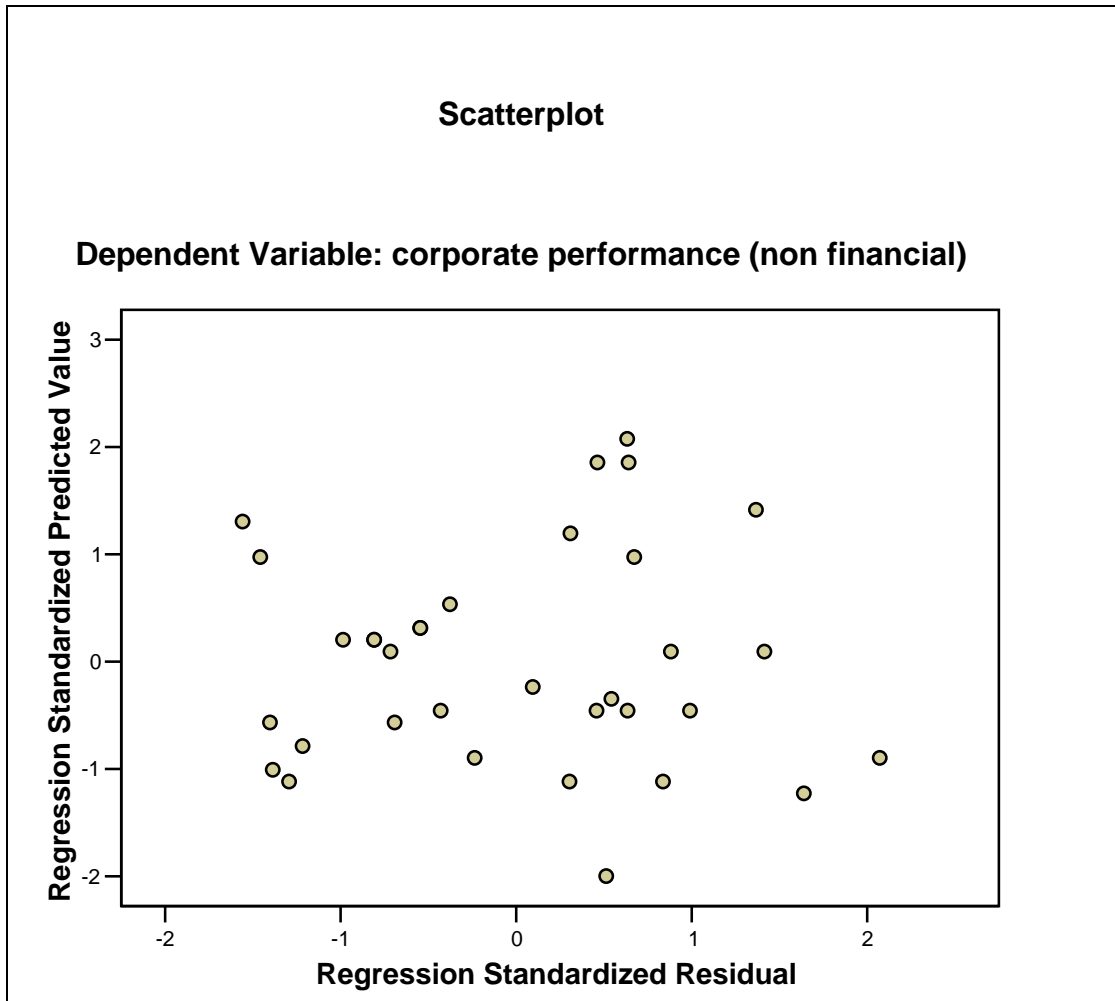
Appendix 5a: Histogram of Non-Financial Performance and Intellectual Capital



