

THE UNIVERSITY OF HULL

SUSTAINABILITY FACTORS INFLUENCE ON HIGH AND
LOW PERFORMING FIRMS

A Thesis submitted for the Degree of Doctor of Philosophy

Department of Accounting and Finance, Business School,
University of Hull

MOUZA SAUD ALI AL HABSI
PhD

(MARCH, 2017)

Abstract

Although shareholder theory emphasizes that firm's actions and inactions are to maximize profit and owner's wealth, firms have increased engage in activities that are not directly increase shareholder's value. The thesis examines the impact of sustainability performance on firms' performance in terms of financial health and market value. It compares two groups of companies, those with High and Low corporate social responsibility scores in Kinder, Lydenberg and Domini (KLD) database.

The results show that there is positive impact of current/lagged sustainability performance on firm market value for both groups. For the High group, the social dimension was found to have positive impacts with firm financial health (financial distress), while the Low group showed insignificant findings. It also examines the impact of firm performance (current and lagged) on sustainability performance. It found that firm performance has more impact on sustainability performance than the opposite. Lagged financial health has more impact than current firm financial health for both groups. Current/lagged market value shows the same results for the High group. While for Low group, the current market value showed more impact than for lagged market value.

The most activities that appeared to have significant relations are community, employee relations, environment, product, corporate governance, and diversity. However, diversity showed unexpected findings as it was seen to have a positive relation with financial distress, and a negative relation with market value. Moreover for the pathways that were significant in both groups the results showed that the relations were stronger in Low firms than in High firms. Therefore, whatever the group, firms are encouraged to implement sustainability activities as long as the costs do not exceed the benefits.

Keywords: Sustainability, firm financial health, firm market value, Throughput Model, comparative study.

DEDICATION

This thesis is dedicated to my parents, Saud Al Habsi and Safia Al Habsi for their prayers, encouragements, care and support from before my birth until this point in my education and career; and my mother-in-law Zayana Al Tooqi for her prayers and encouragement.

To my husband, Ali Al Aisari, for his patience, prayers and support; without him this could be difficult to achieve; and

To my sons, Usama Al Aisari and Hamza Al Aisari for keeping me happy and having fun with them during my PhD period, which was full of pressure.

May Allah bless them.

ACKNOWLEDGEMENTS

I am very thankful to Almighty Allah who has enabled me to perform this PhD. I am very glad that Professor Waymond Rodgers welcomed me as his PhD student. His guidance, advices, support, comment and feedback in each step of this research helped me along the right path. He inspired me to do my best in my PhD and his friendly assistance was always available during the difficult steps in the thesis. I will never forget his effort to get the essential data for this thesis. I am very thankful for Prof. Waymond for his understanding in very hard times; as everyone knows PhD journeys are full of stress.

I am grateful to the Ministry of Manpower of the Sultanate of Oman for awarding me a scholarship to conduct this PhD.

I also happy to have enjoyed the support and encouragement of my sisters Fatma and Latifa, my brothers Said, Hamad, Salim and Abdulaziz for their support and encouragement during my PhD period, as well as my other relatives and friends.

TABLE OF CONTENTS

Contents

Abstract	ii
DEDICATION	iii
ACKNOWLEDGEMENTS	iv
TABLE OF CONTENTS	v
LIST OF TABLES	viii
LIST OF FIGURES	xi
CHAPTER ONE: INTRODUCTION	1
1.1 INTRODUCTION	1
1.2 THE MOTIVATION OF THE RESEARCH.	7
1.3 RESEARCH AIM AND QUESTION	8
1.4 RESEARCH OBJECTIVES	9
1.5 RESEARCH STRUCTURE.	9
1.6 CHAPTER SUMMARY	10
CHAPTER TWO: LITERATURE REVIEW	11
2.1 THEORY OVERVIEW	11
2.2 SUSTAINABILITY	15
2.2.1 SUSTAINABILITY AND FIRM'S PERFORMANCE	19
2.2.1. a) Positive Relationship Findings between Sustainability and Firm Performance.....	19
2.2.1. b) Negative Relationship Findings between Sustainability and Firm Performance.....	27
2.2.1 c) No Relationship Findings between Sustainability and Firm Performance.....	30
2.3 ENVIRONMENT	36
2.4 CORPORATE GOVERNANCE	43
2.5 EMPLOYEE	49
2.6 PRODUCT	55
2.7 COMMUNITY	61
2.8 DIVERSITY	69
2.9 HUMAN RIGHTS	77
2.10 WHY SOME FIRMS INVEST IN SUSTAINABILITY ACTIVITIES WHILE OTHERS DO NOT.	87
2.11 REASONS BEHIND CONTRADICTIONARY FINDINGS	94
2.12 CHAPTER SUMMARY	98

CHAPTER THREE: THROUGHPUT MODEL AND STUDY	
HYPOTHESES.....	99
3.1 INTRODUCTION	99
3.2 THE THROUGHPUT MODEL	99
3.3 STUDY HYPOTHESES	102
3.4 LAGGED SUSTAINABILITY	108
3.5 LAGGED FIRM PERFORMANCE	113
3.6 ADDITIONAL ANALYSES.....	117
3.7 CHAPTER SUMMARY	118
CHAPTER FOUR: RESEARCH METHODOLOGY	119
4.1 INTRODUCTION	119
4.2 THE THESIS SOURCE OF DATA.....	120
4.3 THE STUDY SAMPLE	125
4.4 METHOD AND MEASUREMENT OF VARIABLES	126
4.5 THE TECHNIQUES FOR ANALYZING DATA.....	133
4.6 SUMMARY OF THE CHAPTER	139
CHAPTER FIVE: RESULT CHAPTER AND ANALYSIS.....	140
5.1 INTRODUCTION.....	140
5.2 SCREENING OF DATA	140
5.2 a) Sample Size.	140
5.2 b) Missing data.	141
5.2 c) Normality test.	141
5.2 d) Collinearity test.	143
5.3 DESCRIPTIVE STATISTICS:.....	145
5.4 EVALUATION OF MODEL MEASUREMENT	152
a) Reliability tests.	152
b) Convergent validity.	152
c) Discriminant validity:	153
5.5 STRUCTURAL MODEL RESULTS FOR HYPOTHESES	
TESTING.	154
5.6 LAGGED SUSTAINABILITY PERFORMANCE ON FIRM	
CURRENT PERFORMANCE.....	176
5.7 LAGGED FIRM PERFORMANCE ON CURRENT	
SUSTAINABILITY PERFORMANCE	196
5.8 ADDITIONAL ANALYSES RESULTS.	216
5.8 a) Analysis 1: Current firm performance on current sustainability	
performance	216
5.8 b) Analysis 2: Sustainability strengths/concerns and Firm performance	
.....	227
5.9 CHAPTER SUMMARY	235
CHAPTER SIX: DISCUSSION CHAPTER.....	236

6.1 INTRODUCTION	236
6.2 RESEARCH QUESTIONS AND DISCUSSION OF FINDINGS ..	236
Research sub-question 1: Is there any relationship between firms' sustainability performance and firm financial health for high performing firms?	236
Research sub-question 2: Is there any relationship between firms' sustainability performance and firm financial health for low performing firms?	239
Research sub-question 3: Is there any relationship between firm sustainability performance and firm market value for high performing firms?	240
Research sub-question 4: Is there any relationship between firm sustainability performance and firm market value for low performing firms?	241
Research sub-question 5: Which of the social dimensions have an impact on firm financial health for high performing firms?	243
Research sub-question 6: Which of the social dimensions have an impact on firm financial health for low performing firms?	245
Research sub-question 7: Which of the social dimensions have impact on firm market value for high performing firms?	246
Research sub-question 8: Which of the social dimensions have an impact on firm market value for low performing firms?	248
Research question 9: Does the prior year sustainability performance influence current period firm performance or it is the other way round? That is to say, does prior year firm performance influence sustainability in current period?	249
9(i) a- Lagged sustainability to current firm financial health for high performing firms.	249
b) Lagged sustainability to current firm financial health for low performing firms.	251
c) Lagged sustainability to current market value for high performing firms.	252
d- Lagged sustainability to current market value for low performing firms.	252
9(ii) a-Lagged firm financial health to current sustainability performance for high performing firms.	254
b) Lagged firm financial health to current sustainability performance for low performing firms.	256
c) Lagged firm market value to current sustainability performance for high performing firms.	257
d) Lagged firm market value to current sustainability performance for low performing firms.	258

6.3 COMPARISON BETWEEN SUSTAINABILITY PILLARS	261
6.4 COMPARISON BETWEEN HIGH AND LOW PERFORMING FIRMS	262
6.5 Additional analyses findings.....	266
a) Additional analysis 1 findings.....	266
b) Additional analysis 2 findings.....	267
6.6 SUMMARY OF THE FINDINGS	271
6.7 CHAPTER SUMMARY	278
CHAPTER SEVEN: CONCLUSION	279
7.1 INTRODUCTION.....	279
7.2 FINDINGS OF THE THESIS.....	281
7.3 THE THESIS KNOWLEDGE CONTRIBUTION	282
7.4 LIMITATIONS	282
APPENDICES	283
Tables show missing values and normality test for each variable for top performing firm.....	283
Tables show missing values and normality test for each variable for low performing firms.	302
The results for current firm performance on current environment performance.....	321
The results for current firm performance on current social performance.	322
The results for current firm performance on current economic performance.....	323

LIST OF TABLES

Table 1: Variables used in the study.....	137
Table 2: The results for normality test for high performing firms.....	142
Table 3: The results for normality test for low performing firms.....	143
Table 4: Collinearity test among indicators for both high and low performing firms.	144
Table 5: The descriptive statistics for high performing firms.....	145
Table 6: The descriptive statistics for low performing firms.....	146
Table 7: The correlation matrix for high performing firms indicators.....	147
Table 8: The correlation matrix for low performing firms indicators.....	149
Table 9: The reliability test results for both high and low performing firms..	152
Table 10: Convergent validity for both high and low performing firms.	153
Table 11: Discriminant validity for high performing firms.	153

Table 12: Discriminant validity for low performing firms.	154
Table 13: Shows the sustainability hypotheses results for both high and low performing firms.	157
Table 14: Shows the environment hypotheses results for both high and low performing firms.	159
Table 15: shows the social hypotheses results for both high and low performing firms.	161
Table 16: shows the economic hypotheses results for both high and low performing firms	163
Table 17: Shows the community hypotheses results for both high and low performing firms	165
Table 18: Shows the employee relation hypotheses results for both high and low performing firms.	167
Table 19: shows the product hypotheses results for both high and low performing firms.	169
Table 20: shows the diversity hypotheses results for both high and low performing firms.	171
Table 21: shows the human rights hypotheses results for both high and low performing firms.	173
Table 22: shows the corporate governance hypotheses results for both high and low performing firms.	175
Table 23: shows the lagged sustainability hypotheses results for both high and low performing firms.	178
Table 24: shows the lagged environment hypotheses results for both high and low performing firms.	180
Table 25: shows the lagged social hypotheses results for both high and low performing firms.	182
Table 26: shows the lagged economic hypotheses results for both high and low performing firms	184
Table 27: shows the lagged community hypotheses results for both high and low performing firms.	186
Table 28: shows the lagged employee hypotheses results for both high and low performing firms.	188
Table 29: shows the lagged diversity hypotheses results for both high and low performing firms.	190
Table 30: shows the lagged product hypotheses results for both high and low performing firms.	192
Table 31: shows the lagged human rights hypotheses results for both high and low performing firms.	194
Table 32: shows the lagged corporate governance hypotheses results for both high and low performing firms.	196

Table 33: shows the lagged firm performance hypotheses results on current sustainability performance for both high and low performing firms.	198
Table 34: shows the hypotheses results for lagged firm performance on current environment performance for both high and low performing firms.	200
Table 35: shows the hypotheses results for lagged firm performance on current social performance for both high and low performing firms.	202
Table 36: Shows the hypotheses results for lagged firm performance on current economic performance for both high and low performing firms.	203
Table 37: Shows the hypotheses results for lagged firm performance on current corporate governance performance for both high and low performing firms.	205
Table 38: shows the hypotheses results for lagged firm performance on current community relation for both high and low performing firms.	207
Table 39: Shows the hypotheses results for lagged firm performance on current employee relation for both high and low performing firms.	209
Table 40: : shows the hypotheses results for lagged firm performance on current product performance for both high and low performing firms.	211
Table 41 : shows the hypotheses results for lagged firm performance on current diversity performance for both high and low performing firms.	213
Table 42: Shows the hypotheses results for lagged firm performance on current human rights performance for both high and low performing firms.	215
Table 43: shows the hypotheses results for current firm performance on current sustainability performance for both high and low performing firms.	218
Table 44: Shows the hypotheses results for current firm performance on current community performance for both high and low performing firms.	219
Table 45: Shows the hypotheses results for current firm performance on current employee relation performance for both high and low performing firms.	221
Table 46: Shows the hypotheses results for current firm performance on current product performance for both high and low performing firms.	222
Table 47: shows the hypotheses results for current firm performance on current diversity for both high and low performing firms.	224
Table 48: Shows the hypotheses results for current firm performance on current human rights for both high and low performing firms.	225
Table 49: Shows the hypotheses results for current firm performance on current corporate governance for both high and low performing firms.	226
Table 50: Shows results for both high and low performing firms' strengths and concerns on firm performance.	228
Table 51: Shows results for both high and low performing firm performance on sustainability strengths and concerns.	230
Table 52: Shows the results of both lagged strengths and lagged concerns on current firm performance for both high and low performing firms.	232
Table 53: Shows the results of lagged firm performance on current firm sustainability strengths and concerns for high and low performing firms.	234

LIST OF FIGURES

Figure 1: The Throughput Model (Rodgers 1997).....	100
Figure 2: The Throughput Model with indicator variables.....	136

CHAPTER ONE: INTRODUCTION

1.1 INTRODUCTION

Firms are facing more pressure to increase companies' responsibilities. This ranges from the shareholders' interests to wider stakeholders' interests (Visser 2002). This issue has forced businesses to consider corporate social responsibilities as a part of business activities (Servaes, H. & Tamayo 2013). This tremendous change is because of the shift from shareholder theory to stakeholder theory. The shareholders theory states that managers should focus only on increasing shareholders' wealth when making decisions (Friedman 1970). On the other hand, the stakeholders theory states that managers should consider other stakeholders when making decisions, not only shareholders, stakeholders, such as communities, employees, government, suppliers, creditors (Freeman 1984). In addition to that, the Triple Bottom Line concept raised the idea that companies have to consider social and environmental issues in addition to their economic objectives. Therefore, the triple bottom line needs companies to care for all economic, social, and environmental issues when running their businesses. Economic, social, and environmental parts are also called the three pillars of sustainability.

The sustainability goal is to operate businesses in a way that benefits existing and prospective stakeholders, and also measure the degree to which companies take into account the economic, social, and environmental issues in running their businesses. Sustainability aims to reduce the negative impacts of firms' operating activities on environmental and social issues, while at the same time maintaining the company's economic performance. However, the debate is to practice sustainability and at the same time not affecting the firm performance (Orlitzky et al. 2003; Orsato 2006).

In both the literature and also in companies, various terminology have been used; such terminology includes sustainability, sustainable development, corporate social responsibilities, environmental and social, corporate

citizenship, People planet and profit, corporate responsibility, and sustainability (KPMG 2013). The KPMG report found that in 4100 companies across the world, 14% used the term ‘corporate responsibility’, 25% used the term ‘corporate social responsibility’, while 43% used the term ‘sustainability’ (KPMG 2013). Therefore, this thesis is going to use ‘sustainability’, as the KPMG found a high percentage using this terminology. The reporting of this non-financial information has dramatically increased in the last few decades (KPMG 2013). Nowadays, firms believe that such information is more valuable to the market than traditional financial reports, as it does not show the full company image and focuses on current as opposed to future orientation (Simnett et al. 2009). As argued by Lev (2001), the firm value of intangible assets represents a big part of a firms’ total value, so non-financial information performance provided by companies serves as a tool for stakeholders to know the value of intangible assets, and traditional financial reports did not report these hidden valuable assets. In addition, traditional financial reports do not show the complete image about firm performance to their stakeholders, such as investors, creditors, auditors, and so on; consequently, this shows that it is not relevant to decide on a company’s future by relying only on them (Lev 2001). Therefore, investors and other stakeholders find other non financial information about a firm, such as employee relations, customer relations, diversity, environment performance information, and many other terms in order to decide on their investment or any other decision for other stakeholders.

In order to encourage firms to disclose both financial and nonfinancial information in their reports, some initiations have been conducted, such as the Global Reporting Initiative (GRI), which contains guidelines of how firms can report non-financial information such as environmental, governance, and social issues. Including non-financial reports will help all stakeholders make the right decisions. For example, creditors will be able to judge and decide on whether to give a loan to a company or not, and suppliers will be able to see whether provide goods or services on credit or not. Further, employees will be able to understand their future careers in a company. The most important factor is that

investors can make investment decisions either to invest in a company or go for a competitor.

After more than 3 decades of literature, it can be said that a lot has been done on the impact of sustainability on firm performance, but the results are still cumbersome. Some researches show positive findings, some negative findings and others couldn't obtain conclusive results. These studies spurred the motivation of this study and also the study question, which is "Do sustainability activities have an impact on firm performance?". The motivation of this study is first to add the impact of sustainability on firm financial performance to the existing literature, as well as market value. In addition, the thesis compares two groups of companies: those that are high performing firms of sustainability and those that are low performing firms on sustainability (Rodgers et al. 2013). Rodgers et al. (2013) suggested that in the future it will be crucial to look at the impact of firms that also have low corporate social performance scores when testing the impact of corporate social performance on firm performance. Also, Huang and Watson (2015) state that research is needed on the firms that are socially irresponsible. They argue that there is variation in firms' sustainability activities performance, so for those who perform poorly, is there any cost they incur of being irresponsible? Also, as stated by Margolis et al. (2007), future research should try to compare firms that do not do much regarding sustainability activities. The thesis builds on their lead by adding the comparative study for both high performing firms and lower performing firms on the corporate social responsibility score. Since all these authors call for the research for the firms that do not do good in social responsibilities, the thesis will consider this group separately and compare them with high performing groups if there is any differences between them. Also it might be the contradictory findings were due to taking all firms together as a single group where both high and low firms are inside the single group so researchers got inconclusive or misleading results. By separating them it will be clear how sustainability and firm performance relate.

In addition, although it is better to know the determinant of sustainability, it is more fascinating to look at the relationship between sustainability and firm performance (Huang & Watson 2015). Also, this extends further to each dimension of sustainability on firm performance (Hull & Rothenberg 2008). Furthermore, strong findings would be obtained if all the dimensions (economic, social, and environment) of sustainability were considered when examining its relation with firm performance (Chang & Kuo 2008a).

This study focuses on the top 50% companies that have high scores in the KLD database for a period of seven years (2007-2013). It also looks at the lower 50% of companies available for the seven year period. As found in the meta-analysis by Allouche & Laroche (2005), most of the studies period were less than five year period. Therefore, this thesis considers more periods and the most recent data available. The total number of high performing firms that were used at the end comprised 155 companies that were available for all seven years, and the financial data were also available. For low performing firms, the final sample is only 61 companies that were also available in the whole period of the test, as well as the availability of the financial information.

The thesis is related to the study by Rodgers et al. (2013) , but differs from them as follows. First, they focused on the top 100 companies only, while this study involved the 50% top companies and 50% bottom in corporate social responsibilities to get a clear picture of the impact of sustainability on firm performance. Second, their sample size is small for high only was 100, which ends up with only 497 observations, while this study was further extended and got high 161 with 1085 firm-year observations and 61 low firms with 427 firm-year observations. Third, Rodgers et al. (2013) included only three dimensions of corporate social activities (employee, community, and customer), while this research included all the seven dimensions (employee, community, customer, governance, human rights, diversity, product, and environment) of corporate social responsibilities provided by the KLD database, since the literature showed that corporate social responsibilities are multidimensional activities, so

all the activities should be considered to get a clear picture on the relationship. As Cohen et al. (2012) argue, non-financial information is important to prospect stakeholders, so by considering all of them, the thesis will be able to show which non-financial information is more important. Fourth, their study focuses on corporate social performance while the current study focuses on the entire sustainability.

The study covers a period of seven years from 2007 to 2013, the latest available data at the time the thesis was performed. In spite of the growing number of studies on sustainability/corporate social responsibilities, the findings are still not clear. Also, there is still a lack of comparative studies to the firms that perform better in corporate social responsibilities and those that do not do well in corporate social responsibilities, and thus, not much attention is given to them. They are therefore the main reasons that this thesis aims to focus on.

The thesis adds to the sustainability literature in different patterns. First, the study takes into account both high performers and low performers of corporate social scores from the KLD scores. As most of the previous research looked at the impact of corporate social responsibilities to firm financial performance considered firms in a single group, this study places firms in into high and low performing groups since it is a comparative study. Second, this study takes into account all the dimensions of corporate social responsibilities provided by KLD databases and their dimensions in depth, while almost all the previous research took each one separately, or chose only a few of them, as in Rodgers et al. (2013) Hull & Rothenberg (2008) and Bird et al. (2007). Third, the data used derived from during and after the financial crisis, therefore, it will be useful to show/compare the results with those before the financial crisis (this will be for future publication like meta- analysis research for before and after financial crisis sustainability research or for those who are intrested on comperative studies for the before and after financial crisis. Fourth, the study focuses on both short term performance (accounting base view) and long term performance (market value of the firm), as many previous studies focused on

single performances, with the exception of a few. Fifth, the thesis is going to use the decision making model called “Throughput model”, which was developed by Rodgers (1997); no comparative studies used the model. Also, as argued by Allouche & Laroche (2005), in meta-analysis, most studies use available ratings to examine the relationship with no any models or conceptual frameworks followed.

In points the thesis contribute the following to the sustainability issue:

The thesis contributes to the sustainability as follows:

- a) The thesis focus on both high and low performing firms on sustainability as there is lack of research that include high and low performing firms, calls from (Huang & Watson 2015), (Rodgers, Choy, et al. 2013), (Margolis et al. 2007).
- b) It add to the sustainability literature as it considers all the three pillars of sustainability which are environment, economic and social, as most of previous research focus on two of them only, a call from (Chang & Kuo 2008b).
- c) Moreover it examines in deep for each category (environment, human rights, diversity, employee relation, community, product and governance) so that researchers and other stakeholders can understand which among the activities have more relation with firm performance, (Hull & Rothenberg 2008).
- d) It is among the few research that include more period as found by (Allouche & Laroche 2005) in the meta analysis that almost all the research in sustainability focus on period of less than five years period.
- e) It adds to the literature as it is among the few research that consider both firm financial health and market value.
- f) Practically it will help investors to make better investment decision as it will enable to help them understand why firms engage in sustainability activities.
- g) Also practically it will help managers to understand which among the sustianbility activities help more to improve firm performance so during

the financial burden the managers can only focus more on those activities.

- h) It will also help other stakeholders as well for example employee for the career development and payroll, creditors for the giving loan, customers for product quality, warranties and guarantees etc.

1.2 THE MOTIVATION OF THE RESEARCH.

After a long literature review on sustainability issues and their conflicting findings regarding the relationship with firm performance, it was found that there were contradicting results some positive relation, others negative relations and some got inconclusive results. Also the reasons why firms practice sustainability, even if they were considered as loss activities. Moreover how the investors perceive the sustainability activities, are firms wasting the resources in practising those activities or is there any benefits the investors could get when investing in sustainability activities? Also some firms report those activities in the annual report or separate sustainability report while others do not report even if they practise those activities. All these causes the researcher to have doubt on the sustainability issue as they are also not clear for investors, managers and many other stakeholders.

These factors helped to form the motivation of this study. First, the research examines the impact of sustainability on firm performance. Then, it investigates if there are any differences to those firms that perform better and those firms that do not perform better in sustainability. Also, the research examines each dimension for its impact to firm performance and then investigates the direction of the causality, that is, whether it moves from sustainability to firm performance or vice versa. The research is going to be very useful for managers, investors, as well as many stakeholders. Therefore, the motivation is to clear up any issues regarding sustainability so that anyone interested can have a better understanding on the issue.

1.3 RESEARCH AIM AND QUESTION

The aim of the thesis is to gain a better understanding on the relationship between sustainability and firm performance. By investigating and having a clear picture on the relationship between them will enable managers and firm owners to make better decisions. Also, it will enable other stakeholders to make decisions for their own interests, for example, employees, customers, creditors, etc. The thesis is going to address the sustainability issue and extend it in the wider view by investigating high performing firms and low performing firms separately. This will be done by examining the impact of sustainability on both firm financial health and also on firm market value for each group. In addition, it will also look at the issue from the other side, that is, the impact on firm performance (firm financial health and market value) on sustainability performance. In order to understand the following, the main research question is going to be focused as thus:

- “Do sustainability activities have an impact on firm performance?.

In order to answer the question above, the following sub questions are also going to be examined.

- ✓ Is there any relationship between firm sustainability performance and firm financial health for high performing firms?
- ✓ Is there any relationship between firm sustainability performance and firm financial health for low performing firms?
- ✓ Is there any relationship between firm sustainability performance and firm market value for high performing firms?
- ✓ Is there any relationship between firm sustainability performance and firm market value for low performing firms?
- ✓ Which of the social dimensions have an impact on firm financial performance for high performing firms?
- ✓ Which of the social dimensions have an impact on firm financial performance for low performing firms?
- ✓ Which of the social dimensions have an impact on firm market value for high performing firms?

- ✓ Which of the social dimensions have an impact on firm market value for low performing firms?
- ✓ Does the prior year sustainability performance influence current period firm performance or it is the other way around? That is to say, does prior year firm performance influence sustainability in the current period?

1.4 RESEARCH OBJECTIVES

The main research objectives are:

- To investigate whether sustainability has an impact on firm financial health for high performing firms as well as for low performing firms.
- To investigate whether sustainability has an impact on firm market value for high performing firms as well as for low performing firms.
- To investigate which activities have influence on firm financial health for high performing firms as well as for low performing firms.
- To investigate which activities have influence on market values for high performing firms as well as low performing firms.
- To examine which one influences the other: does sustainability performance influence firm performance, or is it the other way around?
- To examine if there is any difference between high and low performing firms in sustainability relation with firm financial health and market value.

1.5 RESEARCH STRUCTURE.

In order to address the research question, aims, and objectives, the thesis consists of seven chapters.

The first chapter is the introductory chapter that introduces the thesis. It gives a brief overview of the research background, the research motivation, the research aim, objectives and research questions, and a brief overview of the sample. The second chapter is the literature review chapter, where the previous

literature on sustainability and firm performance is discussed in depth. Each of the sustainability dimensions have also been discussed in detail from the previous research. Also, the research theories that are related to the study aim have been introduced and explained in detail. The third chapter focuses on the the model that is going to be used to answer the research question, as explained by the “Throughput model” with its six pathways and the hypotheses introduced that will be tested in the research. The fourth chapter is the methodology chapter, which shows the method used to collect the data, the measurement of those variables included in the study, and the ways to analyze those data. It also includes the sample of the study and the softwares used. The fifth chapter is the data analysis and results chapter. The chapter shows descriptive statistics, the test for diagnostics performed before running the models, before then showing the measurement model evaluation, which includes validity, collinearity, and so on. Following this, tests the hypotheses using the SmartPLS software. The sixth chapter is the discussion chapter. The main aim of this chapter is to connect the findings of this thesis and the previous research to see if the results are consistent and if they are supported by the research theories. Also it shows what do research come up with regarding the relationship between sustainability and firm performance. The seventh chapter is the conclusion chapter which summarizes the research, its findings, and implications to various stakeholders. Also, it shows the research limitations and the recommendation for further studies.

1.6 CHAPTER SUMMARY

The chapter introduces the the sustainability issues which are going to be discussed and analyzed in the the coming chapters. The motivation of the study has been clearly addressed. Also, it has introduced the thesis research question, which is “Do sustainability activities have an impact on firm performance?”. In order to answer this question, the chapter outlined the sub question as shown before. Moreover, the research aims and objectives have all been stated, and finally the research structure is introduced for each chapter in brief. The next chapter is the literature review chapter.

CHAPTER TWO: LITERATURE REVIEW

2.1 THEORY OVERVIEW

A long time ago, businesses were considered an organization that belongs to the owners only, who are the shareholders of the businesses. Managers, board of directors, chief executive officers, and all management levels have to make sure that any decision made in the business should aim to increase shareholders wealth. The shareholder theory states that managers' decisions should focus on maximizing the owners' wealth, and any action taken should aim to maximize the profit of the business, which is the main objective of the business (Friedman 1970). Any activities that do not have the aim of increasing owners' wealth would mean taking the resources away from the business, which then destroys the firm performance and owners wealth (Friedman 1970). The theory believes that taking money (which could go to the owners) from the business, as well as other activities that do not benefit the owners are beyond acceptable, and can be considered as theft of firm resources. Any donations made by a firm constitutes taking profits away from shareholders and moving them to other stakeholders, which will harm firm profitability.

However, in the 19th century, firms started to expand their views from just focusing on shareholders to others stakeholders. This is because firms were required to consider social activities and make efforts to the needs of other stakeholders, and not just their shareholders while operating their businesses. Stakeholder theory originates from corporate social responsibility, in that companies should take various groups into consideration, such as communities, employees, human rights, and diversity when running their businesses. Therefore, firms at each management level have to make sure that they consider all the stakeholders in running their businesses activities. Managers who care only about shareholders maximizing value and forgetting about other stakeholders, or benefiting at the expenses of other stakeholders will not succeed in the long run (Porter & Kramer 2007; Bird et al. 2007). Therefore,

from that time firms shift from shareholder to stakeholder views and operate under stakeholder theory (Freeman 1984). Stakeholder theory states that managers' decisions should focus not only on shareholders but also to other stakeholders, such as customers, governments, employees, creditors, communities, and suppliers, etc. A stakeholder is any person or group of people that have influence and can be affected either directly or indirectly by the business activities and objectives (Freeman 1984, p.53).

It can be seen that there are some opposing goals between shareholder theory (Friedman 1970) and stakeholder theory (Freeman 1984). For example, in order for a firm to consider other stakeholders, such as donations to communities or supporting any community programs, firms have to use their resources, which are already scarce to other stakeholders (i.e., taking shareholders resources to outside stakeholders that harm the owners' wealth). Shareholder theory believes that by considering other stakeholders and using resources for other activities is not the aim of increasing shareholders wealth or maximizing a firm's profit objective. However, those conflicting views are for the short term only. Jensen (2001) tried to combine these two theories together in a way that they did not conflict with each other by inventing the enlightened stakeholder theory, which in order for a firm to increase its value and survive in a long run, it should not ignore the other stakeholders needs. Also, Jones (1995) argued that corporate social responsibilities are instruments to enhance firm performance. Instrumental stakeholder theory believes that corporate social activities help stakeholders with the intention of enhancing shareholders value in turn (Jones 1995). As the literature shows, there should not be a conflict between shareholders and other stakeholders in the long run, since those activities that were involved to satisfy stakeholders needs help to build firm brand image, reputation, and retain and attract customers and employees, which will result in cost reduction, increased profits, and enhance shareholders wealth. Since taking care of other stakeholders is mostly through firm corporate social responsibility, it should help to increase firm value in the long run and be one of the firms' strategies. Social activities should not just utilize firm

resources from the benefit of owners to others, the strategy should try to balance so it can have long run benefit and survival.

In addition to stakeholders theory, the Triple Bottom line concept comes up to a wider view. Triple Bottom Line puts forward that businesses have to expand their responsibilities from focusing on stakeholders only to broader social and environment activities. This means that when management makes decisions for their firms, they have to consider stakeholders as well as social and environment issues (Elkinjton 1998; Norman & MacDonald 2004). The triple bottom line idea is that firms, in order to survive in the long run, have to have good performance economically, socially, and environmentally. These three aspects are called the three pillars of sustainability. Corporate sustainability addresses the performance of firms in issues related to environment, social, and economic (Takala & Pallab 2000 in Wagner 2010)

In order for firms to achieve better performances in all the three pillars of sustainability, which are economic, social, and environment, they have to have required enough resources (resources that match a certain objective). Therefore, both the resource-based view and the slack resource view are needed to help the firm gain best performance. The resources-based view states that in order for a firm to gain a competitive advantage, they should be able to develop resources that are valuable, unsubstitutable, inimitable, and rare (Barney 1991). These resources are developed through skills and experiences, so they need time to develop. The resources from the resource based view can generally be understandable, in that they are firm intangible assets and mostly lay on employees skills, which are the human capital of the businesses.

In addition, in order for a firm to practice sustainability it should have enough resources from a slack resources viewpoint. This means that firms that have more resources than required to run their core business activities are more willing to do other activities like social activities. As argued by Seifert et al. (2004) Waddock & Graves (1997) and Fry & Hock (1976), slack resources are important for a firm to invest in corporate social activities. Also Ullmann (1985) argues that the past and current firm financial performance will have an

influence on firm participation on corporate social activities. This is because a firm will have more resources (either money or in kind) so firms can be able to engage in social activities. Hong et al. (2012) state that those doing good business are the ones that are actually doing well. All this gives evidence that slack resources (the excess of resources required by firms) will determine the involvement of firms in social activities.

This thesis is going to rely on the same theories to examine the relationship between sustainability performance and firm performance. Recently, corporate social responsibilities have been more focused and attract attention for researchers as well as practitioners (Flammer 2013). Long ago, firms were issuing only environmental information, while the trend continues towards social reports, corporate social responsibility reports, and sustainability reports. KPMG (2013) found that different terminologies are used by companies, such as environmental and social reports, people, planet profit, corporate citizenship, corporate responsibility, corporate social responsibility, corporate responsibility and sustainability, sustainable development, and also sustainability. The KPMG (2013) report showed that the most used terminology is “sustainability”, which carries 43% of the firms surveyed. Therefore, this thesis will use the sustainability terminology. Some firms disclose their activities in annual reports, while some firms issue separate reports, all with the aim of informing various stakeholders on the firm’s engagement stakeholders’ interests, rather than just focusing on profit. The reports are used by the stakeholders to perceive and value firms’ sustainability performance.

2.2 SUSTAINABILITY

Until only recently, very little knowledge is known regarding the nature of sustainability, to what extent it is important, and also how effective it is in business (KPMG 2008). However, the main reason might be a lack of guidelines and standards, and also stakeholders needs around the globe differ across firms, as well as industries (Ballou et al. 2012). Therefore, it is difficult to get a clear picture of sustainability, however, researchers are trying their best to make things clear regarding sustainability.

Several authors have defined sustainability in different ways, but fortunately they all come with the same meaning. Some of those definitions of sustainability are as follows: “Development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED 1987, p.43). Other authors define corporate social responsibilities as “actions that appear to further some social good beyond the interest of the firm and that which is required by law” (McWilliams & Siegel 2001 p.g 117). Moreover, “an organization’s responses to anticipated or existing social demands” (Strand 1983 in A. Ullmann 1985 p.g 541). Corporate sustainability is defined in the articles of Labuschagne et al. (2005) as “adopting business strategies and activities that meet the needs of the enterprise and its stakeholders today while protecting, sustaining, and enhancing the human and natural resources that will be needed in the future”(Labuschagne et al. 2005 p.g 373). The main aim of sustainability is to make firms consider social and environmental issues at the same time to enhance economic performance of the firms. This is to make sure that firms are not harming the environment and well as society so that future generation will have enough resources for their needs.

Sustainability consists of three aspects, which are economic, social, and environmental. These three aspects are called the three pillars of sustainability. The social pillar focuses on the issues that have both a positive and a negative impact on society; for example, avoiding discriminations, charitable donations to the community, education, and health support (Elkinjton 1998). As argued

by Huang & Watson (2015), social responsibility includes activities such as diversity, employee relation, community relation, corporate governance, and product. In the environment pillar, firms have to focus on their operating activities and make sure that they don't destroy or harm the environment, while the economic pillar focuses on a firm's financial performance from its operating activities (Bansal 2005). Companies have increased their responsibilities not only to get benefits from economic activities, but also involve themselves in environmental and social activities (Elkinjton 1998). Also, there is an increase in sustainability activities and issuing of the sustainability report around the globe. The (KPMG 2013) report shows that there is increasing sustainability reported by companies, and 71% of the 4100 globally surveyed firms report sustainability. 51% of companies report sustainability in financial reports annually.

Firms are required to consider all the pillars when making decisions and running their businesses. The Triple Bottom Line was introduced by (Elkinjton 1998). Elkinjton (1998) quote that "there is no reason at all why the same principles cannot be pursued in relation to the win-win-win outcomes required by sustainability's triple bottom line"(Elkinjton 1998 p.g 45). However, balancing the three pillars is not easy. As argued by Lehtonen (2004) and White (2001), due to some conflicting goals, unequally viewed or considered the sustainability pillars, it is hard for firms to balance them. Added by White & Lee (2009), firms are facing challenges to integrate all the three pillars simultaneously. The economic pillar has received much more attention from firms than the other two dimensions (Chabowski et al. 2011). The research shows that firms concentrate more on economic and environment pillars (Brent & Labuschagne 2006), while the social pillar is given less attention (Lehtonen 2004; Brent & Labuschagne 2006). Ballou et al. (2012) found that the most initiatives done by companies are environment activities. As found by Eccles et al. (2011), investors are more interested in environmental disclosure than social disclosure.

To practice corporate sustainability is complex, since firms have to integrate environmental, social, and economic aspects which consist of internal processes and external issues (Schaefer 2004). As argued by Elkington (1998), in order to meet the triple bottom line objectives, companies, industries, and nations have to create a relationship with stakeholders. Therefore, sustainability has created a puzzle to be solved, since all economic, social, and environmental pillars have to be considered by the firms at the same time when running their businesses. Many businesses have already implemented efforts to care about the environmental and social pillars, but still the results are confusing (Porter & Kramer 2007). Porter & Kramer (2007) argue that this is because firms are getting pressure to practice those activities in a generic way rather than in the way that fits the organizational strategy. They emphasize that existing sustainability approaches are not connected to business strategy, from which firms can get many opportunities. Recently, Ballou et al. (2012), in their survey of 178 CSR officers, found that only 11.2% of the firms surveyed had embedded sustainability into the business strategy. Porter & Kramer (2007) argue that if businesses consider it as part of the core business activities they will see it is not just a cost and charity, but more of a way of getting a competitive advantage, opportunity, and innovation, etc.

Porter & Kramer (2007) emphasize that in order for a business to succeed it needs a healthy community. On one hand, health care, education, good working conditions, and safe products are things that businesses should consider to decrease the costs of many accidents that might incur large costs to a business. They also add that the most effective and efficient way of using the natural resources will help businesses to produce more with less cost. Moreover, the government rules and regulations protect businesses, competitors, and also customers and create a means for innovation. They emphasize that businesses that run its operation on society expenses will end up closing down. On the other hand, a health community wants successful firms, since citizens get jobs, ideas for innovation, and wealth that helps citizens' standard of living to improve. However, if a business is not be able to succeed due to government rules and no support from NGOs, there will be no jobs and

no taxes paid, since the business could not survive in that region. Therefore, business and society are things that are interdependent in that they depend on each other to succeed. They argue that any policies or decisions made by businesses or governments should make sure they benefit both the “shared value” idea, but if the decision or policy made will benefit one side only at the expenses of the other side, then both will end up failing in the long run.

Porter & Kramer (2007) argue that businesses are creating jobs for society by investing their money, buying resources from the community, and operating their businesses every day; so, it has a positive impact to society by increasing the economy. However, the Government and other community organizations have forgotten this reality. If any country puts a rule that is not in favor for the businesses, they end up in poverty and are forced to sell the resources to other countries at a cheaper rate and labor for a very low salary. They conclude that there is no single business that can solve all the community problems since they are not responsible for that, even though there are not enough resources to find solutions to all problems. Therefore, a business can find a problem in a society that it is able to solve and from which it can benefit from. These arguments are true, since Kedia and Kuntz (1981) found that firms choose which type of social activity to emphasize. Not all activities can be considered by any firm, and not all can be given the same effort (Kedia & Kuntz 1981 in Ullmann 1985). Also Pfeffer & Salancik (2003) argue that firms should choose the type of stakeholders that they should consider or focus on and the actions that can enhance the relation between them; for example, to focus on stakeholders who have power over the critical resources of firms.

After having an overview on the firm and society relation that they support each other, the following section focuses on previous research on sustainability and its relation with firm performance. Then, each activity/dimension will be considered in detail separately. The activities are environment, community, employee, governance, human rights, diversity, and customer-product related activities, which are the activities considered as corporate social activity dimensions by KLD expertise.

2.2.1 SUSTAINABILITY AND FIRM'S PERFORMANCE

In the early 1990s, the majority of studies focused on the environmental or social pillars in an isolated way, as found by (Goyal et al. 2013) in their sustainability review of literature. Earlier literature shows that companies were focusing on environmental disclosure only, however, there is an increasing disclosure of environmental, social, ethical, and financial issues that refer to sustainability reports (Owen 2006). As argued by Elkington (1998), environmental issues are expanding to sustain the Triple Bottom Line. The relation of sustainability and firm performance still attracts many decision makers, such as investors, policy makers, managers, and researchers (Allouche & Laroche 2005). Although there is an increasing amount of research on sustainability issues, most of the research focuses on the social and environmental pillars separately, regarding firm financial performance. It would be beneficial to research all of the three aspects (social, environmental, and economic) together regarding the relationship between corporate sustainability and firm performance (Chang & Kuo 2008a).

However, a large amount of prior research on sustainability and firm performance showed a positive relation, but still a large number showed the opposite findings (i.e., negative and insignificant results on the relation) Servaes, H. & Tamayo (2013). The thesis started by focusing on the positive prior findings, followed by the negative and then the insignificant findings. Then, the thesis goes deeper for each dimension of sustainability later in the chapter.

2.2.1. a) Positive Relationship Findings between Sustainability and Firm Performance.