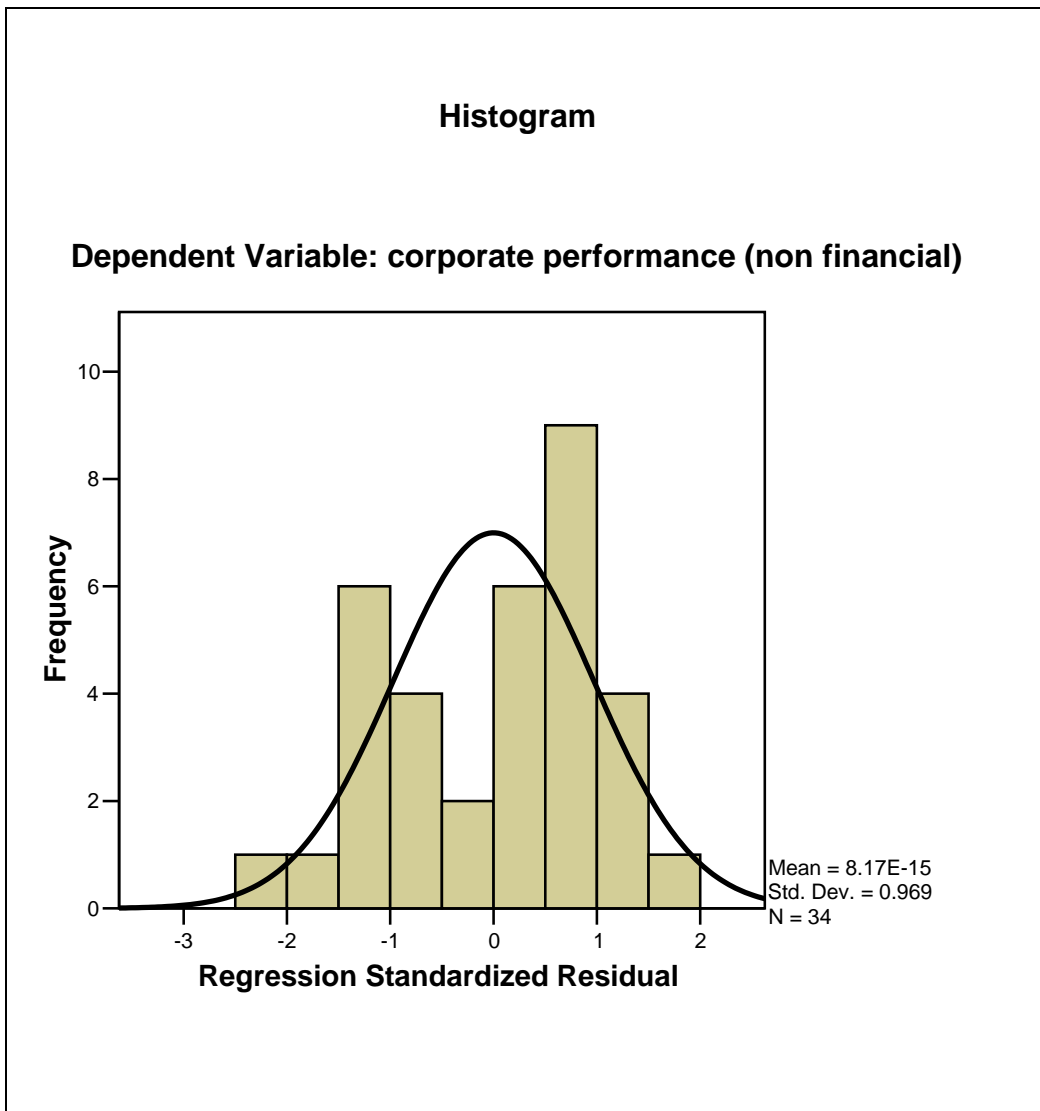
Appendix 5b: P-P Plot of Non-Financial Performance and Intellectual Capital