The prior research found that sustainability helps to enhance firm financial performance. For example, Artiach et al. (2010), in their research on firms listed in DJSI and non DJSI found that there is a positive relationship between sustainability performance and firm profitability, growth rate, and size. They clarify that firm size, profitability, and growth rate are related to more investment in corporate sustainability activities. They emphasize that

investment in sustainability activities enhances a firm's competitive position, which helps to increase firm financial performance. The more the profit the firm has, the more the sustainability performance, and the higher the growth rate, the higher the sustainability performance. Also, firm size is strongly related to corporate sustainability performance; with a higher firm size, there is a higher level of sustainability performance.

In addition Chang & Kuo (2008) found that firms that have high sustainability performance have a positive impact on profitability. They found that there is a causal relationship between sustainability and profitability, and sustainability practices tend to have positive profit either in the same period or in later periods. Also, sustainability has more of an impact on profitability than the opposite. Profitability positively enhances sustainability issues in both lower and higher sustainable firms, while sustainability negatively impacts profit of lower sustainable firms. Also, García-Benau et al. (2013) found that there is an effect of economic crisis on firms' corporate social responsibility, and there was an increase of reporting during the financial crisis. Also, they found that the changes made by the companies on their corporate social responsibility reporting have a positive effect of firm profitability. Firms that stopped practicing and issuing sustainability reports during the financial crisis found that their profit decreased. However, no differences on those assured reports and those not assured on the firm profitability and market value.

The literature shows that sustainability performance helps to enhance firm market value. Berthelot et al. (2012), in their research on Canadian companies listed in the Toronto Stock Exchange found that companies that engage in sustainability activities and report this information have a higher market value, as investors positively value this information. They also found that the energy and material sectors issue more sustainability reports, 44.44% and 33.33% respectively, as compared to other sectors in Canada. Their study shows that firms have incentives to issue sustainability reports, as the market value the report even though it is a voluntary action. There is a highly adjusted r-square for the firms that issue the sustainability report. Investors are ready to

pay premium for firms that engage and disclose these activities, as they believe revenues will increase and costs will decrease. The authors suggest that there should be a standardized way of issuing these reports, as they add value to firm's financial reports and market values; also, small businesses should take into account those activities and report them, since investors value those activities.

According to Flammer (2015), for the 2729 corporate social responsibilities proposals taken from two databases (SharkRepellent and RiskMetrics) from 1997-2012, the researcher found that corporate social responsibilities proposals that pass votes enhance a firm shareholders value by 1.77%. The author found that firms that have CSR proposals passed achieve an increased abnormal return than proposals that did not pass. They found that firms that have low CSR have more return than firms with high CSR. The author argues that firms are benefiting from CSR at the beginning (the low hanging fruits); however, additional investment in CSR might decrease the firm return. The author found that higher return generally comes from clean industries. Also, the author found that CSR increases sales, productivity, return on assets, and net profit margin. The author argued that the findings support instrumental stakeholders theory, resource based view, and shared value argument. The author found that there is an increase of shareholders awareness of sustainability issue as the author found only 9% at the beginning, which then increased over time to 17%.

KPMG (2013) report shows that sustainability helps firms to increase the shareholder value, as argued by 12% of the companies surveyed. Also, Wagner (2010), for the KLD from 1992 to 2003, noted that sustainability has a significant positive relation with firm economic performance, and the relationship is moderated by advertising intensity. For firms that have a large advertising intensity, the impacts of sustainability on Tobin's Q are high. Then, the impact decreases with the decrease in adversity intensity to medium and low. There is a positive impact of firm corporate social responsibility performance and firm market value, as measured by Tobin's Q either directly

or indirectly moderated by advertising intensity (Servaes, H. & Tamayo 2013). Sustainability activities help to enhance and improve a firm's market value, since investors value that information on sustainability (Schadewitz & Niskala 2010; Guidry & Patten 2010).

Waddock & Graves (1997) found that there is a positive relationship between corporate social performance and financial performance, and also that there is casual relationship between them. Corporate social responsibility helps to enhance a firm's trust and increases the relationship between the firm and its primary stakeholders. Then, through them, the cost decreases and financial performance is increased (Barnett 2007). For firms that have good corporate social responsibility performance and disclosure, its investors believe that the transaction between them and the firm are at a fair price (Cormier et al. 2011), and this helps to increase the firm value in turn.

Sustainability also has an impact on both firm financial performance and market value. As Orlitzky et al. (2003) state in their meta-analysis study, the authors found that corporate social responsibility performance and financial performance have a positive relationship, and this relationship is bidirectional. Moreover, they found a higher correlation with accounting measures than with market value. Lee & Park (2009) examined hotels and casinos to note the impact of corporate social responsibilities to profitability and market value. They found that for hotels there is a significant, positive, simultaneous relationship between social responsibilities and firm performance (both profitability and market value), while for casinos they found insignificant results on both firm profitability and market value.

Also, sustainability enhances firm performance through reducing the information asymmetry between stakeholders. Sustainability decreases the information asymmetry between managers and investors (Greenwald & Stiglitz 1990). This encourages investors to be more informed and make better decisions for their investment. Cho et al. (2013) found that firm performance in corporate social responsibilities is inversely related to information asymmetry; even when the information disclosed is positive or negative, it helps to reduce

information asymmetry between a firm and its stakeholders. Matsumura et al. (2014) found that firm market value reduced by 212,000 dollars with the amount of carbon emissions of 100 tons disclosed. Even so, this still helped to decrease the negative impacts more than those firms who did not disclose them.

Cormier et al. (2011) added in their research on environmental and social information that information asymmetry decreases between managers and investors in Canadian big firms. Then, by disclosing corporate social responsibilities performance, this helps to reduce the volatility of stock price. The authors found that the quality of the information of corporate social responsibility disclosed determines the information asymmetry that exists between firms and the market. Also, many of the corporate social reports are not transparent or credible (Adams & Evans 2004). Cormier et al. (2011) found that there is a relation between the environmental debts, litigation and risks, and the information asymmetry. By disclosing this information, the information asymmetry is decreased. They found environmental and social performance information substitute each other in decreasing information asymmetry in the stock market.

In meta analysis, Margolis et al. (2007), for 167 studies, found that there is a positive (but low) relationship between corporate social responsibilities and firm performance. A strong relation was found on environmental dimension and charitable contribution, and also revealed misdeeds. Moreover, they found that firms do not get penalized when being involved in corporate social responsibilities and the relation is strong from firm performance. They summarized that 58% of the studies showed insignificant findings, 27% of the studies showed positive findings, while only 2% of the studies showed a negative relation. They concluded from their study that firms are not penalized by doing good, but only by doing wrong when caught. The others found that the direction is stronger from firm performance to sustainability, that is, firms with superior financial performance are the ones who engage more in sustainability activities. Also, Allouche & Laroche (2005), in their meta-analysis, found that 75 out of 82 studies had a positive relation

between sustainability and firm performance, and they found that U.K. studies were more positive than U.S. studies.

Sustainability helps to increase firm performance by enhancing firm image, reputation, and public relations, and also reduces the cost of production (Brown et al. 2010; Buhr 2007; O'Dwyer 2002). KPMG (2013) reported that 51% of the firms surveyed see that it is an opportunity to enhance brand image and firm reputation, while 30% say it is a way to cut down costs, and 36% enhance firm market share. Gray et al. (1996) found that companies' incentives to engage in sustainability activities and issue corporate social responsibility information are corporate image, enhancing perceptions, marketing their companies, accountability, competitive advantages, legal issues, and ethics, etc. It can be said that a firm that wants to show a good image has to have corporate social performance and have good quality disclosure (Cormier et al. 2011). O'Dwyer (2002) found that in Ireland, managers respond that it is better to engage and disclose corporate social responsibility because it helps to inform and educate people about the company and industry as a whole, and this will reduce ignorance, fear, and information asymmetry.

In addition, sustainability activities performance helps to reduce the cost of capital and enhance ways to ease capital access. KPMG (2013) report that 12% of firms emphasize that it enhances the access of capital for their businesses. Also, as found by Dhaliwal et al. (2011), for 213 U.S. companies, the prior year cost of equity capital is associated with the initiation of firm corporate social responsibilities activities and disclosure in the current period. Firms that have a large cost of equity capital in the last period are more likely to start disclosing corporate social responsibilities reports in the current period. Also, firms that have high social performance tend to have low cost of equity capital, and also capture more institutional investors and financial analysts. The authors found that firms are getting reductions in the cost of equity capital, find it easy to increase equity capital in large amounts, and also have seasonal equity offerings when they start to disclose corporate social responsibilities than those who didn't and who do not have high performance in social

responsibilities. They conclude that firms publish separate reports on corporate social responsibility since they need to decrease their cost of equity capital, and those who have better social performance get increased reductions of capital equity costs. Also, Frankel et al. (1995) found that companies that need to raise their capital tend to disclose more voluntary information; thus, companies that have huge capital costs have incentives to engage in sustainability activities and disclose more about those activities.

Orlitzky & Benjamin (2001) found that the firms that have high performance in social responsibility have lower financial risk, and also that causality exists between them. As found by O'Dwyer (2003), corporate social responsibility and economics are seen by managers as complementing each other, which is supported by one of the managers responses, quoted as "An organization's social and business role should not be seen as being in conflict. They are complementary rather than incompatible" (O'Dwyer 2003 p.g 533). The relationship between financial disclosures to cost of capital might be the same for social disclosure and cost of capital, as it reduces information asymmetry, reduces estimation risk and preferences from investors, as they might accept only small returns on the firms that help society (Richardson et al. 1999).

Many other benefits companies get by disclosing corporate social responsibility information, such as reduction on compliance costs and exemption from some government rules mean that companies receive more customers and more investors who are willing to pay more (Richardson & Welker 2001). Moreover, reducing costs such as environmental protection activities can reduce pollution, which saves money for firms, and employee activities that can help to retain them. Also, firms that ignore corporate social responsibilities can destroy their reputations and sales; for example, the involvement of child labor in Nike production lead the firm to spend a lot to gain back its reputation (Dhaliwal et al. 2011). However, practicing corporate social activities helps build firm reputation even after being damaged (Chakravarthy et al. 2014).

Lastly, sustainability activities enhance innovation. As KPMG (2013) report, innovation is an opportunity for businesses that invest in sustainability. 72% of the firm report highlights the opportunity for firms' innovation. Cohen et al. (2012) in their content analysis research for 50 US firms in 2004 found that among the 6 (customer satisfaction, innovation, quality ranking, market share, employee satisfaction, and turnover) leading indicators in different means of disclosures, the most indicators disclosed were innovation and market share, with big firms disclosing more on these two indicators.

Therefore, the above findings show that sustainability performance enhances firm performance either directly or through other actions such as building firm image and reputation, reducing information asymmetry, reducing capital costs, reducing risks, and so on, and those things actually enhance firm performance.

Those who found the positive findings supporting the stakeholder theory (Freeman 1984) that the firm that considers its stakeholders in running their businesses help them to have good relation with them, for example, employees, customers, creditors, government, etc. These help a firm to reduce its costs by retaining employees, repetitive customers, low creditors costs, and reductions or exemption from government tax, etc. Therefore, corporate social responsibilities benefits exceed its costs because it can help to retain and attract new customers and employees, and also improve relationships with various stakeholder groups. Also, as supported by the resource base theory (Barney 1991), firms engaging in social activities build up the resources that are inimitable, substitutable, rare, and invaluable, and also gain competitive advantage. Through these resources, firms are able to differentiate between them and their competitors. Also, those who found a positive relationship with the previous firm financial performance with the current social performance, they follow the slack resource theory in that firms that have prior good financial performance will have slack resources that can be invested in subsequent corporate social activities. (Waddock & Graves 1997; Ullmann 1985).

2.2.1. b) Negative Relationship Findings between Sustainability and Firm Performance.

Yvo de Boer, KPMG's Global Chairman of Climate Change & Sustainability Services reported that there are critics on sustainability (KPMG 2013). As he reported, there are people who see it as a waste of firm resources, such as money and time, and no one is interested in reading the sustainability reports, while others see sustainability reporting as the way to greenwash a company. De Boer further reported that sustainability is difficult and costly, with no hope to gain return on investment from them. However, he argued that those views are changing so fast as the number of corporate social responsibilities increases. He points out that it is true that the sustainability report is difficult to read, and that companies should find a way that it will be easy for the reader to understand, even though it is not a reason not to report. He insists that all businesses activities and reporting incur costs, and not only sustainability. He argues that in the 21st century, sustainability should be one of the management tools, as the report found that the largest firms in the world have embedded sustainability in their companies' strategies. By doing this, many companies will follow and will change people's minds regarding all the critics.

There is some research on the relationship between sustainability and firm performance, which obtained negative results. Stubbs et al. (2013) found that managers of the firms for most of the non-reporting firms still have a traditional view that the business and management issues should prioritize the interests of shareholders and not focus on corporate social responsibilities. Managers respond that by issuing sustainability reports, risks are increased, since markets become more informed on each activity performance. Moreover, the costs outweigh the benefits of sustainability. Managers emphasize that it is not a mandatory action, so it is seen to have very little to no benefit and is also not an obligation; resources are already slack not enough to enhance sustainability. Lastly, firms' cultures do not support sustainability, and changing the cultures requires more resources. Some respondents argue that large firms issue sustainability reports just to be listed in DJSI. The shift from

focusing on only economic issues to social and environmental issues is due to the rapid increase in ranking the firms in their corporate social issues (Chabowski et al. 2011).

In addition, there is a negative relationship between sustainability activities and firm performance. As found by Chang & Kuo (2008), for low sustainability firms, profitability negatively affects sustainability and there is no reciprocal relationship between the two. Servaes, H. & Tamayo (2013) found that there is a negative relationship between corporate social responsibilities with firm profitability, as measured using ROA as well as sale growth. Also, Servaes, H. & Tamayo (2013) found a negative and insignificant relation for firms that have low advertising intensity, in which they argued that the costs are more than the benefits for those firms.

Lys et al. (2015) found that there is a negative relationship between corporate social responsibility expenditure, which is optimal and size adjusted stock return (they split CSR into optimal and deviation, which they refer to as the part that can be explained and not explained by economic factors respectively). They also found an insignificant relationship between optimal CSR and ROA, while positive relation with operating cash flow. They argue that the negative relationship might be that the expenses incurred by corporate social responsibility are greater than the return that is why it shows the negative relation. They argue that the CSR expenditure might enhance the accounting base, whereas it might also decrease the firm share return.

In addition, it incurs more costs than benefits. The relation is negative because sustainability incurs more costs which are not directly related to the income generating activities (Becchetti et al. 2008). Corporate social responsibility activities incur unnecessary costs to a firm which might affect the competitive position of a firm (Barnett 2007). Taking firm resources to other activities is to take the owners' wealth to others which means wastage of firm resources and owner's wealth. According to O'Dwyer (2002), in Ireland, sustainability investment is not relevant as they do not view it as necessary and it is not objective of a firm and actually confuses managers on how to disclose

those reports. Barnett (2007) argues that it is easier for the firms that disclose their corporate social issues to get lawsuits or challenges from the public, as the public can notice their ineffectiveness easily.

Also, sustainability increases many risks to the firms, for example, competition risk. Those competitors might be able to imitate their counterparts. It might also lead to affect reputation, as in the case of Nike for involving child labor. There are also many other risks, as reported by KPMG (2013), in that firms reported that there is a risk of including sustainability information reputational risk 53% of the firm argued that, competitive risk was reported by 45% of the firms; social, physical, and legal risks by 36%, 38%, 21% respectively of the surveyed firms.

Huang & Watson (2015) argue that sustainability activities use firms to resources to non-stockholders, which means firms are destroying owners' wealth; on the other hand, it might bring back goods to shareholders, such as increasing revenues and increasing share price, etc. Barnett (2007) argues that corporate social responsibility does not create good return for each firm. The author suggests that in order to achieve financial performance, the activities of social responsibility have to make sure that they increase revenues and reduce costs.

Solomon & Solomon (2006) found that the information related to sustainability disclosed by companies does not meet the investors' expectations; therefore, investors are searching for private information that meet their expectations to decide the investment decisions. This is also supported by KPMG (2013), which found that those sustainability reports are still in low quality and need more improvement.

Sustainability increases the cost of firm capital, as Richardson & Welker (2001) found in Canada's social disclosure have a positive relationship with the cost of capital. They argue that the positive relationship between social disclosure and the cost of equity capital might be due to reporting the bias of the firms, as they tend to report good news and hide the bad news, or might be

the project that firms invest in social issues are expensive. Also, they argue that other stakeholders might bring benefits to firms, not just equity investors. Thus, this causes a competitive disadvantage to firms that practice social responsibilities, as the activities incur additional costs that can be avoided by the firms and might be carried by other stakeholders such as governments and owners themselves. There is no difference between in firm performance for the firms that implement social responsibilities and the ones that run under the traditional way (Diltz 1995; Sauer 1997).

Therefore, the above research shows the findings to have a negative relation as they incur costs and do not have any return on the firms, thus increasing risks, which will actually affect firm performance. Those who found a negative relationship believe that firms that engage in social activities are drawing a firm's resources and manager's time and effort to activities that are not the objectives of the businesses. These findings support the shareholders theory that the aim of the business is to increase the owner wealth, and using the resources to the interest of the owners. Friedman (1970) emphasizes that managers are agents of the firms' owners, they work as a representative of the owners and their core job is to increase the owners' wealth; other than that, they use scarce resources to conduct activities that harm performance of the firm.

2.2.1 c) No Relationship Findings between Sustainability and Firm Performance.

Whereas some research noted positive findings, others obtained negative findings between sustainability and firm performance, while others found no relationship (Murray et al. 2006; A. Ullmann 1985) or not enough evidence to support a relationship existing (Becchetti et al. 2008; McWilliams & Siegel 2001). Furthermore, there was no relationship between sustainability disclosure and firm market price (Murray et al. 2006). There are many other factors that come in between firm performance and sustainability, and also no way to predict the reason that the relationship existed between them, only if it will occur by chance (Ullmann 1985). Others got a u-shape relationship

between corporate social responsibility and firm profitability (Moskowitz (1972) in Aupperle et al. 1985). There is no benefit or harmful effect on firms that are involved in corporate social responsibility activities (Aupperle et al. 1985). Flammer (2015) found an insignificant relation on corporate social responsibility proposals and return on equity.

For the hotel industry Kang et al. (2010) found an insignificant impact of negative and positive CSR on profitability, while only positive CSR has a positive impact on market value and negative CSR continues to have insignificant impact. For casinos, they found an insignificant impact on both firm profitability and market value for each (positive corporate social performance and negative social performance). For restaurants, they found insignificant results on profitability (for both negative and positive CSR) and positive to market value for only positive CSR.

Ullmann (1985) argues that there is no clear picture that can be identified in the relationship between social disclosure, social performance, and economic performance. In critically examining the relationship between them, the author found that the studies that focus on the relationship between social performance and economic performance: eight studies had a positive relation, four were insignificant, and one was negative. On the relation between social disclosure and social performance, four studies had no relation, two had a positive relation and one was negative. On the relation between social disclosure and economic performance, seven were positive, one was negative and positive, and three were insignificant.

Ullmann (1985) argues that the positive relation might be due to well performing firms that are able to pay and achieve high social performance, or their managers are dealing well with outside stakeholders. The author argues that in order to get better social performance, firms have to use their resources. This is why some studies obtained negative findings, and also others were u-shaped, as economic performance is affected if too few or too many firm resources are assigned to social activities; therefore, an optimal allocation is better. The author mentioned that there might be cases where social

responsibility could be overstated, so as to influence external stakeholders. The author argues that not all shareholders are the same, and refers to them as Friedman-type shareholders that consider firm social activities as damaging firm economic performance and undervaluing the stock price, so negative relation will result. However, as the author argues, the ethical shareholder who values social activities may pay more, which could lead to an increase the stock price, which results in a positive relation.

Therefore, all the above findings showed that there are studies with positive results, negative results, and insignificant results. Thus, the issue is not clear to the managers, investors, as well as other stakeholders. As concluded by Goyal et al. (2013) in their research on the literature for sustainability, that even though a lot of effort is made by researchers on investigating the relationship between sustainability and firm performance, the issue is still not clear. So, this raises the question of this thesis, and will now be investigated further. Before going further on each single sustainability activity in depth, let us look at the causality of the relationship.

Casualty relationship.

Many promoters or supporters of corporate social responsibilities think that by spending in sustainability activities, firm financial performance will directly increase (Lys et al. 2015). The idea of ‘doing well by doing good’, as stated by Margolis et al. (2007), is proven, in that over 35 years research have been spent investigating how doing good leads to doing well. However, firms that have slack resources are more willing to invest in social responsibility activities (Hong et al. 2012; Campbell 2007). As Hong et al. (2012) argue, the opposite is also correct in that businesses which are doing good are the businesses that are doing well, as they have slack resources to spend in corporate social activities. Added by Fry & Hock (1976), slack resources are crucial when determining the social activities (Fry & Hock 1976 in A. Ullmann 1985).

Ullmann (1985) argue that it depends on the economic performance of the firm at past as well as present periods to determine the attention to be given to social activities. In good time, having high profit firms will be influenced to perform social activities, while in difficult periods, firms prefer more to focus on economic than social activities. Firms that are spending on corporate social responsibilities are doing so just to help the community, since they have more resources and it is not necessary for them to expect future performance. Lys et al. (2015) emphasize that firms that have slack resources might spend on corporate social activity that is not effective, for example, those in high positions might spend money on their own projects, which is also a part of social activity. Thus, firms are not expecting future benefit on those projects; therefore, it can be reverse, in that doing good is doing well . Margolis et al. (2007) found that much of the literature has concentrated on the relationship, in that corporate social responsibility results in better firm financial performance and forgetting the other way around. Fortunately, recently some research has tried to look at other directions, for example, Lys et al. (2015).

Hong et al. (2012) found that firms that are less constrained financially are those that invest more in corporate social activities than highly constrained firms. Also, the scores on corporate social activities are higher and there is a causality relationship between them. They found that corporate social responsibility is more sensitive to firm financial constraints than R&D and capital expenditure. They found that even the constrained firms increase their R&D and capital expenditure in difficult times. They conclude that firm financial slack is more important for firms to invest in corporate social responsibility, even for big businesses. They said that this is because it is not a core job of businesses, and they only do so if they have enough financial slack. Also, the smaller the size of the firm, the lesser the investment to corporate social activities. They also conclude that the findings show that corporate social activities incur costs to the businesses.

Clarkson et al. (2011), in research on U.S. firms (1990-2003) that are polluting more (Pulp & Paper, Oil & Gas, Chemical, Metals and Mining industries), found the factors that make those firms implement proactive environmental strategies, and also if those strategies results in positive financial performance. Their results show that there is a positive relationship between financial performance and environmental performance. Also, they found the increase of firm financial performance in the previous period lead to an increase in environmental performance over the next period. They also found the vice versa that is the improved environmental performance in the previous period lead to an increase in financial performance in later periods.

Lys et al. (2015), in their research that examines the relationship between corporate social responsibilities and firm financial performance (the data taken from Thomson Reuters Asset4 from 2002-2010), found that when firms are spending on social activities, it is not the business charity activities, but instead the businesses that spend on those activities as they predict better firm performance in the future. They found that there is a positive significant relationship between corporate social responsibilities and firm future ROA and operating cash flow, while this is insignificant with size adjusted stock returns. They also found that firms with more corporate social responsibility expenses have more cash, more market to book value, more research and development expenses, and big firm size (that is their relationship are positive).

When firms spend on corporate social responsibilities they do not do so because of giving charity to the community. Rather, it is a mean of investment that will have a positive return in the future, and also it acts as a good signal to the company (Lys et al. 2015). They conclude that their findings support the investment and signaling hypotheses, but do not support the charity hypothesis. However, they found that the firm future financial performance and corporate social responsibility relation is more positive and likely to occur because of signaling as opposed to investment.

The above findings show that there is an impact of firms' sustainability performance on firm performance, but also firm performance to sustainability performance. Therefore, it seems that the relationship is not only one way, but also the other way around. This also raises the another point this thesis is going to examine on the direction of impact on the issue.

In addition, the thesis is going to respond to calls from the previous studies. Most of the previous research focuses on the environment or society separately, as Chang & Kuo (2008) emphasizes that strong research will be achieved if all three aspects (social, environmental, and economic) together are considered when examining the relationship between corporate sustainability and firm performance. Therefore, this thesis is going to respond to this call by including all the three aspects of sustainability performance. The thesis is going to combine the firm's sustainability performance and firm performance in a single model. The decision making model the "Throughput Model" by Rodgers (1997) (The model will be discussed in detail later in this thesis) will be used to examine the impact of sustainability on firm financial health and market value. Moreover, the thesis will respond to calls by Rodgers et al. (2013) Huang & Watson (2015) and Margolis et al. (2007) that both firms that are socially responsible good performance, and those irresponsible or who do less, low performing activities should be examined. In addition to this, the thesis will examine both directions, first by looking at the impact of sustainability performance on firm performance, and then the other way around a call from Margolis et al. (2007). Margolis et al. (2007) argue that most of the prior research focuses only on firm performance as the dependent variable. This extends further to each of the aspects of sustainability impact on firm performance, which is a call by Hull & Rothenberg (2008) that each dimension might have a different impact on firm performance.

Before discussing the Throughput Model in detail, let us first discuss each aspect in depth, and their relationship with firm performance so that the thesis can have enough to respond to Hull & Rothenberg (2008) call. The thesis will then turn to the reasons why the firms practice sustainability, followed by the possible reasons for contradictory findings. So, let's start with the first dimension, which is environment.

2.3 ENVIRONMENT

From the environment firms are getting all the resources that they need in order to run their operating activities. Without it, no business could exist, so taking care of it is a crucial role for any business to survive. Firms have to consider the effects of their operating activities on the environment if they destroy, pollute or harm it in anyway. Thus, while operating, firms have to make sure that they use the resources from the environment and preserve it by any means necessary.

When a firm is involved in environment issues it has to make a major investment such as changing the process of manufacturing goods, for example, using renewable fuels and not fossil fuels, or modifying the process so less energy will be used and less pollution caused. All these methods incur costs, which make the production costs higher, and also decrease financial performance. At the same time, environment issues are considered as one of the means of increasing firm financial performance, because by controlling and preventing the pollution, a firm can save a lot as they use the available resources in production effectively and efficiently (Porter & Van der Linde 1995). Controlling pollution minimizes the pollution after the manufacturing process that is known as the end of pipe approach, which is a way to get rid of waste. Preventing pollution is the way to decrease pollutants in the manufacturing process, such as the different ways of using raw materials, utilities, and so on.

Pollution occurs when raw materials are not used efficiently, not complete, or not effective when firms manufacture goods (Porter & Van der Linde 1995). This means that the firm will have waste that could be controlled by using their raw material fully and in an effective and efficient way. Also, by controlling pollution and having the best production processes means little waste and thus fewer raw materials will be used, in addition to less cost of getting rid of the removal of the waste, which will allow a firm to save or decrease the costs of manufacturing. Hart & Dowell (2011) argue that more profit is made through preventing pollution than controlling pollution, since prevention focuses more on how to produce effectively and efficiently, rather than on the ways to remove the waste material after the production process.

Much of the previous research has focused on firm environment activities and firm performance. The majority of the research has shown contradictory findings. As argued by Albertini (2013), in the meta analysis, much attention has been paid on the relationship between environment and firm performance, but the findings still contradict each other. Some have found that environmental activities have a positive impact on firm performance, while others found a negative relation, and still others obtained insignificant findings. The following section shows some of the previous findings on the relationship, and we will start with positive findings.

Positive Relationship Findings between Environment and Firm Performance.

In the environmental literature it has been shown that environmental activities enhance firms' profitability. Some previous research shows that the environment has a positive impact on firm performance. In the meta analysis, 52 studies from the period of 1975 to 2011 Albertini (2013) found that there is a positive relationship between firm environment performance and financial performance. However, the relation is stronger for the accounting base measures than for the market base measure. The author also found that in studies that are non-longitudinal, the relationship between environment performance and financial performance is stronger than the research that used longitudinal data. Also, Wagner & Schaltegger (2004), in a study on 166

Germany firms and 135 UK firms found that there is a positive significant relationship between environmental strategy and firm profitability, and those firms that do not have environment strategy found no significant findings.

In addition, Flammer (2013), from 117 articles of eco-friendly and 156 eco-harmful samples, found that firms that have eco-friendly environments help to enhance firm share price, while firms that have eco-harmful environments destroy firm share price. The author found that by time a market has increased its punishment to those firms that behave irresponsible to environment (eco-harmful), while by time, markets decrease the reward to those firms that are responsible for the environment (eco-friendly). The author also found that the marginal return for the environment is declining, and also acts as insurance, since the author found that firms that have high environment performance have small increases of stock price, as well as the negative impact also being small for firms with higher environment performance. The author argues that initially, environment activities such as reducing pollution are not expensive and easy to do, which might lead to good performance by having the benefits of low-hanging fruits; however, after a certain limit, the process of reducing additional pollution might need more money and be costly for firms to reduce pollution.

Also, Dowell et al. (2000), in their research sample from 1994-1997 on U.S. multinational firms, found that multinational firms which have stringent environment rules have more market value, as measured by Tobin's Q than the firms that do not have stringent environment standards. This means firms that practice low environmental standards because of the host country have less strict environmental regulations or rules at low market values. Firms that have a pollution presentation strategy have better economic performance. Moreover, having strict environmental standard may increase profit through implementing new technologies that lead to increase productivity. However, they could not find if there is a causal or reciprocal relationship between a firms' value and environmental standard changes. Investors value high firms which have good

environmental news, while they punish firms which have environmental bad news (Klassen & McLaughlin 1996; Dasgupta et al. 2001).

In addition, Cormier & Magnan (2007) found that in Germany there is a positive relationship between environment information disclosure and firm market value. Shane & Spicer (1983) also state that firms that have high pollution control have high market value compared to those firms that have low pollution control. Gupta & Goldar (2005) found that the relations exists between environmental information and market value, and the market responds to environmental news which then influences firms to think and place more effort on considering the environment and controlling pollution.

Firms that engage in environmental activities and disclose that information are often used by investors in making decisions. Firms also face pressure from investors to disclose environmental information as they use the information in their investment decisions (Anton et al. 2004). As information on environmental activities is increasingly demanded by investors, this has made firms pay more attention on the issue (Berthelot et al. 2003). Moreover, there are more ethical investors who consider environmental and social issues in making their investment decisions, which thus makes more environmental issues important and in demand in the market (Berthelot et al. 2003).

Environmental activities have a positive relation with firm performance and so it is among the most important parts of firms that should be considered. Environmental issues enable firms to gain a competitive advantage through different strategies through production, packaging, and an environmentally friendly product production process. By practicing different strategies, firms can increase their selling price and thus increase revenues, in addition to maintaining lower costs through modifying production in order to pollute less and use products that save energy, enhance innovation, increase firm competitive advantage, and firm performance (Porter & Van der Linde 1995). In addition, environmentally friendly products help firms to decrease firm liability, and health and safety considerations, for example, can decrease firm

insurance costs, as well as product warranty costs and fines from governments. All these reduce costs and which will automatically increase firm profit.

Environmental information helps firms to gain a good reputation, thus facilitating sales revenues and decreasing firm risk (Khanna & Anton 2002). Solomon & Lewis (2002) found that there are a number of incentives to corporate environmental disclosure, which are used to improve company image, and also to market a company and its products. Also, it helps firms to produce more units with less waste, which will enable firms to have less costs and more products to sell. For example Perrini & Vurro (2010), in the example of Novartis company, production increased from 30 units in 1979 to 70 units in 2000, and waste decreased for production from 70 units in 1979 to 25 units in 2000, because of the company's effort to decrease the pollution of the environment. Multinational firms that have environmental rules higher than those in the host countries are gaining from employee morale, enhanced reputations, competitive advantage and improved productivity (Dowell et al. 2000).

Therefore, the results of the previous research above shows that the environment has either a positive direct impact by reducing manufacturing cost, reducing utility expenses, and the effect to firm performance, or an indirect impact through reputation, brand image, and stakeholder relation, which in turn will have a positive impact on cost reduction, increasing sales, which in turn increases firm performance. However, others have found a negative impact of the environment on firm performance, as shown in the following section.

Negative and Insignificant Relationship Findings between Environment and Firm Performance.

While the above findings show positive relations, other research shows a negative relation and other insignificant results. For example, Wagner (2005), in his research on firms in the paper industry for four countries, the U.K., Germany, The Netherlands, and Italy, for a period of three years (1995-1997), the relationship between economic and environment performance was found to be insignificant between firm economic performance and environment performance for those firms that work on preventing pollution, while negative relationship exists with firms that use an end of pipe strategy.

For example, in a sample of 44 firms in Spain from 1996-2004, Moneva & Cuellar (2009) found that environmental information is not valued by investors in their investment decisions, and it is considered to be irrelevant information in decision making. As the authors cite, “environmental costs are seen by the market as end-of-pipe actions and not for future improvements” (Moneva & Cuellar 2009 p.g 451). Cho et al. (2013) found that firms that have bad corporate social performance are disclosing more information on the information since they know that by disclosing it will improve their reputation, even though they didn’t perform well as they use languages that impress other stakeholders.

As added by Hassel et al. (2005), there is a negative relationship between environment and market value which means that the environment incurs unnecessary costs which harms earnings and firm market value. Also, the costs of involving environment issues outweighs its benefits (Palmer et al. 1995). Dowell et al. (2000) argue that if firms are operating in a country that have less restricted environmental rules and are trying to invest more on environmental issues, then this is a waste of company resources, which in turn affects firm profitability and market value. Murray et al. (2006) argue that environmental costs are taken by investors as end-of-pipe activities.

The environment activities harm firm competitive advantage as the activities incurs costs to the firms (Barnett 2007). Others argue that engaging in pollution prevention or control and disclosing those environment information is a waste of company resources, which has a harmful effect on firm financial performance (Mahapatra 1984).

Also, Ilinitch et al. (1998) state that, at present, there is much environment information available about companies which actually confuse investors and make it hard to make decisions. Even other stakeholders, for example, auditors, do not perceive environment information as relevant in decision making. Rodgers & Housel (2004) state that auditors do not consider environment information when making decisions about a firm. They argue that auditors don't have the training to use environmental information in making decisions. "Auditors' perceptions of environmental risk information are downplayed compared to the traditional accounting information during their judgment and decision choice phase... auditors tend to place more reliance on the financial rather than environmental risk information" (Rodgers & Housel 2004 p.g 523). However, as argued by Cohen et al. (2000), auditors use of non-financial information will enhance and lead in effectiveness and efficient decisions.

Others found no relationship between firm performance and environment issues (Fogler & Nutt 1975). Cormier & Magnan (2007), found an insignificant relationship between environment information disclosure and firm market value for firms in Canada and France. Companies that report environment issues are those companies which have waste that is more toxic and do not comply with environment issues; thus, environment reports do not give a good picture about a firm on corporate performance (Delmas & Blass 2010). Firms disclose environment information since they want to conceal the bad environmental damage they do because of their business (O'Dwyer 2002; Solomon & Lewis 2002). Vormedal & Ruud (2009), in their research of 98 large firms in Norway, found that almost 94% of those firms do not follow the requirements on disclosing environment information, and those who do

disclose have different contents, as by disclosing the environment information firms do not get adequate value from them (Ball et al. 2000). Some others argue that the environmental issues disclosed are mainly qualitative (Adams et al. 1998; Roberts 1992), and only positive news for the firms are disclosed (Moneva & Llena 2000).

Thus, this contradictory finding confuses managers and other stakeholders as well, since they do not know if those activities are value creating or just loss bearing activities, as the results of the research are not clear. This thesis is also going to look at this issue.

2.4 CORPORATE GOVERNANCE

KLD also provides firm performance on corporate governance. Previous researches have also included corporate governance as one of corporate social responsibilities, as they argue that it is one of the social responsibility activities. This thesis is going to look on it also, however, it will not be added into the total social pillar score, since KLD categories of social dimensions are community relation, employee relation, diversity, product, and human rights only. Corporate governance is the heart of any organization success. It refers to the processes, procedures to direct, distribution, control, decision-making, responsibilities, and all the rights of the firm stakeholders. It is where the business objectives, goals, aim, vision, and mission are set. Shareholders choose managers and boards of directors, as they believe that they have right skills and experience to run the business more than the shareholders themselves. Lehmann & Weigand (2000) argue that one of the main purposes of governance is to have managers whose interests are the same as the shareholders' interests.

A manager's responsibility is to act on shareholders' interests, however, managers have motivations of doing things that have benefits to themselves by taking a firm's resources, which will not increase the owners wealth, but rather the manager's own interests (Jensen & Meckling 1976). Firms that are controlled by managers pay less cash dividend to their shareholders and thus there is more chance for managers to invest in projects that benefit themselves only. The main responsibility of governance is to reduce the agency problem that exists between the differences of interest of managers and owners by making sure that managers are acting on increasing shareholders' value (otherwise replaced) and keeping compensation at a reasonable level.

The main problem arises when managers engage in activities for their own interests, and not for the aim of enhancing shareholders' interests, which is to maximize their wealth. The agency theory says that there are conflicts between firm owners and managers because of differences in interest. Therefore, corporate governance plays an important role in minimizing the conflicts that exist in keeping goals, objectives, processes, procedures, and responsibilities that have the aim of increasing the performance of a firm. The investors provide their capital to managers to run the businesses and give the responsibilities of controlling and making decisions to the managers, as they believe they have more skills and experience on the business activities. Then, information asymmetry arises as managers have more information on a business than the owners. Thus, corporate governance is an important tool to minimize the conflict between owners and managers. The main goal of corporate governance is to make sure the firm value increases, as well as the owners' wealth, as these are their main responsibilities.

For example, when managers act for their own interests in large international corporations that have dispersed shareholders, small shareholders have no power to control or take action. Therefore, small shareholders can decide to sell their shares in a more liquid capital market. On the other hand, large shareholders can control managers and hinder them from investing in projects that are not efficient, and stop them from taking money from the business and doing things on their own. However, controlling them too much may hinder the managers' new ideas and initiations and business might miss the most profitable investments due to large shareholders over control (Burkart et al. 1997). Moreover, large shareholders can cause huge costs to other stakeholders and small shareholders by distributing the wealth among themselves and put small shareholders at risk.

Previous literature on corporate governance and firm performance has shown mixed results. Some had a positive relationship with firm performance, some were negative, while others got no relation. This is because corporate governance includes many dimensions and not all of them have the same impact on firm performance. Bebchuk et al. (2009) argue that different dimensions of corporate governance have different impacts on firm performance. Bauer et al. (2008) argue that almost all of the previous research focuses on one dimension or a specific feature to represent the corporate governance performance. Researchers use various indicators to represent corporate governance, such as board size, outside directors, ownership concentration, board committees, meetings held per year, etc. For example, Morck et al. (1988) used only insider ownership, while Demsetz & Lehn (1985) considered outside ownership in testing the relationship between corporate governance and firm performance. Bohren & Odegaard (2003) argue that using one dimension of corporate governance in examining its relationship with firm performance will not give the actual picture of the relationship, and most of the previous research used only a few mechanisms only. Another reason for mixed findings depends on data itself. As argued by Bohren & Odegaard (2003), results are mixed due to difficulties in getting good quality data. The quality of

the data gives different findings, and bad quality decreases the power of the research (Anderson & Lee 1997).

For example, Bauer et al. (2008), in their research using data from Governance Metrics and International, found that well governed firms perform better than badly governed firms, and each category of corporate governance has a different impact on firm performance. They found that remuneration, internal control, and financial disclosure have more impact on firm market value, while shareholders rights have only a slight impact. In contrast, corporate behaviors, market for control, and board accountability do not have a significant impact on market value. They also found that the poorly governed firms are small size firms.

In addition, Bhagat & Bolton (2008) found in four different measures of corporate governance that there is a positive relationship between corporate governance and firm performance, as measured by ROA. Also, Bohren & Odegaard (2003) found that corporate governance has an impact on firm performance, and inside ownership has a positive impact on Tobin's Q. Also, industry and firm size have an impact on firm corporate governance and firm performance. Carter et al. (2003) found that CEO duality has a negative impact on firm market value, as measured by Tobin's q.

Brown & Caylor (2004), in their research of 2327 firms on the relationship between 8 categories of corporate governance and firm performance, found that executives and director compensation have more association with firms that have high performance, while they found that the charter/bylaws category is associated with firms that have low performance. The authors used progressive practices, director education, audits, state of incorporation, ownership, board of directors, executive, and compensation as the categories of corporate governance, which were taken from Institutional Shareholder Services. They also found that firms that have low governance scores pay less dividends, low profit, and low market value, whereas high-governed companies have the opposite. They also got the firm that have separate CEOs and board chairs have a higher market value than firms that

have CEO duality, as well as a negative relationship between an independent board and Tobin's Q. They found that firms that have a high governance score are high in ROE, profit margin, have a high Tobin's Q, give more dividend, and also buy back shares, while the results are opposite for firms with low corporate governance scores.

In contrast, others had a negative and insignificant relationship. For example, Bhagat & Black (2002) found an insignificant relationship between corporate governance outsider directors and firm performance (measured by ROA, Tobin's Q, stock returns, and assets turnover). Also, Kaplan & Minton (1994) found that the more the outside directors in corporate governance, the more the probability of bad firm performance. While others had a higher market value, the firms that have outside directors and the relationship is positive (Brickley et al. 1994). There is a negative relationship between board size and firm financial performance in terms of profit and market value, as measured by Tobin's Q (Yermack 1996). Bohren & Odegaard (2003) found outside ownership had a significant negative to firm market value measure by Tobin's Q. Moreover, board size, non-voting shares, and payout divided have a negative impact to market value.