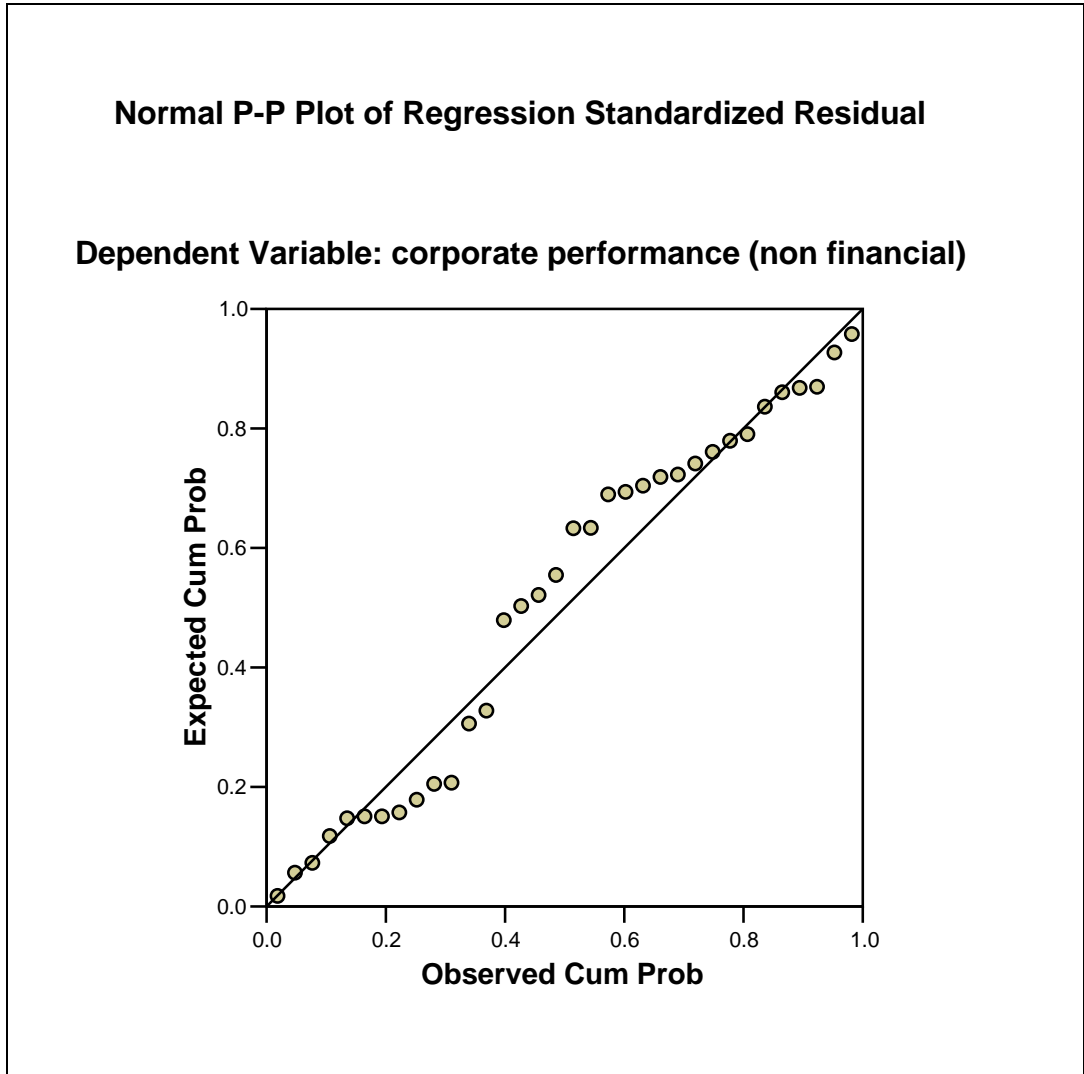
Appendix 5c: Scatterplot of Non-Financial Performance and Intellectual Capital