In addition, Lehmann & Weigand (2000), in their research of 361 firms in Germany, found that corporate governance has a negative impact on firm profitability, while they also found that firm profitability is not improved by greater numbers of shareholders. They found that, quoted as well as non-quoted, the results are negative to profitability, concluding that the results are consistent with the idea that larger shareholders may cause costs to firms because of over controlling and monitoring. The larger the board size, the lower the firm performance, since more time is spent on making decisions, and communication also becomes difficult. Chaghadari & Chaleshtori (2011), in their research on the corporate governance board structure (four characteristics of board: ownership structure, board independency, board size, CEO duality) and firm performance (measured by ROA, ROE), found that only CEO duality has significant results which are negative related to ROA and ROE, while the

remaining three categories of corporate governance have insignificant results. Eric & Shapiro (1998) found that corporate governance (measured by ownership concentration) has a negative impact on ROA; however, the relation was non-linear.

Moreover, Hermalin & Weisbach (1991) found no relationship between governance, as measured by outside directors and market value, measured by Tobin's Q. On the other hand, others had a negative relationship between market value, as measured by Tobin's Q and independent board of directors (Bhagat & Black 1999; Agrawal & Knoeber 1996; Yermack 1996). Vafeas (1999) found that firm value and the number of meetings held is negatively related. Bhagat & Black (2000) found an insignificant relation between market value and independent board of directors.

Ownership structure also shows the differences in a manager's discretion on corporate social responsibilities. The more concentrated the ownership bring less response for firms to participate in social activities, while the more diffused the ownership is, whereby managers have more power in controlling and making decisions, the higher the chance that a firm will participate in corporate social responsibilities. However, until present, researchers are arguing between managerial discretion on social activities, as the aim is either to increase their own interest or to increase the interest of owners.

It can be seen from the above that there are mixed findings in the relationship of corporate governance and firm performance. The reasons might be that almost all the previous research focused on a single measure or a few measures for corporate governance as shown above; second, the quality of data matter, as argued by Anderson & Lee (1997) and Bohren & Odegaard (2003). Therefore, in order to overcome these problems, this research is going consider the total score of firm corporate governance performance and not just single criteria (e.g., an outside director). Moreover, in order to overcome the bad quality data, the KLD database is going to be used, as it is known to provide good quality data and is mostly used in corporate social studies, as argued by

many authors (Waddock 2003; Sharfman 1996a; S. a. Waddock & Graves 1997; Huang & Watson 2015).

Since the corporate governance findings contradict as the literature above showed, there is still a doubt on the issue and it is not clear for managers, investors, as well as other stakeholders regarding their relationship. Therefore, this thesis is also going to examine the impact of corporate governance on firm financial health and market value as well as the other way around.

2.5 EMPLOYEE

Employees are the crucial resources for any organization to succeed, as they have skills, knowledge, experience, and abilities that are important in running the organization operating activities, which will thus lead to organization profit. In the literature, employees are referred to as human capital. Human capital is a crucial resource for a firm to gain competitive advantage (Hitt et al. 2001). It is knowledge, skills, and the abilities of individuals in a firm (Snell & Dean 1992 p.g 468).

From the resource based view, in order for a company to gain competitive advantage, it should acquire resources that are intangible valuable, rare, inimitable, and substitutable (Barney 1991; Acedo et al. 2006; Crook et al. 2011). Human capital is the crucial resource that helps to get profit (Sveiby 1997; Stewart & Ruckdeschel 1998) and it is not easy to copy or imitate it, and thus it helps to enhance competitive advantage Hitt et al. (2001). The way firms allocate valuable resources, especially human capital, has an impact on the performance, thus, some firms have valuable resources, whereby others do not have them or cannot copy them or perform better than others (Barney 1991). It has been argued in the literature that the most important resources for any firm to create a competitive advantage and perform better are the knowledge that employees possess them. These knowledge and skills that employees possess are developed through experiences, training, and education, etc. By satisfying employees, it is more likely that those employees will put

more effort into their jobs and stay longer with the firm. Human resources activities like promotion, pay, and security at work enhance workers' perception' that firm is providing support, which makes the employees put more effort into their jobs and stay longer with the firm (Rhoades & Eisenberger 2002; Whitener 2001).

Nowadays, the importance of human capital has increased in organizations because of the new era of information, knowledge base intangible assets have increased its importance and human capital who are the employees of the organization are the one who possess those skills. In the information era, businesses operate in an environment in which innovation and quality are highly demanded, which reside on human capital not physical capital; thus, employees become important valuable assets. In knowledge intensity organizations, firms put more money in research and development, which requires employees who have a high education level and are specialized in their fields (Mats 1995). Investors emphasize more on human capital, especially in knowledge intensity companies. As argued by the Cisco founder, in in high-technology industries when a firm acquires another firm, it actually acquires people only, which is the future of the acquiring firm (Ertugrul 2011). This is because in knowledge intensity industries (like high tech, health care), and firms that depend more on R&D (like pharmaceutical industry firms), firms depend more on human capital to succeed more than physical assets.

Financial information users like shareholders and creditors, etc., put pressure on firms to provide not only financial information and also other non-financial information, especially human capital in their annual reports (Aboody et al. 2004). For example, two competitive firms can have the same machine, equipment, and all other tangible resources; however, their performance cannot be the same. This is because they have different resources, which helps them to compete; these include employees, the human capital resources, and a crucial firm resource. Employees have tacit skills, which are not easy to be copied by competitors. These skills are gained through experience and are difficult to transfer to other people or imitate them. Human capital has been recognized as

an important asset, especially in the new information era and technology based firms. Since the world economy increasingly depends on knowledge based information in order for firms to succeed, they should acquire, enhance, and develop human capital (Crook et al. 2011). Previous research has found contradictory findings between human capital and firm performance; some had a positive relation, and some were negative. Let's start with the positive findings.

Human capital enhances both firm financial performance and market value. For example, Maditinos et al. (2011), in their research of 96 firms in Greece from 2006-2008 found that in four sectors human capital has a significant positive relation with firm market to book value and firm financial performance, as measured by ROA. They suggest that in Greece, in order for a firm to succeed economically it has to consider human capital.

In addition, Crook et al. (2011) found in the meta-analysis of 66 articles on the relationship between human capital and firms performance that human capital is positively related to firm performance. Moreover, they found for those studies that there is no difference in the results performed by longitudinal data and cross-sectional data analysis; all yield the same findings. They also found that when using specific human capital, the relationship is stronger than the general, and operational indicators of performance correlate more than global indicators of performance when testing human capital. Added by Darabi et al. (2012), human capital is positively related with the earnings. Daryae et al. (2011) found that human capital is positively related to Tobin's q. Lajili & Zéghal (2006) found that firms that disclose high employee costs perform better than firms that disclose low employee costs. These show that, employee costs help markets to understand human capital, the hidden intangible assets, which are then reflected in the market.

Also, Ertugrul (2011), in research from KLD data on employee friendliness measured by union relation, cash sharing, and retirement benefits, etc., found that there is a positive significant relationship between employee friendliness and employee productivity and change in ROA for human capital

intensive industries, while for other industries the results were insignificant. The author found that employee friendliness has a positive impact on the acquisition process and makes the process finish quicker. Also, the author found a positive relation on employee relation on firm performance after the acquisition. The author found that the impact is stronger for the firms that are in human capital intensive industries than any other industries.

Moreover, Lin et al. (2012) found that there is a positive relationship between human capital and firm performance in both market to book value and ROA. They found that organization size has a negative impact on the relationship between human capital and firm performance, as the larger the organization, the more costs are incurred to disclose human capital compared to small firms where the relationship between the two are strong. Also, they found that the relationships are moderated by knowledge intensity, for which they use the employees education level from college degree and over as percentage. They conclude that human capital information is important, as employees believe that this information represents their performance; therefore, they will increase their effort in their jobs and production operation.

Managers should make decisions that capture the skills, abilities, knowledge, and experience of their workers so that these will make an organization utilize these resources efficiently and gain competitive advantage. Lin et al. (2012) suggest that managers should consider activities that enhance human capital. As human capital is reflected in the market organizations, they should try their best to engage in human capital, and enhancing activities and disclosing those activities in their reports so that shareholders can have a clear picture of the intangible asset, the human capital of the organization. However, practicing human capital activities and disclosing the human capital information incurs costs, and competitors can also imitate the ideas.

The above findings show a positive relation between firm human capital and firm performance. However, other studies found a negative relation between human capital and firm performance. For example, Hitt et al. (2001) did a research on the impact of human capital on firm performance, and found

that human capital has a negative impact on firm performance, especially at the beginning. They argue that human capital incurs costs, and investing in them costs more than their benefit at the beginning; this is only offset after they gain enough skills and experience in their fields, which actually needs time. Time and costs are incurred in order to acquire and improve human capital, which actually may offset its advantages (Crook et al. 2011). As argued by Ballow et al. (2004), firms incur costs when enhancing employees through training and education, which can help in gaining competitive advantage; however, this is not the case when an employee quits the job and joins a competitor who then gets more advantages than the former. As added by Edvinsson (1997), investors and creditors do not value human capital as they are more mobile or easily switch jobs or companies and are difficult to be owned or controlled by companies. Newbert (2007) found that human capital is not an important resource in firm performance.

In addition, Crook et al. (2011) argue that the impact of human capital to firm performance is time, as the valuable resources that are rare, difficult to imitate, grow, or improve by time. Also, the investments on employees' development, such as training or education show its effect after sometime, but not immediately. Moreover, it depends on whether the skills that employees possess are general or specific, as has been argued in the literature that specific skills or knowledge increase the firm human resources value. The authors argue that managers can realize such specific knowledge and assign the research and development project to them, and a good job can be done which can increase firm performance economically. Firms that lose employees that have specific skills can incur more loss than general skills, as the specific skills employees have are difficult to get or trade in the market. Also, it might depend on the measure of performance if it is an operational measure or a global measure.

Also, Roca Puig et al. (2011) found that high levels of a firm's human capital does not guarantee high firm performance. In their research they found that there is a high positive relationship between human capital and return on assets in large firms, where there is lower temporary employment than in high

temporary employments of the small firms. They conclude that the relationship between human capital and firm performance is not straightforward, and organization size and type of employment contract plays a significant role in moderating the relationship. Hitt et al. (2001) suggest that managers should decrease human capital costs, and if this is not possible then firms must make sure the benefit they get from human capital exceeds its costs. However, after they get the skills and experience they can switch to another firm.

Moreover, employees who graduate from top ranked universities want a paid high salary, and firms have to spend much more in order to capture the highest professionals for their firm (Hitt et al. 2001), since clients believe that this increased quality of a firm increases reputation. Barney (1991) adds that human capital resources consist of employee training, skills, experience, relations, decisions, capabilities, and creativity, etc. In order to enhance them they incur costs which may be higher than their benefits (Hitt et al. 2001).

Others found insignificant findings on the relationship between human capital and firm performance. For example, Daryaei et al. (2011) found an insignificant relation between firm financial performance measures by ROA and human capital. Firer & Williams (2003) found insignificant results on Human capital and firm performance. Maditinos et al. (2011) found insignificant results between human capital and firm financial performance, as measured by ROA and growth ratio. Moreover, the cost of giving benefits to workers can be more than the benefits that you get from them; also, managers can use policies that make employees friendly, however, the policies can decrease or negatively affect firm value (Ertugrul 2011). For example, involving employees in decision making, and lax monitoring of activities on jobs can make employees more satisfied as they see that they are involved and not strictly monitored. This might have a negative impact on firm use of resources (e.g., a long time in making decisions) and production which might affect firm performance.

Even though employees bring the benefits as shown above, they also incur costs to firms, as discussed above. For example, in training, educating, and satisfying them with things like family care and child care, etc, all these incur costs. As the previous research above shows mixed findings on the relationship, so too does it show that still there is a puzzle to be solved. Managers and other top executives want to retain employees in their organizations as well as enhance their performance; however, there is still doubt on the issue as do they increase costs to the firms or do their benefits more than the costs. This thesis is also going to focus on the impact of employee relation on firm performance in terms of both firm financial health and market value.

2.6 PRODUCT

A product or service a firm provides to its customers is the main reason that a firm exists. No business can exist in the world without providing services or products to its customers. KLD use products as one of the corporate social activities. Product firms are measured in relation to product quality, health and safety of products and services, and customer relation, which in turn are the most important things regarding customer satisfaction. In order for firms to have good relations with their customers, they should be able to produce goods or provide services that are in good quality and safe to use. Good relations will only come if firms satisfy their customer needs. By satisfying customers, firms will be able to retain them which in turn will repeat buying, and future firm performance will also be enhanced. Customer satisfaction, product quality, and innovation are not included in firm financial reports (Ittner & Larcker 1998); however, these intangible assets are the indicators of firm future financial performance that are not included in the financial reports, if those information will be provided to the investors a best decision will result.

The main source of firm cash inflow is through its customers, and by satisfying them the customer relation tie will be strong (Anderson et al. 2004) . By satisfying customers, firms are able to retain their customers, as previous

research shows there is a positive relation between them. Many previous studies show that customer relation increases customer satisfaction which in turn increases inflow of cash to the firms (Morgan & Rego 2006; Fornell et al. 2006; Gruca & Rego 2005), and also decrease firms' risks and capital costs (Gruca & Rego 2005; Anderson et al. 2004; Luo et al. 2012; Fornellet al. 2006), which can lead to increased firm financial performance and share price (Fornell et al. 2006; Bell et al. 2002; Ambler et al. 2002; Luo et al. 2012; Aksoy et al. 2008; Gruca & Rego 2005).

Customer relation is built up by customer satisfaction which brings benefits to an organization. For example, it helps to reduce the potential transaction expenses and risks (Reichheld & Sasser 1990; Gruca & Rego 2005), and increase repeated sales by its customers (Rust et al. 2002). Firms that satisfy their customers are rewarded by investors by investing more and customers by repeat buying (Fornell, Mithas, F. V. Morgeson, et al. 2006). For example, Coram et al. (2009) in the research from nonfinancial information in balance scorecards, found that customer satisfaction has an impact on firm market value. Also, the cost of acquiring new customers is more than the cost of keeping the existing customers through customer satisfaction (Thomas 2001).

Moreover, customer satisfaction enhances customer loyalty, enhances word of mouth, increases reputation, price elasticity, reduces defection, reduces customer complaints, and reduces warranty costs and after sale service costs (Fornell 1992; Anderson et al. 1994; Reichheld & Sasser 1990; Anderson & Robertson 1995), all these in turn help increasing firm performance in the short run (accounting base measures) and the long run (market based measure). Added by Ittner & Larcker (1998), satisfying customers enhances firm prospect financial performance through cross-buying from the current customer and enhances retaining customers.

Thus, from the literature, by increasing customer satisfaction, firms will be able to retain customers, which will lead the customer to continue buying a variety of goods or services from the firm, increase word of mouth positively, buying in high price tolerance. These will help keep the cost of acquiring new customers low, while also lowering transaction costs, charging high prices on products or services, high bargaining power, and increased sales/revenues and cash inflows. Furthermore, the cost of the supply chain will be low, as suppliers and many partners make good relation with firms that have good relation with its customers as they believe that firms with good relation with customers will have high revenues which will be able to pay the suppliers and other partners on time.

However, previous findings on customer satisfaction show mixed results, although most show positive results, some were negative and there were even insignificant relations between them. Positive findings, for example, Anderson et al. (1994), for 77 firms in Sweden, found a positive relationship between customer satisfaction and firm ROI. By increasing customer relation, firms will be able to retain their customers, which will lead to cost reduction, reduced risk, and volatility for the future inflow of cash, which will lead to increased firm market value. Also, Gupta et al. (2004), in their research for five firms (one traditional and four internet companies) found that when a company retains its customer by 1% the value of the firm improved by 5%. Moreover they found that increasing retention by only 1%, it has an impact on firm value by 5 times more than if a firm increased one percent in capital costs and discount rate.

In addition, Fornell et al. (2006) argue that customer satisfaction helps to speed up and enhance cash flows and decrease risk. Fornell et al. (2006) found that customer satisfaction has a positive relation with market value, however, they found that the news on customer satisfaction does not have an impact on firm market value. They argue that it might be that the news is already included in the price before its release. They also find that the

companies that have superior customer satisfaction have superior return at low risk.

Moreover, Ittner & Larcker (1998) found for 2491 telecommunication customers that there is a significant positive relationship between customer satisfaction and revenue, as well as customer retention. These means that firms that have high customer satisfaction have high expected revenues and customer retention. Thus, customer satisfaction is a signal for firm financial performance. However, they found those customers who scored more than 70, represented 25% of the customers, and increasing satisfying them will not result in more retention since the results become almost constant after 70. Also, for the revenue, the increase is a little above the score of 70. They found that the highest top 10% customer satisfaction does not have the highest retention and highest revenue. Therefore they argue that even though customer satisfactions enhance customer retention and revenue, at higher satisfaction scores there are diminishing results. Also, at the business level they found that the branches that have high customer satisfaction have more revenue, while they also found that more accounting benefits are coming from new customers indirectly than current customers straightly.

In summary, Ittner & Larcker (1998) found that there is a positive relationship between customer satisfaction and expected firm financial performance. However, in relationships at high level of satisfaction there is diminishing return on firm performance. They also found that the customer satisfaction is reflected in the market, the higher the customer satisfaction the higher the stock price, this is the same at the highest satisfaction where there are diminishing results of stock price, and the announcement of customer satisfaction has an impact on the stock market over a 10 day period.

Furthermore, research by Anderson et al. (2004), in a study over a period of 4 years (1994-1997) for U.S. public and private firms, found that customer satisfaction has a positive impact on firm market value, as measured by Tobin's Q, which differs across firms and industries. They also found that customer satisfaction and the market value of a firm does not bear a strong

relation with small concentration and industry divisions, while the relation becomes higher if the concentration is more and with less industry divisions. If there is a change of one percent in customer satisfaction, the market value of a firm can change by 1.016%. This increase of one percent in customer satisfaction means that the value of a firm can increase by around 275 million dollars. They conclude that firms that are good with their customers are rewarded by both customers through cross-buying more and investors by investing additional capital to the business. Flammer (2015) found that CSR programs increase firm sales, which means they attract and retain customers.

It can be seen from above that customer satisfaction has positive findings, however, on the other hand, others had a negative relation and even an insignificant relationship. In order to satisfy customers, a firm should incur more costs, especially for the higher level of customer satisfaction (Bowbrick 2014). To satisfy customers, firms have to produce good quality products and to enhance the quality of products and services (Juran & Gryna 1980 in Ittner & Larcker 1998) that may lead to decreased firm financial performance. Anderson et al. (1997) found a negative relationship between customer satisfaction and firm financial performance, as measured by ROI for service firms, while Foster & Gupta (1997) in Ittner & Larcker (1998) got mixed results (positive, negative, and non-significant) on the relationship of customer satisfaction and firm profitability. In addition, Mavrinac & Siesfeld (1997) in Ittner & Larcker (1998) found no significant relationship between customer satisfaction and investor valuation.

In addition, Anderson et al. (1997) found that there is a difference between the customer satisfaction and firm financial performance, as measured by ROI for goods and services, goods have a higher relation than services. Anderson et al. (1997) found that for retailing firms' high customer satisfaction has high costs which lead low financial performance. They argued that for monopoly firms, customer satisfaction is not so crucial. Anderson et al. (1997) and Ittner & Larcker (1998) found a negative relationship between customer satisfaction and market value for retailers. Also, negative relation for food

processing businesses (Ittner & Larcker 1998). Supporting the argument costs exceed the benefits for satisfying customers. In monopolistic businesses, firms cannot be punished because customers do not have options to buy somewhere else. As argued by Fornell, et al. (2006) unsatisfied customers will consider changing to another seller unless there are no options.

When a company increases its number of customer bases (customers who repeat buying are less harmed by market competition), the chance of getting marginal customers (customers who have difficulties in paying, less convinced customers pay just market price) increases and this will lead to a reduction in company revenue (Kaufman 1999 in Gupta et al. 2004). Moreover, Gupta et al. (2004) suggest that it is not advisable for firms to always retain their customers. As Shaffer & Zhang (2002) state, firms should not avoid customer churn because by retaining customers, firms might be underpriced and acquisition activities capture small retention costs customers.

Moreover, Fornell et al. (2006) argue that share price may decline after the announcement of customer satisfaction. This is due to the fact that investors believe that companies spend more resources to satisfy customers and are given more surplus than required, especially regarding the differences between what customers pay and the price customers are willing to pay (for example, on products that have high differentiation or monopolistic firms). Also, investors may negatively value a firm if they spend more on customers, which is already above its competitors. Moreover, the marginal costs may be more to enhance customer satisfaction, which might affect productivity, especially for service firms.

Following the above reasoning, and the contradictory findings of the literature review. The research believes that firm customer/product relation is the main core of firm performance. Products through their quality, health and safety issues, through their advertising, through their ways of satisfying customer needs will help to build relations with their customers, which in turn helps increase cash inflow/revenue, and decrease many costs such as defection and transaction costs (so many mentioned above, etc.) that cause firm

performance to rise. However, products/customer relations that have good quality, health and safety/ user friendly products, advertising products, etc. all incur costs as shown above in the literature. Since the results are still contradictory it shows that still question need to be solved. Do the product related activities have an impact on firm financial health and market value?. This thesis is to examine the relation between them.

2.7 COMMUNITY

Another dimension of corporate social responsibilities, measured by KLD, is community relation. It has been noticed that the community has increased its recognition and it is also one of the top priorities among firm stakeholders (Boehm 2005). Community relation includes firms' involvement in activities like donations to charity organizations, sponsoring students for further education, healthcare, housing, preventing hunger, supporting art and culture, enhancing various community programs, and so on. These activities have been kept under the discretionary category in Carroll's corporate social responsibility framework (Carroll 1979).

Firms can contribute to a community in monetary ways, that is, financially, by giving an amount to a community to use as it sees where it fits exactly, without a business interfering. However, a firm can contribute non monetary contributions in-kind, such as donating the firms assets such as machines, employees to volunteer certain activities, facilities, and equipment to be used by the community. Also, a firm might contribute in the way that businesses work together with the community for a certain project, such as in building schools, etc. Moreover, it can be through volunteering activities where a business has skilled and expertise in a certain project, so employees or executives themselves can take part in the project. Like educating the elderly, training in new technology like communication and computer skills, etc. Also, firms can contribute to communities by taking part in community decisions on various activities or programs. The presence of slack monetary or non-monetary resources can help firms to engage in community activities. For

example, Brammer & Millington (2004) firms that have slack inventories and labor have an impact on firm engagement on community activities that are not monetary. Moreover, slack human capital enhances workers' volunteering activities.

By doing those activities, firms will thus enhance and expand their relationships with communities, enhances trust and a good image to the community, gaining competitive advantage, decrease firm alienation into the community. This in turn will increase firm performance by having more customers from the community, prospective employees who care about a firm's volunteering activities in the community, and also attracting potential investors.

However, there are also risks that businesses incur when considering the wider community. For example, it reduces firms resources by using firm resources financially or in-kind, such as volunteering by employees to community activities that are not for business purposes, thus, the firm deviates from its core activities (Boehm 2005). Also, when a firm participates in community decision making it might increase the gap between business and society. This is because most of the people in the community that participate in the community programs and decision making are from a high status background while those with low social status are left behind. Therefore, the gap between the business participants and the lower level community widens (Boehm 2005). Moreover, the decision that might result might have more influence for businesses since they have more power than any person in a community (Logsdon & Wood 2002 in Boehm 2005). In addition, since business volunteers participate in decision making in certain community activities may result in bad or inefficient decisions, as those employees do not have experience on social issues (Poncelet 2003 in Boehm 2005). Also, community activities performed by the firms incurs costs, and therefore it might be that firms that do not have enough resources should not volunteer in those programs, or if they volunteer they might decrease their financial performance as they incur additional costs. For example, small firms may not have enough resources and may be forced by the government rule to participate

in community activities that might led them to low financial performance or even negative financial performance.

Firms are facing pressure from stakeholders like governments, and public pressure to return something to the local communities where the firms are getting profit or resources (Mullen 1997). In the U.K., Act 1985 requires companies to provide more than 200 pounds to political parties and charitable organizations, and this should be disclosed in the annual reports (Adams & Hardwick 1998). Boehm (2005) argues that community interests have been perceived as the interest of many stakeholders in companies. Top positions at present try to implement the strategies that are adding value to the business from the activities done to community. Moreover, communities are predicting a positive firm response, and firms should expand their objectives not just in terms of economic benefits but also to the benefit of community (McWilliams & Siegel 2000).

Firms nowadays are integrating firm strategies and community related activities. Firm performance and community relation are not conflicting one another; rather, they are independent of each other (Besser & Miller 2004). Firms are operating in an environment, and society itself is a part of the environment. At the same time, a firm's economic objective is to gain profit which have to use resources that are from the society and environment. Businesses are gaining from community employees, infrastructure, buildings, raw materials and many other resources from the community which help firms to succeed and grow (Besser & Miller 2004). Thus, they all depend on each other and complete one another (Chrisman & Carroll 1984; Drucker 1984). If a business succeeds in a community, the standard of living in that community will also be improved (Porter & Kramer 2007; Besser & Miller 2004). Businesses succeed when they contribute something to the community, since more customers and employees become interested in working in the business; also, employee retention will increase, attract investors, and will have a good image and relation with other businesses and community, etc. As one of the respondents in (Besser & Miller 2004) argue, the business is contributing to the

community as it belief that it's a way of advertising its business and will come back to the business. Another respondent reply that if a business do not contribute to community, individuals tell to prospect employees not to work in that business. Flammer (2015) found that CSR increase labor productivity, which means that it helps to satisfy employee and retain employees.

Firms donate billions yearly to support charitable organizations an community development programs, education, culture, health, medicine, and hunger, etc. (Seifert et al. 2004). This is because communities and governments as a whole provide resources and other services to firms that help those firms run their businesses efficiently and perform better; thus, community and government are expecting those firms in return to pay something to support the society. As argued by Davis & Blomstrom (1971), as long as businesses have wealth and power to return something to its community they will be within the law; otherwise fines, boycotts, and penalties will result. Also, Johnson & Sarkar (1996) found that protests against a firm by a community have a negative impact on firm wealth, which reduces the owners' wealth, fines, creates drops in the market, negative public perceptions, and high costs of loans.

Moreover, firms have recognized the benefits of investing in corporate social responsibility, which is further above the objectives of focusing on increasing the interests and wealth of shareholders and short term profit, only to a broader view of other stakeholders. Activities that use an organization's discretionary resources (money) to other stakeholders, such as in charitable giving, enhancing community programs, and political parties (Adams & Hardwick 1998; Navarro 1988). As argued by Moore (1995), in the U.K., companies are providing more to community development all over the country, and at present it is considered as one of the activities of any organization or firm. Firm managers have realized that donations are not just a gift to people, as they also bring benefits to firms.

Benefits such as public image and goodwill loosen government rules to the firms that contribute to the community (Adams & Hardwick 1998). Moreover, community relation helps firms to gain a competitive advantage, gain tax reduction or exemption, reduce strictly rules to the firms, more productive labor from the local community, enhance reputation, and enhance customer relation (Waddock & Graves 1997; Prahalad & Hamel 1994; Peterson 2004). The community activities help firms to enhance attraction from the community prospect employees (Backhaus et al. 2002), as job seekers prefer to work in firms that have a positive impact on the local community where it operates.

Researchers found a positive relation with firm performance, for example Adams & Hardwick (1998) in the study of 100 UK companies in 1994 on the relationship between charitable donations and four company factors. Adams and Hardwick found that charity donations are positively significant to firm profitability and firm size, while it is significant negative to firm leverage and insignificant to ownership structure. They also found an insignificant impact for industry and firm nationality on the relationship.

In addition, Navarro (1988), in the research on the reasons that make firms donate to the community found that the major reason firms donate is to maximize profit. Navarro also found that managers donate to the community as a means of advertising a firm's products or enhancing corporate image which will lead to profit maximization. Firms contribute to the community as a way to reduce costs related to labor, as the author found a significant positive relation between labor and donation. The author argues that a person is more favorable to work in a firm that contributes to the development of a community, and thus, employee turnover will be less which will reduce costs and thus increase profit. Donations lead to reduction of capital and government costs (for example, reduction, exemption of tax, or some rules). The author also found that highly leveraged firms are contributing less to communities, and firms that pay more dividend also donate more to communities.

Moreover, Kobeissi & Damanpour (2009), in their research of the relationship between banks and community activities and the factors that have an impact on the relationship between them, found that for 925 large banks in U.S. from 1996-2000, bank profitability has had a positive impact on engagement in community activities. They also found that in a highly competitive industry, banks give more loans to the community as a way to differentiate from their competitors and project a good images to the customers. Banks responses to community loans are negatively related to community income and minority groups. Bank age is not related to community loans, as the old banks provide small loans to communities, compared to the younger age banks. Moreover, institutional ownership, mergers, and acquisition have an insignificant impact on firm responses to a community.

Many other authors (Schwartz 1968; Whitehead 1976; Maddox 1981; Levy & Shatto 1978; in Navarro 1988) found a positive relationship between donation to community and advertising, and conclude that contributions to community are used as a way to advertise firms. Others found a positive and significant relation with dividend payment (Levy & Shatto 1978 in Navarro 1988), while there were also insignificant findings with labour (Whitehead 1976; Navarro 1988).

As can be seen from above, there are many advantages and positive relations to firm performance, while others express negative findings and views on a firm's community activities. For example, Navarro (1988) argues that firm community donations can be considered as a way to satisfy a manager's own objectives and not the objectives of increasing shareholders wealth. The author argues that managerial discretion of profit to spend money on other unnecessary things such as paying higher salaries, and spending money on their own luxury things, such as cars, offices, etc. with the aim of showing off their prestige to the society. This is when managers donate more than required to enhance firm profit with the aim of increasing their own manager's utility. Therefore, it is not clear if the aim of community activities is for the owners' own interests or for the managers' own interests (Hart 1993). As stated by

Haley (1991), managers discretion to donations and other charitable giving could have the aim of enhancing managers' own interests and way of prestige in society, which also increases a manager's reputation in the market for labor.

When firms engage in enhancing a community with donations, health and medicine, community programs, education, art and culture, and preventing hunger, etc., all these activities are considered as unnecessary additional costs, which thus takes firms' resources away from the firms with no income. As Barnett (2007) cite, "'Devoting corporate resources to social welfare is tantamount to an involuntary redistribution of wealth, from shareholders, as rightful owners of the corporation, to others in society who have no rightful claim" (Barnett 2007 p.g 795).

Moreover, Besser & Miller (2004), in their research found in a study on 715 small businesses in U.S. that business participation in community activities or programs can have an adverse negative impact on the business. As they found, community involvement may lead a firm to lose its customers and in turn suffer from decreased revenues, anger, increased business risks, and suffering. As one of the respondents argued, to volunteer and be among the board for a school (takes more time from you) might cause and raise anger to citizens, so it is better just to contribute flowers in a park. Another two respondents reported that they had received death threats and serious injury threats just because they volunteered and served in leading positions. They found that 64.7% of the respondents had experienced bad consequences from the community, since they provide support. The remainder said they were not appreciated for their energy and time wasted on the community support activities. Other interviewees responded that any controversial issue that a firm participates in can cause danger to a firm. Even if the business donates in helping the building of mental health hospitals, people boycott the products and services from that firm, as one respondent experienced in his/her business. They found that firms that have more local buyers are more believing in the public image of a firm, as more customers will be attracted and more

employees will be retained. Moreover, they found that firms will succeed when the community is improved.

However, others found insignificant findings, for example, Seifert et al. (2004), in their research of 157 firms, investigated the relationship between firms that have slack resources (having) have influence on corporate philanthropy (giving), which in turn might have a relation with firm financial performance (getting). They found that there is a significant positive impact on slack resources cash flow (having) to cash donation (giving); however, they found that donation does not have an impact on firm financial performance. Therefore, firm slack resources play an important role in donating to charity. Therefore, there is still confusion on the differences between firms doing well and doing good, that is, firms that do well have more profit that will enable them to do good in the community, or doing good in the community helps firms to do well in financial performance. Waddock & Graves (1997) and Preston & O'Bannon (1997) argue that firms that do well, have slack resources that can lead a firm to do good in corporate social activities. Also, doing good to society can result in firms doing well (Waddock & Graves 1997; Ullmann 1985).

Therefore, it can be seen from the literature that there are mixed findings between firm performance and firm involvement in community activities. Thus, still the relation is not clear for managers as well as other stakeholders as to whether it is good to be involved in community activities or not. This thesis is going to examine the impact of community relation performance on firm financial health and also market value.

2.8 DIVERSITY

Diversity is another dimension of corporate social responsibility, as measured by KLD. Diversity is an issue regarding employment and involves gender, age, religion, minority groups, different ethnicities, and culture to a company. Therefore, it is mix of human resources with different characteristics, skills, experiences, and culture, etc. In diversity, companies are expected to involve, especially women and other minorities in top positions. The world has changed and many challenges have been placed on companies to diversify in terms of their human resources in different positions. This is because nowadays companies have employees from different cultural backgrounds due to globalization; thus, by diversifying companies will be able to reflect on what really is in the society they operate in. The main goal of diversity is to balance the needed resources required by the organizations to perform better in every single aspect (Van der Walt & Ingley 2003).

The resource dependence theory focuses on the external resources and its effect on the organizational behavior. The theory by (Pfeffer & Salancik 1978) believe that the external resources are crucial for organizational strategic and managing as any organization depends on the resources that are external either from the environment or from another organizations thus independent on one another. The resources availability is the source of power for any organization, the theory has significant implication on organizational structure, board of directors' structures and employees, production and operation strategies enhance organizational links externally and so on. Thus the organizations that diversify try to use most of the available resource to help enhance it. For example by diversifying its board members from difference cultures, genders, age etc. means the organizational will have good, easy and enhanced link with the external resources as the external stakeholders and others will see that the board is involving and use the fully available resources efficiently. Also by including like women and minority at the board position means organization is truly represent the globalization as the organization or companies stakeholders are coming from different countries, thus by including them it means the organizations are well choosing the quality and available

resources to match its needs. Thus the resource dependent theory is important in diversity.

Companies have started to realize the benefits of diversity, so they have started to shift from uniform and single culture companies to multicultural ones, in order to make sure that they have got the correct composition that reflects actual business in today's environment. For example, Carver argues that diversity in the board should represent the ownership; in other words, companies have many shareholders across the world, so having diversity means representing the owners of the company (Carver 1997; in Van der Walt & Ingley 2003). This also helps companies to have good network or links in the society in which it operates its business. This is important as it links a company to valuable resources outside, enhances the mean of acquiring capital, and links to other businesses, etc.

The term diversity is not just to involve people from different ethnic backgrounds, genders, races, religions, ages and so on, to represent that they are there in the company. As argued by Burton (1991), for a company to be diverse, it should select or choose the right people with the most suitable characteristics or interests, come from different experiences that a company needs, and that will make a difference when having, not just to represent. As argued by Cassell and Biswas, due to changing demographics and scarce skills, the option to diversify makes it the best option to use the available resources (Cassell & Biswas 2000).

The most important position that companies should diversify is the top position. The board of a company is the image that reflects the presence of the diversity of the owners (Carver 2002). Carver (2002) argues that the board of directors should have diverse knowledge, background, skills, etc. so that they can add more to the firm decision making than just a voice. Also, diversity has many benefits to firms, for example, a diverse board reflects a good picture to the society, so job seekers with good qualities who are looking for those positions can have chance to get in. Also, it encourages employees inside the organization as they will know that as long as you work hard and you have

qualities then any day will be promoted to top positions regardless of where you are from, which gender you are, or which minority group you come from. Moreover, it enhances the good image to other stakeholders, and also enhances high quality decision making, as people come from diversified backgrounds. Companies create a diversified board, since they want to have a link to other organizations, such as social, government bodies, and other companies (Fondas 2000). Also, innovative ideas arise and use of available resources efficiently, for example, involving women, as they are part of human resources in an organization, and therefore by using them in various positions is like utilizing the available resources in an organization fully.

The absence of diversity can lead to adverse firm performance, absence of critical thinking, and absence of innovative ideas, losing many opportunities, as there will be an absence of worldviews (Singh et al. 2001; Mattis 2000 in Van der Walt & Ingley 2003). Big investors prefer to invest in companies which have diversified board members (Bilimoria & Wheeler 2000 in Van der Walt & Ingley 2003). Therefore, stockholders have started to put more pressure on companies to diversify, and especially to include women on board positions. However, they argue that the election of women on boards should not just add to the number of board of directors as it will not become efficient (Bilimoria & Wheeler 2000).

In the U.K., diversity has captured more attention, especially the involvement of women in top positions, as women have increased to take more top positions than before (Holton 2000). As argued by Van der Walt & Ingley (2003), even though diversity doesn't only focus only on gender, however, the major centration in the literature regarding the diversity is gender. The authors added that there are still some increasing studies on ethnicity, and also age, especially in the U.S. For example, Bilimoria & Wheeler (2000) argue that more women who are elected in board positions are younger than their male colleagues.

Many reasons have pushed companies to include women in top positions. As noted by Burke (2000), there is a lack of sufficient qualified male

CEOs, so focusing on men only on this position will end up electing men that have low quality. Also, the author argues that male CEOs have been noticed to make insufficient contributions, such as not having enough information, no time to prepare, and absence of expertise. As noted from the literature, women who have been elected on boards have a higher quality than men (Van der Walt & Ingley 2003; Burke 2000). However, as argued by Bilimoria & Wheeler (2000), a female board have worries, as they can think that they have only been appointed because they are female not because they are qualified for the position. Even though the authors noted that they still recognized their job duties and saw that it is the chance for them to discuss the issue related to women employment, and female development in career and retention at work. Burgess & Tharenou (2000) found that to be elected as a non-independent director means a person needs to have the right amount of knowledge, skills, and experience etc. required in that position, thus, women who have been elected in those position means they have the qualities needed, not because they are female. Also, the authors argue that other factors like organization size and external pressure are among the reasons to elect women in top positions.

Still, it is not difficult to get a white man with all the necessary qualifications on a board than finding a female or minority with the same qualifications (Marshall 2001). Burke (2000) argues that some authors suggest that homogenous directors can reach decisions faster and more efficiently than when a group has many diverse people. Fondas (2000) added that the inclusion of women in top positions, such as a board member, is just to comply with the rules and not for any further aim. Once a company gets a token number, there is no hope of increasing them; the only reason is image, to show stockholders and the wider community that the company is diversifying.

Previous research shows contradictory findings on diversity and firm performance. Others found a positive relationship between diversity, while others were negative, as well as insignificant findings. First, lets focus on the positive relationship between diversity and firm performance.

Diversity has been found to have a positive relationship with firm financial performance. For example, Lückerath-Rovers (2013), in the research of 99 firms in The Netherlands, found that companies that have women in their board of directors have more financial performance (as measured by ROE, ROS, ROIC) than companies that do not have women in their board of directors. Also, the author found that companies with female board of directors perform above the average than others. The best decisions are made with the board of directors are the ones that have diversity and specifically have females on board. Firms that have females on board enhance communication at all firm levels, and also increase firm reputation. Businesses that have core customer orientation select females to be in their board of directors; this help businesses to have legitimacy regarding customers and also improve their relationship (Brammer et al. 2007).

In addition, Krishnan & Park (2005), in their research of 679 companies found that the presence of females on top management teams has a significant positive relation with firms financial performance, as measured by ROA. While they found there was no significant impact on the environment as a mediator, the impact of female as board is directly related to firm financial performance. They conclude that females at top management teams play roles that exceed the need for environmental activities. They also found that the firms that have females on the board perform better than firms without females on their board. They suggested that future research should include market measure, not just accounting measure ROA. Burgess & Tharenou (2002) argue that company size matters in inclusion of female board of directors. The reason that firms that want to have a good image in the public eye might be because they are big firms or work with other partners who care about diversity, thus, they consider diversity in their board (Adams & Ferreira 2009).

Ryan & Haslam (2005), in their research on the FTSE 100 in 2003 in order to compare firms who appointed male and females on firm performance, found that firms that appointed females on board performed worse before the appointment for five months than those firms that appointed a male board. This

shows that women have to do more after the appointment than males, so that a firm can continue to survive. They also found that firms that appoint a female during a drop of share price, the share price goes up after the female appointment. They argue that when women try to advance their careers, they always face a glass ceiling, while their male counterparts get a glass escalator and when they to a top position they are on a glass cliff. In addition, Erhardt et al. (2003) found a positive relationship between diversity and firm financial performance ROA and ROI.

Moreover, Ryan & Haslam (2005) argue that if women are appointed at a bad time of firm financial performance, it means that the company prefers women to have this position. Also, companies decide to change the board of directors at times of poor performance or dropping share price than in times of good performance and high stock price (Kaplan 1995 in Ryan & Haslam 2005). Therefore, by appointing females on board, it means that actually people know who is the best in solving problems in their positions, and it conveys an image to shareholders that things will change and be good soon. Women and minorities brings companies modern attributes that the companies didn't have before (Campbell 1996 in Carter et al. 2003). Also, the more the diversified the board the higher the firm performance (Erhardt et al. 2003). There is a positive impact of firm cultural diversity on firm financial performance, and also it enhances firm competitive advantage (Richard 2000).

In addition, Carter et al. (2003), in their research of fortune 1000 firms, their final sample of 638 firms found that firms that have women and minorities on their board perform better than those who don't have. They found a significant positive relationship between diversity (women and minority on board) and market value, as measured by Tobin's Q. They found that as firm size and board size increase, there is also an increase in women and minorities on boards. Also, the firms that have more women on the board have more minorities. However, the number of women and minorities on a board declines as insiders increase. They found that firms that have women in their board are big sized firms with large numbers of board members, many meetings per year,

and have more minority members and higher market values, as measured by Tobin's Q and also high ROA. For the minority groups, they found that firms with higher minority members on boards are big sized firms with also a higher number of board members, more meetings, and more women and high Tobin's Q. Moreover, they found a negative relationship between women and minorities with numbers of insiders; thus, minorities and women on boards are outsiders.

From the above it can be seen that there is a positive relationship on diversity and firm performance. However, others found negative results and even insignificant results. For example, Dale-olsen et al. (2013) found that in Norwegian firms after the government rule for firms to diversify and include women on boards to around 40%, the researchers found that the inclusion of women on board didn't have any change on firm ROA or revenue, and it also incurred costs. Even though the authors argue that this is a good signal for a country, as it enhances gender equality and making firms to diversify, they also found that reforms to diversify have only replaced a male to a woman, with no change in firm performance. They conclude that diversity provides more opportunities for women to get higher positions.