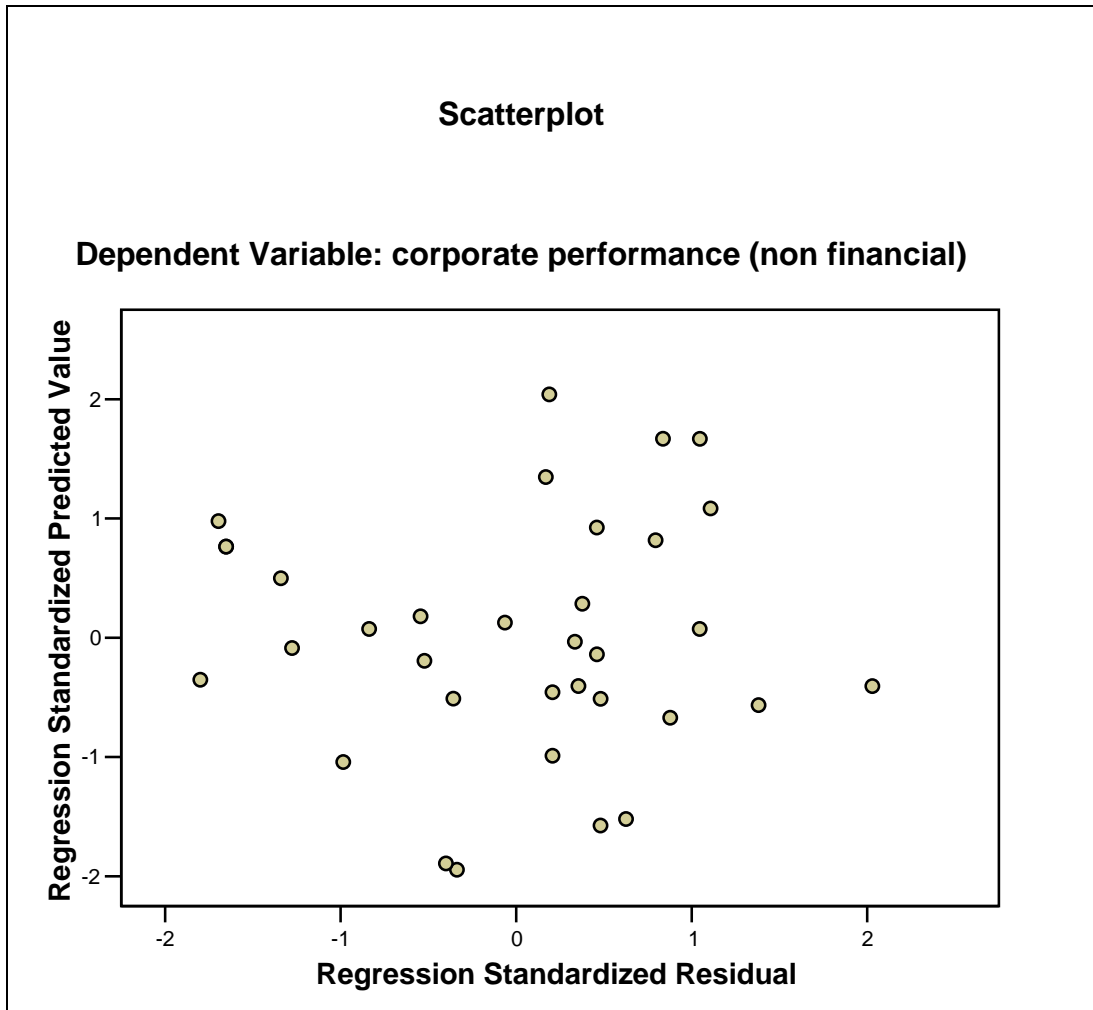
Appendix 6a: Histogram of Mediating Effect of Corporate Reputation on the Relationship Between Intellectual Capital and Non-Financial Performance



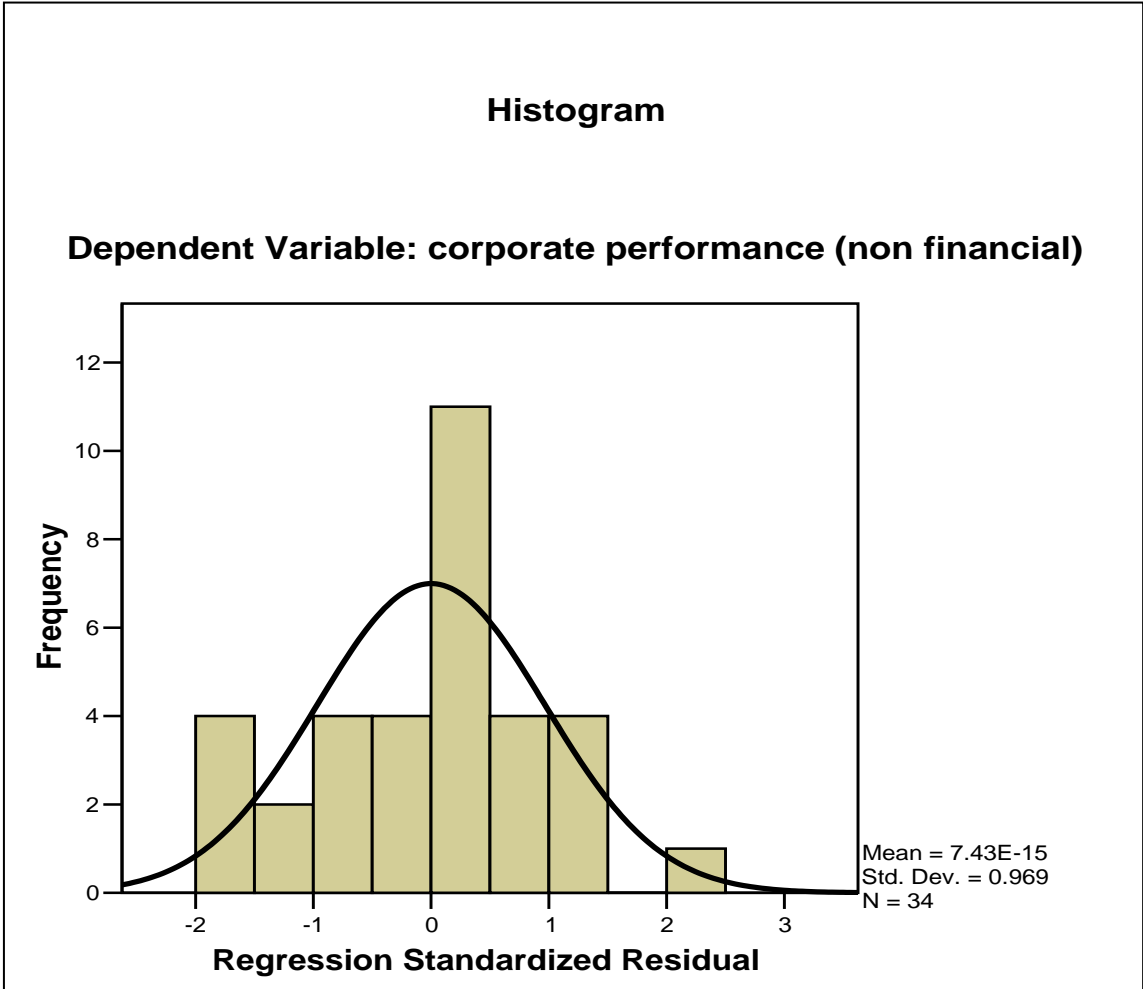
Appendix 6b: P-P Plot of Mediating Effect of Corporate Reputation on the Relationship Between Intellectual Capital and Non-Financial Performance



Appendix 6c: Scatterplot of Mediating Effect of Corporate Reputation on the Relationship Between Intellectual Capital and Non-Financial Performance



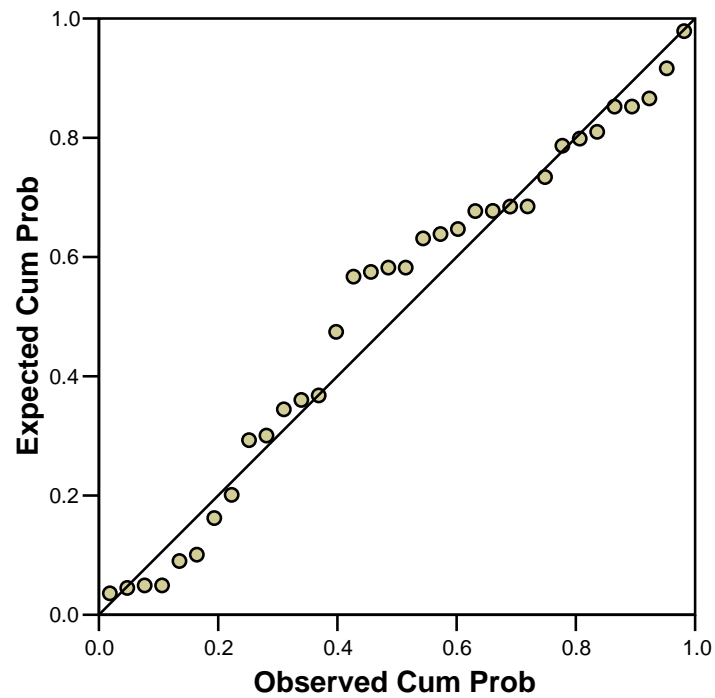
**Appendix 7a : Histogram for Moderating Effect of employee oriented culture
on the Relationship Between Intellectual Capital and Non-Financial
Performance**