Ahern & Dittmar (2011) found in Norwegian firms that implemented the reform of diversity to include women in the top positions that there was a negative relationship between firm market value, as measured by Tobin's Q and diversity. In the same context, Matsa & Miller (2013) found that diversity has a harmful impact on firm financial performance ROA. Nygaard (2011) found a positive relation between reform to diversify and firm performance only with the companies that share little information to outside stakeholders.

In addition, Rose (2007), in the research of 443 observations for Danish firms from 1998-2001 found that there is no significant relationship between boards with female members and Tobin's Q. Moreover, the author found the same regarding board education and percentage of foreigners on the board. The author concludes that the job done by the board of directors does not need a

special education as long as they have skills, knowledge, have graduated from university and have experience.

Also, Lee & Erika (2007) found for data from 1990-2000 for newly elected male and female CEOs that there is a negative relationship between market value and the appointment of women CEOs than newly elected males. They show that investors respond negatively to elected women CEOs than male elected CEOs. Also, they found that the reaction of the market to the election of women CEOs is more negative than other management positions. They also found that females that have been elected from inside the firm have been viewed less negatively compared to those females who have been elected from outside the company. They found that there is no difference on investors' responses to top management positions elected for both males and females.

Judge (2003) found that women on boards lead to negative firm financial performance and the author suggested that firms in the U.K Judge (2003) in Ryan & Haslam (2005). would perform better if they took out females from board of directors' positions. Also, Shrader et al. (1997) found that there is a negative relationship between firm financial performance (measured by ROA and ROE) and women on boards. While Zahra & Stanton (1988) found an insignificant relation between firm financial performance (ROE) and minority directors (Zahra & Stanton 1988 in Carter et al. (2003). Moreover, men in most organizations do not believe that women managers can do better and more effective work than men can. Also, many employees in companies prefer to have male managers than women. These is because only few women are in top positions, so employees believe that women are not more qualified than their male counterparts, since most of the top positions are occupied by men (Lee & Erika 2007).

From the literature, diversity helps firms gain a hold in the market, as markets become increasingly diversified, a firm that chooses to diversify will help to gain more customers, suppliers, and gain market value. Also, by diversity, firms will be able to become more innovative and creative as people from different genders, races, and ages have different ideas, opinions and so on,

so that firms will capture them and utilize them in their businesses. Moreover, it helps in reaching decisions, as everyone brings in their perception, which might be difficult to reach decisions; however, the decision made will be the best. Also, diversity helps firms to have good relations with other firms in the world.

Firms that do not diversify incur costs, as the number of absentees increases, and most quit their jobs as they see no hope for their career development to higher positions, for example, women and minority groups (Robinson & Dechant 1997; Cox & Blake 1991). In diversity, such as board diversity, there is a high probability that they will act on the interest of shareholders, as the people on board are coming from different culture groups, gender, ethnic, age, and religion, so there will be more chance for the shareholders to be on the safe side than non-diversified firms. However, as argued by Miller et al. (1998) Murray (1989), costs are incurred when a firm decides to implement diversity. Also, the above findings showed a negative and also insignificant impact for diversity on firm performance. Therefore, the literature above shows mixed findings on diversity on firm performance. Thus, the question remains unsolved and no clear picture has been shown. This research is going to focus on the impact of diversity on both firm financial health and market value, such as the previous dimensions to respond to a call by (Hull & Rothenberg 2008).

2.9 HUMAN RIGHTS

Human rights is another dimension of corporate social activities that KLD is focusing on. Human rights has been defined as thus: “Human rights are fundamental principles allowing individuals the freedom to lead a dignified life, free from fear or want, and free to express independent beliefs” Sullivan (2003) p.g 15 in Gray & Gray 2011 p.g 782). Human rights issues are related to the elimination of child labor in firms’ operations, the removal of any discrimination, no forced labor, rights to unions, no genocide, no slavery, the working environment should be safe and healthy, and respect culture and the sovereignty of indigenous people. Implementing these standards will help firms

to have a good relation with indigenous people, as they will see that their culture, sovereignty, and land are not being destroyed, and at the same time they are respected and given all the rights they deserve. These in turn will make the indigenous people consider working with the company, and buy more from the company, which will lead to increased inflow of cash and revenues. As the revenues increase, its net income will increase and will make more investors be attracted to the firm; consequently, market price will increase automatically.

The increase of globalization has made firms expand their productions internationally, and this has also made firms to shift to, operate in, and produce in the countries that have low production costs and where human rights are violated. Firms try to outsource from developing countries as they get cheap resources so they can cut their production costs. Multinational firms have a negative impact on human rights and prevent people from enjoying their rights. Černič (2008) argues that when a government decreases its rules and regulations for foreign investment in a country, it will lead to increased slavery, forced labor, discrimination, physical injuries, and the killing of indigenous people. Also, Islam (2015) found that when a government gives the green light to the foreigners to invest in their country it leads to lower labor costs which result in human rights violations.

There are some real life cases that happened which showed a negative impact on firms, especially multinational firms, regarding human rights in poor/developing countries. For example, in India many people were killed due to a pesticide factory explosion, or an oil pipe line explosion in Nigeria, which caused seriously harmful effects to many people, to mention a few. All these show that multinational firms are not considering human rights and the community as whole when operating their businesses. However, as argued by Spar (1998), that U.S multinational manufacturing firms were accused by violating human rights abroad, though this was not by their firms or managers, but rather through the subcontractors who manufactured the products in their home countries.

Globalization has raised the issue of human rights, and globalization has been noticed to persuade governments to minimize the employee rights which leads to the reduction of costs of labor and therefore attracts multinational firms (Evans 2002). As firms expand their production globally, the labors of the same firms are not treated equally, as each country has different rules regarding human rights; some are very strict, while others are not. These make the same firms act differently in different countries for the purposes of labor. Also, multinational firms can easily switch to another country once they know that a country has high labor costs or rules that are stricter than others.

There is a debate on the relationship of human rights and globalization, especially regarding multinational firms. It is true that multinational firms provide employment to host citizens, enhance income, and increase country economy, but they have a negative impact on human rights as multinational firms have the power to encourage a host country on the rules that violates human rights e.g. low labor costs, resources, working long hours, etc. As Stern (2000) argues that multinational firms have the power to control the host country's state economic and political issues (Stern 2000 in Westaway 2012). This is because the top 25 ranked multinational companies are wealthier than around one hundred seventy countries around the globe (Baker 2001 in Černič 2008). This supports the argument that, multinational firms have the power to control the host developing countries. Added by Jochnick (1999), multinational firms can erode a host government, especially on issues related to social, economics, and cultures of indigenous peoples. This is due to developing countries wanting to increase a country's economy by making policies that are attractive to multinational firms, but which actually have a bad impact on a country's social, cultural, and economic aspects in general.

However, Monshipouri et al. (2003) argue that since multinational firms have an impact on a host country's economy, society, and environment, they are able to affect human rights in a positive or negative way. This is because they enhance the income of the country by providing employment to the citizens who have no work, or there is unemployment. However, by giving

them very low wages, it is difficult for developing countries to differentiate between multinational firm benefits with its costs in the country (Hedley 1999). Richards et al. (2001) argue that multinational firms get more in the host country than what they have invested. As the multinational firms search for increasing firm profit, these firms will need to reduce costs through paying low wages, low material costs, while also minimizing environmental observations.

When multinational companies take the profit back to their home country, they are affecting the wealth of the host country, and when they reinvest the profit in the host country they enhance its ownership and control its economy. Moreover, when multinational companies pay the standard wage in the host country, they give a low salary/wage and gain a lot of profit, but when they give more than the standard wage they are taking the best labor and leaving the local companies with unskilled labor. However, when they import the equipment and machines to the host country they reduce the job of the local labor, and if they do not bring the machines and new technology they hinder the development of host country (Frank 1980 in Hedley 1999).

When multinational firms move their production to less expensive production cost areas (developing countries), there is thus high human rights violations, as these countries have less strict or even an absence of human rights regulation (Custers 1997). Developing countries such as India, Indonesia, and Bangladesh, where costs are less expensive have gained increased productions of goods. Many multinational firms shift to developing countries for production because the production in their country of origin has disappeared, or cheap labor is employed in the host country. Around 89% of the U.S. clothes consumed are imported clothes from outside (Shelton & Wachter 2005). The decision by transnational companies to developing countries is due to having lower costs of getting services and goods from them, and at the same time, to multinational companies that do not protect the local labor against safety and human rights violation (Islam & Deegan 2010). The multinational companies were criticized by using child and forced labor, abusing labor

physically and verbally, and also injuries and accidents in the working areas (Spar 1998; Bachman 2000).

Even the multinational financial institutions, with the aim of helping developing countries, have rules that a developing country that needs a loan should meet. These requirements enhance human rights violations in developing countries, as there will be a cut off on programs related to human rights in order to get the economic level required for the loan by adjusting their rules, which also attracts the multinational firms, as argued by Westaway (2012). Moreover, if the requirements were not met for a developing country to get a loan from the multinational financial institutions, the country will adjust its rules to encourage other multinational firms as an alternative, which is directly a violation of human rights. Added by Richards et al. (2001), since it is easy for a developing country to suddenly have a civil war and rise of terrorism, etc., these may lead to multinational firms moving out from a country, and the government of the country could also use power to stop those actions being raised by the citizens in order to control the country stability so that multinational firms will remain; consequently, these actions violate human rights.

It is the responsibility of a state to make sure that human rights are protected from any abuses. For example, to protect from the corporate actions which breach human rights, such as dismissed employees or preventing employees from joining unions, causing harm to the environment, or land of the indigenous people. Therefore, a government is responsible to prevent and take action against those firms that violate human rights, as it is responsible to its jurisdiction. Human rights are compulsory for any firm to focus on its operating activities; it is a dignity that, when centered on person, should be to protect and give its rights (McCorquodale 2009). If a government fails to prevent human rights breaches, or fails to respond to take action against those who violate, it fails to achieve its responsibilities of the rights of people in its territory.

Even though a country will make human rights rules, companies are also required to support them. As Monshipouri et al. (2003) argue, a state is

responsible in human rights rules, but the wrongdoers are the firms; thus, relying only on a state is not enough as the globalization increases and multinational firms have an impact on the host country. Therefore, firms should also be responsible regarding their impact of human rights in host country. They added that multinational firms shift their production to the Southern countries, as their aim is to give a low salary as the countries have minimum wages that are very low, in addition to working conditions that are not so good; thus, this leads to more sweatshops. However, transnational firms argue that they help to increase a country's economy, thus providing employment to jobless people, improving living standards, and at the same time bringing new technologies to the host countries. Monshipouri et al. (2003) emphasize that corporations and human rights are not two things that are conflicting, and by focusing on each other's concerns they will see in themselves that they perform better and achieve their goals.

However, technologies such as the invention of the internet and other media communication formats have made it easy for the world to communicate faster, and people have come to realize the violation of human rights around the world, which leads to multinational firms adjusting their systems and considering human rights in doing business operations. As one of the respondents in a study by Islam & Deegan (2008) argues, in 1990, customers focused only on products, and there were no social issues or child labor, however, buyers currently put us under pressure regarding social and human rights, especially child labor, so we have to respond to their requirements to keep them buying. The increases negative media news about certain firm practices that have made firms in the same industry responds and increases the disclosure for the environmental and social issues. Islam & Deegan (2010), in their research of two multinational companies (Nike and H&M), found that there is a positive relationship between the negative media news about those companies and the amount of disclosure for social and environment issues. That is when there is negative media news that the companies in the same industry are increasing disclosing positive news on environmental and social issues. Among the negative news found in the period, 81% were related to poor

working environments, child labor, employee practices, discrimination, and cutting jobs in poor host countries. Most of the articles found having words such as sexual harassment, child labor, sweatshops, and abusive behavior.

Even though the violation of human rights still exists, as can be seen in poor working conditions, discrimination, child labor, etc. These may be because in the post-financial crisis, many developing countries are in need for paying back loans and enhancing their economy, thus, they will make rules that put human rights in a bad situation. The global financial crisis has a negative impact on human rights, as developing countries try to decrease costs to be able to pay debt. The first thing to reduce costs is to reduce human rights programs, cut down jobs, reduce pensions, and decrease welfare and education programs. Thus, in order for a developing country to be able to pay debts, it has to grow economically so as to have money to pay back; therefore, they have to make their rules favorable to multinational firms in order to invest in their country.

Many organizations that protect human rights, such as ILO, GRI, UN, and UNHRC, have emphasized that firms should be responsible to care for the community with regard to their culture, economy, and society. In ignoring these issues, firms are violating human rights. These organizations believe that companies have to engage in their activities and stop human rights violations. Moreover, companies help in protecting the indigenous people where the firm operates, their employees, and supporting poor people in developing countries where there are a lot of human rights violations. Also, organizations have supplied best measures that help to protect and respect each individual regarding human rights violations. Some researches have shown that firms have started to implement the rules set by organizations and care about human rights in their operations. Moreover, global stakeholders put more pressure on multinational firms to prevent child labor and provide good working conditions (Bachman 2000).

In the spotlight, Spar (1998) argues that increased media of communication have made the news reach people faster than before, and people around the world can boycott the products that are produced through human

rights violations. The author added the benefit that firms get from cheap labor and less expensive resources from suppliers that violate human rights should be weighted as negative reactions in terms of the public, protests by consumers, bad relations with the public, and boycotted products might be worse for a firm than considering human rights. As a result, firms have started to implement human rights issues in their businesses and subcontractors abroad. The author added that the main reason is competition, as the market for labor cost is cheap in host countries, and it is difficult for a firm to pay more than what is in the market for that time in that country. If a firm will pay more wages or reject to a subcontract because of small costs, its competitor will have to win the market share. The author added that multinational companies' objectives are not to encourage human rights in host countries; however, they support human rights in host countries in positive way.

For example, Islam & McPhail (2011), in their research of 18 big (nine US and nine EU) multinational clothing and retailing firms that import their products from developing countries (Indonesia, Malaysia, Nepal, Thailand, Vietnam, Bangladesh, Pakistan, and China) for a period of 18 years, found that there is an increase disclosure of human rights standards settled by ILO since 1998, whereby it has become globally acceptable, emphasizing child labor abolition, non-discrimination in occupations and employment, absence of forced and compulsory labor, and freedom of association from ILO regarding healthy working conditions through annual reports, CSR reports, and social responsibility code of conduct. Moreover, they found that 94% of the sample included the ILO standards in their reports. They also found that 72% of all companies are committed to child labor elimination, safe working conditions, and the elimination of forced labor, while also very low disclosure on freedom of association. They found there is a significant increase in reporting human rights in all five areas in 13% (of the sample companies) in 2001 to 83 % (of sample companies) in 2007.

Moreover, in Bangladesh, for a six year period, the child labor decreased 43% to 5% after the signed agreement to eliminate child labor, who,

for less than 14 years between ILO and government, 27,000 children were taken out from jobs (Douglas et al. 2004).. In her article, Bachman (2000) defines child labor as any child who is younger than 18 years old and works in any job that is harmful to children (mentally or physically) and paid low wages. She states that there are three ways that children are involved in international business. They can be directly employed by a firm formally or informally, for example, in agricultural sectors like coffee and tea; and small scale manufacture, such as cutting diamonds or working at home. The second way is when firms buy indirect goods that have been made by children from another firms. The third way is external, whereby a firm has a role in making policies or advising the local people regarding child labor. Poverty is the major reason for child labor (Bachman 2000), this may be due to a child coming from a poor family or low economy country. This is because families cannot afford school expenses and also the absence of child care.

Even though the above research shows that companies have improved a lot since the creation of Organizations like ILO, GRI etc., but still firm implementation is very low. For example, Islam (2015), in research on the content analysis of the highest 50 financial sector companies found that only few companies disclose human rights information on websites, annual reports, and corporate social responsibility reports. Among 80 human rights issues, only 42 were disclosed and the remaining 38 were not disclosed by any company. A maximum of 18 issues were disclosed by a company, which was considered to be the top. The author suggests that this is because of voluntary disclosure of human rights by the firms in Australia. The 80 human rights issues have been divided into ten areas which are: physical and verbal abuse, security practices, child labor eliminations, women and family life, forced and compulsory labor, local community, safe and health working environment, non-discrimination, free association and bargain, fair wage, and decent life. The author found no companies disclose issues related to forced and compulsory labor. Only one firm discloses one criterion in security practice issue. For many companies, the most disclosed issue was local community and non-discrimination issues. The author concluded that even though the international organizations try to keep

standards and guidelines, it shows that companies do not meet or follow them, and they do not disclose them and high deficiencies exist due to voluntary disclosure.

It shows that the standard setting bodies mentioned above are trying their best and believe that their rules and guidelines are followed by companies, but it also shows that companies don't follow or implement those guidelines of human rights. Those organizations should take further steps so that companies can implement those standards, rules, and guidelines (Islam 2015). Few groups who do not care about the human rights are influencing the government, and only at a time when compulsory managers will be forced to disclose them (Islam 2015).

Since human rights disclosures have increased globally and multinational companies are forced by international organizations to implement human rights in their operating activities, up to the knowledge almost all previous studies have focused on human rights disclosure, and there is lack of research on how human rights affect firm performance. As Gray & Gray (2011) argue, accounting has almost totally ignored the issue of human rights or very less explored. Therefore, the thesis is going to respond to the call of Gray & Gray (2011) to examine the impact of human rights performance on firm financial health and market value.

2.10 WHY SOME FIRMS INVEST IN SUSTAINABILITY ACTIVITIES WHILE OTHERS DO NOT.

Several reasons have been discovered by previous researchers that have led to some firms or companies to choose whether or not to invest in sustainability activities. Some of them have been discussed here, starting with reasons to practice sustainability.

a) Reasons to practice sustainability even if it is a loss bearing activity:

There are some reasons that make firms invest in sustainability activities, as shown in the sustainability literature. The first reason is pressure from the external stakeholder, as in the way the media, customers, regulations, shareholders, etc. play an important role in forcing companies to invest in sustainability activities and report those activities to outsiders. Helmig et al. (2013) found in Switzerland that pressure from primary stakeholders (government, employees, customers and investors) lead to an increase in firm implementation on corporate social activities, but they found this to be insignificant from secondary pressure (who are specify them as media and nonprofit unions). They found the more pressure is from employees then followed by customers and investors. Also, as found by Solomon & Lewis (2002) in 1995 for 625 UK organizations and individuals, the increasing disclosure of sustainability reports is due to external pressure to the companies. Added by Ullmann (1985), sustainability performance is predicted to the power of the stakeholder. The company will respond to the key stakeholders' needs more than the low control power stakeholders. Rodrigue et al. (2013) found that the external pressure from stakeholders has an effect on firm involvement in sustainability. Market pressure has an impact on firm environmental strategies, and by putting more pressure on the firm it thus enhances implementation of sustainability (Pondeville et al. 2013; Contrafatto 2014). Flammer (2013) argue that more pressure from external parties may lead to shareholders to punish eco-harmful news, which might lead to a reduced reputation, a loss of customers, supply chain, and so on. Therefore, the

pressures from the outside stakeholders force firms to engage in sustainability activities and report them.

The increasing number of investors needs to take into consideration that social responsibility issues led to companies increasing practicing and disclosure of the environmental and social issues. Strategic posture and financial performance determine the way firms respond to the pressure from the external stakeholders. Therefore, financial performance, strategic posture, and the power of stakeholders determine the sustainability level practiced by the firms. Firms are issuing sustainability reports because they use it as a tool to manage their stakeholders (Manetti 2011). Market pressure to issue sustainability reporting is an incentive for a firm to engage in sustainability activities.

In addition, Stubbs et al. (2013) found that big companies are more known to the public, have more impact on the society, and they receive more pressure from the stakeholders to engage and issue sustainability reports. Artiach et al. (2010) argue that large firms are more known to the public and gain more attention from various stakeholders for high growth, and have more chances to invest in differentiation and innovation compared to low growth firms. O'Dwyer (2003) found that managers argue that external pressure forces analysts to consider social responsibility, especially for public companies. They stress that they don't have options to choose social responsibility activities for their organizations, as they have to deal with analysts' and other external pressures as long as they are operating in competitive environment. Moreover, some managers emphasize that they have to do what they have been told to do, as they are at risk of losing their job as they are watched by their employers. As added by other respondents, the external pressure does not give a chance to think about social responsibility broadly.

The second reason is the government and politicians have an effect on firms to invest in sustainability. Nowadays, government rules make investing in sustainability its compulsory action not voluntary anymore (Frost 2007). For example, in Britain, when Prime Minister Tony Blair said: "I am issuing a

challenge, today to all of the top 350 companies to publish annual environmental reports by the end of 2001” (Blair 2000 in Solomon & Lewis, 2002 p.g 154). Therefore, governments encourage firms to invest in sustainability reports; this might be since investors face difficulties in investment decisions as reports have different contents, are difficult to compare (Gray et al. 1995), and most of the voluntary reports are qualitative (Adams et al. 1998), in which mainly positive news are disclosed (Moneva & Llana 2000). Thus, by making it compulsory creates uniformity among firms (Berthelot et al. 2003), decreases information asymmetry, reduces costs of searching additional information (KPMG 2006), and enhances sustainability (Gray et al. 1995).

Third reason is the nature of business itself, for example, mining, oil, gas, chemical, forest are known to be the most sensitive businesses from the literature (Richardson & Welker 2001). Therefore, due to the nature of these businesses and these industries are known to have a negative impact and destroy the environment, thus, in order to reduce the opposition from the public they have to invest in sustainability activities and issue sustainability reports (O’Dwyer 2002). Also, firm size and profitability are among the reasons to invest in sustainability (Gray et al. 2001). The firm size also matters, as large firm sizes are more known by large public groups (Stubbs et al. 2013; Artiach et al. 2010).

The fourth reason depends on the top management position interest and perceptions. If the top management has an interest in sustainability activities, firms will invest in those activities, but if they are not interested it will not practice them (O’Dwyer 2002). If the top position sets up the rules, keeps a budget, programs, and policies regarding the corporate social responsibilities, the lower level managers and employees will follow; otherwise, nothing will be done on for corporate social responsibilities (Besser 2002). As found by Parker (2014) in the U.K., people in top positions believe that philosophy and religion have the influence to initiate or implement sustainability activities. Moreover, organization structure, culture, and top managers’ interests all have influence on whether to invest in sustainability or not as found in Australia by (Stubbs et

al. 2013). Stubbs et al. (2013) found that the issuance of sustainability reports depends on the choice of managers, as some respondents argue that this should be planned by CEOs and senior managers from the top, then, the lower levels only need to implement the decision. Cormier et al. (2011) found that corporate governance plays an important driver in the extension of corporate social reporting disclosure.

In addition, firms disclose corporate social information because company managers believe that it helps to defend or protect themselves due to the harm caused by their business operations (O'Dwyer 2002). Corporate governance is the one that keeps managers to follow a certain type of disclosure policy. Moreover, managers choose the time to disclose the information for other shareholders' expenses (Aboody et al. 2004). As argued by Healy & Palepu (1995), managers may decide to hold information until the specific time in order to prevent a lesser valuation of the firm from investors. Core (2001) argues that the quality of disclosure, incentives of management people, information asymmetry, and the structure of governance are all related. Managers implement in sustainability as they believe that it is a means of competing with their industry (Rodrigue et al. 2013). So, managers allocate resources to sustainability activities as their peers do so. Ballou et al. (2012) found that most of the respondents (72%) say the sustainability initiatives come from the board of directors as they view they are important for their businesses.

The fifth reason is that some companies look at sustainability as one of the business obligations, as argued by O'Dwyer (2002). As the business is operating in community, the local community expect business to return something good to them. The idea of sustainability has increased to be institutionalized. For example, Contrafatto (2014) found in Italy that there is an institutionalization of social and environmental in businesses. However, Contrafatto & Burns (2013) and Bouten & Hoozée (2013) argue that the institutionalization of sustainability is influenced by other reasons such as regulation, community pressure, and the idea of maximizing firm profit that hinders the institutionalization of sustainability. Since firms see sustainability

as a business obligation, firms have started to integrate the sustainability and business strategy as found by (KPMG 2013). Ballou et al. (2012) found that 11.2 % of the business surveyed has embedded their sustainability to firm strategy. Pressure from external stakeholders, society, political, market, regulations, and accountability are all regarded as reasons to invest and issue to report the sustainability activities (Solomon & Lewis 2002; Vormedal & Ruud 2009).

To sum up, pressure from external stakeholders, government rules, top position interests, firm size and nature of business, firm part of obligation have all been raised as the reasons that make firms engage in sustainability activities. Even though there are still other reasons that make firms decide not to engage in those activities, such as those in the coming section.

b) Reasons not to invest in sustainability activities

As can be seen above, firms continue to invest in sustainability activities, even if they see it as a loss activity due to the reasons mentioned above. However, others have found that there are other reasons that make firms decide not to continue to invest in sustainability activities.

The first is the opposite; the absence of external pressure. As Stubbs et al. (2013) found in a study on the top 23 public listed companies in Australia on the reasons that make firms decide not to invest in sustainability, that the absence of pressure from the external stakeholders was a major reason. This is due to traditional views that a firms core objective is to enhance owners wealth only. They argue that large firms intend to disclose the sustainability only because they want to be listed in Dow Jones Sustainability Index. Added by Anton et al. (2004), if investors keep more pressure to the firms to disclose the environmental information, firms will implement a better environmental system. Stubbs et al. (2013) argue that the decision to report sustainability lies with the stakeholders. The more emphasis the firms give, and putting pressure on them will make companies engage in those sustainability activities and report them.

The second reason is that some businesses do not consider it as a business obligation to implement sustainability activities. As found by O'Dwyer (2002), some respondents say that it is not a firm's responsibility to engage or help the community; rather, its responsibility is only to enhance shareholders wealth and emphasize that sustainability or corporate social responsibility is very complex and not easy to implement. The idea of investing in corporate sustainability activities is contrary to the shareholders' interests, as the firms allocate the scarce resources to other stakeholders rather than its shareholders (McGuire et al. 1988; Barnett 2007). By putting firm resources to social responsibility means there is an unfair distribution between firm shareholders and the society, who do not have right to the resources (Friedman Milton 1970). As found by Stubbs et al. (2013), many participants believe that is not an obligation to report sustainability. It is only a luxury and it is nice to do, but some companies do this only because of mandatory and requirements only. One of the respondents reported that firms only issue sustainability reports as part of the license requirements for environmental agencies, and not for external consumption. O'Dwyer (2003) found that respondents argue it is an obligation of wealthier companies only, and stress that companies should first focus on their primary obligation to increase the shareholders wealth, and after that they can look to other issues like social responsibility which is not a business obligation.

The third reason is that it is very expensive to implement sustainability, especially for small businesses. Stubbs et al. (2013) argue that for small business, sustainability means more costs to implement than benefits. Moreover, Ball et al. (2000) argue that firms do not get enough return or value by implementing sustainability activities. The cost and benefit relationship on implementing sustainability matters. Some found that firms do not implement sustainability because they say its costs outweigh its benefits. As found by Stubbs et al. (2013), in Australia, there is no perceived benefit for issuing sustainability report. They found that managers argue that it is a waste of time and money and it distracts the core business that does not add value into the firms processes and attaining outcomes. It is inefficient use of resources.

Palmer et al. (1995) further argue that environmental issues have more costs compared to their benefits.

The fourth reason is the lack of enough resources that makes firms decide not to implement sustainability. Clarkson et al. (2011) and Ballou et al. (2012) argue that the most important factor is to have enough financial resources and non-financial resources to invest in sustainability. They argue that resources can be financial assets, and that resources can also be human capital skills that will enable firms to invest in sustainability. Clarkson et al. (2011) quote that “resources may include physical and financial assets, as well as firm-specific assets such as employees' skills and organization processes”(Clarkson et al. 2011 p.g 7). The more the resources a firm has, the more possibility for that firm to implement/practice sustainability activities (Waddock & Graves 1997). They added that large firms do so because they have more resources. As found by Solomon & Lewis (2002) in the U.K., comments from participants who refused to answer those questionnaires said that they didn't have resources to issue environmental information; they are private companies, they don't issue secret information and are not responsible for issuing to stakeholders that information. As supported by the findings of Stubbs et al. (2013), small firms don't devote resources to doing luxury things, they keep economic issues at the front of social and environmental issues.

The fifth reason is the lack of society, political, and market drivers. As found by Vormedal & Ruud (2009) in 98 large firms in Norway, the authors clarify that societal drivers are missing in Norway, for example, media is not concerned with the issue of corporate social responsibility and reporting, customers are not taking the green and ethical products seriously, and there is no organization to promote or working on enhancing corporate accountability. They also argue that even if there are some political issues on corporate responsibility reporting, there are no policies or rules on those issues. They sum up that in order to increase the level of disclosure of corporate social reports with a good quality, there should be drivers such as political and regulatory market drivers and societal drivers.

The sixth reason is that it increases the risk of the company, for example, when disclosing and informing more about the company's activities. KPMG reports that among the firms that were surveyed, they point that it increases firm risks like reputational risk, physical risk, legal risk, social risk, and competitive risk (KPMG 2013). Stubbs et al. (2013) add that by disclosing more information, more risks can be raised as it may place more unnecessary attention on the firm than the benefits, and the issuance of sustainability reports also do not contribute much to the company. Solomon & Lewis (2002) found the incentives to environmental disclosure are reluctance to report sensitive and harmful information related to the environment, a lack of legal obligation, a lack of awareness of environmental issues, and damage to company reputation.

2.11 REASONS BEHIND CONTRADICTIONARY FINDINGS

The preceding sections show mixed results on firm sustainability and performance. It also shows the reasons why firms decide to implement sustainability or not to implement it. Therefore, the issue of sustainability is still a puzzle to managers and investors and other stakeholders as well. The contradictory findings may be due to the methodology used by the researchers, for example, the indicators that a researcher may use in his or her research to measure the impact that sustainability or firm performance has on the results, which might be bias. This is because every researcher sees that what he or she uses in the study is reliable compared to others. Thus, contradictory results might be due to measurement variation for sustainability/corporate social responsibility and firm performance (McWilliams & Siegel 2001; S. A. Waddock & Graves 1997). As added by Barnett (2007) and Pava & Krausz (1996), methodology is an important part of any research, as different methods may lead to findings that are very different in the same research area. Also, Margolis & Walsh (2001) argue that methodology plays an important role on the results of corporate social responsibility relation with firm financial performance. Different research methods lead to different results on the environmental issues on a firm's financial performance and the absence of

common measurements on environmental performance (Al-Tuwaijri et al. 2004; Konar & Cohen 2001; Moneva & Cuellar 2009). Environmental performance measures have been increased but there is a lack of transparent guidelines to know which are good or bad performers in the environmental issues (Ilinitch et al. 1998). As argued by Albertini (2013), the findings on the relationship are influenced by sample size, industry focused, the way used to measure, e.g., environment and firm financial performance, and methodologies in collecting and analyzing the data. It has also been reported that sample size, and methodology used, such as the measurement used for financial performance, corporate social indicators used, control variables, etc. (Allouche & Laroche 2005).

Another reason might be the firm industry, firm size, risk, and firm age. As previous researchers found, for example, Cormier et al. (2011) found that firm size is an important driver in practicing sustainability and disclosing the information about corporate social responsibility. Artiach et al. (2010) also found that firm size was positively related to sustainability performance. Larger firms are implementing more in corporate social responsibility because they are more visible and get more attention from the society (Stanwick & Stanwick 1998). Also, big firms enjoy economies of scale, so spending on corporate social responsibility is not a big problem in terms of cost (McWilliams & Siegel 2001). Other studies found that the size of the organization and profitability are influencing the implementing and issuing the sustainability reports, and this is almost always done by larger organizations (Gray et al. 2001). Thus, firm size is important, as small firms may not have enough resources as big firms to invest in sustainability. While Waddock & Graves (1997) found that firm size has an insignificant relation in the relationship between firm financial performance and corporate social performance, while risk has a negative significant relation with corporate social performance. The environmental reports depend on the firm size, with high size firms reported more than the low size firms (Richardson & Welker 2001; Adams et al. 1998). Moneva & Cuellar (2009) found that large firms are more valued by markets than small firms for the environmental information disclosed. Stubbs et al.

(2013) found that the non-reporters believed that they were not big enough to be involved in.

However, others found firm size was not related to the implementation of sustainability activities and performance, as well as the issuance of sustainability reports. For example, Vormedal & Ruud (2009) found that company size is not related to high performance, as they found some small size companies have the same scores as larger firms. Firm size does not have an influence on the relationship between firm financial performance and sustainability, as both small and large firms gain from sustainability (Orlitzky 2001). As supported by Chang & Kuo (2008), firm size does not have differences on the firm performance on sustainability issues.

Firms that are sensitive industrial sectors disclose more environmental issues (Adams et al. 1998). Moreover, regarding sector and score ranking Adams et al. (1998) found that the petroleum and energy sector have a higher performance than other sectors, however, they found that non industrial sectors (finance, food, and beverage) score equally and some better than industrial companies (pharmaceuticals and constructions). Therefore, they conclude that there is no clear picture on the relationship between sustainability reporting and sector. As argued by Kolk (2003) and Kolk et al. (2001), there is a link between environmental reporting with the sectors that have direct impacts on the environment by arguing that non industrial sectors (insurance, banks, food, beverage, etc.) have low reporting compared to industrial sectors (mining, pharmaceuticals, chemical etc.). O'Dwyer (2003) found that some respondents stress the nature of the business that force them to engage in social responsibility, such as exploration/extractive business, so they have to respond to environmental issues, otherwise investors will move to other companies. Moneva & Cuellar (2009) found that for more sensitive firms, environment information has a positive relation to market value, and argue that investors of sensitive firms are taking this information into consideration in valuing firms. Chang & Kuo 2008) found that industries have influence on sustainability performance of the firm.

Also, firms that have no growth see the voluntary disclosure for corporate social responsibility is not necessary. They only respond to the mandatory disclosures, which are enough for them that seem to be of high quality to reduce information asymmetry. While high growth firms' mandatory disclosure seems to be in low quality which will lead them to disclose more information on sustainability (Core 2001). Clarkson et al. (2011) found in US firms that have high environmental performances are the larger firms, have higher cash flow and greater growth, and have low capital intensity.

Other factors such as differences in the meaning of corporate social responsibilities, different views on the corporate social responsibility issues for the stakeholders, and the missing appropriate theory, empirical databases and definition (Ullmann 1985). The author argues that the inconsistent results on the relationship in U.S. companies is due to the absence of theory, wrong or not appropriate definitions, shortage or lack of data. Also, it might be due to different methods, indicators used to measure, models used in the studies, and also period of study. However, nowadays most of these problems have been solved, for example, there are organizations that provide services to evaluate firms' performances in various dimensions of corporate social responsibilities and sell them to investors as the additional information to the investment decision (Waddock & Graves 1997). Even if the standard setting bodies have tried to provide the guidelines of those reports, such as GRI reporting guidelines, Integrating Reporting and so on, still companies that issue sustainability reports have different content and quality is still low (KPMG 2013).

Although there are more changes on the above shortcoming, still there is no clear picture on the sustainability issue. Added by Rowley & Berman (2000), scholars have tried to combine unrelated variables to find the relationship but still could not find the answer. Researchers have increased the databases, and the only thing comes to accumulated perspectives with different ideas and opinions, but still the picture is not clear for the relationship (Walsh & Margolis 2003). This thesis is going to try its best to overcome and control

all the possible reasons for the cause of the contradictory findings to see what will be the clear picture. The thesis will use the well-known database for corporate social responsibility studies as argued in the literature, which is KLD database. This will help the thesis to overcome the problem of the measurement of corporate social variables, as shown above, which is one of the problems that might affect the results. Also, the thesis will try to control all the factors that have been shown to have an impact on the relationship between firm sustainability performance and firm performance, such as firm size, firm age, and industry. In addition, the thesis will try to respond to the calls mentioned earlier in the chapter and throughout the chapter. In order to do this, the thesis is going to implement the Throughput Model to examine the relationship, as it has been used in the corporate social studies, but not for a comparative study like in this thesis.

2.12 CHAPTER SUMMARY

Chapter 2 went through the literature of the sustainability and all of its dimensions in depth and their relation with firm performance. Also, it discussed theories related to the sustainability literature that is going to support the thesis, the reasons why some firms practice or do not practice sustainability, and the reasons for the contradictory findings. The next chapter is going to explain the Throughput Model and the hypotheses of the study.

CHAPTER THREE: THROUGHPUT MODEL AND STUDY HYPOTHESES

3.1 INTRODUCTION

After focusing on the literature review on sustainability, its dimensions, and their relation with firm performance, as well as reasons for practicing or not practicing those activities and also the reasons for the contradictory findings, as stated in the previous chapter. This chapter is going to focus on the “Throughput Model”, which is the decision making model developed by Rodgers (1997) that is going to be used to examine the relationship and the hypotheses that are going to be tested later in the thesis.

3.2 THE THROUGHPUT MODEL

The study is going to use the Throughput Model by Rodgers (1997) to test sustainability and firm performance relation, and will try its best to consider the reason for the contradictory findings. The Throughput Model consists of four constructs, which build up six pathways to decision making (Fig 1 Below). The four constructs are Perception, Information, Judgment, and Decision. Perception (P) is the knowledge, beliefs, skills, and experiences that someone has about something or a certain situation or problem. Information (I) consists of available resources, data, or inputs that can be used to make decisions. However, the information should be reliable and relevant (Rodgers 1997) in order to decide on the action. Judgment (J) is the ordering and ranking of available options, here, both information and perception are analyzed, criteria are set and weighted for each option available, and the scores are ranked. Decision (D) is when the highest score is selected and the decision is made. The model consists of six pathways, which are briefly explained below.

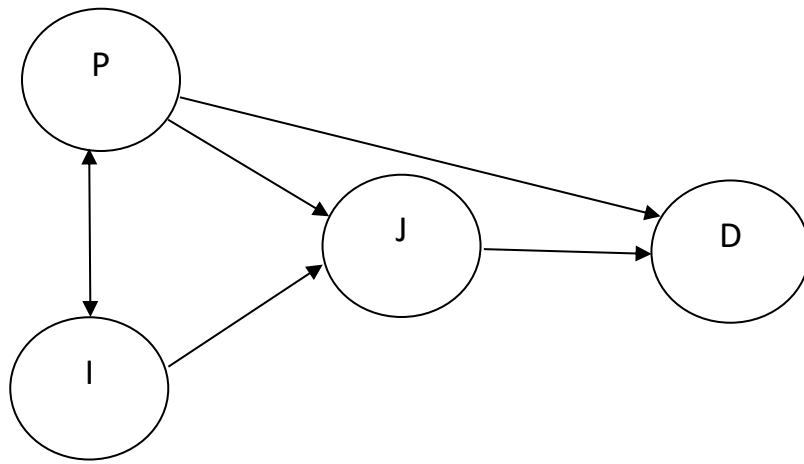


Figure 1: The Throughput Model (Rodgers 1997)

The first pathway is the Expedient pathway ($P \longrightarrow D$). This is when a person makes a decision without looking at information, as he/she believes that the information is not relevant, unreliable, and difficult to differentiate between the available options. The decision maker uses its knowledge, experience, or beliefs on the situation and makes a quick decision. This is almost always done due to time constraints. Here, only perception is used in making decisions, and information and judgment not used. Although it saves time since it is faster, it might lead to wrong decisions.

The second pathway is the Ruling Guide Pathway ($P \longrightarrow J \longrightarrow D$). In this pathway the decision is made by perception and judgment. Information is not considered as the decision maker might see that the information is incomplete, not reliable, or irrelevant for decision making, as above. A person is going to use experience or skills and ordering, before then ranking them and finally deciding on the best option available. Normally, decisions are made faster as there is time pressure and faster changing environment.

The third pathway is the Analytical Pathway ($I \longrightarrow J \longrightarrow D$). In the analytical pathway, information believed to be relevant and reliable is thus used in the process. In judgment they are weighted, ordered, and ranked with the best or higher score, which is chosen as the final decision. Here, the perception is not used, as the decision maker does not have any experience, knowledge, or training about the issue, so he/she depends on the available information to

judge and make the decision. However, if the information is not reliable or relevant it might lead to a wrong decision.

The fourth pathway is the Revisionist Pathway (I → P → D). In the revisionist pathway, the decision maker uses all the information in order to influence his/her perception to make a final decision. This is also due to the changing environment and the difficulties in ranking or ordering the available options, so people use available information that influences their beliefs, skills, and experience to make decision. Here, the information available can make a change to people's beliefs, experience, or knowledge. Judgment is not considered as part of the decision making process, as there might be no time to rank and order the options. In this pathway, the expedient pathway is part of it.

The fifth pathway is Value Driven Pathway (P → I → J → D). In the Value driven pathway, people tend to select only some information available, rather than looking at all available information, as they have some experience, beliefs, knowledge, or skills that drives them to specific information only. Then they rank/order the available options and make a decision. Not all information is considered because it's too complex to process all information. Also, this pathway consumes more time as all parts are considered and the analytical pathway is part of it.

The sixth pathway is the Global Perspective Pathway (I → P → J → D). In this pathway the information available influences someone to frame perceptions and then rank and order the options before making a decision. Here, the information can change someone's perception or modify it before making the final decision. This pathway is time consuming and also information may not be relevant, which is used to enhance the perception at the final wrong decision. In this pathway, a ruling guide pathway is part of it.

To summarize the pathways: In the expedient pathway and ruling guide pathway, information is not used, decisions are faster, and information is seen to be unreliable and irrelevant. In the analytical pathway, no perception as a decision maker may not have any experience on the problem, and thus uses the available information in judging and deciding. In the revisionist pathway and expedient pathway, there is no judgment; this might be people who have enough experience to make decisions, or no time to rank and compare the available information, as it is not easy or complex to make comparison. The value driven and global perspectives use all the four contents, but the only thing is when a person starts the decision either from perception or information and then continues to judge and finally decide. The last two pathways are time consuming.