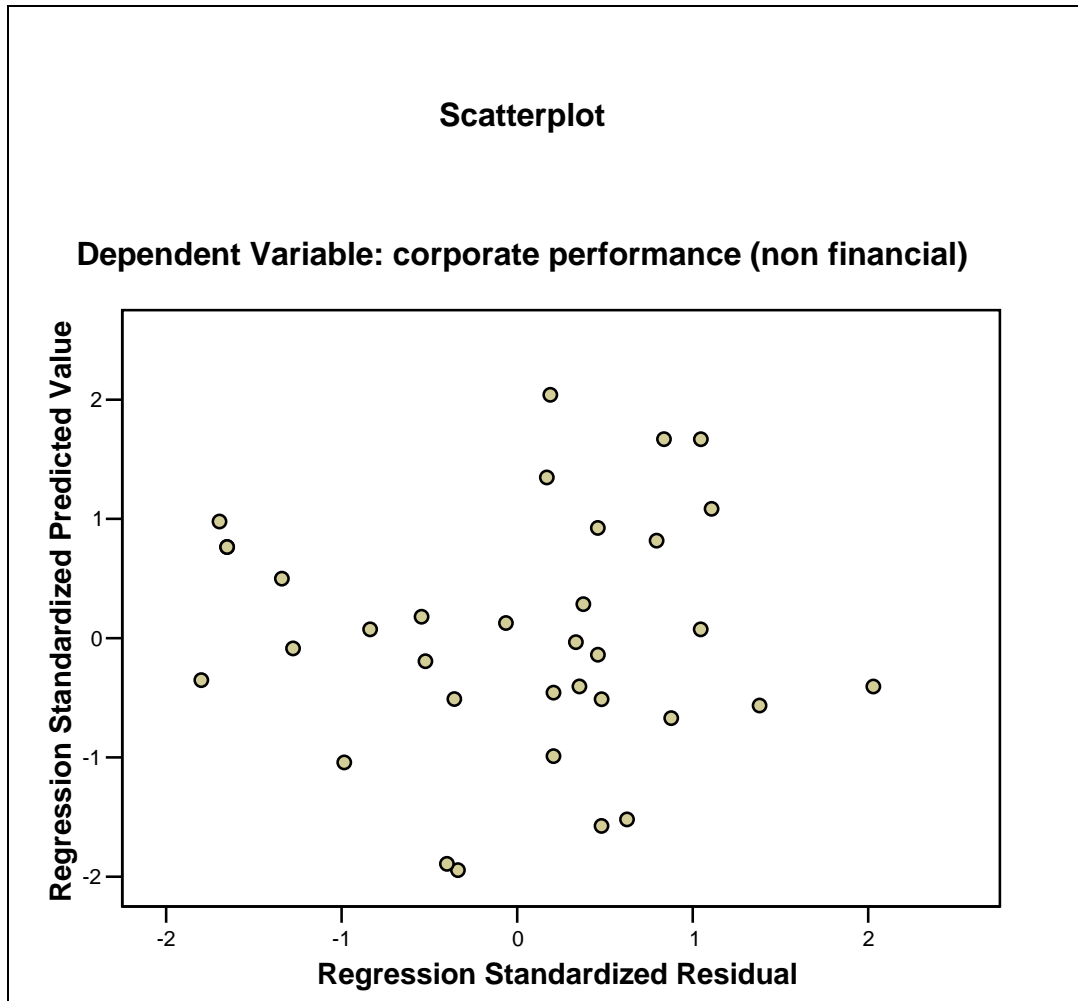
Appendix 7b : P-P Plot of Moderating Effect of employee oriented culture on the Relationship Between Intellectual Capital and Non-Financial Performance

Normal P-P Plot of Regression Standardized Residual

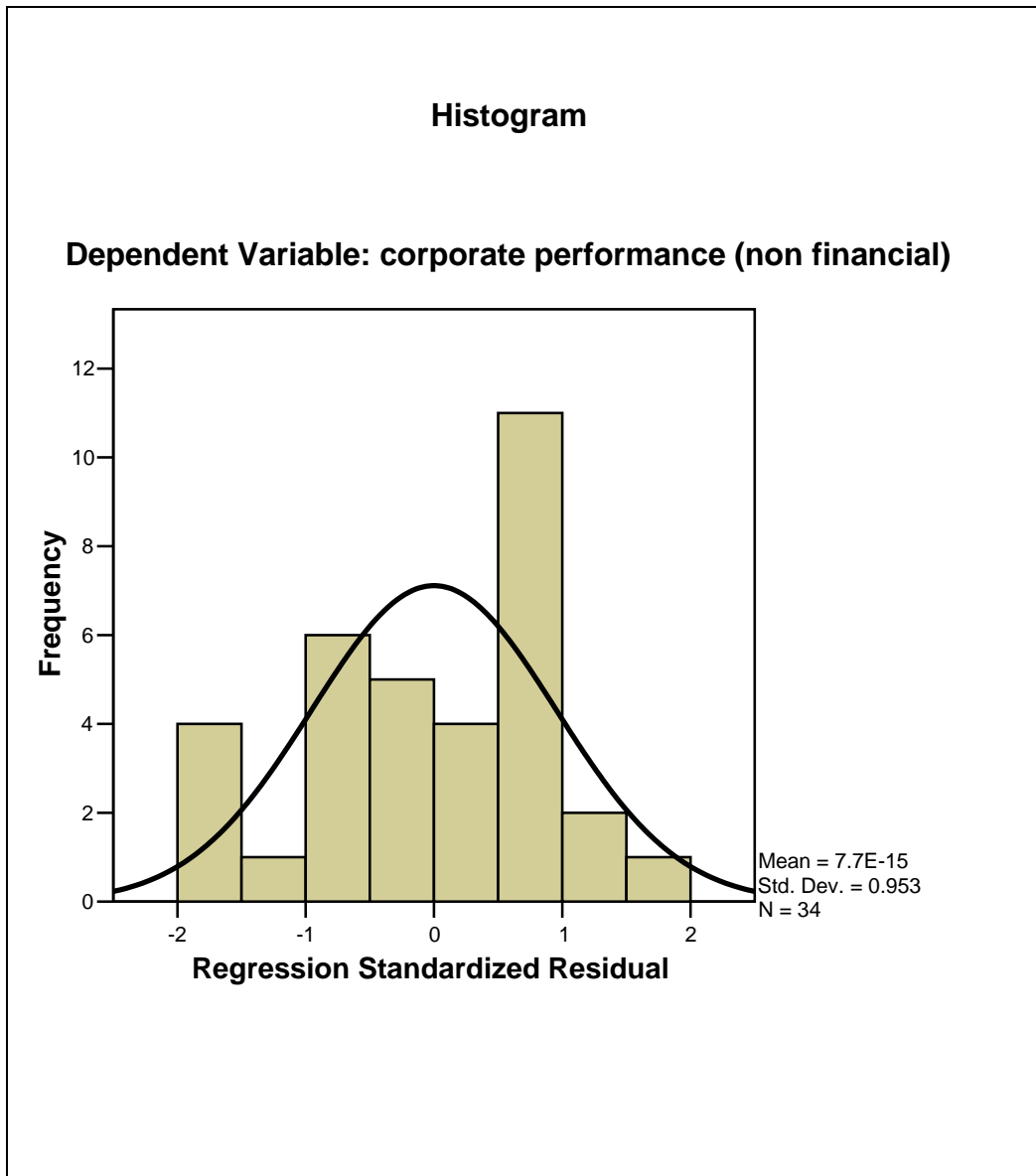
Dependent Variable: corporate performance (non financial)



Appendix 7c: Scatterplot of Moderating Effect of employee oriented culture on the Relationship Between Intellectual Capital and Non-Financial Performance



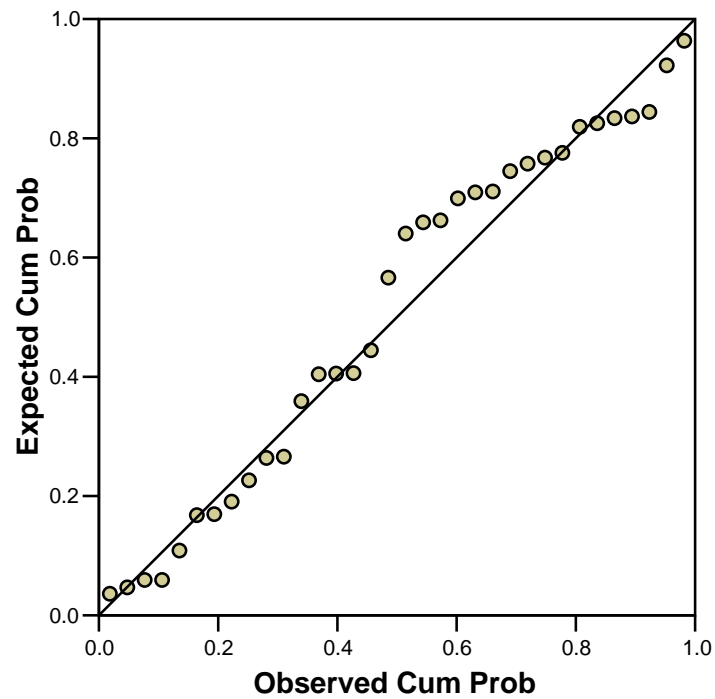
Appendix 8a: Histogram of joint Effect of Intellectual Capital, Corporate Reputation and Employee-Oriented Culture on Non-Financial Performance



Appendix 8b: P-P Plot of Joint Effect of Intellectual Capital, Corporate Reputation and Employee-Oriented Culture on Non-Financial Performance