3.3 STUDY HYPOTHESES

The study uses the Throughput Model as there are some previous studies on corporate social responsibilities that use the same model (Rodgers & Housel 2004; Rodgers, Hiu, et al. 2013). The information construct consists of firm financial information, which is profitability ratios, liquidity ratios, and leverage. This information is the information that investors get from the firm's financial reports. The KLD experts develop measures and criteria for the corporate social responsibilities using their knowledge, experience, and skills on sustainability. Then, the scores are given to each aspect of the corporate social issue. Following this, the data are used by investors in making their perceptions relate to a company's sustainability activities. Therefore, the data from the KLD are going to be used in the perception construct, which are environment, governance, and social scores (community, human rights, employee relation, diversity, and product). The firm financial health is going to be used in the judgment construct. Firm financial health, as measured by the Zmijewski score, shows the probability of a firm to survive. With a higher score, a firm is financially healthier (financial distress) and has more chance to go bankrupt, while a lower score shows a firm is healthier financially and has a high probability of survival. Finally, the decision construct, which is firm market value measured by Tobin's Q. The Throughput model is a two stage

model of decision making. In the first stage, information available and people's perceptions about something affects the judgment. Since from the literature review chapter, there have been different findings in sustainability, as some got positive while others were negative and also insignificant; as a result, the thesis hypothesises to test the impact, though not specifying if positive or negative. Thus, the first hypothesis is that information from the financial statement together with sustainability perception has impact on firm financial health, therefore, the hypothesis follows that:

H₁: Firm financial information together with sustainability has an impact on firm financial health.

In the second stage, the judgments, which in our case are firm financial health and sustainability perception, have an impact on investor decisions, which in this case is market value. Thus, the second hypothesis is:

H₂: Firm financial health together with sustainability has an impact on firm market value.

Since the study is considered for both firms that perform better, which are for high performing, and also firms that do not perform better, that is, low performing firms, a call by (Rodgers, Hiu, et al. 2013; Huang & Watson 2015) means that the hypotheses above needs to be restated as:

H_{1(i)}: Firm financial information together with sustainability performance has an impact on firm financial health for high performing firms.

H_{1(ii)}: Firm financial information together with sustainability performance has an impact on firm financial health for low performing firms.

H_{2(i)}: Firm financial health together with sustainability performance has an impact on firm market value for high performing firms.

H_{2(ii)}: Firm financial health together with sustainability performance has an impact on firm market value for low performing firms

Moreover, since research is focusing on all three aspects of sustainability (a call from Chang & Kuo 2008) all together, and also takes each dimension into a test, a call by (Hull & Rothenberg 2008) and the literature review above for each activity showed that still a puzzle exists and needs to be solved . Therefore, each dimension is described in the literature, and the hypotheses have been developed as follows:

Environment pillar hypotheses.

H_{1a(i)}: Firm financial information together with environment performance has an impact on firm financial health for high performing firms.

H_{1a(ii)}: Firm financial information together with environment performance has an impact on firm financial health for low performing firms.

H_{2a(i)}: Firm financial health together with environment performance has an impact on firm market value for high performing firms

H_{2a(ii)}: Firm financial health together with environment has an impact on firm market value for low performing firms.

Social pillar hypotheses.

H_{1b(i)}: Firm financial information together with social pillar performance has an impact on firm financial health for high performing firms.

H_{1b(ii)}: Firm financial information together with social performance has an impact on firm financial health for low performing firms.

H_{2b(i)}: Firm financial health together with social performance has an impact on firm market value for high performing firms.

H_{2b(ii)}: Firm financial health together with social performance has an impact on firm market value for low performing firms.

Economic hypotheses.

H_{1c(i)}: Firm financial information together with economic performance has an impact on firm financial health for high performing firms.

H_{1c(ii)}: Firm financial information together with economic performance has an impact on firm financial health for low performing firms.

H_{2c(i)}: Firm financial health together with economic performance has an impact on firm market value for high performing firms.

H_{2c(ii)}: Firm financial health together with economic performance has an impact on firm market value for low performing firms.

After developing hypotheses for each sustainability pillar, now the thesis will look at the social pillar activities. KLD categorizes five activities that should be under the social pillar, which are community relation activities, employee relation activities, human rights, production, and diversity. All of them have been discussed in the literature and also showed not to have clear findings. The hypotheses are as follows:

Community relation hypotheses

H_{3a(i)}: Firm financial information together with community relation performance has an impact on firm financial health for high performing firms.

H_{3a(ii)}: Firm financial information together with community relation performance has an impact on firm financial health for low performing firms.

H_{3b(i)}: Firm financial health together with community relation performance has an impact on firm market value for high performing firms.

H_{3b(ii)}: Firm financial health together with community relation performance has an impact on firm market value for low performing firms.

Employee relation hypotheses

H_{3c(i)}: Firm financial information together with employee relation has an impact on firm financial health for performing firms.

H_{3c(ii)}: Firm financial information together with employee relation has an impact on firm financial health for low performing firms.

H_{3d(i)}: Firm financial health together with employee relation has an impact on firm market value for high performing firms.

H_{3d(ii)}: Firm financial health together with employee relation has an impact on firm market value for low performing firms.

Product hypotheses

H_{3e(i)}: Firm financial information together with product performance has an impact on firm financial health for high performing firms.

H_{3e(ii)}: Firm financial information together with product performance has an impact on firm financial health for low performing firms.

H_{3f(i)}: Firm financial health together with product performance has an impact on firm market value for high performing firms.

H_{3f(ii)}: Firm financial health together with product performance has an impact on firm market value for low performing firms

Diversity hypotheses

H_{3g(i)}: Firm financial information together with diversity performance has an impact on firm financial health for high performing firms.

H_{3g(ii)}: Firm financial information together with diversity performance has an impact on firm financial health for low performing firms.

H_{3h(i)}: Firm financial health together with diversity performance has an impact on firm market value for high performing firms.

H_{3h(ii)}: Firm financial health together with diversity performance has an impact on firm market value for low performing firms.

Human rights hypotheses

H_{3i(i)}: Firm financial information together with human rights performance has an impact on firm financial health for high performing firms.

H_{3i(ii)}: Firm financial information together with human rights performance has an impact on firm financial health for low performing firms.

H_{3j(i)}: Firm financial health together with human rights has an impact on firm market value for high performing firms.

H_{3j(ii)}: Firm financial health together with human rights has an impact on firm market value for low performing firms.

Since some prior research Blanco et al. (2013) and Hong et al. (2012), to name a few, include corporate governance as also corporate social responsibility activity, this thesis also will look at it, as it was also already discussed in the literature and the following hypotheses have been developed.

Corporate governance.

H_{3k(i)}: Firm financial information together with corporate governance performance has an impact on firm financial health for high performing firms.

H_{3k(ii)}: Firm financial information together with corporate governance performance has an impact on firm financial health for low performing firms.

H_{3l(i)}: Firm financial health together with corporate governance performance has an impact on firm market value for both high performing firms.

H_{3l(ii)}: Firm financial health together with corporate governance performance has an impact on firm market value for low performing firms.

3.4 LAGGED SUSTAINABILITY

After examining the hypotheses stated above, the thesis is also going to examine the impact of lagged sustainability performance on current firm performance, as previous studies shown in the literature in sustainability activities have shown that it takes some time for the impact to appear (Margolis et al. 2007; M. A. Hitt et al. 2001; Crook et al. 2011). Also as Margolis et al. (2007) state in the meta-analysis, there are studies that examine current corporate social performance to current firm performance (as above), and lagged corporate social performance on current firm performance. Also, in meta-analysis, Allouche & Laroche (2005) argue that lead/lag should be considered to examine the casual link of the impact. Therefore, all the above hypotheses are going to be repeated, and instead of using the current sustainability performance, lagged sustainability performance has been used to examine its impact on current firm performance and restated as follows:

Lagged Sustainability hypotheses:

H_{4a(i)}: Firm financial information together with lagged sustainability performance has an impact on current firm financial health for high performing firms.

H_{4a(ii)}: Firm financial information together with lagged sustainability performance has an impact on current firm financial health for low performing firms.

H_{4b(i)}: Firm financial health together with lagged sustainability performance has an impact on current firm market value for high performing firms.

H_{4b(ii)}: Firm financial health together with lagged sustainability performance has an impact on current firm market value low performing firms.

Lagged Environment hypotheses.

H_{4c(i)}: Firm financial information together with lagged environment performance has an impact on current firm financial health for high performing firms.

H_{4c(ii)}: Firm financial information together with lagged environment performance has an impact on current firm financial health for low performing firms.

H_{4d(i)}: Firm financial health together with lagged environment performance has an impact on current firm market value for high performing firms.

H_{4d(ii)}: Firm financial health together with lagged environment performance has an impact on current firm market value for low performing firms.

Lagged social hypotheses

H_{4e(i)}: Firm financial information together with lagged social performance has an impact on firm current financial health for high performing firms.

H_{4e(ii)}: Firm financial information together with lagged social performance has an impact on firm current financial health for low performing firms.

H_{4f(i)}: Firm financial health together with lagged social performance has an impact on current firm market value for high performing firms.

H_{4f(ii)}: Firm financial health together with lagged social performance has an impact on current firm market value for low performing firms.

Lagged economic hypotheses.

H_{4g(i)}: Firm financial information together with lagged economic performance has an impact on current firm financial health for high performing firms.

H_{4g(ii)}: Firm financial information together with lagged economic performance has an impact on current firm financial health for low performing firms.

H_{4h(i)}: Firm financial health together with lagged economic performance has an impact on current firm market value for high performing firms.

H_{4h(ii)}: Firm financial health together with lagged economic performance has an impact on current firm market value for low performing firms.

Lagged community relation hypotheses.

H_{4i(i)}: Firm financial information together with lagged community performance has an impact on current firm financial health for performing firms.

H_{4i(ii)}: Firm financial information together with lagged community performance has an impact on current firm financial health for low performing firms.

H_{4j(i)}: Firm financial health together with lagged community performance has an impact on current firm market value for high performing firms.

H_{4j(ii)}: Firm financial health together with lagged community performance has an impact on current firm market value for low performing firms.

Lagged employee relation hypotheses.

H_{4k(i)}: Firm financial information together with lagged employee relation performance has an impact on firm current financial health for high performing firms.

H_{4k(ii)}: Firm financial information together with lagged employee relation performance has an impact on firm current financial health for low performing firms.

H_{4l(i)}: Firm financial health together with lagged employee relation performance has an impact on current firm market value for high performing firms.

H_{4l(ii)}: Firm financial health together with lagged employee relation performance has an impact on current firm market value for low performing firms.

Lagged diversity hypotheses

H_{4m(i)}: Firm financial information together with lagged diversity performance has an impact on current firm financial health for high performing firms.

H_{4m(ii)}: Firm financial information together with lagged diversity performance has an impact on current firm financial health for low performing firms.

H_{4n(i)}: Firm financial health together with lagged diversity performance has an impact on current firm market value for high performing firms.

H_{4n(ii)}: Firm financial health together with lagged diversity performance has an impact on current firm market value for low performing firms.

Lagged product hypotheses.

H_{4o(i)}: Firm financial information together with lagged product performance has an impact on firm financial health for high performing firms.

H_{4o(ii)}: Firm financial information together with lagged product performance has an impact on firm financial health for low performing firms.

H_{4p(i)}: Firm financial health together with lagged product performance has an impact on firm market value for high performing firms.

H_{4p(ii)}: Firm financial health together with lagged product performance has an impact on firm market value for low performing firms.

Lagged human rights hypotheses

H_{4q(i)}: Firm financial information together with lagged human rights performance has an impact on current firm financial health for high performing firms.

H_{4q(ii)}: Firm financial information together with lagged human rights performance has an impact on current firm financial health for low performing firms.

H_{4r(i)}: Firm financial health together with lagged human rights performance has an impact on current firm market value for high performing firms.

H_{4r(ii)}: Firm financial health together with lagged human rights performance has an impact on current firm market value low performing firms.

Lagged corporate governance hypotheses

H_{4s(i)}: Firm financial information together with lagged corporate governance performance has an impact on current firm financial health for high performing firms.

H_{4s(ii)}: Firm financial information together with lagged corporate governance performance has an impact on current firm financial health for low performing firms.

H_{4t(i)}: Firm financial health together with lagged corporate governance performance has an impact on current firm market value for high performing firms.

H_{4t(ii)}: Firm financial health together with lagged corporate governance performance has an impact on current firm market value for low performing firms.

3.5 LAGGED FIRM PERFORMANCE

All the above hypotheses have been focused on the impact of current or lagged sustainability on firm performance. However there are some other researchers (A. Ullmann 1985; Margolis et al. 2007; Hong et al. 2012; Lys et al. 2015) that have argued that the relation might be the other way around, and it should be examined that previous period firm performance determines the firm involvement on sustainability activities performances, as the firms will have more resources (slack resources) to engage in those activities. Therefore, the opposite has also been examined to investigate which precedes the other or has more impact than the other. Also, Allouche & Laroche (2005) in the meta-analysis of 82 studies found that 64 considered sustainability as independent variables (like the hypotheses above), while only 18 considered firm performance as independent variables. Therefore, to examine both ways, all the above hypotheses have been repeated, but by examining the impact of previous period firm performance on current sustainability performance as shown below:

Lagged firm performance on current sustainability hypotheses.

H_{5a(i)}: Firm lagged financial health has an impact on current sustainability performance for high performing firms.

H_{5a(ii)}: Firm lagged financial health has an impact on current sustainability performance for low performing firms.

H_{5b(i)}: Firm lagged market value has an impact on current sustainability performance for high performing firms.

H_{5b(ii)}: Firm lagged market value has an impact on current sustainability performance for low performing firms.

Lagged firm performance on current environment performance hypotheses.

H_{5c(i)}: Firm lagged financial health has an impact on firm current environment performance for high performing firms.

H_{5c(ii)}: Firm lagged financial health has an impact on firm current environment performance for low performing firms.

H_{5d(i)}: Firm lagged market value has an impact on firm current environment performance for high performing firms.

H_{5d(ii)}: Firm lagged market value has an impact on firm current environment performance for low performing firms.

Lagged firm performance on current social performance hypotheses.

H_{5e(i)}: Firm lagged financial health has an impact on firm current social performance for high performing firms.

H_{5e(ii)}: Firm lagged financial health has an impact on firm current social performance for low performing firms.

H_{5f(i)}: Firm lagged market value has an impact on firm current social performance for high performing firms.

H_{5f(ii)}: Firm lagged market value has an impact on current social performance for low performing firms.

Lagged firm performance on current economic performance hypotheses.

H_{5g(i)}: Firm lagged financial health has an impact on firm current economic performance for high performing firms.

H_{5g(ii)}: Firm lagged financial health has an impact on firm current economic performance for low performing firms.

H_{5h(i)}: Firm lagged market value has an impact on firm current economic performance for high performing firms.

H_{5h(ii)}: Firm lagged market value has an impact on firm current economic performance for low performing firms.

Lagged firm performance on current corporate governance hypotheses.

H_{5i(i)}: Firm lagged financial health has an impact on current corporate governance performance for high performing firms.

H_{5i(ii)}: Firm lagged financial health has an impact on firm current corporate governance performance for low performing firms.

H_{5j(i)}: Firm lagged market value has an impact on firm current corporate governance performance for high performing firms.

H_{5j(ii)}: Firm lagged market value has an impact on firm current corporate governance performance for low performing firms.

Lagged firm performance on current community relation hypotheses.

H_{5k(i)}: Firm lagged financial health has an impact on firm current community performance for high performing firms.

H_{5k(ii)}: Firm lagged financial health has an impact on firm current community performance for low performing firms.

H_{5l(i)}: Firm lagged market value has an impact on firm current community performance for high performing firms.

H_{5l(ii)}: Firm lagged market value has an impact on firm current community performance for low performing firms.

Lagged firm performance on current employee relation hypotheses.

H_{5m(i)}: Firm lagged financial health has an impact on firm current employee relation performance for high performing firms.

H_{5m(ii)}: Firm lagged financial health has an impact on firm current employee relation performance for low performing firms.

H_{5n(i)}: Firm lagged market value has an impact on current employee relation performance for high performing firms.

H_{5n(ii)}: Firm lagged market value has an impact on current employee relation performance for low performing firms.

Lagged firm performance on current product performance hypotheses.

H_{5p(i)}: Firm lagged financial health has an impact on firm current product performance for high performing firms.

H_{5p(ii)}: Firm lagged financial health has an impact on firm current product performance for low performing firms.

H_{5q(i)}: Firm lagged market value has an impact on firm current product performance for high performing firms.

H_{5q(ii)}: Firm lagged market value has an impact on firm current product performance for low performing firms

Lagged firm performance on current diversity hypotheses.

H_{5r(i)}: Firm lagged financial health has an impact on firm current diversity performance for high performing firms.

H_{5r(ii)}: Firm financial health has an impact on firm current diversity performance for low performing firms.

H_{5s(i)}: Firm lagged market value has an impact on firm current diversity performance for high performing firms.

H_{5s(ii)}: Firm lagged market value has an impact on firm current diversity performance for both high and low performing firms

Lagged firm performance on current human rights hypotheses.

H_{5t(i)}: Firm lagged financial health has an impact on firm current human rights performance for high performing firms.

H_{5t(ii)}: Firm lagged financial health has an impact on firm current human rights performance for low performing firms.

H_{5u(i)}: Firm lagged market value has an impact firm on firm current human rights performance for high performing firms.

H_{5u(ii)}: Firm lagged market value has an impact on firm current human rights performance low performing firms.

3.6 ADDITIONAL ANALYSES

a) Current Firm Performance on current sustainability performance

After examining the impact of both current and lagged sustainability performance on firm performance, as well as firm lagged performance on sustainability performance. The first additional analysis, this thesis will also examine the impact of current firm performance on current sustainability performance. All the hypotheses will be repeated with the current firm performance (although not stated here) and the results will be shown in the results and analysis chapter.

b) Sustainability strengths and concerns with firm performance

Since some previous research like (Bird et al. 2007) examine the relation between sustainability dimensions strengths and concerns separately. The thesis will also examines this as second additional analysis to see if there is any changes in the results when used as net score (strengths minus concerns) or used individually (strengths or concerns).

3.7 CHAPTER SUMMARY

The chapter discussed the “Throughput Model”, which is the decision making model designed by Rodgers (1997) in terms of its constructs as well as pathways. Also, the hypotheses that are going to be analyzed later in this thesis, which range from sustainability to firm performance and also from firm performance to sustainability have been stated. The next chapter is going to discuss the methodology of the study followed by the analysis chapter.

CHAPTER FOUR: RESEARCH METHODOLOGY

4.1 INTRODUCTION

In the two previous chapters, the wider literature review on the association between sustainability and firm performance was examined and the hypotheses have been developed. From the literature, many critics have raised as what might be the failure to get certain results. With the exception of very few, almost all the studies took firms as a single group and examined sustainability and firm performance. Moreover, most of the research took a single measure of performance, such as firm financial performance or firm market value like Hull & Rothenberg (2008) used ROA only to measure the firm performance, S. A. Waddock & Graves (1997) use only firm financial performance ROA, ROE and Return on Sales, Wang et al. (2014) use market value and revenues as output variables, Servaes, H. & Tamayo (2013) use only market value to mention the few. Also, almost all the researches focused on a single part of sustainability only, like environment only, or social only with very few that considered sustainability in full. In addition, this research will look at sustainability and then focus on each dimension so as to get a clear picture of the sustainability issue. Finally, there is a lack of comparative studies that compare firms that do better in sustainability performance and the ones that do not do better in sustainability performance.

The chapter explains the ways used to collect data and how the data were analyzed. Two tests have been conducted to investigate the impact of sustainability on firm performance. The first test is to examine the impact of sustainability on firm financial health and the second one is to examine its impact on firm market value. Also the opposite will be investigated. Two groups of companies were used, the first are those companies that have high scores in corporate social responsibilities and the second group of companies have low scores in corporate social responsibilities. Moreover, firm size, industry, and firm age have been taken into consideration for the tests. Even though the firm size, industry, and firm age were controlled, the results show

that there is an impact of sustainability on firm financial health as well as market value. Also, the opposite is true that there is an impact of firm financial health and also market value on sustainability performance. Now let's have a look at the source of the thesis data.

4.2 THE THESIS SOURCE OF DATA

The thesis used only secondary data from the KLD (Kinder, Lydenberg, Domini) database for firms' corporate social performance and Thompson One Banker Online for firms financial information.

THE KLD DATA.

KLD data is one of the leading databases that provides the information on the environment, society, and governance for around 3000 U.S. public traded firms. Established in 1991, KLD provided the corporate social scores for 650 companies in the U.S. for S&P 500 and Domini 400. Then, in 2001, it expanded and covered 1100 companies. From 2003 until the present day, KLD expanded its coverage to around 3000 of the largest companies in the U.S. The activities of the KLD are to assess firms' performance on corporate social activities. Since it was published, KLD has provided the corporate social performance of the companies to the investors. To decide on the performance of a firm in the environmental, social and governance categories, 80 indicators are used. The KLD data also contains controversial issues, which are nuclear power, gambling, firearms, military, alcohol, and tobacco. In order to assign the firms performance on corporate social activity, KLD expertise uses various sources like annual and quarterly reports, magazines, media, questionnaires and surveys, and articles related to firms, such as those in the Wall St. Journal etc.

The KLD database provides data of the public firms for the annual corporate social responsibilities. It provides information on seven categories, which are environment, community, human rights, employee, diversity, product, and governance. KLD use 80 indicators to identify the performance of those categories. For each category, strengths and concerns have been identified. Strength is when the firms are involving or practicing the activities

that have positive results to a certain category, while Concern is when firms have activities that have a negative impact to a certain category. The data is provided in the excel sheet containing firm identification, such as tickers, names, and company ID numbers. All the seven categories contain the strengths and concerns and the controversial issues as well.

For each of the seven aspects, that is, environmental, community, employee relation, product, human rights, diversity, and governance, if a firm meets a criteria set, the aspect is given a 1 score, and if a firm didn't meet the criteria set in that aspect, then a 0 is assigned. Therefore, the KLD is using the binary number of 1 and 0, which represent criteria met or not respectively. In some cases, if an aspect for a certain company were not researched or not applicable in that company, the "NR" is recorded which means "not rated".

The dimensions focus in the KLD database which are involved in the study have been briefly discussed below to have an idea as to what a certain dimension means in general. In a total of seven dimensions of corporate social dimensions, each have strengths and concerns, as expanded below:

Environment: KLD uses six criteria in environmental strengths, which are: the benefits of products and services, that is, the positive impact of products or services on the environment. The second one measures the pollution that firms prevent while running their businesses, including non-carbon air emissions, chemicals, waste, etc. Third, firms are measured on recycling materials used, for example, plastic, iron, paper, metal, etc. The fourth indicator is the use of clean energy, like reduction of energy use and greenhouse gases and renewable energy usage. The fifth indicator is the management systems that monitor the practices and processes that management have implemented regarding the environment, such as programs and training related to environment to their employees. The sixth is any other things that a company does that have a positive impact on environment. Concerns are negative impact to the environment by firms actions, such as records for a firm's compliance with environment rules, fines for harming the environment, measures of toxic release compared to industry, negative impacts of firm

product or services to the environment and biodiversity, land use, bad use of natural resources, amount of non-carbon emissions, greenhouse gases emissions, and any other negative action by a company to the environmental use.

Community: strengths are charitable giving, for example, giving a certain percentage to charity organizations, innovation giving to support housing, community, healthcare education, etc., as well as community involvement in firms' operation, and many other positive impacts to the community, such as in-kind contribution etc. Concerns from the community often become angry due to bad firm operation activities, for example, bad land use, criticizing NGOs, protesting against firms, and so on.

Human rights: Strengths include firms' relations with indigenous people, respecting their culture sovereignty, human rights, and their land. Disclosing human rights initiatives and policies, elimination of child labor, freedom of speech, unionization, and so on. Concerns include whether a company has its investment directly from Burma/Sudan, or whether it sources from places where there are poor human rights issues. Legal cases in human rights, killings, abuse, and any other case that violates human rights.

Employee: Strengths include firms having unions for their employees who are fairly treated, firms have a cash profit shared to almost all employees. Employees are involved in making decisions, ownership share options, and health and safety programs to employees, enhancing employee programs. Supply chain programs and policies improve working labor conditions for all, including their suppliers and contractors, freedom from forcing labor and child labor and any other action that benefits employees. Concerns include bad employee relations with unions, firms that violate health and safety rules, controversial supply chains like legal cases related to supply chain workers, labor force, abuses, criticism of NGOs, and any other action that firms are involved in which have a negative impact on employees.

Diversity: Strengths include the involvement of women and minorities to profit and loss responsibilities positions. Also, including minority, women,

nation-specific demographic to board of directors positions. Work or life benefits, for example, benefits like childcare, elder care, and flexible timings. Contracting at least 5% of women, minority subcontractors, support of Gay and Lesbian policies, employing diversity in work, for example, women and minorities and any other action by a company that has a positive relation with diversity. Concerns include controversies in workforce diversity and firm paid fines, representing few percentages of women and minority in a firm's workforce. Women and minorities in the board of directors' position and adjustment for nation-specific demography.

Product: Strengths include product quality, health and safety of the products, customer relations, benefit to the disadvantaged like access to education, medicine and technology, access to capital like microfinance, and loans to community. Concerns include products/services that are not good quality, unsafe and healthy in use, legal cases regarding product safety, and companies paid fines, firm resist changing or improving its practices. Controversial in not proper market and advertising products, such as focusing on disadvantaged groups, discrimination, pricing, bidding, etc. Customer relation, such as legal cases with customers, lending, discriminating customers, unfair treatment, and any other action that is against customer relations or criticism.

Governance: Strengths include the quality of reports for the issues related to sustainability/corporate social responsibilities, firms reporting completeness, goals of CSR, and how the activities are measured to achieve those goals. If they follow the guidelines like Global Reporting Initiatives (GRI). Hand in hand with public policies and regulations for the benefit of communities, consumers, employees, and environment, such as consumer protections, shareholders rights, and labor rights. Concerns such as bad quality reporting for its completeness and specificity, reporting for CSR goals, effort and measures to those goals, and if not follow the GRI initiatives. Absence of public policy support for the consumers, employees, community, and environment as a whole, controversies regarding government structure like

shareholders and executives compensations. Controversials in business ethics like bribery, accounting irregularities, tax evasion, insider trading, etc.

Therefore, it can be seen from the above that the introduction of each aspect of KLD provides a multidimensional representation of corporate social activities performance. Many of the earlier researchers focus on single or a few aspects only. In earlier researches, it was cumbersome to identify which variables or criteria should be used in measuring the corporate social performance of a firm, that is why the results in earlier studies had a big difference and were not good for decision making (Waddock & Graves 1997). Walsh & Margolis (2003) argue that it is difficult to indicate and measure the correct corporate social variables that should be included in the research. It is easy to know firm profitability, but to measure firm corporate social responsibility is difficult, and each researcher invents his/her own way to measure corporate social responsibilities in their study, which prevents the studies being compared and hinders the growth of the subject area (Aupperle et al. 1985). Fortunately, at present, there are some organizations which evaluate companies on different areas of corporate social activities performance, then stakeholders who are interested can buy from those organizations (Waddock & Graves 1997)

Waddock & Graves (1997) and Sharfman (1996) emphasize that the KLD database is the best database for a corporate social responsibilities study as they are collected and analyzed by people who do not have any interest in the firms and also include various aspects of corporate social activities. As cited “...The data are evaluations done by individuals outside the focal firms so they are ostensibly more “objective”...” (Sharfman 1996 p.g 3). Moreover, Sharfman (1996) found the KLD data to be valid, and best corporate social performance data and researchers can be confident of using this information in their corporate social studies. Added by Waddock (2003), argue that the best database of corporate social responsibilities performance at present is KLD database for both researchers as well as investors. Margolis et al. (2007) argue that there is an increased use of the KLD database in corporate social

responsibilities studies, as the database includes the dimensions of various groups of stakeholders. Huang & Watson (2015) in their research on corporate social responsibility research in accounting from the high ranked accounting journals found that the most famous data used in the research are KLD data. Many studies used KLD data in their corporate social responsibilities research, for example, Lee & Park 2009; Kang et al. 2010; Bird et al. 2007; Waddock & Graves 1997; Rodgers et al. 2013 to name just a few.

4.3 THE STUDY SAMPLE

It is difficult to consider the whole population in any research since it is time consuming, needs a lot of effort, requires more funds, and so on. Moreover, as argued by Saunders et al. (2011), anyone doing research should not keep in his/her mind that taking the whole population in a study will be more beneficial than taking only a sample. Also, Kothari (2004) argues that sample costs are less and results are quicker than full populations. However, the sample should be satisfactory or enough to be able to draw a conclusion of the general population (Saunders et al. 2011). Therefore, the thesis is going to take a sample, but it should be sufficient enough to draw a conclusion from it.

This thesis is going to focus on secondary data (secondary data is the data that already exists and other people have collected them) for a seven year period from 2007-2013, which is the maximum period for the data available until this research undergone. The total corporate social responsibilities score (the seven dimensions introduced above) was calculated for each company for each year and then ranked from the highest score to the lowest score. In the beginning, the first 100 and the last 100 companies were taken for the sample, as in Rodgers, Hiu, et al. (2013). However, the samples were not enough due to missing financial information for some firms, then the sample increased by taking 200 for each group yearly. Due to the fault of some companies, some data was missed and to have enough samples, the firms increased the top 300 and bottom 300 companies which represent 20% of the data available in the KLD database. Still, the data were not enough, and finally the top 50% and the

bottom 50% that were available in all seven years were taken into the study. After that, the firms that appeared in all seven years (2007-2013) at the top were taken as “High” performing firms, which were considered as good performing firms in corporate social responsibilities (CSR). Also, firms that appeared in all seven years (2007-2013) at the bottom were taken as “Low” performing firms, and were considered to be the not good performing firms in corporate social responsibilities. The study ends up with 155 companies for the high performing firms with 1085 firm year observations, and 61 companies for the low performing firms with 427 firm year observations.

4.4 METHOD AND MEASUREMENT OF VARIABLES

This thesis follows the same as in the literature, such as Hong et al. (2012) Blanco et al. (2013) Wang et al. (2014) and many others. For each aspect of KLD mentioned before, the net score has been calculated by taking strength of the aspect minus the concern of that aspect to arrive at the aspect net score. For example, environmental strength minus environmental concerns to get the environment net score. If the concern is greater than the strength, the aspect will have a negative sign. This has been done for all the seven aspects. Then the total firm score was calculated by adding all net scores. That is firm net CSR score is the summation of environmental net score, community net score, product net score, human net score, diversity net score, governance net score, and employee net score. If the company has a total positive, it means the strengths were more than concerns. If negative, the opposite is true. Then, it was arranged from the high to low net CSR for each year for a period of seven years. Then, the 50% top and 50% bottom that were available for all seven years were taken for the study, as discussed above in the sample section.

In the meta-analysis Albertini (2013), for the corporate social responsibility studies, it was found that the most accounting based measures used were return on equity, return on assets, return on capital invested, and return on sales for firm financial performance. Accounting based information gives the information for the firm past transaction which are not for the long

term firm performance. They do not provide the firm long term performance and do not predict the future performance. Firms which care about the environment, such as reducing pollution, were discussed in the literature chapter, in that it leads to cost saving and also it enhances firm competitive advantage; therefore, it will enhance accounting based more than market value (Hart 1995). However, investors do not rely exclusively on firm accounting based results; rather, they inclusively find other information to make their investment decisions. For example, there is other information like firm engagement on corporate social responsibilities or sustainability issues as they believe these activities either directly enhance firm financial performance, or indirectly through enhancing firm intangible assets. These intangible non-financial performances are built up by companies through their corporate social responsibility activities, as argued by Surroca et al. (2010). A lot of research on the relationship between corporate social responsibilities and firm financial performance has been done, but most of them use a single measure of financial performance, such as accounting based information only, or stock market value only like Hull & Rothenberg (2008) used ROA only to measure the firm performance, Waddock & Graves (1997) use only firm financial performance ROA, ROE and Return on Sales, Wang et al. (2014) use market value and revenues as output variables, Servaes, H. & Tamayo (2013) use only market value to mention the few, with the exception of very few research that has used both accounting and stock market value in their research. The research follows those who have used accounting and market stock value of firms in testing the relation.

The accounting based measure used is the firm financial health, as it includes all the aspects of firms financial performance, which are profitability, leverage, and liquidity, instead of using only a single measure in the same way that most of previous studies used only the profitability ratio, for example, Hull & Rothenberg (2008) use only ROA to measure firm financial performance. The use of the three accounting measures (profitability, leverage and liquidity) is important than using only one measure, because firms that have high profit cannot have enough cash to pay its debt, or profitable firms which have more

leverage can suffer from adding funds from external creditors or investors (Rodgers et al. 2013). Therefore, it is better to use all three to judge the firm financial health than using a single profitability measure only, as in firm financial performance.

Corporate social responsibilities variables are the scores taken from KLD database. The environment variable is the net score (the difference between environment strength and environment concerns) that a firm achieves. The social variable score is the total net of community relation, employee relation, diversity, product, and human rights, since the KLD rates are social in those five dimensions. Also, this is consistent with (Wang et al. (2014), as the authors consider only those five dimensions to get the social net score. This might be since KLD categorizes those five dimensions to be under social. Servaes, H. & Tamayo (2013) state that corporate governance is not part of corporate social responsibilities, as it is a process that involves managers and shareholders, such as controlling and rewarding, so they are just activities that owners and agents engage in together to make sure that owners are getting return from their capital invested, while social activities are activities in which companies engage other stakeholders and not shareholders, such as in community activities, customer relation, products, and so on. Flammer (2015) also didn't include KLD governance in corporate social responsibility in the research, as the author argues that the definition of corporate social responsibility in the study is not related with corporate governance. Therefore, this research follows what KLD categories under social, as well as support from the arguments above and researcher that use the same. The corporate governance dimension included separately in the model same like environment.

The study considers both accounting based measures and market based measures, because by considering only one measure, no clear picture of the impact will be reached. For example, if a research considers only an accounting based method, which actually has a high risk of manipulation, the decision made might be wrong. Market value is considered as a value that not only measures the current or previous performance of a firm, but also it shows the

expected firm performance. Lys et al. (2015) argue that market value does not have limited lines, as they are able to capture CSR performance in the future period. The importance of using market value is that it enables the researcher to see if the investors value the anticipated benefits and costs of firm activities.

The financial information available to the investors is the information that is available in the financial statements, for example, profitability ratio, liquidity ratio, and leverage, and many other data in financial statements. Profitability ratio has been used, as from the literature it has been found that profitability has an impact on firm decision to contribute in corporate social activities, and more profitable firms are more likely to invest on corporate social activities than less profitable firms (Adams & Hardwick 1998; Rodgers, Hiu, et al. 2013; Hong et al. 2012; P. M. Clarkson et al. 2011) to name a few. Profitability ratios are return on asset (ROA), return on equity (ROE) and Return on sales (ROS), and return on invested capital (ROIC). Many previous studies use profitability ratios, either just one or combination of them, to look for the impact of corporate social responsibilities to firm financial performance e.g. Hull & Rothenberg 2008; S. a. Waddock & Graves 1997; Rodríguez & del Mar Armas Cruz 2007; Lee & Park 2009; Kang et al. 2010; Flammer 2015.

In this study, profitability ratios considered are return on assets (ROA), return on equity (ROE), and return on invested capital (ROIC). In meta analysis, Albertini (2013) found the most measures used are ROA, ROE, ROIC, and ROS in corporate social responsibilities researches. As found by Margolis et al. (2007), the most used accounting measure in corporate social responsibility researches is ROA followed by ROE. Return on Assets is the ratio of net income to total assets. ROA measures how much profit has been generated from using the company assets. Many studies used ROA in their research as it was the best indicator of efficient usage of firms' resources. ROA is famous and has been used a lot in corporate social responsibility studies (Lys et al. 2015). Return on equity is the ratio of net income to equity, while return on invested capital is the ratio of net income minus dividend to total capital.

ROIC have also been used in corporate social responsibility studies, such as Lückerath-Rovers (2013).

Also, research and development have been used to measure the economic pillar of sustainability according to the book by Waymond (2011 p.g 108). Also, as suggested by McWilliams & Siegel (2001), research and development should be considered when examining the relationship between corporate social responsibilities performance and firm performance, as companies that have high amounts of research and development expenses tend to invest in corporate social responsibilities more. Many other studies also include the research and development in corporate social responsibilities research (Lys et al. 2015; Rodgers, Hiu, et al. 2013; Wagner 2010; Blanco et al. 2013).

The liquidity measures used are quick ratio and current ratio. Quick ratio is the ratio of current assets minus inventory to current liabilities, while cash ratio is the ratio between cash and current liabilities. Leverage measures used the debt-equity ratio and debt ratio. Debt-equity ratio is the ratio of total debt to total equity, while debt ratio is the total liabilities to total assets. The leverage ratio has been included, as previous studies show that the level of leverage has an impact of firm decision to invest in corporate social responsibilities. For example, Adams & Hardwick (1998) found the higher the leverage, the less a firm participates in social donation. Also, other studies in corporate social issues include liquidity and leverage ratios like Blanco et al. (2013) and Rodgers et al. (2013)

Firm market value captures all the information available to the public about a firm. In meta-analysis, on the relationship between sustainability and firm performance, Allouche & Laroche (2005) found many measures of firm performance used, including Tobin's Q. In order to measure firm market value, Tobin's Q has been used, as many previous studies used Tobin's Q to measure a firm's value, for example, Kang et al. (2010), Rodgers et al. (2013) Wagner (2010) Anderson et al. (2004) Flammer (2015) to mention a few. Tobin's Q measures a company's market capitalization to its replacement cost (total

assets). The formula for Tobin's Q is the ratio of market capitalization to total assets. All the financial information of the companies involved has been taken from Thompson One banker online, the database available for PhD students.

To measure firm financial health, the Zmijewski score has been used. Z-score measures the probability of a firm to go bankrupt or face financial distress. Using the Z-score to measure the health of a company will enable the study to know the position and judge the firm financial health. The bigger the firm Z-score value, the higher the firm financial distress, and the more the chance that the firm will go bankrupt. The lower the value of the Z-score, the less firm financial distress there is, and the less the chance to go bankrupt so that the firm is financially healthier. Previous studies also use z-scores to measure financial health, such as Rodgers, et al. (2013) and Blanco et al. (2013) in the corporate social responsibilities research. The formula for the Zmijewski score:

$$Z = -4.336 - 4.513ROA + 5.679FINL + 0.004LIQ$$

Where ROA is return on assets, FINL is financial leverage and LIQ is liquidity.

The control variables.

Previous studies included control variables, as they were found to have an influence on the relationship between sustainability and firm performance. The control variables included in this research are firm size, measured by the natural log of total assets, as in the previous research (Artiach et al. 2010; Blanco et al. 2013; Lys et al. 2015). In the literature, firm size was shown to have an impact on firm corporate social responsibility participation, since large companies are more visible and widely known to the public and government, and face more pressure; thus, they invest more on corporate social responsibilities. Moreover, larger sized firms have many shareholders that might have an interest to see the company invest in corporate social activities. Also, large firms already have enough resources, so it is easy to participate in social activities. In addition, large firms already incurred sunk costs and gain

economies of scale. As argued by Ullmann (1985), whenever there is an investigation on the relationship between corporate social responsibility and firm performance, the firm size and industry should be considered. Ullmann (1985) states that large size firms are seen more by the public, and also there is a higher probability for them to have enough resources, such as managerial, knowledge, and technical resources that can help them to perform better than small firms. Margolis et al. (2007) argues that any research related to corporate social responsibilities should try to control other variables that might have an influence on the relation, such as firm size and industry.

Another control variable used in the study is industry, like many previous studies (Lys et al. 2015; Rodgers, Hiu, et al. 2013; Wagner 2010) to name a few. Industry has an impact on firm involvement in corporate social activities, as some industries have an adverse impact on environment and society (such as chemical, oil and gas, pulp, etc.), so they face more pressure from governments and other stakeholders to participate in social activities. As argued by Richardson & Welker (2001) that oil, chemical, mine, paper and pulp, and metal are known to be sensitive industries. Thus, those industries are expected to contribute more to social activities. As found by Moneva & Cuellar (2009), firms that are in sensitive industries, the environment disclosure has a positive impact on firm market value. Also, O'Dwyer (2003) found that firms in exploration and extractive businesses have to disclose environment information to their stakeholders. Extractive industries such as mining, oil and gas, steel, and chemicals have high breach human rights, and also food and beverage, in addition to footwear and clothing communication and information all violate human rights (Černič 2008). Margolis et al. (2007) argue that industries differ in social responsibilities activities, since some of them are considered to be dirtier, some decline, and some grow more than other industries. While Flammer (2015) found that firms' shareholders in clean industries are responding to CSR, while shareholders in dirty industries are not responding to CSR proposal which leads to a lower return. Moreover, the action taken by a company can affect the whole industry, as Milstein et al. (2002) reported by stating that if a certain company breaches social and

political issues, then the other companies in the same industry will be affected, as stakeholders become angry with the companies in the same industry. In addition, most of the corporate social activities, such as environmental activities, are practiced most by industry companies because they pollute more and have more toxicity than other industries (Albertini 2013).

Firm age was also considered a control variable, for example, in Wagner (2010), Galbreath & Shum (2012) and Saeidi et al. (2015). As some previous research shows that firm age has an impact on the relationship between firm participation on corporate social responsibilities and firm performance, since it is believed that in the early years, firms focus only on firm growth before then growing and gaining in markets where there is more chance to participate in other activities, such as corporate social activities. Firm age is measured in years, from the time the firm has started until this the period focused in this thesis.

4.5 THE TECHNIQUES FOR ANALYZING DATA

First, the KLD data was arranged from the highest to the lowest total scores in corporate social responsibilities. Then, the top and bottom 50% were taken for the study that were included in all seven years. The financial data was then taken from the Thomson Bank One. After this, the missing companies were dropped, and finally, the complete data available for the companies were taken. The diagnostic tests were run to make data pure, and after that, the test of hypotheses was undertaken by using structural equation modeling. The Structural equation modeling using SmartPLS 3, a call by Allouche & Laroche (2005) and Kang et al. (2010) that future research should use SEM to obtain more precise and in detailed analysis for the relation between corporate social responsibilities and firm performance. Also, Rowley & Berman (2000) emphasize that in corporate social responsibilities studies, the most appropriate tool is structural equation modeling, since a study can simultaneously investigate the corporate social latent variables with their measurements, as well as relations between latent variables. Moreover, SEM enables researchers

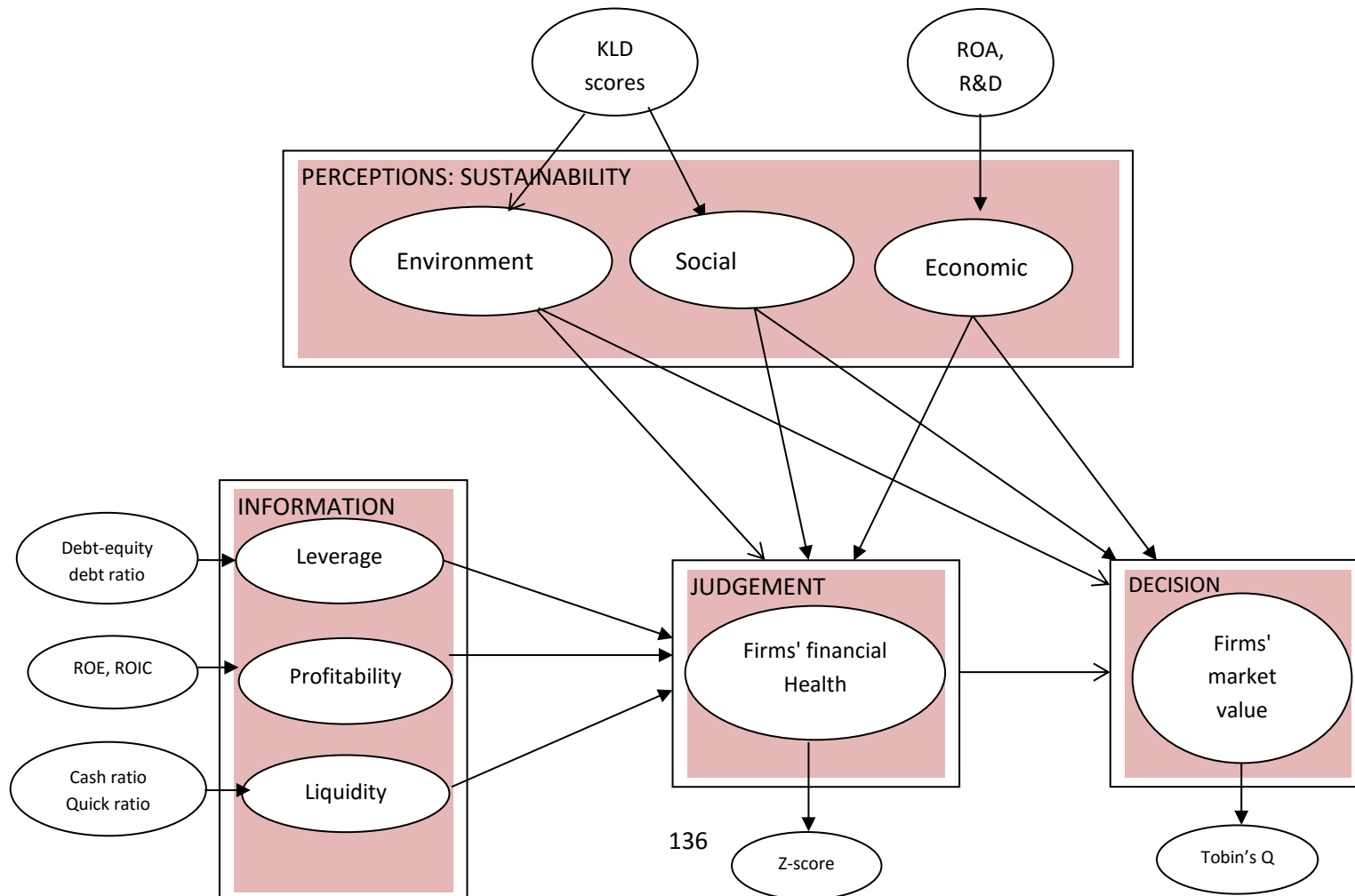
to simultaneously examine the relationship between independent variables and more than one dependent variable, whereby others cannot do so, as in multiple regression and factor analysis (Urbach & Ahlemann 2010). It has been noted that the use of PLS-SEM usage has been increasing recently (Hair et al. 2012). Also, SmartPLS enables the researcher to implement the decision making model, that is, the Throughput Model to test the hypotheses. Also, SPSS has been used to run some statistical tests like descriptive, correlation matrix, etc.

Structural Equation Modelling (SEM).

To test the research hypotheses, structural equation modeling has been used, specifically PLS-SEM, as it has been noticed to increase its usage recently. The benefit of using PLS-SEM is that it requires a small sample size, can handle models that have both formative and reflective constructs, and can run complex models. By using SEM, a researcher can simultaneously test the relationship between one or more exogenous and endogenous variables together. As Chin (1998) emphasizes, the advantages of using SEM in studies is that it enables a researcher to examine the relationship with more than one dependent variable and independent variable at the same time. The SEM consists of two models, which are: the structural model, which is sometimes called the inner model, and the measurement model, which can also be called the outer model. The structural model consists of latent constructs and its relationship with the other latent constructs. Whereas the measurement model shows the relationship of the constructs and the indicators used to measure the constructs, the measurement model can be either formative or reflective. In formative constructs, the arrows are running from indicators to the construct, which shows the causality in that way or direction. While in the reflective constructs the arrows are running out from the construct to the indicators, which show that the construct is causing the indicator. The structural model explains the relationship between constructs. The constructs can be exogenous or endogenous variables. Exogenous variables/constructs are those constructs that act as independent variables which are on the left side of the model and they are predicting the dependent, which is also called the endogenous

variables, which are on the right side of the model structure. The PLS-SEM is suitable for a small sample size, as long as it follows the 10 rule (i.e., the highest number of formative indicators multiplied by 10, or the highest number of paths going to a single construct times 10). The PLS-SEM is non-parametric, so normal distribution is not a requirement, and supports the complex models with many independent and dependent variables (Hair et al. 2013). Four constructs, which are profitability, liquidity, leverage and economic, have been measured using two formative indicators as they were also included in previous studies as formative indicators, as in Blanco et al. (2013) and Rodgers et al. (2013). Also, since the study uses archival data, as argued by Rodgers & Guiral (2011), research which uses archival data should use the formative constructs indicators as well as financial measured constructs. Hair et al. (2012), in their research, found that the papers that are published in the 24 top journals 46.30% of the models use single indicators. They argue that as long as the construct is narrow and unambiguous, it can be measured by a single indicator. Bergkvist & Rossiter (2009) found that the single item measure is valid and the same as multiple items measure, and concludes that multiple items are not necessary. Therefore, other remaining constructs are measured by a single indicator, for example, market value is measured by Tobin's Q, financial health by Z-score, environment construct by KLD environment score, and so on, as they were also measured by single indicators in previous research.

Figure 2: The Throughput Model with indicator variables.



The table below shows the variables used in the thesis, how they were measured and the formula used, as well as some previous studies in corporate social responsibilities that used the same indicators.

Table 1: Variables used in the study.

Construct	Measure	Description	Prior research used
Market value	Tobin's q	The ratio of firm market value to firm total assets	(Flammer 2015) (Wang & Berens 2014), (Servaes, H. & Tamayo 2013) (Kang et al. 2010) (Blanco et al. 2013), (Rodgers et al. 2013), (Wagner 2010) and many others
Financial Health	Zmejiwski	$Z = -4.336 - 4.513ROA + 5.679FINL + 0.004LIQ$ Where ROA is return on assets, FINL is financial leverage and LIQ is liquidity	(Blanco et al. 2013)(Rodgers et al. 2013) etc.
Profitability	Return on equity	Net income to equity	(Flammer 2015)(Servaes, H. & Tamayo 2013), (Rodgers et al. 2013)
	Return on invested capital	Net income minus dividend by total capital	(Lückerath-Rovers 2013)
Liquidity	Quick ratio	Current assets minus inventory to current liabilities.	(Blanco et al. 2013)(Rodgers et al. 2013)
	Cash ratio	Cash to current liabilities	(Blanco et al. 2013), (Rodgers et al. 2013)
Leverage	Debt equity	Total debt by total equity	(Surroca et al. 2010), (Rodgers et al. 2013), (Blanco et al. 2013)
	Debt ratio	Total liability to total assets	(Flammer 2015)(Cho et al. 2013), (Rodgers et al. 2013), (Kang et al. 2010)

Social	KLD score	The strength of Community relation, product, diversity, employee relation and human rights minus their concerns to get the social net	(Wang et al. 2014), (Blanco et al. 2013), (Hong et al. 2012), (Servaes, H. & Tamayo 2013)
Environment	KLD score	The environment strength minus its concerns to arrive a net environment scores	(Blanco et al. 2013), (Hong et al. 2012), (Servaes, H. & Tamayo 2013),
Economic	Return on Assets Ln R&D	Net income to total assets Natural logarithm of research and development expenses	(Flammer 2015) (Hull & Rothenberg 2008), (Servaes, H. & Tamayo 2013) (Galbreath & Shum 2012), (Blanco et al. 2013), (Rodgers et al. 2013), (Lys et al. 2015), (McWilliams & Siegel 2000), (Rodgers et al. 2013), (Blanco et al. 2013) and so many others.
Firm size	Ln assets	Natural logarithm of total assets value	(Cho et al. 2013), (Wang et al. 2014), (Servaes, H. & Tamayo 2013), (Artiach et al. 2010), (Wagner 2010), (Hull & Rothenberg 2008)
Firm age	Years	Number of years since firm was found until this research undergone.	(Wagner 2010), (Galbreath & Shum 2012), (Saeidi et al. 2015), (Flammer 2013) etc.
Industry	Industry	Firm industry	(Galbreath & Shum 2012), (Surroca et al. 2010), (Rodgers et al. 2013), (Wagner 2010) (Hull & Rothenberg 2008).

4.6 SUMMARY OF THE CHAPTER

The main aim of the chapter was to have a brief overview of the KLD database. The KLD database was used to obtain the sample for the data for the period from 2007 to 2013 for both two groups of companies. The samples end to have 155 with 1085 observation and 61 with 427 observations for high and low performing firms respectively. Also, the study variables were all introduced and their measures, the control variables, were also mentioned. Finally, the software that is going to be used was also introduced. The next chapter, the statistical and hypotheses test results then discussions chapter.

CHAPTER FIVE: RESULT CHAPTER AND ANALYSIS

5.1 INTRODUCTION

In the previous chapter, the thesis looks at how the data was collected, this chapter will focus on how the data was analyzed and how the results will be presented. First, the chapter will focus on data screening such as missing value, sample size, normality, and collinearity tests. Then, the descriptive statistics results and correlation matrix will be presented, and after that the model measurement evaluation validity and reliability test. Finally, SmartPLS 3 will be used to examine the study hypotheses.

5.2 SCREENING OF DATA

It is necessary to make sure that the data are clean, complete, and accurate before making any further analysis and drawing conclusions. This is to make sure that data for the test does not have errors and missing data should be detected (Hair et al. 2013). The aim is to make data free from anything that might impact the results, relations between dependent and independent variables and conclusions. The data can be affected by sample size, missing values, normal distributions, and collinearity problems and some of them might be serious, but some of them might not; it depends on the way the data are analyzed. Therefore, the data will first be checked for the sample size.

5.2 a) Sample Size.

As mentioned before, the thesis is going to use PLS-SEM to analyze the data, so the thesis should make sure that it follows the 10 times rule (Barclay et al. 1995). The rule states that the sample size should be 10 times the highest number of formative construct indicators. Alternatively, 10 times the highest number of paths to a particular constructs. Hair Jr et al. (2013) reported that the lowest size of a sample has to be 10 times the highest arrows flowing to any constructs in the model. In this thesis, the highest constructs that have more arrows appointing to it is the firm financial health construct, which has nine arrows (from profitability, liquidity, leverage, social, environment, and

economic, as well as from control variables firm size, firm age, and industry constructs), so by applying the 10 times rule, the minimum sample size should be 90 observations. Since the sample size of this thesis is 1085 observations for high performing firms and 427 observations for low performing firms, it is far away from the 90 observations minimum required. Thus, sample size is not a problem in this thesis, and it is enough to draw a conclusion from the sample findings.

5.2 b) Missing data.

Missing data is the common issue in many researches. These might be due to incomplete information provided from either primary or secondary sources. In any research, missing data is expected and it is usual and out of the control of any researcher. In this thesis, secondary sources have been used to collect the data; therefore, it is a common thing to happen for some data/variables to be missing. Hair Jr et al. (2013) reported that missing values should not be more than 5% of a variable; otherwise, if any variable has more than 5% missing value it should be omitted from the study. However, the missing data for each variable were below the threshold (5%). Therefore, all variables were kept for further analysis. The mean replacement method was used for the missing data as argued by Hair et al. (2013). The study shows that all the variables have missing values of less than 5% for each group (i.e., high and low performing firms). The maximum missing variable is research and development, which has 4.2% for low performing firms, which is below the threshold of 5%. All the variables' missing value tests are shown in the appendix of this thesis.

5.2 c) Normality test.

Normality test is a test that examines how the sample data distribution is analogous with the normal distribution assumption. It is an important assumption in many research, however, for PLS-SEM, there is no assumption of the normality of data required (Hair Jr et al. 2013). For PLS-SEM, even if the data are not normally distributed, still one can draw findings and conclusions. Even though it is not required, the test for normality was

performed. Three tests were performed to test the normality of data in this thesis; these are the Kolmogorov, Shapiro and histogram tests. The following tables (table 2 and table 3 below show the results for the Kolmogorov and Shapiro tests, which indicate the data are not normally distributed, since they show significant results. The histograms for each variable are at the appendix of the thesis. However, it is not a problem as the PLS-SEM do not assume a distribution of data as it is a nonparametric method (Hair Jr et al. 2013). Hair et al. (2012) found that 50% of marketing papers published in 24 high journals use PLS-SEM, since they have data which are non-normal. They added that most empirical data do not achieve the normal distributed requirement. Therefore, the thesis data can be used for further analysis.

Table 2: The results for normality test for high performing firms.

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
TOTALASSETS	.371	998	.000	.296	998	.000
AGE	.159	998	.000	.912	998	.000
QUICKRATIO	.209	998	.000	.561	998	.000
CASHRATIO	.144	998	.000	.789	998	.000
DEBTEQUITY	.467	998	.000	.089	998	.000
ROE	.435	998	.000	.048	998	.000
ROA	.131	998	.000	.874	998	.000
ROIC	.117	998	.000	.889	998	.000
DEBTRATIO	.028	998	.058	.991	998	.000
TOBINSQ	.131	998	.000	.773	998	.000
ZSCORE	.276	998	.000	.497	998	.000
RD	.314	998	.000	.527	998	.000
GOVNET	.263	998	.000	.873	998	.000
COMMNET	.323	998	.000	.769	998	.000
DIVNET	.164	998	.000	.931	998	.000
EMPNET	.208	998	.000	.894	998	.000
ENVNET	.236	998	.000	.871	998	.000
HRNET	.473	998	.000	.430	998	.000
PRONET	.338	998	.000	.801	998	.000

a. Lilliefors Significance Correction

For all the tables the ROA is Return on assets, ROE is Return on equity, ROIC is Return on invested capital, RD is Research and development , GOVNET is Governance net, COMMNET is Community net, DIVNET is Diversity net, EMPNET is Employee net, ENVNET is Environment net, HRNET is Human resource net, PRONET is Product net and SOCINET is Social net.

Table 3: The results for normality test for low performing firms.

	Tests of Normality					
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
AGE	.179	405	.000	.823	405	.000
RD	.294	405	.000	.496	405	.000
TOTALASSETS	.326	405	.000	.427	405	.000
QUICKRATIO	.239	405	.000	.619	405	.000
CASHRATIO	.238	405	.000	.667	405	.000
DEBTEQUITY	.482	405	.000	.087	405	.000
ROE	.249	405	.000	.758	405	.000
ROA	.234	405	.000	.743	405	.000
ROIC	.228	405	.000	.760	405	.000
DEBTRATIO	.056	405	.004	.978	405	.000
TOBINSQ	.143	405	.000	.844	405	.000
ZSCORE	.044	405	.061	.982	405	.000
GOVNET	.381	405	.000	.732	405	.000
COMMNET	.537	405	.000	.189	405	.000
DIVNET	.268	405	.000	.807	405	.000
EMPNET	.383	405	.000	.730	405	.000
ENVNET	.473	405	.000	.477	405	.000
PRONET	.484	405	.000	.502	405	.000
SOCINET	.259	405	.000	.788	405	.000
HRNET	.539	405	.000	.231	405	.000

a. Lilliefors Significance Correction

5.2 d) Collinearity test.

Indicators collinearity: In the formative measurement model, the correlation between indicators of the same construct is not expected. The high correlation/ collinearity problem for the indicators of the formative model can lead to misinterpretation of the results. This occurs when the indicators in a

construct have the same content but change only the name of the indicator. At the beginning of this research, some of the constructs, such as liquidity and leverage, had three indicators for liquidity (cash ratio, current ratio, and quick ratio), and three indicators for the leverage (debt-equity ratio, debt ratio, and debt capital ratio). The test for collinearity was performed and there was a multicollinearity problem. Thus, some indicators dropped from the study to overcome the multicollinearity problem. To check for collinearity, the VIF value should be calculated, and the threshold value of VIF is 5 (Hair Jr et al. 2013). The results for all the formative indicators have a value of less than 5, as shown in table 4 below, for both high and low performing firms. Therefore, collinearity is not a problem in the research, and the researcher can proceed with further analysis.

Table 4: Collinearity test among indicators for both high and low performing firms.

	HIGH PERFORMING FIRMS	LOW PERFORMING FIRMS
INDICATOR	VIF	VIF
ASSET	1	1
CASHRATIO	1.042	1.041
COMMNET	1.273	1.177
DEBTEQUITY	1	1
DEBTRATIO	1	1
DIVNET	1.233	1.278
EMPNET	1.047	1.252
ENVNET	1	1
FIRMAGE	1	1
GOVNET	1.043	1.135
HRNET	1.078	1.121
INDUSTRY	1	1
PRONET	1.127	1.238
QUICKRATIO	1.042	1.041
RANDD	1.011	1.021
ROA	1.011	1.021
ROE	1.008	3.994
ROIC	1.008	3.994
TOBINSQ	1	1
ZSCORE	1	1

5.3 DESCRIPTIVE STATISTICS:

High and low performing firms

The following tables (5 and 6) show the descriptive statistics for high performing and low performing firms indicators used. The firm age average for high performing group is around 65 years, which is higher than the firm age for low performing firms, which is 43 years. This might support that a young firm first focuses on the business core activities, and after they grow they consider other activities like sustainability activities. Also, the descriptive tables show that high performing firms are actually large firms, as the total assets mean is 23056.13, while for low performing firms, the average is 2271.70 as supported by their minimum and maximum values. In addition, high performing firms spent more on research and development as a mean of 806.11, while for low performing firms the mean is only 42.73. All other variables as shown in the tables below.

Table 5: The descriptive statistics for high performing firms

INDICATOR DESCRIPTIVE STATISTICS FOR HIGH PERFORMING FIRMS				
	Mean	Std. Deviation	Minimum	Maximum
AGE	64.92	45.85	2.00	207.00
TOTALASSETS	23056.13	68795.17	80.14	797769.00
QUICKRATIO	1.74	1.86	0.00	35.80
CASHRATIO	0.63	0.62	-3.70	5.50
DEBTEQUITY	46.17	1415.05	-20844.12	34709.26
ROE	0.36	3.84	-2.52	104.00
ROA	0.08	0.09	-0.47	0.55
ROIC	0.13	0.15	-0.75	1.74
DEBTRATIO	0.52	0.22	-0.16	1.64
TOBINSQ	1.80	1.42	0.03	15.91
ZSCORE	-0.82	4.14	-7.74	70.12
RD	806.11	1666.20	0.00	10991.00
ENVNET	1.09	1.30	-2.00	5.00
SOCNET	2.99	2.86	-3.00	12.00
GOVNET	-0.16	0.84	-3.00	2.00
COMMNET	0.60	0.87	-1.00	4.00
DIVNET	1.58	1.77	-2.00	7.00
EMPNET	0.92	1.61	-3.00	7.00
HRNET	-0.03	0.35	-2.00	2.00
PRONET	-0.08	0.83	-4.00	2.00

The sustainability activities show the high performing maximum (minimum) net social score is 12 (-3), while low performing maximum (minimum) is a net social score of 0(-7). For environment, high performing firms environment maximum (minimum) score was 5(-2), while for low performing firms, the maximum (minimum) environment score was 2(-4). All the other activities have high performing score means that are higher than low performing score means as well as in maximum value, as shown in the following two tables for high and low performing firms respectively. This means that firms that perform better do so in all activities.

Table 6: The descriptive statistics for low performing firms.

INDICATOR DESCRIPTIVE STATISTICS FOR LOW PERFORMING FIRMS				
	Mean	Std. Deviation	Minimum	Maximum
AGE	43.20	35.41	5.00	168.00
RD	42.73	78.86	0.00	545.00
TOTALASSETS	2271.70	4704.19	63.44	35448.00
QUICKRATIO	2.49	3.07	0.12	24.44
CASHRATIO	0.54	1.25	-8.36	7.98
DEBTEQUITY	28.09	803.55	-15996.77	2242.07
ROE	0.07	0.39	-2.32	1.97
ROA	0.04	0.18	-1.02	1.10
ROIC	0.07	0.25	-1.38	1.72
TOBINSQ	1.76	1.53	0.03	10.26
DEBTRATIO	0.45	0.23	0.01	1.05
ZSCORE	-1.97	1.55	-8.45	2.58
GOVNET	-0.37	0.62	-3.00	1.00
COMMNET	-0.05	0.25	-2.00	0.00
DIVNET	-1.12	0.75	-2.00	2.00
EMPNET	-0.33	0.68	-3.00	2.00
ENVNET	-0.22	0.66	-4.00	2.00
HRNET	-0.05	0.28	-2.00	2.00
SOCINET	-1.71	1.11	-7.00	0.00
PRONET	-0.15	0.47	-2.00	1.00

Table 7: The correlation matrix for high performing firms indicators.

INDICATOR CORRELATION MATRIX: HIGH PERFORMING FIRMS																					
		a	b	C	d	e	f	g	h	i	j	k	L	m	n	O	p	q	r	s	t
a	AGE	1.00																			
b	TOTALASSETS	.185*	1.00																		
c	QUICKRATIO	.269*	.107*	1.00																	
d	CASHRATIO	.144*	-.062*	.201*	1.00																
e	DEBTEQUITY	0.04	0.00	0.00	0.01	1.00															
f	ROE	0.05	-0.01	-0.03	0.01	.122*	1.00														
g	ROA	.080*	-0.05	-0.01	.463*	0.06	.087*	1.00													
h	ROIC	.095*	-0.04	-.081*	.306*	0.05	.101*	.905*	1.00												
i	DEBTRATIO	.300*	.186*	.437*	.279*	0.00	.121*	-0.05	.142*	1.00											
j	TOBINSQ	.222*	.169*	.282*	.179*	0.01	0.04	.308*	.282*	-.246*	1.00										
k	ZSCORE	0.02	0.01	0.01	-.116*	-0.01	.121*	-.112*	-0.04	.216*	.192*	1.00									
l	RD	.182*	.494*	-0.04	0.01	-0.02	-0.02	.075*	.072*	0.05	-.075*	-.077*	1.00								

m	GOVNET	.112*	-0.06	-0.05	-0.03	-0.01	0.03	0.01	0.00	-0.02	0.01	-0.02	-0.04	1.00									
n	COMMNET	.082*	.204*	-.154*						.111*			.299*	.185*	1.00								
o	DIVNET	.239*	.281*	-.265*	-.139*					.108*	.323*	-.200*	.351*	.063*	.391*	1.00							
p	EMPNET	-.101*	.076*	0.03	.104*					.118*	.116*	-0.05	.118*	.227*	0.03	.171*	-0.04	1.00					
q	ENVNET	.114*	0.01	-.094*						.105*	.090*	.106*			.169*	.256*	.436*	.285*	.279*	1.00			
r	HRNET	-0.05	-.340*	0.03	0.04	-0.02	0.01	0.04	0.04	-0.05	.103*	0.00	-.150*	.066*	-0.02	-0.06	0.05	.086*		1.00			
s	PRONET	-.103*	-.288*					.083*					-.346*		-.129*	-.216*			.259*				
s	SOCNET	.080*	.153*	-.178*						.129*	.151*	.193*			.316*	.128*	.602*	.649*	.610*	.488*	.186*	.172*	1.00
** Correlation is significant at the 0.01 level (2-tailed).																							
* Correlation is significant at the 0.05 level (2-tailed).																							

Table 8: The correlation matrix for low performing firms indicators.

INDICATOR CORRELATION MATRIX: LOW PERFORMING FIRMS																					
		a	b	C	d	e	f	g	h	I	j	k	l	m	n	o	p	q	r	s	t
a	AGE	1.00																			
b	RD	.293*	1.00																		
c	TOTALASSETS	.300*	.805*	1.00																	
d	QUICKRATIO	-.281*	-0.06	-.201*	1.00																
e	CASHRATIO	-0.01	-.120*	0.01	-.199*	1.00															
f	DEBTQUITY	0.07	0.03	0.02	-0.01	0.00	1.00														
g	ROE	.213*	0.01	0.06	-.129*	.412*	.257*	1.00													
h	ROA	.152*	-0.05	0.04	-.181*	.609*	0.00	.825*	1.00												
i	ROIC	.186*	-0.02	0.06	-.192*	.550*	0.00	.867*	.971*	1.00											
j	DEBTRATIO	.393*	.140*	.265*	-.549*	-0.07	-0.02	-0.07	-0.07	-0.02	1.00										
k	TOBINSQ	-.221*	-0.08	-.216*	.251*	-0.04	-0.02	.123*	.119*	.116*	-.435*	1.00									

i	ZSCORE	.244*	.139*	.196*	.352*	.369*	-0.02	.481*	.571*	.522*	.856*	.419*	1.00								
m	GOVNET	0.06	.142*	.193*	0.08	-0.03	-0.05	-0.02	0.02	-0.01	.128*	.126*	-.115*	1.00							
n	COMMNET	-.120*	-0.03	-.115*	0.09	0.00	0.00	-0.09	-0.05	-.116*	-.121*	0.06	-0.07	.118*	1.00						
o	DIVNET	.311*	.243*	.227*	-.106*	0.04	0.01	0.02	0.02	0.04	.220*	-0.07	.169*	.132*	0.01	1.00					
p	EMPNET	.199*	-0.06	-0.07	0.09	-0.06	-0.04	-0.06	-0.06	-0.09	.137*	0.08	-0.08	.133*	.268*	.323*	1.00				
q	ENVNET	.194*	0.01	.138*	.153*	0.01	0.03	0.05	0.02	0.01	.254*	.168*	.222*	0.04	0.06	.202*	0.09	1.00			
r	HRNET	-0.09	.415*	.310*	0.08	-0.04	0.00	-0.07	-0.07	-0.06	-0.06	0.07	-0.01	.123*	.262*	-0.07	0.09	.235*	1.00		
s	PRONET	.244*	.237*	.250*	.159*	0.01	-0.06	0.02	0.04	0.03	.320*	.243*	.282*	.223*	.171*	.285*	.212*	.131*	.225*	1.00	
t	SOCINET	-0.07	-0.07	-.101*	.096*	-0.02	-0.04	-0.06	-0.04	-0.06	-.115*	.137*	-0.08	.323*	.534*	.335*	.572*	-0.07	.413*	.461*	1.00
** Correlation is significant at the 0.01 level (2-tailed).																					
* Correlation is significant at the 0.05 level (2-tailed).																					

Table 7 above shows the correlation matrix for high performing firms. Correlation shows how the variables related to each other. Positive correlation means the variables moves together either increasing or decreasing together, while negative correlation means one variable increase the other variable decrease or vice versa, that is they are not moving in the same direction. Most of the corporate social activities show to have negative correlation with liquidity ratios for example in table 7 for high performing firms the community relation, diversity, environment and social net have negative correlation with quick ratio. While the ration is positive with profitability ratios for example community relation, diversity, employee relation, environment and social net, thus when the profitability ratios increase the corporate social activities do so and vice versa. The firm market value Tobin's q shows to have positive relation with employee relation, human rights and product related activities while diversity shows to have negative correlation with Tobin's q these all support the findings of the hypotheses in the coming sections.

For low performing firms in table 8 the corporate social activities governance, community relation, employee relation, environment and product related activities show to have negative correlation with debt ratio, thus the more the debt ratio the less the firm social activities performance. The firm financial distress z-score have negative correlation with environment performance, product related activities and governance this means the more the financial distress the less the firm participate in corporate social activities while it have positive correlation with diversity. Tobin's q shows to have positive correlation with governance, product and environment performance.

5.4 EVALUTION OF MODEL MEASUREMENT

a) Reliability tests.

Composite reliability (Internal consistency) is the test that measures how well indicators measure the constructs (the values range from 0 to 1). The higher the value the more reliable the constructs. The threshold value suggested is above 0.70 (Nunnally 1978). Since the values of the constructs for both groups of companies are above the threshold; thus, constructs are composite reliable. Also, the indicator reliability test (shown in the appendix of the thesis) shows that the outer loading is higher than the threshold of 0.708 value and they are non-negative sign as expected. Therefore, it can be seen that the data is reliable and a researcher can continue with the further analysis.

Table 9: The reliability test results for both high and low performing firms.

COMPOSITE RELAIBILITY	HIGH PERFORMING FIRMS	LOW PERFORMING FIRMS
ENVIRONMENT	1	1
FINANCIAL HEALTH	1	1
FIRMAGE	1	1
FIRMSIZE	1	1
INDUSTRY	1	1
MARKET VALUE	1	1
SOCIAL	1	1

b) Convergent validity.

This is a test that measures an indicator if it is positively correlates with other measures of a certain construct. In order to test for the convergent validity average, the variance extracted should be considered. Since the reflective constructs have a single indicator, the outer loading is one as well as for the average variance extracted is one, as shown in the PLS output in the table below. For AVE, which is a common measure also known as communality, the threshold value is 0.50 (Hair Jr et al. 2013). Since the Ave below shows more than 0.50, there is therefore no problem with the structure model.

Table 10: Convergent validity for both high and low performing firms.

CONVERGENT VALIDITY	HIGH PERFORMING FIRMS	LOW PERFORMING FIRMS
	Average Variance Extracted (AVE)	Average Variance Extracted (AVE)
ENVIRONMENT	1	1
FINANCIAL HEALTH	1	1
FIRMAGE	1	1
FIRMSIZE	1	1
INDUSTRY	1	1
MARKET VALUE	1	1
SOCIAL	1	1

c) Discriminant validity:

This is the test that examines if a certain construct is different from another constructs in the model. In order to test if the constructs differ from one another, the Fornell-Larcker criterion has been used. The idea is that the AVE square root of a construct should be bigger than the cross loading to any other constructs in the structure model. Thus, as can be seen from below, in the two tables for both high and low performing firms, the value of the square root for a certain construct is higher than the other construct correlation.

Table 11: Discriminant validity for high performing firms.

DISCRIMINANT VALIDITY FIRM HIGH PERFORMING FIRMS							
	ENVIRONME NT	FINANCIAL HEALTH	FIRMA GE	FIRMSI ZE	INDUST RY	MARKET VALUE	SOCI AL
ENVIRONMENT	1						
FINANCIAL HEALTH	-0.037	1					
FIRMAGE	0.123	0.015	1				
FIRMSIZE	0.296	-0.073	0.314	1			
INDUSTRY	0.099	-0.158	-0.201	0.059	1		
MARKET VALUE	-0.013	0.192	-0.235	-0.33	0.118	1	
SOCIAL	0.488	-0.012	0.094	0.463	0.235	-0.026	1

Table 12: Discriminant validity for low performing firms.

DISCRIMINANT VALIDITY LOW PERFORMING FIRMS							
	ENVIRONME NT	FINANCIAL HEALTH	FIRMA GE	FIRMSI ZE	INDUST RY	MARKET VALUE	SOCI AL
ENVIRONMENT	1						
FINANCIAL HEALTH	-0.222	1					
FIRMAGE	-0.099	0.175	1				
FIRMSIZE	-0.285	0.345	0.393	1			
INDUSTRY	0.068	-0.231	-0.29	-0.384	1		
MARKET VALUE	0.168	-0.419	-0.257	-0.436	0.228	1	
SOCIAL	-0.07	-0.076	-0.032	-0.225	0.112	0.137	1

5.5 STRUCTURAL MODEL RESULTS FOR HYPOTHESES TESTING.

After making sure that the data are clean, and the indicators of the constructs have been tested for all the measurement evaluations required for model, then the following procedure is to use the structural model to examine each hypothesis stated in the previous chapter. The study structural models have been assessed by three items, which are path coefficients, their significant value (p-value), and R-square value. In order to get path coefficient (that is β), the changes in dependent variable by unit change in independent variable the PLS Algorithm were conducted in SmartPLS 3. In order to test for path significance, the bootstrapping procedure using SmartPLS was performed. The r-square shows the percentage of independent/ exogenous variables that explains the endogenous or dependent variable. However, the percentage of r-square varies in research areas or disciplines (Hair et al. 2011). Therefore, there is no constant percentage to be followed in all disciplines. For example, in a previous study for sustainability and firm performance by Lys et al. (2015), the percentage is 18.1% for accounting based measures and 2.8% for market based measures. While for Blanco et al. (2013), r square is 4.2% for accounting based measures and 50.5% for market based measures. For Rodgers et al. (2013), r square is 84.7% for accounting based measures and 25.6% for market based measures. Therefore, there is no specific r-square that the sustainability studies have to get. For the current study, the r-square has been shown in the hypotheses results tables for both firm financial health as well as market value

for both high and low performing firms. The following section presents the results of the hypotheses showing their path coefficients and significant values, as well as r-square value.

HYPOTHESES TESTING RESULTS

In order to test the hypotheses developed earlier, the Throughput Model has been used. First, the section starts with examining the impact of current sustainability performance on current firm financial health and current market value. It will start by examining the sustainability pillars, and then it will look for each dimension of social activities, as identified by KLD database (community, employee relation, product, diversity, human rights), but it will also look on corporate governance as in the previous researches (Blanco et al. 2013; Hong et al. 2012), which included corporate governance as one of the corporate social responsibilities. Then, lagged sustainability will be examined as to its impact on current firm financial health and current market value. Finally, it will examine the impact of lagged firm performance (firm financial health and market value) impact on current sustainability performance.

Now let's look at the hypotheses and their results. Since the study is for two groups (high and low performing firms), each hypothesis has been repeated to examine each group.

Sustainability

H_{1(i)}: Firm financial information together with sustainability performance has an impact on firm financial health for high performing firms.

H_{1(ii)}: Firm financial information together with sustainability performance has an impact on firm financial health for low performing firms.

H_{2(i)}: Firm financial health together with sustainability performance has an impact on firm market value for high performing firms.

H_{2(ii)}: Firm financial health together with sustainability performance has an impact on firm market value for low performing firms

The results for high performing firms show that the economic pillar of sustainability performance has a significant positive impact on firm market value (β 0.369, $p < 0.01$), but this is insignificant to firm financial health. The environment pillar shows an insignificant impact on both firm financial health and market value. While social pillar performance shows positive significant to both firm financial health and market value with β 0.059 and β 0.06 respectively, with both at $p < 0.05$. Firm financial health has a positive significant (β 0.23, $p < 0.05$) impact to firm market value. Financial information leverage has a positive significant impact on firm financial health (β 0.221, $p < 0.01$), while liquidity and profitability show insignificant results. The control variable firm size shows a significant negative impact on both firm financial health and market value. Industry has a negative impact on firm financial health, but it is positive to market value, while firm age is significant negative to market value only. Both perception and information constructs explain only 9% of firm financial health, while perception and firm financial health explain 31.5% market value. The results for environment are also supported by Pearson correlation, as it was shown earlier in the chapter to have an insignificant correlation with both Z-score and Tobin's Q. The results partially support $H_{1(i)}$ (as only social is significant positive) and $H_{2(i)}$ (as only economic and social pillars are significant positive).

For low performing firms, the economic pillar shows to be negative significant (β -0.521, $p < 0.01$) to firm financial health, while insignificant to market value. The same as in high performing firms, environment pillar has an insignificant impact on financial health as well as market value, as shown in the table below. The social pillar also has an insignificant impact on firm financial health and market value. Firm financial health has a negative impact on firm market value (β -0.262 $p < 0.01$). Also, the same as in high performing group, firm's financial information liquidity and profitability showed insignificant results, while leverage shows positive significant (β 0.816 $p < 0.01$) to financial health. For control variables only, firm age and firm size shows negative significant on market value, while others remained control variables pathways show insignificant results. Firm financial information, together with

sustainability, explains 99.7% of the firm financial health, while firm financial health and sustainability explain 27% of the market value. The table that follows shows the path coefficients, p value and r-squares results of the hypotheses for high and low performing firms. Therefore, the results partially support $H_{1(ii)}$ as only the economic pillar show significant findings while $H_{2(ii)}$ is not supported at all.

Table 13: Shows the sustainability hypotheses results for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
ECONOMIC -> FINANCIAL HEALTH	-0.042	0.329	-0.521***	0
ECONOMIC -> MARKET VALUE	0.369***	0	0.047	0.57
ENVIRONMENT -> FINANCIAL HEALTH	-0.027	0.288	0.002	0.662
ENVIRONMENT -> MARKET VALUE	0.036	0.131	0.019	0.56
FINANCIAL HEALTH -> MARKET VALUE	0.23**	0.03	-0.262***	0
FIRMAGE -> FINANCIAL HEALTH	-0.023	0.264	0.01	0.256
FIRMAGE -> MARKET VALUE	-0.165***	0	-0.098**	0.016
FIRMSIZE -> FINANCIAL HEALTH	-0.136***	0	0.012	0.283
FIRMSIZE -> MARKET VALUE	-0.345***	0	-0.286***	0
INDUSTRY -> FINANCIAL HEALTH	-0.122***	0	0.001	0.838
INDUSTRY -> MARKET VALUE	0.1***	0.006	0.03	0.466
LEVERAGE -> FINANCIAL HEALTH	0.221***	0	0.816***	0
LIQUIDITY -> FINANCIAL HEALTH	-0.037	0.707	0.008	0.269
PROFITABILITY -> FINANCIAL HEALTH	0.095	0.159	-0.003	0.964
SOCIAL -> FINANCIAL HEALTH	0.059**	0.024	0.007	0.254
SOCIAL -> MARKET VALUE	0.06**	0.02	0.049	0.152
R-SQUARE				
FINANCIAL HEALTH	0.09		0.997	
MARKET VALUE	0.315		0.27	

***p<0.01, **p<0.05 *p<0.10

Now each pillar is considered separately, as prior researches consider environment separately and social responsibility separately, with only few consider the whole sustainability like this thesis. Thus, the thesis will also follow those who consider them separately. To start with environment pillar performance only, as perception, and then follow the other pillars.

Environment pillar.

H_{1a(i)}: Firm financial information together with environment performance has an impact on firm financial health for high performing firms.

H_{1a(ii)}: Firm financial information together with environment performance has an impact on firm financial health for low performing firms.

H_{2a(i)}: Firm financial health together with environment performance has an impact on firm market value for high performing firms

H_{2a(ii)}: Firm financial health together with environment has an impact on firm market value for low performing firms.

When considering each pillar separately, starting with environment as the only perception, the results for high performing firms show that environment performance has a significant positive impact on firm market value (β 0.088, $p < 0.01$ which was insignificant when the three pillars considered all at the same time), while still insignificant on firm financial health. Firm financial health has a positive significant (β 0.196, $p < 0.05$) impact to firm market value. Leverage has a positive impact on firm financial health (β 0.227) at $p < 0.01$. Profitability and liquidity financial information continue to show an insignificant impact on firm financial health. Control variables show the same results like the previous ones shown in the table (that is, all control variables show a negative impact on firm financial health and market value, except that firm age is insignificant to firm financial health, while industry is positive significant to market value). The firm financial information and environment explain 8.9% of firm financial health and firm financial health, and environment explains 18% of firm market value. The results support $H_{2a(i)}$ but not supporting $H_{1a(i)}$.

The low performing firms' environment pillar continue to show insignificant results, which is the same as when all the three pillars together were considered earlier. Financial health shows a negative significant (β -0.297, $p < 0.01$) impact on firm market value. Firm financial information leverage

shows a significant positive (β 0.828, $p < 0.01$) impact on firm financial health, while profitability and liquidity information show a negative (β -0.482, $p < 0.01$) and (β -0.038, $p < 0.10$) impact on firm financial health. In the same way as when all the three pillars are considered together, the control variables show insignificant results, except firm size and firm age, which has only a significant negative impact on firm market value. Firm financial information and environment explain 97.7% of firm financial health, while firm financial health and environment explain 27% of firm market value. The table below shows the SmartPLS output results for the hypotheses tested for both high and low performing firms. Both hypotheses $H_{1a(ii)}$ and $H_{2a(ii)}$ are not supported.