Normal P-P Plot of Regression Standardized Residual

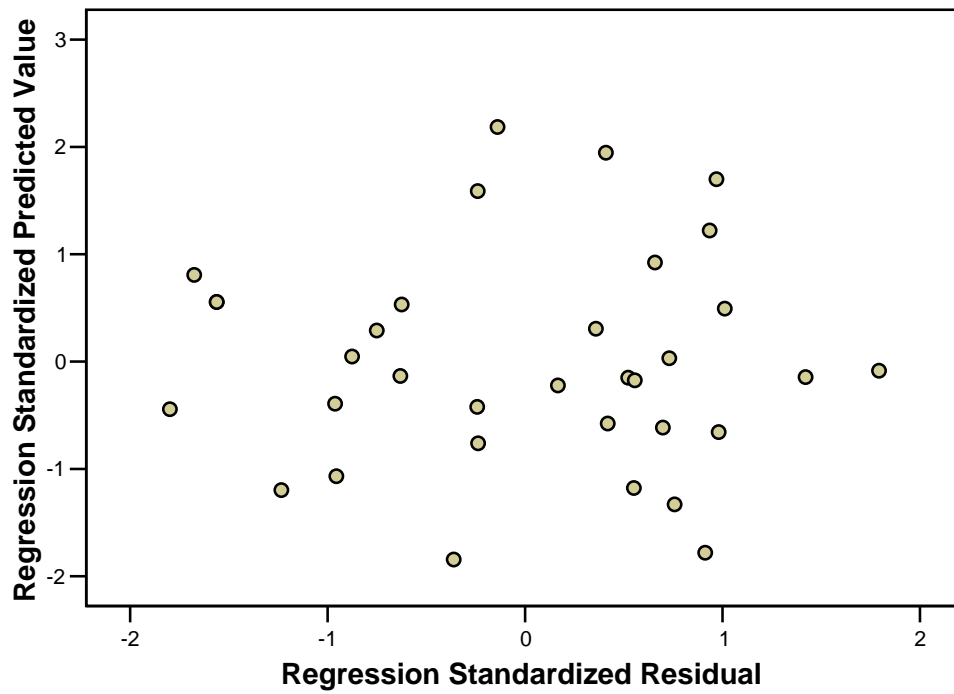
Dependent Variable: corporate performance (non financial)



Appendix 8c: Scatterplot of Joint Effect of Intellectual Capital, Corporate Reputation and Employee -Oriented Culture on Non-Financial Performance

Scatterplot

Dependent Variable: corporate performance (non financial)



Appendix 9a: Linear Regression Results For the Relationship Between Intellectual Capital and ROE

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.138 ^a	.019	-.015	.09198

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.005	1	.005	.560	.460 ^a
	Residual	.245	29	.008		
	Total	.250	30			

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.078	.121		.640	.527
	intellectual capital	.123	.165	.138	.748	.460

a. Predictors: (Constant), intellectual capital
Dependent Variable: ROE

Appendix 9b: Linear Regression Results for Relationship between Intellectual Capital and ROA

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.246 ^a	.060	.031	.04791

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.005	1	.005	2.059	.161 ^a
	Residual	.073	32	.002		
	Total	.078	33			

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.022	.057		-.379	.707
	intellectual capital	.112	.078	.246	1.435	.161

a. Predictors: (Constant), intellectual capital
 Dependent Variable: ROA

Appendix 9c: Linear Regression Results for Relationship Between Intellectual Capital and ROE

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.138 ^a	.019	-.015	9.19781

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	47.378	1	47.378	.560	.460 ^a
	Residual	2453.391	29	84.600		
	Total	2500.768	30			

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.762	12.120		.640	.527
	intellectual capital	12.338	16.487	.138	.748	.460

a. Predictor: Constant (Intellectual Capital)

Dependent Variable: Return on equity

Appendix 10a: Regression Results for Relationship between Intellectual Capital and ROE

Multiple R	R Square	Adjusted R Square
.312	.098	.033

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	3.025	1	1.513	1.5146	.237
Residual	27.975	28	.999		
Total	31.00	30			

Coefficients

	Standardized Coefficients		df	F	Sig.
	Beta	Std. Error			
Intellectual capital	-.312	.180	2	3.028	.064

Dependent Variable: Return on Equity

Predictors: intellectual capital

Appendix 10b: Regression Results for the Relationship between Intellectual Capital and Dividend Yield

Multiple R	R Square	Adjusted R Square
.252	.063	.027

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	1.777	1	1.777	1.762	.196
Residual	26.223	26	1.009		
Total	28.000	27			

Coefficients

	Standardized Coefficients		df	F	Sig.
	Beta	Std. Error			
Intellectual capital	-.252	.190	1	1.762	.196

Dependent Variable: Dividend yield
 Predictors: Intellectual Capital