Table 14: Shows the environment hypotheses results for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
ENVIRONMENT -> FINANCIAL HEALTH	-0.009	0.705	0	0.971
ENVIRONMENT -> MARKET VALUE	0.088***	0	0.01	0.752
FINANCIAL HEALTH -> MARKET VALUE	0.196**	0.024	-0.297***	0
FIRMAGE -> FINANCIAL HEALTH	-0.031	0.141	0	0.976
FIRMAGE -> MARKET VALUE	-0.125***	0	-0.084***	0.029
FIRMSIZE -> FINANCIAL HEALTH	-0.117***	0	-0.007	0.395
FIRMSIZE -> MARKET VALUE	-0.311***	0	-0.288***	0
INDUSTRY -> FINANCIAL HEALTH	-0.112***	0	0.01	0.341
INDUSTRY -> MARKET VALUE	0.133***	0.001	0.024	0.583
LEVERAGE -> FINANCIAL HEALTH	0.227***	0	0.828***	0
LIQUIDITY -> FINANCIAL HEALTH	-0.057	0.532	-0.038*	0.076
PROFITABILITY -> FINANCIAL HEALTH	0.104	0.243	-0.482***	0
R-SQUARE				
FINANCIAL HEALTH	0.089		0.977	
MARKET VALUE	0.18		0.27	

Social pillar

$H_{1b(i)}$: Firm financial information together with social pillar performance has an impact on firm financial health for high performing firms.

$H_{1b(ii)}$: Firm financial information together with social performance has an impact on firm financial health for low performing firms.

H_{2b(i)}: Firm financial health together with social performance has an impact on firm market value for high performing firms.

H_{2b(ii)}: Firm financial health together with social performance has an impact on firm market value for low performing firms.

The results for high performing firms, as shown in the table below, show that social pillar has a significant positive impact on firm market value (β 0.119, $p < 0.01$), but this is insignificant to firm financial health, while it was significant positive to both firm financial health and market value when all three pillars were considered together. Firm financial health also continues to show the positive significant (β 0.189, $p < 0.05$) on firm market value. Leverage is shown to have significant positive (β 0.222, $p < 0.01$) impact on firm financial health, while liquidity and profitability show the same insignificant results. The control variables continue to have the same results as before. The social performance and financial information explain only 9% of the firm financial health. Firm financial health together with social environment explains 18.4% of firm market value. The results with firm financial health are supported by Pearson, as it showed to have an insignificant correlation with Z-score. The results support $H_{2b(i)}$ but do not support $H_{1b(i)}$.

For low performing firms, social performance continues to show insignificant findings for both firm financial health and market value, even if it is considered separately. Firm financial health shows a negative significant (β -0.299, $p < 0.01$) impact to market value. Leverage shows a positive significant (β 0.828, $p < 0.01$) impact on firm financial health, while profitability and liquidity financial information show a significant negative impact on firm financial health with β -0.483, $p < 0.01$ and β -0.483, $p < 0.10$ respectively. Firm size continues to show a negative relation on market value, and also firm age continues to show a negative impact to market value, while other control variables pathways show insignificant results. Financial information and social pillars explain 97.7% of firm financial health. Firm financial health with social pillars explain 27.2% of firm market value. All $H_{1b(ii)}$ and $H_{2b(ii)}$ are not supported.

Table 15: shows the social hypotheses results for both high and low performing firms.

Pathways (regression weights)	LOW PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
FINANCIAL HEALTH -> MARKET VALUE	0.189***	0.026	-0.299***	0
FIRMAGE -> FINANCIAL HEALTH	-0.031	0.138	0.001	0.922
FIRMAGE -> MARKET VALUE	-0.119***	0.001	-0.087***	0.019
FIRMSIZE -> FINANCIAL HEALTH	-0.137***	0	-0.01	0.24
FIRMSIZE -> MARKET VALUE	-0.341***	0	-0.28***	0
INDUSTRY -> FINANCIAL HEALTH	-0.122***	0	0.01	0.307
INDUSTRY -> MARKET VALUE	0.116***	0.004	0.022	0.604
LEVERAGE -> FINANCIAL HEALTH	0.222***	0	0.828***	0
LIQUIDITY -> FINANCIAL HEALTH	-0.057	0.522	-0.038*	0.10
PROFITABILITY -> FINANCIAL HEALTH	0.104	0.203	-0.483***	0
SOCIAL -> FINANCIAL HEALTH	0.041	0.11	-0.011	0.215
SOCIAL -> MARKET VALUE	0.119***	0	0.046	0.178
RSQUARE				
FINANCIAL HEALTH	0.09		0.977	
MARKET VALUE	0.184		0.272	

***p<0.01, **p<0.05 *p<0.10

Economic pillar.

H_{1c(i)}: Firm financial information together with economic performance has an impact on firm financial health for high performing firms.

H_{1c(ii)}: Firm financial information together with economic performance has an impact on firm financial health for low performing firms.

H_{2c(i)}: Firm financial health together with economic performance has an impact on firm market value for high performing firms.

H_{2c(ii)}: Firm financial health together with economic performance has an impact on firm market value for low performing firms.

As the economy is also one of the sustainability pillars, it has also been considered separately for high performing firms. The results show that the economic pillar has a significant positive (β 0.377, $p < 0.01$) impact on firm market value but is insignificant to financial health, which is the same results as

when all the three pillars considered together. Leverage continues to show a positive significant (β 0.226, $p < 0.01$) impact on firm financial health, whereas profitability and liquidity still show a insignificant impact. Firm financial health (β 0.234, $p < 0.05$) has a positive impact on firm market value. The control variables also show the same results as before, with the path coefficients and p-values shown in the table below. The economic pillar performance and firm financial information explains firm financial health (9%), while market value (31.1%) is explained by firm financial health and the economic pillar. Thus, the results support $H_{2c(i)}$ but do not support $H_{1c(i)}$.

For low performing firms, economic pillar appear to have a negative significant impact on firm financial health (β -0.517, $p < 0.01$) but are insignificant on firm market value. The financial information leverage shows a significant positive (β 0.815, $p < 0.01$) impact on financial health, whereas liquidity and profitability have insignificant results. Firm financial health shows a negative (β -0.265, $p < 0.01$) impact on market value. The control variables of firm size and firm age show a negative impact on market value only, while the remaining control variables pathways show an insignificant impact. 97.7% of Firm financial health is explained by firm economic pillar performance and firm financial information, while 27.1% of firm market value is explained by firm financial health and economic pillar performance. The hypothesis $H_{1c(ii)}$ is supported while $H_{2c(ii)}$ is not supported.

Table 16: shows the economic hypotheses results for both high and low performing firms

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
ECONOMIC -> FINANCIAL HEALTH	-0.036	0.393	-0.517***	0
ECONOMIC -> MARKET VALUE	0.377***	0	0.046	0.605
FINANCIAL HEALTH -> MARKET VALUE	0.234**	0.027	-0.265***	0
FIRMAGE -> FINANCIAL HEALTH	-0.027	0.194	0.01	0.234
FIRMAGE -> MARKET VALUE	-0.164***	0	-0.094***	0.021
FIRMSIZE -> FINANCIAL HEALTH	-0.118***	0	0.01	0.28
FIRMSIZE -> MARKET VALUE	-0.308***	0	-0.302***	0
INDUSTRY -> FINANCIAL HEALTH	-0.111***	0	0.001	0.8
INDUSTRY -> MARKET VALUE	0.116***	0.001	0.031	0.466
LEVERAGE -> FINANCIAL HEALTH	0.226***	0	0.815***	0
LIQUIDITY -> FINANCIAL HEALTH	-0.041	0.642	0.008	0.274
PROFITABILITY -> FINANCIAL HEALTH	0.096	0.18	-0.006	0.915
R-SQUARE				
FINANCIAL HEALTH	0.09		0.977	
MARKET VALUE	0.311		0.271	

***p<0.01, **p<0.05 *p<0.10

After examining the three sustainability pillars separately, now the social pillar is examined in depth to have a clear picture on which social activities (as categorized by KLD database) have an impact on firm financial health, as well as market value. The environment and economic pillars will continue to be the same, and only the social pillar will be considered one after the other.

Community relation dimension

The following hypotheses start with the community relation dimension as only the social pillar activity, while the environment and economic pillars continue to be the same.

H_{3a(i)}: Firm financial information together with community relation performance has an impact on firm financial health for high performing firms.

H_{3a(ii)}: Firm financial information together with community relation performance has an impact on firm financial health for low performing firms.

H_{3b(i)}: Firm financial health together with community relation performance has an impact on firm market value for high performing firms.

H_{3b(ii)}: Firm financial health together with community relation performance has an impact on firm market value for low performing firms

When community relation is considered as only a social dimension, together with the other two pillars (environment and economic), for high performing firms, community relation shows to have a significant positive (β 0.071, $p < 0.01$) impact to market value, but this is insignificant to financial health. Economic continue to have a significant positive (β 0.372, $p < 0.01$) impact on firm market value and insignificant impact on firm financial health. While the environment shows an insignificant result on financial health as well as market value. Financial health continues to have a significant positive (β 0.234, $p < 0.05$) impact to market value. Leverage also shows positive significant (β 0.226, $p < 0.01$) on firm financial health. Profitability and liquidity show insignificant results, while control variables have the same results as in the first hypothesis findings above. 8.9% of firm financial health is explained by firm financial information and sustainability. While 31.7% of firm market value is explained by sustainability and firm financial health. The insignificant impact on firm financial health is also supported by the Pearson correlation, as was seen to have an insignificant correlation between community performance and Z-score. The hypothesis H_{3b(i)} is supported while H_{3a(i)} is not supported.

For low performing firms, the community relation shows insignificant results on both firm financial health and on firm market value. Economic pillar still shows a negative (β -0.519, $p < 0.01$) impact on firm financial health and an insignificant impact on market value. Leverage shows a positive significant (β 0.816, $p < 0.01$) impact on financial health, while liquidity and profitability show insignificant results on firm financial health. Among the control variable pathways, only firm age and firm size have a negative significant impact on firm market value, while others showed insignificant results, as shown in the table below. 99.7% of firm financial health is explained by firm sustainability

and financial information, while 26.9% of firm market value is explained by firm sustainability performance and firm financial health. The community relation results are also supported by the Pearson correlation, as it showed to have an insignificant correlation with Z-scores, as well as Tobin's Q. Both hypotheses $H_{3a(ii)}$ and $H_{3b(ii)}$ are not supported.

Table 17: Shows the community hypotheses results for both high and low performing firms

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
COMMUNITY -> FINANCIAL HEALTH	-0.023	0.283	0.002	0.64
COMMUNITY -> MARKET VALUE	0.071***	0.008	-0.031	0.325
ECONOMIC -> FINANCIAL HEALTH	-0.035	0.401	-0.519***	0
ECONOMIC -> MARKET VALUE	0.372***	0	0.044	0.615
ENVIRONMENT -> FINANCIAL HEALTH	0.002	0.94	0.001	0.835
ENVIRONMENT -> MARKET VALUE	0.033	0.157	0.011	0.704
FINANCIAL HEALTH -> MARKET VALUE	0.234**	0.02	-0.265***	0
FIRMAGE -> FINANCIAL HEALTH	-0.027	0.187	0.01	0.208
FIRMAGE -> MARKET VALUE	-0.166***	0	-0.095**	0.02
FIRMSIZE -> FINANCIAL HEALTH	-0.11***	0	0.011	0.282
FIRMSIZE -> MARKET VALUE	-0.345***	0	-0.305***	0
INDUSTRY -> FINANCIAL HEALTH	-0.11***	0	0.001	0.776
INDUSTRY -> MARKET VALUE	0.109***	0.002	0.029	0.485
LEVERAGE -> FINANCIAL HEALTH	0.226***	0	0.816***	0
LIQUIDITY -> FINANCIAL HEALTH	-0.042	0.646	0.008	0.302
PROFITABILITY -> FINANCIAL HEALTH	0.097	0.152	-0.004	0.948
R-SQUARE				
FINANCIAL HEALTH	0.089		0.997	
MARKET VALUE	0.317		0.269	

***p<0.01, **p<0.05 *p<0.10

Employee relation dimension

H_{3c(i)}: Firm financial information together with employee relation has an impact on firm financial health for performing firms.

H_{3c(ii)}: Firm financial information together with employee relation has an impact on firm financial health for low performing firms.

H_{3d(i)}: Firm financial health together with employee relation has an impact on firm market value for high performing firms.

H_{3d(ii)}: Firm financial health together with employee relation has an impact on firm market value for low performing firms.

Now employee relation is taken as the only social activity, and the results for high performing firms show that employee relation has a positive significant (β 0.10, $p < 0.01$) impact on firm market value, while this is insignificant on firm financial health. Economic shows significant and positive (β 0.364, $p < 0.01$) to market value, and insignificant to firm financial health. While environment shows insignificant on financial health as well as on firm market value, leverage was seen to have a positive significant (β 0.228, $p < 0.01$) impact on firm financial health. As each time liquidity and profitability showed an insignificant impact on financial health, firm financial health has a positive significant (β 0.232, $p < 0.05$) impact on market value. Control variables show the same results as before (the path coefficients together with p values are in the following table). 8.9% of firm financial health is explained by financial information and sustainability performance, and 32.1% of the market value is explained by financial health and sustainability performance. The employee relation results are also supported by the Pearson correlation, and as shown before, it has a significant positive correlation with Tobin's Q, but an insignificant correlation with Z-score. Hypothesis *H_{3d(i)}* is supported while *H_{3d(ii)}* not supported.

For low performing firms, employee relation shows insignificant results on firm financial health and also on firm market value. Economic continues to

show a negative (β -0.519, $p < 0.01$) impact on firm financial health and insignificant to market value. The environment also shows insignificant results on both firm financial health and firm market value. Firm leverage shows a significant positive (β 0.816, $p < 0.01$) impact on firm financial health. Firm financial health shows a negative (β -0.262, $p < 0.01$) impact on firm market value. The profitability and liquidity show insignificant impacts, and the control variables show the same results as before. The firm financial information and sustainability explain 99.7% of firm financial health. The firm financial health and sustainability in turn explain 26.8% of firm market value. The results are also supported by the Pearson correlation, as it showed that the employee relation score had an insignificant correlation with both the Z-score and Tobin's Q. Both hypotheses $H_{3c(ii)}$ and $H_{3d(ii)}$ are not supported.

Table 18: Shows the employee relation hypotheses results for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
ECONOMIC -> FINANCIAL HEALTH	-0.038	0.382	-0.519***	0
ECONOMIC -> MARKET VALUE	0.364***	0	0.047	0.586
EMPLOYEE RELATION -> FINANCIAL HEALTH	0.033	0.226	0.004	0.332
EMPLOYEE RELATION -> MARKET VALUE	0.1***	0	0.013	0.753
ENVIRONMENT -> FINANCIAL HEALTH	-0.013	0.526	0.001	0.88
ENVIRONMENT -> MARKET VALUE	0.035	0.137	0.011	0.728
FINANCIAL HEALTH -> MARKET VALUE	0.232**	0.024	-0.262***	0
FIRMAGE -> FINANCIAL HEALTH	-0.023	0.256	0.011	0.273
FIRMAGE -> MARKET VALUE	-0.154***	0	-0.093***	0.027
FIRMSIZE -> FINANCIAL HEALTH	-0.122***	0	0.01	0.284
FIRMSIZE -> MARKET VALUE	-0.338***	0	-0.3***	0
INDUSTRY -> FINANCIAL HEALTH	-0.117***	0	0.001	0.839
INDUSTRY -> MARKET VALUE	0.089**	0.017	0.031	0.473
LEVERAGE -> FINANCIAL HEALTH	0.228***	0	0.816***	0
LIQUIDITY -> FINANCIAL HEALTH	-0.042	0.645	0.008	0.249
PROFITABILITY -> FINANCIAL HEALTH	0.098	0.184	-0.005	0.937
R-SQUARE				
FIRM FINANCIAL HEALTH	0.89		0.997	
MARKET VALUE	0.321		0.268	

*** $p < 0.01$, ** $p < 0.05$ * $p < 0.10$

Product relation dimension.

H_{3e(i)}: Firm financial information together with product performance has an impact on firm financial health for high performing firms.

H_{3e(ii)}: Firm financial information together with product performance has an impact on firm financial health for low performing firms.

H_{3f(i)}: Firm financial health together with product performance has an impact on firm market value for high performing firms.

H_{3f(ii)}: Firm financial health together with product performance has an impact on firm market value for low performing firms.

When product related activities were taken as only social activity, the high performing firms' results show that product related activities do not have a significant impact on both firm market value and financial health. Economic and environment continue to show significant to market value (β 0.373, $p < 0.01$) and (β 0.059, $p < 0.01$) respectively, but both show insignificant impact on firm financial health. Financial health also shows a positive impact to market value (β 0.233, $p < 0.05$). Leverage has a positive significant impact on financial health (β 0.228, $p < 0.01$). While profitability and liquidity continue to show insignificant results on firm financial health, the control variables show the same as previous hypotheses results, as shown in the table below. 8.9% of the firm financial health is explained by sustainability and firm financial information. 31.3% of firm market value is explained by firm financial health and sustainability performance. The results on firm financial health are supported by the Pearson correlation, as it showed an insignificant correlation with Z-score. The results appear not to support any hypotheses.

For low performing firms, when product related activities are considered as only social activity, the results shown have insignificant findings on both firm financial health and firm market value. Environment also shows an insignificant impact on both firm financial health and firm market value. The economic pillar has a significant negative (β -0.513, $p < 0.0$) impact on firm

financial health. Financial health has a significant negative (β -0.257, $p < 0.01$) impact on market value. Leverage, as before, has a significant positive (β 0.816, $p < 0.01$) impact on firm financial health, while liquidity and profitability showed the same insignificant impact as the previous hypotheses. The control variable results also show the same as before. Firm financial health and sustainability explain 99.7%, while market value is 26.9%, as explained by sustainability and firm financial health. The results didn't support any hypotheses, as well, like in high performing firms.

Table 19: shows the product hypotheses results for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
ECONOMIC -> FINANCIAL HEALTH	-0.033	0.401	-0.518***	0
ECONOMIC -> MARKET VALUE	0.373***	0	0.047	0.593
ENVIRONMENT -> FINANCIAL HEALTH	-0.002	0.946	0.001	0.843
ENVIRONMENT -> MARKET VALUE	0.059***	0.008	0.011	0.718
FINANCIAL HEALTH -> MARKET VALUE	0.233**	0.016	-0.257***	0
FIRMAGE -> FINANCIAL HEALTH	-0.027	0.187	0.01	0.23
FIRMAGE -> MARKET VALUE	-0.167***	0	-0.093***	0.027
FIRMSIZE -> FINANCIAL HEALTH	-0.128***	0	0.011	0.281
FIRMSIZE -> MARKET VALUE	-0.327***	0	-0.29***	0
INDUSTRY -> FINANCIAL HEALTH	-0.111***	0	0.001	0.802
INDUSTRY -> MARKET VALUE	0.11***	0.001	0.031	0.47
LEVERAGE -> FINANCIAL HEALTH	0.228***	0	0.816***	0
LIQUIDITY -> FINANCIAL HEALTH	-0.043	0.671	0.008	0.258
PRODUCT -> FINANCIAL HEALTH	-0.032	0.134	0.001	0.836
PRODUCT -> MARKET VALUE	-0.011	0.659	0.035	0.154
PROFITABILITY -> FINANCIAL HEALTH	0.099	0.15	-0.006	0.92
R SQUARE				
FINANCIAL HEALTH	0.089		.997	
MARKET VALUE	0.313		.269	

*** $p < 0.01$, ** $p < 0.05$ * $p < 0.10$

Diversity dimension

Now only diversity has been taken as the only social activity to examine if it has any impact on firm financial health and market value.

H_{3g(i)}: Firm financial information together with diversity performance has an impact on firm financial health for high performing firms.

H_{3g(ii)}: Firm financial information together with diversity performance has an impact on firm financial health for low performing firms.

H_{3h(i)}: Firm financial health together with diversity performance has an impact on firm market value for high performing firms.

H_{3h(ii)}: Firm financial health together with diversity performance has an impact on firm market value for low performing firms.

The result for high performing firms when only diversity was taken as a social activity showed that diversity has a significant positive (β 0.087, $p < 0.01$) impact on firm financial health and significant negative (β -0.014, $p < 0.05$) impact on firm market value. Economic and environment shows the positive impact to market value (β 0.372, $p < 0.01$) and (β 0.065, $p < 0.01$) respectively, but both have an insignificant impact on firm financial health. Financial health has a positive significant (β 0.239, $p < 0.01$) impact on firm market value. Leverage is the same, as each time shows a positive significant (β 0.212, $p < 0.01$) impact on firm financial health. Profitability as well as liquidity both shows insignificant results. The control variables show the same results as the earlier findings. 9.3% of the firm financial health is explained by firm financial information and sustainability, while 31.5% of market value is explained by firm financial health and sustainability. The results are supported by Pearson correlation, as diversity showed to have significant negative correlation with Tobin's Q and positive correlation with the Z-score (but insignificant). Thus, both hypotheses $H_{3g(i)}$ and $H_{3h(i)}$ are supported.

The results for low performing firms show diversity to have a significant positive (β 0.062, $p < 0.10$) impact on firm market value, while this is insignificant on firm financial health. Economic has a significant negative (β -0.518, $p < 0.01$) impact on firm financial health, while environment has an insignificant impact on firm financial health as well as firm market value. The financial information profitability and liquidity results are not significant, while leverage continues to show a significant positive (β 0.815, $p < 0.01$) impact on firm financial health. Firm financial health has a negative impact on firm market value (β -0.272, $p < 0.01$). Also, the control variables continue to show the same findings with the value in the table below. Firm financial information and sustainability explain 9.3% of firm financial health. Firm financial health and firm sustainability explain 31.5% of firm market value. The results support $H_{3h(ii)}$ only but not supporting $H_{3g(ii)}$.

Table 20: shows the diversity hypotheses results for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
DIVERSITY -> FINANCIAL HEALTH	0.087***	0.001	0.006	0.385
DIVERSITY -> MARKET VALUE	-0.06**	0.014	0.062*	0.082
ECONOMIC -> FINANCIAL HEALTH	-0.039	0.32	-0.518***	0
ECONOMIC -> MARKET VALUE	0.372***	0	0.042	0.61
ENVIRONMENT -> FINANCIAL HEALTH	-0.016	0.496	0.002	0.699
ENVIRONMENT -> MARKET VALUE	0.065***	0.003	0.021	0.501
FINANCIAL HEALTH -> MARKET VALUE	0.239**	0.015	-0.272***	0
FIRMAGE -> FINANCIAL HEALTH	-0.03	0.179	0.009	0.257
FIRMAGE -> MARKET VALUE	-0.163***	0	-0.108***	0.009
FIRMSIZE -> FINANCIAL HEALTH	-0.156***	0	0.01	0.279
FIRMSIZE -> MARKET VALUE	-0.294***	0	-0.299***	0
INDUSTRY -> FINANCIAL HEALTH	-0.119***	0	0.001	0.78
INDUSTRY -> MARKET VALUE	0.115***	0.001	0.032	0.447
LEVERAGE -> FINANCIAL HEALTH	0.212***	0	0.815***	0
LIQUIDITY -> FINANCIAL HEALTH	-0.034	0.73	0.007	0.348
PROFITABILITY -> FINANCIAL HEALTH	0.096	0.173	-0.005	0.928
R-SQUARE				
FINANCIAL HEALTH	0.093		0.997	
MARKET VALUE	0.315		0.271	

*** $p < 0.01$, ** $p < 0.05$ * $p < 0.10$

Human rights dimension.

H_{3i(i)}: Firm financial information together with human rights performance has an impact on firm financial health for high performing firms.

H_{3i(ii)}: Firm financial information together with human rights performance has an impact on firm financial health for low performing firms.

H_{3j(i)}: Firm financial health together with human rights performance has an impact on firm market value for high performing firms.

H_{3j(ii)}: Firm financial health together with human rights performance has an impact on firm market value for low performing firms.

High performing firms show that human rights related activities have an insignificant relation on both firm financial health and market value. Both economic (β 0.373, $p < 0.01$) and environment (β 0.056, $p < 0.01$) showed a significant positive impact on market value, though this was still insignificant on firm financial health. Firm financial health shows a significant and positive impact to market value (β 0.233, $p < 0.05$). Also, leverage was positive significant (β 0.227, $p < 0.01$) on firm financial health, while profitability and liquidity remained insignificant. The control variables also show the same results as before, with the values shown in the table below. 8.8% of firm financial health is explained by firm financial information and sustainability, while 31.3% of firm market value is explained by firm financial health and sustainability. The results with firm financial health are also supported by Pearson, as it was shown to have an insignificant correlation with Z-score. Thus, hypotheses *H_{3i(i)}* and *H_{3j(i)}* are not supported by the results.

For low performing firms, human rights performance shows insignificant findings on both firm financial health and firm market value, the same as in high performing firms. Firm economic performance continues to show the same negative significant (β -0.517, $p < 0.01$) impact on financial health, while this was insignificant on market value. Firm leverage again shows the same significant impact on firm financial health, but both liquidity and

profitability showed insignificant results (all the path coefficients and p-values are in the table below). All control variables appear to have the same findings as before. The market value is explained (26.8%) by firm sustainability and firm financial health. The firm financial health is explained (99.7%) by firm financial information and firm sustainability performance. The human rights results are supported by Pearson correlation, as it was shown to have an insignificant correlation with both Z-score and Tobin's Q. The results appear not to support both hypotheses $H_{3i(ii)}$ and $H_{3j(ii)}$.

Table 21: shows the human rights hypotheses results for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
ECONOMIC -> FINANCIAL HEALTH	-0.036	0.426	-0.517***	0
ECONOMIC -> MARKET VALUE	0.373***	0	0.047	0.598
ENVIRONMENT -> FINANCIAL HEALTH	-0.005	0.822	0.001	0.856
ENVIRONMENT -> MARKET VALUE	0.056***	0.013	0.004	0.918
FINANCIAL HEALTH -> MARKET VALUE	0.233**	0.02	-0.261***	0
FIRMAGE -> FINANCIAL HEALTH	-0.027	0.218	0.01	0.262
FIRMAGE -> MARKET VALUE	-0.167***	0	-0.094***	0.025
FIRMSIZE -> FINANCIAL HEALTH	-0.118***	0	0.01	0.323
FIRMSIZE -> MARKET VALUE	-0.321***	0	-0.309***	0
HUMANRIGHTS -> FINANCIAL HEALTH	-0.005	0.798	0	0.949
HUMANRIGHTS -> MARKET VALUE	0.01	0.515	-0.024	0.292
INDUSTRY -> FINANCIAL HEALTH	-0.11***	0	0.001	0.795
INDUSTRY -> MARKET VALUE	0.11***	0.003	0.032	0.431
LEVERAGE -> FINANCIAL HEALTH	0.227***	0	0.816***	0
LIQUIDITY -> FINANCIAL HEALTH	-0.041	0.661	0.008	0.251
PROFITABILITY -> FINANCIAL HEALTH	0.097	0.154	-0.006	0.922
R-SQUARE				
FINANCIAL HEALTH	0.088		0.997	
MARKET VALUE	0.313		0.268	

***p<0.01, **p<0.05 *p<0.10

Corporate governance

Since prior researches also included corporate governance as part of corporate social responsibilities like in Blanco et al. (2013) and Hong et al. (2012), the thesis also examined its impact on firm financial health and market value, as the following hypotheses have been developed.

H_{3k(i)}: Firm financial information together with corporate governance performance has an impact on firm financial health for high performing firms.

H_{3k(ii)}: Firm financial information together with corporate governance performance has an impact on firm financial health for low performing firms.

H_{3l(i)}: Firm financial health together with corporate governance performance have an impact on firm market value for both high performing firms.

H_{3l(ii)}: Firm financial health together with corporate governance performance has an impact on firm market value for low performing firms.

When corporate governance was taken as into consideration, the results showed corporate governance to have a significant negative (β -0.04, $p < 0.10$) impact to firm financial health, but insignificant to market value for high performing firms. The economic and environment pillars show a significant positive impact on firm market value with β 0.373, $p < 0.01$ and β 0.05, $p < 0.05$ respectively, but both were shown to have an insignificant impact on firm financial health. Leverage shows a positive significant (β 0.223, $p < 0.01$) impact on firm financial health, which in turn has a significant positive (β 0.235, $p < 0.05$) impact on firm market value. As in all the social dimensions, the profitability and liquidity appear to have insignificant results. The control variables also show the same as previous findings. 9% of the firm financial health is explained by the information constructs and perceptions constructs. Whereas 31.4% of the firm market value is explained by perception constructs and judgment constructs, the governance result on market value is supported with Pearson correlation, as it showed insignificant correlation. Also, Pearson supports the negative correlation with Z-score but showed insignificant. The results appear to support *H_{3k(i)}* but not *H_{3l(i)}*.

For low performing firms, economic performance shows to have negative significant (β -0.518, $p < 0.01$) to firm financial health. Corporate governance and environment show insignificant results on both firm financial health and market value. Firm financial information leverage shows a positive relation to financial health (β 0.816, $p < 0.01$), but profitability and liquidity are insignificant. Financial health has a significant negative impact on firm market value (β -0.26, $p < 0.01$). The control variables have the same results as in the other social dimensions before, with the values shown in the table below. 99.7% of firm financial health is explained by perception constructs (environment, economic, corporate governance) and information constructs (liquidity, profitability and leverage). 26.9% of market value is explained by the perception constructs and the judgments construct (firm financial health). Therefore, it appears that both two hypotheses are not supported ($H_{3k(ii)}$ and $H_{3l(ii)}$).

Table 22: shows the corporate governance hypotheses results for both high and low performing firms.

	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
ECONOMIC -> FINANCIAL HEALTH	-0.036	0.38	-0.518***	0
ECONOMIC -> MARKET VALUE	0.373***	0	0.047	0.58
ENVIRONMENT -> FINANCIAL HEALTH	0.006	0.812	0.001	0.834
ENVIRONMENT -> MARKET VALUE	0.05**	0.035	0.013	0.674
FINANCIAL HEALTH -> MARKET VALUE	0.235**	0.02	-0.26***	0
FIRMAGE -> FINANCIAL HEALTH	-0.023	0.287	0.01	0.3
FIRMAGE -> MARKET VALUE	-0.169***	0	-0.101***	0.023
FIRMSIZE -> FINANCIAL HEALTH	-0.121***	0	0.011	0.316
FIRMSIZE -> MARKET VALUE	-0.32***	0	-0.29***	0
GOVERNANCE -> FINANCIAL HEALTH	-0.04*	0.063	0.002	0.591
GOVERNANCE -> MARKET VALUE	0.025	0.228	0.037	0.314
INDUSTRY -> FINANCIAL HEALTH	-0.118***	0	0.001	0.812
INDUSTRY -> MARKET VALUE	0.115***	0.002	0.031	0.421
LEVERAGE -> FINANCIAL HEALTH	0.223***	0	0.816***	0
LIQUIDITY -> FINANCIAL HEALTH	-0.042	0.63	0.008	0.261
PROFITABILITY -> FINANCIAL HEALTH	0.097	0.169	-0.005	0.931
R-SQUARE				
FINANCIAL HEALTH	0.09		0.997	
MARKET VALUE	0.314		0.269	

5.6 LAGGED SUSTAINABILITY PERFORMANCE ON FIRM CURRENT PERFORMANCE

After examining the impact of current sustainability performance on current firm performance (both firm financial health and market value), now the thesis will examine the impact of lagged sustainability performance on current firm financial performance. Then, the thesis will examine the lagged firm performance on current firm sustainability performance. All the hypotheses above will be repeated with lagged sustainability performance instead of current sustainability performance and their impacts of firm performance, as already discussed in the earlier chapters that some authors argue that sustainability activities take time to show their impact. Then, the reverse will be considered for all the hypotheses above, regarding the lagged firm performance impact on current sustainability performance, as already discussed, in that other authors argue that it depends on firm prior period financial performance to engage in sustainability activities. These will help the research to have a clear picture as to whether there is a causality relationship between them and which influences the other. Thus, let's look at the hypotheses again.

Lagged sustainability performance on current firm performance

H_{4a(i)}: Firm financial information together with lagged sustainability performance has an impact on current firm financial health for high performing firms.

H_{4a(ii)}: Firm financial information together with lagged sustainability performance has an impact on current firm financial health for low performing firms.

H_{4b(i)}: Firm financial health together with lagged sustainability performance has an impact on current firm market value for high performing firms.

H_{4b(ii)}: Firm financial health together with lagged sustainability performance have an impact on current firm market value low performing firms

When lagged values of sustainability were taken to examine its impact on current firm performance, for high performing firms the results show that lagged social performance has a significant positive impact on both firm financial health and firm market value with β 0.058, $p < 0.10$ and β 0.079, $p < 0.01$ respectively. Lagged economic shows an impact only on firm market value, which is positive and significant (β 0.332, $p < 0.01$), but insignificant on firm financial health. Lagged environment shows insignificant results on both financial health as well as market value. Firm financial health shows a positive significant (β 0.268, $p < 0.05$) impact on market value. Leverage shows a positive and significant impact on firm financial health (β 0.226, $p < 0.01$). Profitability and liquidity still appear to show insignificant findings. The control variable, firm age, has a negative impact on market value only. Firm size has a negative impact on both firm financial health and market value, while industry has a negative impact on firm health and is positive to market value. 8.9% of the firm financial health is explained by current firm financial information and lagged sustainability performance. 30.1% of the current firm market value is explained by current firm financial health and lagged sustainability performance. Both two hypotheses $H_{4a(i)}$ and $H_{4b(i)}$ are partially supported.

Regarding low performing firms, the lagged social performance has a positive significant (β 0.088, $p < 0.05$) impact on firm current market value, but this is insignificant to firm current financial health. Lagged environment and lagged economic have insignificant findings on both firm financial health and market value. Firm financial health has a negative significant impact on firm market value (β -0.297, $p < 0.01$). Leverage has a positive significant (β 0.825, $p < 0.01$) impact on firm financial health, while profitability and liquidity have a negative significant impact on firm financial health with (β -0.452, $p < 0.01$) and (β -0.038, $p < 0.05$) respectively. The control variables, firm age and firm size, have only a significant but negative impact to market value, while others show insignificant findings. 97.5% of the firm financial health is explained by lagged sustainability and current firm financial information, and 26.5% of the

current firm market value is explained by lagged sustainability and current firm financial health. Only H_{4b(ii)} is partially supported while H_{4b(i)} not supported.

Table 23: shows the lagged sustainability hypotheses results for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
CURRENT FINANCIAL HEALTH -> CURRENT MARKET VALUE	0.268**	0.023	-0.297***	0
CURRENT LEVERAGE -> CURRENT FINANCIAL HEALTH	0.226***	0	0.825***	0
CURRENT LIQUIDITY -> CURRENT FINANCIAL HEALTH	-0.07	0.56	-0.038**	0.061
CURRENT PROFITABILITY -> CURRENT FINANCIAL HEALTH	0.074	0.292	-0.452***	0
FIRMAGE -> CURRENT FINANCIAL HEALTH	-0.02	0.356	0.005	0.713
FIRMAGE -> CURRENT MARKET VALUE	-0.128***	0	-0.081**	0.042
FIRMSIZE -> CURRENT FINANCIAL HEALTH	-0.133***	0	-0.005	0.596
FIRMSIZE -> CURRENT MARKET VALUE	-0.355***	0	-0.235***	0
INDUSTRY -> CURRENT FINANCIAL HEALTH	-0.121***	0	0.004	0.673
INDUSTRY -> CURRENT MARKET VALUE	0.148***	0	0.056	0.213
LAGGED ECONOMIC -> CURRENT FINANCIAL HEALTH	-0.032	0.419	-0.031	0.206
LAGGED ECONOMIC -> CURRENT MARKET VALUE	0.332***	0	0.088	0.345
LAGGED ENVIRONMENT -> CURRENT FINANCIAL HEALTH	-0.032	0.25	-0.001	0.922
LAGGED ENVIRONMENT -> CURRENT MARKET VALUE	0.009	0.758	0.002	0.947
LAGGED SOCIAL -> CURRENT FINANCIAL HEALTH	0.058*	0.056	-0.005	0.536
LAGGED SOCIAL -> CURRENT MARKET VALUE	0.079***	0.007	0.088**	0.011
R-SQUARE				
CURRENT FINANCIAL HEALTH	0.089		0.975	
CURRENT MARKET VALUE	0.309		0.265	

***p<0.01, **p<0.05 *p<0.10

Lagged Environment performance.

H_{4c(i)}: Firm financial information together with lagged environment performance has an impact on current firm financial health for high performing firms.

H_{4c(ii)}: Firm financial information together with lagged environment performance has an impact on current firm financial health for low performing firms.

H_{4d(i)}: Firm financial health together with lagged environment performance has an impact on current firm market value for high performing firms.

H_{4d(ii)}: Firm financial health together with lagged environment performance has an impact on current firm market value for low performing firms.

When lagged environment performance is only taken as perception, for high performing firms lagged environment has a significant positive (β 0.065, $p < 0.05$) impact on firm current market value, which actually was insignificant when all the three were taken together as perception. However, it continues to show insignificant results on firm financial health. Firm financial health shows a positive impact on firm market value (β 0.246, $p < 0.05$). Leverage has the same significant positive (β 0.234, $p < 0.01$) impact, while liquidity and profitability show an insignificant impact on firm financial health. Control variables show the same results as before, with the table below showing the results all the pathways with their p-values. The firm financial health 8.9% is explained the firms' current financial information and lagged environment performance. Firm market value 19.8% is explained by firm financial health and lagged environment performance. The results appear to support H_{4d(i)} but not H_{4c(i)}.

For low performing firms, lagged environment performance shows insignificant results on both firm financial health and market value. Leverage shows a significant positive (β 0.83, $p < 0.01$) impact on firm financial health, while liquidity (β -0.039, $p < 0.05$) and profitability (β -0.466, $p < 0.01$) show a negative significant impact on firm financial health. Firm financial health in turn has a significant negative (β -0.337, $p < 0.01$) impact on firm market value. In terms of the control variables only, firm size shows a significant negative impact on market value, while all others show insignificant results. Firm financial health (97.4%) is explained by firm financial information and lagged environment performance. (25.6%) Firm market value is explained by firm financial health and lagged environment performance. Therefore, the two hypotheses, H_{4c(ii)} and H_{4d(ii)}, are not supported by the results.

Table 24: shows the lagged environment hypotheses results for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
CURRENT FINANCIAL HEALTH -> CURRENT MARKET VALUE	0.246**	0.021	-0.337***	0
CURRENT LEVERAGE -> CURRENT FINANCIAL HEALTH	0.234***	0	0.83***	0
CURRENT LIQUIDITY -> CURRENT FINANCIAL HEALTH	-0.083	0.517	-0.039**	0.067
CURRENT PROFITABILITY -> CURRENT FINANCIAL HEALTH	0.076	0.312	-0.466***	0
FIRMAGE -> CURRENT FINANCIAL HEALTH	-0.026	0.254	0.001	0.939
FIRMAGE -> CURRENT MARKET VALUE	-0.094***	0.003	-0.057	0.166
FIRMSIZE -> CURRENT FINANCIAL HEALTH	-0.113***	0	-0.007	0.409
FIRMSIZE -> CURRENT MARKET VALUE	-0.303***	0	-0.248***	0
INDUSTRY -> CURRENT FINANCIAL HEALTH	-0.11***	0	0.006	0.565
INDUSTRY -> CURRENT MARKET VALUE	0.185***	0	0.047	0.278
LAGGED ENVIRONMENT -> CURRENT FINANCIAL HEALTH	-0.029	0.177	-0.001	0.934
LAGGED ENVIRONMENT -> CURRENT MARKET VALUE	0.065**	0.015	-0.014	0.595
R-SQUARE				
CURRENT FINANCIAL HEALTH	0.089		0.974	
CURRENT MARKET VALUE	0.198		0.256	

***p<0.01, **p<0.05 *p<0.10

Lagged social performance.

H_{4e(i)}: Firm financial information together with lagged social performance have an impact on firm current financial health for high performing firms.

H_{4e(ii)}: Firm financial information together with lagged social performance has an impact on firm current financial health for low performing firms.

H_{4f(i)}: Firm financial health together with lagged social performance have an impact on current firm market value for high performing firms.

H_{4f(ii)}: Firm financial health together with lagged social performance have an impact on current firm market value for low performing firms.

When lagged social performance was considered as the only perception, high performing firms show lagged social to have a significant positive (β 0.121, $p < 0.01$) impact on firm market value, while it becomes insignificant on financial health. Firm financial information shows that leverage has a significant positive (β 0.228, $p < 0.01$) impact. The firm financial health in turn has a positive impact on firm market value (β 0.237, $p < 0.05$). The results remained the same for the control variables. The firm financial health is explained by lagged social performance and firm financial information (8.9%). While firm financial health and lagged social explain 20.5% of firm market value. The results support $H_{4f(i)}$ but do not support $H_{4e(i)}$.

Regarding low performing firms, the lagged social performance shows a positive significant (β 0.088, $p < 0.01$) impact on firm current market value, but this is insignificant on firm financial health (the same as when all the three sustainability dimensions were included together). Leverage shows negative a significant (β 0.83, $p < 0.01$) impact while profitability (β -0.466, $p < 0.01$) and liquidity (β -0.038, $p < 0.10$) have a significant negative impact on firm financial health. Only firm age and firm size have an impact that is negative on firm market value, and the remaining pathways showed insignificant results, as shown in the table below. 97.4% of the firm financial health is explained by current firm financial information and lagged social performance. While 26.3% of the firm market value is explained by firm financial health and lagged social performance, only $H_{4f(ii)}$ is supported by the results but not $H_{4e(ii)}$.

Table 25: shows the lagged social hypotheses results for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
CURRENT FINANCIAL HEALTH -> CURRENT MARKET VALUE	0.237**	0.028	-0.336***	0
CURRENT LEVERAGE -> CURRENT FINANCIAL HEALTH	0.228***	0	0.83***	0
CURRENT LIQUIDITY -> CURRENT FINANCIAL HEALTH	-0.083	0.501	-0.038*	0.062
CURRENT PROFITABILITY -> CURRENT FINANCIAL HEALTH	0.076	0.363	-0.466***	0
FIRIMAGE -> CURRENT FINANCIAL HEALTH	-0.027	0.222	0.002	0.905
FIRIMAGE -> CURRENT MARKET VALUE	-0.089***	0.007	-0.064*	0.10
FIRMSIZE -> CURRENT FINANCIAL HEALTH	-0.137***	0	-0.009	0.376
FIRMSIZE -> CURRENT MARKET VALUE	-0.343***	0	-0.218***	0
INDUSTRY -> CURRENT FINANCIAL HEALTH	-0.122***	0	0.006	0.565
INDUSTRY -> CURRENT MARKET VALUE	0.165***	0	0.046	0.318
LAGGED SOCIAL -> CURRENT FINANCIAL HEALTH	0.04	0.178	-0.006	0.521
LAGGED SOCIAL -> CURRENT MARKET VALUE	0.121***	0	0.088***	0.01
R-SQUARE				
CURRENT FINANCIAL HEALTH	0.089		0.974	
CURRENT MARKET VALUE	0.205		0.263	

***p<0.01, **p<0.05 *p<0.10

Lagged economic performance.

H_{4g(i)}: Firm financial information together with lagged economic performance have an impact on current firm financial health for high performing firms.

H_{4g(ii)}: Firm financial information together with lagged economic performance has an impact on current firm financial health for low performing firms.

H_{4h(i)}: Firm financial health together with lagged economic performance has an impact on current firm market value for high performing firms

H_{4h(ii)}: Firm financial health together with lagged economic performance has an impact on current firm market value for low performing firms.

When the lagged economic pillar was considered as the only perception for high performing firms, the lagged economic pillar was shown to have a positive significant (β 0.34, $p < 0.01$) impact on firm market value, and insignificant on firm financial health. Among the firm financial information, only leverage showed a positive significant impact on firm financial health (β 0.232, $p < 0.01$). Then, firm financial health has a significant positive impact on firm market value (β 0.273, $p < 0.01$). Profitability and liquidity appear to have the same insignificant impact. Also, the control variables have the same results as before. 8.8% of firm financial health is explained by firm financial information and lagged economic performance. 30.6% of firm market value is explained by lagged economic performance and financial health. Only $H_{4h(i)}$ is supported by $H_{4g(i)}$ not supported.

The low performing firms results show that lagged economic performance is insignificant to both firm financial health and market value, which is the same as when all three sustainability pillars were included together. Like the previous results, financial information profitability (β -0.452, $p < 0.01$) and liquidity (β -0.038, $p < 0.05$) have a negative significant impact on firm financial health, while leverage (β 0.825, $p < 0.01$) has a significant positive impact. The firm financial health in turn has a negative significant (β -0.297, $p < 0.01$) impact on firm market value. The control variables show the same findings as before. Firm financial health (97.5%) is explained by lagged economic and current financial information. 26.1% of market value is explained by firm financial health and lagged economic performance. Both of the two hypotheses, $H_{4g(ii)}$ and $H_{4h(ii)}$, are not supported by the results. The following table shows the path coefficients, p-values, and r-square results for both the high and low performing firms.

Table 26: shows the lagged economic hypotheses results for both high and low performing firms

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
CURRENT FINANCIAL HEALTH -> CURRENT MARKET VALUE	0.273**	0.024	-0.297***	0
CURRENT LEVERAGE -> CURRENT FINANCIAL HEALTH	0.232***	0	0.825***	0
CURRENT LIQUIDITY -> CURRENT FINANCIAL HEALTH	-0.073	0.515	-0.038**	0.037
CURRENT PROFITABILITY -> CURRENT FINANCIAL HEALTH	0.075	0.298	-0.452***	0
FIRMAGE -> CURRENT FINANCIAL HEALTH	-0.024	0.275	0.005	0.727
FIRMAGE -> CURRENT MARKET VALUE	-0.13***	0	-0.074*	0.065
FIRMSIZE -> CURRENT FINANCIAL HEALTH	-0.118***	0	-0.003	0.708
FIRMSIZE -> CURRENT MARKET VALUE	-0.317***	0	-0.263***	0
INDUSTRY -> CURRENT FINANCIAL HEALTH	-0.111***	0	0.004	0.672
INDUSTRY -> CURRENT MARKET VALUE	0.165***	0	0.057	0.195
LAGGED ECONOMIC -> CURRENT FINANCIAL HEALTH	-0.027	0.476	-0.031	0.183
LAGGED ECONOMIC -> CURRENT MARKET VALUE	0.34***	0	0.088	0.332
R-SQUARE				
CURRENT FINANCIAL HEALTH	0.088		0.975	
CURRENT MARKET VALUE	0.306		0.261	

***p<0.01, **p<0.05 *p<0.10

Lagged community relation.

H_{4i(i)}: Firm financial information together with lagged community performance has an impact on current firm financial health for performing firms.

H_{4i(ii)}: Firm financial information together with lagged community performance has an impact on current firm financial health for low performing firms.

H_{4j(i)}: Firm financial health together with lagged community performance has an impact on current firm market value for high performing firms.

H_{4j(ii)}: Firm financial health together with lagged community performance has an impact on current firm market value for low performing firms.

For high performing firms, when lagged community relation performance was considered to be the only social dimension, the results show that lagged community relation and lagged economic have significant positive (β 0.073, $p < 0.05$) and (β 0.336, $p < 0.01$) respectively impact on current market value, but both show a insignificant impact on financial health. Lagged environment shows insignificant results on both firm performance. Firm leverage shows a positive and significant (β 0.233, $p < 0.01$) on firm financial health, and the firm financial health show a positive (β 0.273, $p < 0.05$) significant impact on market value. The control variables have the same results. The r-square shows that 8.7% of the firm financial health is explained by lagged sustainability and firm financial information, while 30.9% of market value is explained by financial health and lagged sustainability performance. The results support $H_{4j(i)}$ but not supporting $H_{4i(i)}$.

Low performing firm results show that the lagged community performance has insignificant findings on both firm financial health and market value. Also, the other sustainability pillars (environment and economic) have insignificant results. Leverage show the same results, as each time there is a significant positive (β 0.826, $p < 0.01$) impact on firm financial health, while other financial information such as profitability and liquidity showed a negative significant impact (β -0.453, $p < 0.01$) and (β -0.038, $p < 0.01$) respectively. In turn, firm financial health continues to have the same negative significant (β -0.299, $p < 0.01$) impact on firm market value. All other variables show the same results as shown in the table below. 97.5% of the firm financial health is explained by both financial information and lagged sustainability, while 25.8% of market value is explained by lagged sustainability and firm financial health. The results do not support any hypotheses stated above.

Table 27: shows the lagged community hypotheses results for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
CURRENT FINANCIAL HEALTH -> CURRENT MARKET VALUE	0.273***	0.02	-0.299***	0
CURRENT LEVERAGE -> CURRENT FINANCIAL HEALTH	0.233***	0	0.826***	0
CURRENT LIQUIDITY -> CURRENT FINANCIAL HEALTH	-0.074	0.548	-0.038*	0.056
CURRENT PROFITABILITY -> CURRENT FINANCIAL HEALTH	0.075	0.276	-0.453***	0
FIRMAGE -> CURRENT FINANCIAL HEALTH	-0.024	0.264	0.004	0.761
FIRMAGE -> CURRENT MARKET VALUE	-0.13***	0	-0.074*	0.064
FIRMSIZE -> CURRENT FINANCIAL HEALTH	-0.111***	0.001	-0.005	0.601
FIRMSIZE -> CURRENT MARKET VALUE	-0.35***	0	-0.264***	0
INDUSTRY -> CURRENT FINANCIAL HEALTH	-0.109***	0	0.004	0.73
INDUSTRY -> CURRENT MARKET VALUE	0.16***	0	0.058	0.225
LAGGED COMMUNITY -> CURRENT FINANCIAL HEALTH	-0.014	0.585	-0.009	0.24
LAGGED COMMUNITY -> CURRENT MARKET VALUE	0.073**	0.017	0.012	0.577
LAGGED ECONOMIC -> CURRENT FINANCIAL HEALTH	-0.026	0.498	-0.031	0.219
LAGGED ECONOMIC -> CURRENT MARKET VALUE	0.336***	0	0.088	0.314
LAGGED ENVIRONMENT -> CURRENT FINANCIAL HEALTH	-0.005	0.843	-0.001	0.954
LAGGED ENVIRONMENT -> CURRENT MARKET VALUE	0.012	0.677	-0.014	0.614
R-SQUARE				
CURRENT FINANCIAL HEALTH	0.087		0.975	
CURRENT MARKET VALUE	0.309		0.258	

***p<0.01, **p<0.05 *p<0.10

Lagged employee relation.

H_{4k(i)}: Firm financial information together with lagged employee relation performance have an impact on firm current financial health for high performing firms.

H_{4k(ii)}: Firm financial information together with lagged employee relation performance have an impact on firm current financial health for low performing firms.

H_{4l(i)}: Firm financial health together with lagged employee relation performance have an impact on current firm market value for high performing firms.

H_{4l(ii)}: Firm financial health together with lagged employee relation performance have an impact on current firm market value for low performing firms.

High performing firms show that lagged employee relation performance and lagged economic performance have a positive significant impact on market value, with (β 0.073, $p < 0.05$) and (β 0.33, $p < 0.01$) respectively, but this was insignificant on firm financial health. Lagged environment shows non-significant results on both firm financial health and market value. Leverage shows the same results as previous, that is, a significant positive (β 0.233, $p < 0.01$) impact on firm financial health. While firm financial health shows a positive (β 0.272, $p < 0.05$) impact on firm market value. The other variables and also the control variables show similar results like those in the following table show the path coefficients and p-values for both high and low performing firms. Only 9.4% of financial health is explained by the information and lagged perceptions, and only 31% of market value is explained by judgment construct and lagged perceptions. Only hypothesis $H_{4l(i)}$ is supported but $H_{4k(i)}$ not supported.

Low performing firms show that all the lagged sustainability (employee, economic, environment) have an insignificant impact on both firm financial health and market value. Profitability (β -0.452, $p < 0.01$) and liquidity (β -0.038, $p < 0.10$) show significant negative to firm financial health while leverage (β 0.825, $p < 0.01$) show a positive significant impact on financial health. Then, firm financial health has a negative significant (β -0.298, $p < 0.01$) impact on market value. Firm age and size show a significant negative impact on market value only, while others are still non-significant. 97.5% of financial health is explained by financial information and lagged sustainability, while 25.9% of market value is explained by lagged sustainability and financial health. The results do not support any hypotheses stated for low performing firms above.

Table 28: shows the lagged employee hypotheses results for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
CURRENT FINANCIAL HEALTH -> CURRENT MARKET VALUE	0.272**	0.02	-0.298***	0
CURRENT LEVERAGE -> CURRENT FINANCIAL HEALTH	0.233***	0	0.825***	0
CURRENT LIQUIDITY -> CURRENT FINANCIAL HEALTH	-0.073	0.544	-0.038*	0.059
CURRENT PROFITABILITY -> CURRENT FINANCIAL HEALTH	0.074	0.296	-0.452***	0
FIRMAGE -> CURRENT FINANCIAL HEALTH	-0.021	0.295	0.004	0.766
FIRMAGE -> CURRENT MARKET VALUE	-0.122***	0	-0.071***	0.086
FIRMSIZE -> CURRENT FINANCIAL HEALTH	-0.118***	0	-0.004	0.702
FIRMSIZE -> CURRENT MARKET VALUE	-0.339***	0	-0.265***	0
INDUSTRY -> CURRENT FINANCIAL HEALTH	-0.114***	0	0.005	0.665
INDUSTRY -> CURRENT MARKET VALUE	0.146***	0	0.055	0.219
LAGGED ECONOMIC -> CURRENT FINANCIAL HEALTH	-0.029	0.469	-0.031	0.232
LAGGED ECONOMIC -> CURRENT MARKET VALUE	0.33***	0	0.089	0.332
LAGGED EMPLOYEE -> CURRENT FINANCIAL HEALTH	0.02	0.527	-0.006	0.447
LAGGED EMPLOYEE -> CURRENT MARKET VALUE	0.073***	0.004	0.032	0.418
LAGGED ENVIRONMENT -> CURRENT FINANCIAL HEALTH	-0.015	0.594	0	0.997
LAGGED ENVIRONMENT -> CURRENT MARKET VALUE	0.022	0.414	-0.015	0.576
R-SQUARE				
CURRENT FINANCIAL HEALTH	0.087		0.975	
CURRENT MARKET VALUE	0.31		0.259	

***p<0.01, **p<0.05 *p<0.10

Lagged diversity performance.

H_{4m(i)}: Firm financial information together with lagged diversity performance has an impact on current firm financial health for high performing firms.

H_{4m(ii)}: Firm financial information together with lagged diversity performance has an impact on current firm financial health for low performing firms.

H_{4n(i)}: Firm financial health together with lagged diversity performance has an impact on current firm market value for high performing firms.

H_{4n(ii)}: Firm financial health together with lagged diversity performance has an impact on current firm market value for low performing firms.

High performing firms show that lagged diversity have a significant positive (β 0.107, $p < 0.01$) impact on firm current financial health and an insignificant impact on current market value. The lagged economic and lagged environment also have a significant positive impact on firm current market value with (β 0.336, $p < 0.01$) and (β 0.042, $p < 0.10$) respectively, but insignificant on firm financial health. Firm financial health has a positive significant (β 0.276, $p < 0.05$) impact on market value. Leverage has a positive (β 0.213, $p < 0.01$) impact on financial health, while profitability and liquidity are still insignificant. The control variables show the same results. 9.4% of firm financial health can be explained by lagged sustainability and firm financial information, while 30.6% of market value has been explained by firm financial health and lagged sustainability. The hypothesis $H_{4m(i)}$ is supported by the results, while $H_{4n(i)}$ is not supported.

Low performing firms lagged diversity, lagged economic and lagged environment all show insignificant results on firm financial health as well as firm market value. Profitability (β -0.452, $p < 0.01$) and liquidity (β -0.038, $p < 0.05$) show a negative and significant impact on firm financial health, while leverage (β 0.825, $p < 0.01$) shows a positive impact. The financial health shows a negative significant (β -0.304, $p < 0.01$) impact on firm market value. Control variables show the same. The following table shows the pathway coefficients, p values, and r-square. 9.4% of the firm financial health is explained by financial information and lagged sustainability. 30.6% of the firm value is explained by firm health and lagged sustainability. Both hypotheses of low performing firms are not supported.

Table 29: shows the lagged diversity hypotheses results for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
CURRENT FINANCIAL HEALTH -> CURRENT MARKET VALUE	0.276**	0.022	-0.304***	0
CURRENT LEVERAGE -> CURRENT FINANCIAL HEALTH	0.213***	0	0.825***	0
CURRENT LIQUIDITY -> CURRENT FINANCIAL HEALTH	-0.068	0.583	-0.038**	0.045
CURRENT PROFITABILITY -> CURRENT FINANCIAL HEALTH	0.078	0.308	-0.452***	0
FIRIMAGE -> CURRENT FINANCIAL HEALTH	-0.03	0.181	0.004	0.81
FIRIMAGE -> CURRENT MARKET VALUE	-0.129***	0	-0.092**	0.028
FIRMSIZE -> CURRENT FINANCIAL HEALTH	-0.163***	0	-0.003	0.744
FIRMSIZE -> CURRENT MARKET VALUE	-0.315***	0	-0.262***	0
INDUSTRY -> CURRENT FINANCIAL HEALTH	-0.119***	0	0.004	0.673
INDUSTRY -> CURRENT MARKET VALUE	0.164***	0	0.059	0.2
LAGGED DIVERSITY -> CURRENT FINANCIAL HEALTH	0.107***	0	0.003	0.715
LAGGED DIVERSITY -> CURRENT MARKET VALUE	-0.027	0.413	0.067	0.126
LAGGED ECONOMIC -> CURRENT FINANCIAL HEALTH	-0.027	0.48	-0.031	0.19
LAGGED ECONOMIC -> CURRENT MARKET VALUE	0.336***	0	0.088	0.352
LAGGED ENVIRONMENT -> CURRENT FINANCIAL HEALTH	-0.024	0.434	0.001	0.958
LAGGED ENVIRONMENT -> CURRENT MARKET VALUE	0.042*	0.1	-0.003	0.927
R-SQUARE				
CURRENT FINANCIAL HEALTH	0.094		0.975	
CURRENT MARKET VALUE	0.306		0.262	

***p<0.01, **p<0.05 *p<0.10

Lagged product performance.

H_{4o(i)}: Firm financial information together with lagged product performance has an impact on firm financial health for high performing firms.

H_{4o(i)}: Firm financial information together with lagged product performance has an impact on firm financial health for low performing firms.

H_{4p(i)}: Firm financial health together with lagged product performance has an impact on firm market value for high performing firms.

H_{4p(ii)}: Firm financial health together with lagged product performance has an impact on firm market value for low performing firms.

When lagged product related activities were only taken as social activity, high performing firms showed that lagged product related activities had a significant negative ($\beta -0.049$, $p < 0.05$) impact on current firm financial health, and insignificant on firm market value. Lagged economic continues to show significant positive ($\beta 0.336$, $p < 0.01$) to current market value, and this is insignificant to firm financial health. While lagged environment performance still shows insignificant results on both firm performance. Leverage has a positive impact on firm health, and firm health has a positive impact on market value. Profitability and liquidity are not significant. The control variables hold the same. R-square for firm financial health is 8.9%, whereas for market value it is 30.6%. The results support $H_{4o(i)}$ but not supporting $H_{4p(i)}$.

The low performing firm results show that lagged product related activities show a positive significant ($\beta 0.056$, $p < 0.10$) impact on firm current market value, while this was insignificant to firm current financial health. Economic and environment show insignificant findings on both firm financial health and firm market value. Firm financial information profitability has a negative significant impact, and liquidity has a negative significant impact, leverage has a positive significant impact with $\beta -0.452$, $p < 0.01$, $\beta -0.039$, $p < 0.05$ and $\beta 0.824$, $p < 0.01$ respectively. Then, firm financial health has a negative significant ($\beta -0.289$, $p < 0.01$) impact on firm market value in turn. The other remaining variables and control variables show the same results like the previous hypothesis. The control variables show the same as before. 97.5% of firm financial health has been explained by the financial information and lagged sustainability. 26% of market values has been explained by firm financial health and lagged sustainability. The hypothesis $H_{4p(ii)}$ is supported by the results but not $H_{4o(i)}$. The table below shows the results of the hypotheses stated.

Table 30: shows the lagged product hypotheses results for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
CURRENT FINANCIAL HEALTH -> CURRENT MARKET VALUE	0.274**	0.025	-0.289***	0
CURRENT LEVERAGE -> CURRENT FINANCIAL HEALTH	0.235***	0	0.824***	0
CURRENT LIQUIDITY -> CURRENT FINANCIAL HEALTH	-0.075	0.514	-0.039*	0.074
CURRENT PROFITABILITY -> CURRENT FINANCIAL HEALTH	0.076	0.292	-0.452***	0
FIRMAGE -> CURRENT FINANCIAL HEALTH	-0.025	0.282	0.004	0.779
FIRMAGE -> CURRENT MARKET VALUE	-0.131***	0	-0.071*	0.09
FIRMSIZE -> CURRENT FINANCIAL HEALTH	-0.133***	0	-0.005	0.607
FIRMSIZE -> CURRENT MARKET VALUE	-0.318***	0	-0.25***	0
INDUSTRY -> CURRENT FINANCIAL HEALTH	-0.111***	0	0.004	0.673
INDUSTRY -> CURRENT MARKET VALUE	0.163***	0	0.055	0.203
LAGGED ECONOMIC -> CURRENT FINANCIAL HEALTH	-0.023	0.553	-0.031	0.194
LAGGED ECONOMIC -> CURRENT MARKET VALUE	0.336***	0	0.086	0.372
LAGGED ENVIRONMENT -> CURRENT FINANCIAL HEALTH	-0.003	0.905	0	0.993
LAGGED ENVIRONMENT -> CURRENT MARKET VALUE	0.034	0.217	-0.014	0.601
LAGGED PRODUCT -> CURRENT FINANCIAL HEALTH	-0.049**	0.024	-0.007	0.561
LAGGED PRODUCT -> CURRENT MARKET VALUE	0.028	0.294	0.056*	0.057
R-SQUARE				
CURRENT FINANCIAL HEALTH	0.089		0.975	
CURRENT MARKET VALUE	0.306		0.26	

***p<0.01, **p<0.05 *p<0.10

Lagged human rights

H_{4q(i)}: Firm financial information together with lagged human rights performance has an impact on current firm financial health for high performing firms.

H_{4q(ii)}: Firm financial information together with lagged human rights performance has an impact on current firm financial health for low performing firms.

H_{4r(i)}: Firm financial health together with lagged human rights performance has an impact on current firm market value for high performing firms.

H_{4r(ii)}: Firm financial health together with lagged human rights performance has an impact on current firm market value low performing firms.

High performing firms show lagged human rights and a lagged environment, which shows an insignificant impact on both current financial health and current market value. Lagged economic shows a significant positive (β 0.336, $p < 0.01$) impact on market value. Financial health shows the positive significant (β 0.273, $p < 0.05$) to market value as before, and this is also the same for leverage (β 0.233, $p < 0.01$) significant positive on financial health. Liquidity as well as profitability showed insignificant results. The control variables show the same results. 8.7% of firm health has been explained, while 30.6% of market value has been explained. The results do not support any of the human rights hypotheses for the high performing firms stated above.

For low performing firms, all the sustainability show insignificant findings on firm performance. Profitability (β -0.452, $p < 0.01$) and liquidity (β -0.039, $p < 0.01$) show a negative impact on financial health, while leverage (β 0.825, $p < 0.01$) show a positive impact on financial health. In turn, financial health shows a negative (β -0.229, $p < 0.01$) impact on firm market value. The control variables of firm size and firm age show a negative impact on market value. 97.5% of firm health has been explained and 25.8% of market value has been also explained. The results do not support both hypotheses. The table below shows both high and low performing firms' results for the hypotheses testing.

Table 31: shows the lagged human rights hypotheses results for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
CURRENT FINANCIAL HEALTH -> CURRENT MARKET VALUE	0.273**	0.025	-0.299***	0
CURRENT LEVERAGE -> CURRENT FINANCIAL HEALTH	0.233***	0	0.825***	0
CURRENT LIQUIDITY -> CURRENT FINANCIAL HEALTH	-0.073	0.553	-0.039**	0.042
CURRENT PROFITABILITY -> CURRENT FINANCIAL HEALTH	0.075	0.292	-0.452***	0
FIRMAGE -> CURRENT FINANCIAL HEALTH	-0.024	0.263	0.004	0.755
FIRMAGE -> CURRENT MARKET VALUE	-0.131***	0	-0.075*	0.082
FIRMSIZE -> CURRENT FINANCIAL HEALTH	-0.118***	0.001	-0.001	0.901
FIRMSIZE -> CURRENT MARKET VALUE	-0.323***	0	-0.267***	0
INDUSTRY -> CURRENT FINANCIAL HEALTH	-0.109***	0	0.004	0.673
INDUSTRY -> CURRENT MARKET VALUE	0.161***	0	0.057	0.235
LAGGED ECONOMIC -> CURRENT FINANCIAL HEALTH	-0.026	0.525	-0.031	0.203
LAGGED ECONOMIC -> CURRENT MARKET VALUE	0.336***	0	0.088	0.35
LAGGED ENVIRONMENT -> CURRENT FINANCIAL HEALTH	-0.009	0.76	0.001	0.905
LAGGED ENVIRONMENT -> CURRENT MARKET VALUE	0.035	0.204	-0.015	0.599
LAGGED HUMANRIGHTS -> CURRENT FINANCIAL HEALTH	-0.011	0.611	0.005	0.503
LAGGED HUMANRIGHTS -> CURRENT MARKET VALUE	0.022	0.234	-0.001	0.951
R-SQUARE				
CURRENT FINANCIAL HEALTH	0.087		0.975	
CURRENT MARKET VALUE	0.306		0.258	

***p<0.01, **p<0.05 *p<0.10

Lagged corporate governance.

H_{4s(i)}: Firm financial information together with lagged corporate governance performance has an impact on current firm financial health for high performing firms.

H_{4s(ii)}: Firm financial information together with lagged corporate governance performance has an impact on current firm financial health for low performing firms.

H_{4t(i)}: Firm financial health together with lagged corporate governance performance has an impact on current firm market value for high performing firms.

H_{4(ii)}: Firm financial health together with lagged corporate governance performance has an impact on current firm market value for low performing firms.

The lagged corporate governance performance shows an insignificant relation on both current firm financial health and current market value for high performing firms. This actually showed a significant negative impact on firm financial health when current governance were taken in the prior hypothesis. Lagged economic only has an impact (β 0.337, $p < 0.01$) on current market value, and lagged environment show insignificant results on both. The leverage showed the same positive significant impact on firm health, and firm health showed a positive impact on market value. The remaining variables show the same findings as before. The table below shows the coefficients and p value for all the pathways. 8.8% of firm financial health has been explained and 30.6% of market value has been explained. Both hypotheses are not supported.

For low performing firms, all the lagged dimensions of sustainability show insignificant results on firm performance. Only profitability and liquidity show a negative significant impact (β -0.453, $p < 0.01$) and (β -0.039, $p < 0.05$), while leverage showed a positive (β 0.824, $p < 0.01$) impact on firm financial health. Firm financial health has a negative impact on market value (β -0.297, $p < 0.01$). Firm size and age have a negative impact on market value. The other variables are the same as they appear in the table below. 97.5% and 25.8% of firm health and market value have been explained, respectively. Both hypotheses are not supported.

Table 32: shows the lagged corporate governance hypotheses results for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
CURRENT FINANCIAL HEALTH -> CURRENT MARKET VALUE	0.274**	0.025	-0.297***	0
CURRENT LEVERAGE -> CURRENT FINANCIAL HEALTH	0.23***	0	0.824***	0
CURRENT LIQUIDITY -> CURRENT FINANCIAL HEALTH	-0.073	0.529	-0.039**	0.041
CURRENT PROFITABILITY -> CURRENT FINANCIAL HEALTH	0.075	0.294	-0.453***	0
FIRMAGE -> CURRENT FINANCIAL HEALTH	-0.02	0.316	0.007	0.627
FIRMAGE -> CURRENT MARKET VALUE	-0.133***	0	-0.078*	0.083
FIRMSIZE -> CURRENT FINANCIAL HEALTH	-0.118***	0	-0.007	0.563
FIRMSIZE -> CURRENT MARKET VALUE	-0.326***	0	-0.26***	0
INDUSTRY -> CURRENT FINANCIAL HEALTH	-0.115***	0	0.004	0.708
INDUSTRY -> CURRENT MARKET VALUE	0.165***	0	0.057	0.213
LAGGED ECONOMIC -> CURRENT FINANCIAL HEALTH	-0.027	0.497	-0.031	0.167
LAGGED ECONOMIC -> CURRENT MARKET VALUE	0.337***	0	0.088	0.332
LAGGED ENVIRONMENT -> CURRENT FINANCIAL HEALTH	0	0.991	-0.001	0.931
LAGGED ENVIRONMENT -> CURRENT MARKET VALUE	0.033	0.217	-0.013	0.649
LAGGED GOVERNANCE -> CURRENT FINANCIAL HEALTH	-0.036	0.211	-0.013	0.263
LAGGED GOVERNANCE -> CURRENT MARKET VALUE	0.017	0.528	0.023	0.557
R SQUARE				
CURRENT FINANCIAL HEALTH	0.088		0.975	
CURRENT MARKET VALUE	0.306		0.258	

***p<0.01, **p<0.05 *p<0.10

5.7 LAGGED FIRM PERFORMANCE ON CURRENT SUSTAINABILITY PERFORMANCE

After looking at the impact of lagged sustainability performance, now the thesis will examine the impact of lagged firm performance on current sustainability performance. As mentioned in earlier chapters, since previous authors argue that the prior firm performance might influence firms to engage in sustainability activities, the following hypotheses investigate if there is an impact of firm prior financial performance on sustainability activities.

Lagged firm performance on current sustainability.

H_{5a(i)}: Firm lagged financial health has an impact on current sustainability performance for high performing firms.

H_{5a(ii)}: Firm lagged financial health has an impact on current sustainability performance for low performing firms.

H_{5b(i)}: Firm lagged market value has an impact on current sustainability performance for high performing firms.

H_{5b(ii)}: Firm lagged market value has an impact on current sustainability performance for low performing firms.

To start with high performing firms, the results show that lagged firm market value has a positive (β 0.372, $p < 0.01$) impact on current firm economic performance. The lagged financial health has a negative significant (β -0.043, $p < 0.01$) impact on firm current environment performance. While social performance is not influenced by any prior year, financial health, or market value, as the results are insignificant. Leverage shows a positive significant (β 0.232, $p < 0.01$) impact on firm financial health. Profitability and liquidity show an insignificant impact on firm financial health. Firm financial health has a positive (β 0.197, $p < 0.01$) impact on firm market value. All the control variables show a negative significant impact on both firm financial health and market value, except industry, which shows a positive impact on market value. The table below shows the path coefficients, p-value and r-square. Both hypotheses H_{5a(i)} and H_{5b(i)} are partially supported.

Low performing firms show that lagged financial health has a negative significant impact on both current environment performance and current economic performance with (β -0.186 at $p < 0.01$ and β -0.205 at $p < 0.10$ respectively, but insignificant on social performance. Lagged market value shows that there is a positive significant (β 0.068 at $p < 0.10$) impact on firm current environment performance, and insignificant on current social and economic performance. Profitability (β -0.479 at $p < 0.01$) and liquidity (β -

0.053 at $p < 0.05$) show a negative significant impact on firm financial health, while leverage shows a positive significant (β 0.818 at $p < 0.01$) on firm financial health. The firm financial health show a negative significant (β -0.318 at $p < 0.01$) impact on market value. The control variables, firm age and firm size, show a negative significant impact on market value. Both two hypotheses are partially supported $H_{5a(ii)}$ and $H_{5b(ii)}$.

Table 33: shows the lagged firm performance hypotheses results on current sustainability performance for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
FIRMAGE -> LAGGED FINANCIAL HEALTH	-0.038**	0.095	-0.003	0.826
FIRMAGE -> LAGGED MARKET VALUE	-0.15***	0	-0.107**	0.014
FIRMSIZE -> LAGGED FINANCIAL HEALTH	-0.112***	0	-0.012	0.195
FIRMSIZE -> LAGGED MARKET VALUE	-0.249***	0	-0.257***	0
INDUSTRY -> LAGGED FINANCIAL HEALTH	-0.115***	0	0.009	0.368
INDUSTRY -> LAGGED MARKET VALUE	0.125***	0.007	0.018	0.703
LAGGED FINANCIAL HEALTH -> CURRENT ECONOMIC	-0.085	0.343	-0.205*	0.071
LAGGED FINANCIAL HEALTH -> CURRENT ENVIRONMENT	-0.043*	0.099	-0.186***	0
LAGGED FINANCIAL HEALTH -> CURRENT SOCIAL	-0.006	0.822	-0.061	0.113
LAGGED FINANCIAL HEALTH -> LAGGED MARKET VALUE	0.197*	0.059	-0.318***	0
LAGGED LEVERAGE -> LAGGED FINANCIAL HEALTH	0.232***	0	0.818***	0
LAGGED LIQUIDITY -> LAGGED FINANCIAL HEALTH	-0.066	0.48	-0.053**	0.044
LAGGED MARKET VALUE -> CURRENT ECONOMIC	0.372***	0	0.015	0.906
LAGGED MARKET VALUE -> CURRENT ENVIRONMENT	-0.008	0.787	0.068*	0.073
LAGGED MARKET VALUE -> CURRENT SOCIAL	-0.01	0.762	0.059	0.167
LAGGED PROFITABILITY -> LAGGED FINANCIAL HEALTH	0.102	0.34	-0.479***	0
R-SQUARE				
CURRENT ECONOMIC	0.131		0.039	
CURRENT ENVIRONMENT	0		0.045	
CURRENT SOCIAL	-0.002		0.005	
LAGGED FINANCIAL HEALTH	0.093		0.974	
LAGGED MARKET VALUE	0.16		0.263	

*** $p < 0.01$, ** $p < 0.05$ * $p < 0.10$

Lagged firm performance on current environment performance.

H_{5c(i)}: Firm lagged financial health has impact on firm current environment performance for high performing firms.

H_{5c(ii)}: Firm lagged financial health has impact on firm current environment performance for low performing firms.

H_{5d(i)}: Firm lagged market value has impact on firm current environment performance for high performing firms

H_{5d(ii)}: Firm lagged market value has impact on firm current environment performance for low performing firms.

When only the environment was considered as the only perception, the results for the impact of both lagged firm performance (i.e., financial health and market value) to current environment are the same as when all the three sustainability pillars were included together as above. That is, only lagged financial health has a negative (β -0.043 at $p < 0.10$) impact on current environment performance, while lagged market value was seen to be insignificant. Firm leverage is shown to have a significant positive (β 0.232 at $p < 0.01$) impact on firm health. Firm financial health has a positive (β 0.197 at $p < 0.10$) impact on market value. The following table shows the path coefficients and p-values. The only change is the control variable of firm age, which becomes insignificant to firm financial health. Hypothesis $H_{5c(i)}$ has only been supported by the results.

Low performing firms show that lagged market value has a positive significant (β 0.068 at $p < 0.10$) impact on current environment performance and lagged financial health has a negative significant (β -0.186 at $p < 0.01$) impact on current environment performance. Financial health has a negative significant (β -0.318 at $p < 0.01$) impact on firm market value. Leverage shows a positive impact on firm financial health, whereas liquidity and profitability show a negative significant impact. The coefficients and p-values are the same

as before, as shown in the table below. Both hypotheses have been supported by the results $H_{5d(ii)}$ and $H_{5c(ii)}$.

Table 34: shows the hypotheses results for lagged firm performance on current environment performance for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
FIRMAGE -> LAGGED FINANCIAL HEALTH	-0.038	0.105	-0.003	0.844
FIRMAGE -> LAGGED MARKET VALUE	-0.15***	0	-0.107***	0.012
FIRMSIZE -> LAGGED FINANCIAL HEALTH	-0.112***	0	-0.012	0.235
FIRMSIZE -> LAGGED MARKET VALUE	-0.249***	0	-0.257***	0
INDUSTRY -> LAGGED FINANCIAL HEALTH	-0.115***	0	0.009	0.4
INDUSTRY -> LAGGED MARKET VALUE	0.125***	0.006	0.018	0.696
LAGGED FINANCIAL HEALTH -> CURRENT ENVIRONMENT	-0.043*	0.075	-0.186***	0
LAGGED FINANCIAL HEALTH -> LAGGED MARKET VALUE	0.197*	0.072	-0.318***	0
LAGGED LEVERAGE -> LAGGED FINANCIAL HEALTH	0.232***	0	0.818***	0
LAGGED LIQUIDITY -> LAGGED FINANCIAL HEALTH	-0.066	0.422	-0.053*	0.062
LAGGED MARKET VALUE -> CURRENT ENVIRONMENT	-0.008	0.783	0.068*	0.088
LAGGED PROFITABILITY -> LAGGED FINANCIAL HEALTH	0.102	0.327	-0.479***	0
R-SQUARE				
CURRENT ENVIRONMENT	0		0.045	
LAGGED FINANCIAL HEALTH	0.093		0.974	
LAGGED MARKET VALUE	0.16		0.263	

*** $p < 0.01$, ** $p < 0.05$ * $p < 0.10$

Lagged firm performance on current social performance.

$H_{5e(i)}$: Firm lagged financial health has an impact on firm current social performance for high performing firms.

$H_{5e(ii)}$: Firm lagged financial health has an impact on firm current social performance for low performing firms.

$H_{5f(i)}$: Firm lagged market value has an impact on firm current social performance for high performing firms.

H_{5f(ii)}: Firm lagged market value has an impact on current social for low performing firms.

High performing firms show that lagged firm financial health, as well as lagged market value, have a insignificant impact on current social performance. As before, lagged leverage has a positive (β 0.232 at $p < 0.01$) impact on firm health, and firm health has a positive (β 0.197 at $p < 0.05$) impact on the market value. Profitability and liquidity show insignificant results. The change is also like that of environment, in that firm age becomes insignificant on firm financial health. All other pathways show the same path coefficients and p value as described previously, and shown below in the table. The results show that both hypotheses $H_{5e(i)}$ and $H_{5f(i)}$ are not supported.

Even for low performing firms, the lagged firm performances which are firm financial health and market value show insignificant results on current social performance. Firm financial information leverage shows a positive impact, liquidity shows negative impact, and profitability shows a negative impact with β 0.818 at $p < 0.01$, β -0.053 at $p < 0.1$ and β - 0.479 at $p < 0.01$) respectively on firm financial health. The firm financial health continues to have a negative β -0.318 at $p < 0.01$ impact on market value. The control variables show the same as before. The following table from PLS output shows the pathways coefficient, p-values, as well as r-square values for high and low performing firms. The results do not support any hypotheses for low performing firms.

Table 35: shows the hypotheses results for lagged firm performance on current social performance for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
FIRMAGE -> LAGGED FINANCIAL HEALTH	-0.038	0.116	-0.003	0.826
FIRMAGE -> LAGGED MARKET VALUE	-0.15***	0	-0.107**	0.014
FIRMSIZE -> LAGGED FINANCIAL HEALTH	-0.112***	0	-0.012	0.229
FIRMSIZE -> LAGGED MARKET VALUE	-0.249***	0	-0.257***	0
INDUSTRY -> LAGGED FINANCIAL HEALTH	-0.115***	0	0.009	0.419
INDUSTRY -> LAGGED MARKET VALUE	0.125***	0.005	0.018	0.694
LAGGED FINANCIAL HEALTH -> CURRENT SOCIAL	-0.006	0.818	-0.061	0.129
LAGGED FINANCIAL HEALTH -> LAGGED MARKET VALUE	0.197**	0.046	-0.318***	0
LAGGED LEVERAGE -> LAGGED FINANCIAL HEALTH	0.232***	0	0.818***	0
LAGGED LIQUIDITY -> LAGGED FINANCIAL HEALTH	-0.066	0.421	-0.053*	0.064
LAGGED MARKET VALUE -> CURRENT SOCIAL	-0.01	0.778	0.059	0.173
LAGGED PROFITABILITY -> LAGGED FINANCIAL HEALTH	0.102	0.336	-0.479***	0
CURRENT SOCIAL	-0.002		0.005	
LAGGED FINANCIAL HEALTH	0.093		0.974	
LAGGED MARKET VALUE	0.16		0.263	

***p<0.01, **p<0.05 *p<0.10

Lagged firm performance on current economic performance.

H_{5g(i)}: Firm lagged financial health has an impact on firm current economic performance for high performing firms.

H_{5g(ii)}: Firm lagged financial health has an impact on firm current economic performance for low performing firms.

H_{5h(i)}: Firm lagged market value has an impact on firm current economic performance for high performing firms.

H_{5h(ii)}: Firm lagged market value has an impact on firm current economic performance for low performing firms.

When the economic pillar is considered separately for high performing firms, the lagged firm financial health has an insignificant impact on current economic performance, while lagged market value has a positive significant (β

0.372 at $p < 0.01$) impact on current economic performance. The same as in the previous hypotheses, only leverage has a significant positive (β 0.232 at $p < 0.01$) impact. Also, firm financial health has a significant (β 0.197 at $p < 0.10$) impact on market value. Also, other variables show the same results, as well as the control variables, as the following table shows. Only $H_{5h(i)}$ is supported not $H_{5g(ii)}$.

For low performing firms, the results are the same as when the sustainability pillars were considered all at the same time, only lagged financial health has a negative impact on current economic performance (β -0.205 at $p < 0.10$). Also, the results are the same for the control variables. The pathways coefficients values as well as the p-values are tabulated below. Also, the r-square is shown in the table. Only hypothesis $H_{5g(ii)}$ is supported by the results but not $H_{5h(ii)}$.

Table 36: Shows the hypotheses results for lagged firm performance on current economic performance for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
FIRMAGE -> LAGGED FINANCIAL HEALTH	-0.038*	0.10	-0.003	0.829
FIRMAGE -> LAGGED MARKET VALUE	-0.15***	0	-0.107**	0.013
FIRMSIZE -> LAGGED FINANCIAL HEALTH	-0.112***	0	-0.012	0.225
FIRMSIZE -> LAGGED MARKET VALUE	-0.249***	0	-0.257***	0
INDUSTRY -> LAGGED FINANCIAL HEALTH	-0.115***	0	0.009	0.36
INDUSTRY -> LAGGED MARKET VALUE	0.125***	0.005	0.018	0.695
LAGGED FINANCIAL HEALTH -> CURRENT ECONOMIC	-0.085	0.33	-0.205*	0.094
LAGGED FINANCIAL HEALTH -> LAGGED MARKET VALUE	0.197*	0.052	-0.318***	0
LAGGED LEVERAGE -> LAGGED FINANCIAL HEALTH	0.232***	0	0.818***	0
LAGGED LIQUIDITY -> LAGGED FINANCIAL HEALTH	-0.066	0.425	-0.053**	0.047
LAGGED MARKET VALUE -> CURRENT ECONOMIC	0.372***	0	0.015	0.909
LAGGED PROFITABILITY -> LAGGED FINANCIAL HEALTH	0.102	0.342	-0.479***	0
R-SQUARE				
CURRENT ECONOMIC	0.131		0.039	
LAGGED FINANCIAL HEALTH	0.093		0.974	
LAGGED MARKET VALUE	0.16		0.263	

*** $p < 0.01$, ** $p < 0.05$ * $p < 0.10$

Lagged firm performance on current corporate governance.

H_{5i(i)}: Firm lagged financial health has an impact on current corporate governance performance for high performing firms.

H_{5i(ii)}: Firm lagged financial health has an impact on firm current corporate governance performance for low performing firms.

H_{5j(i)}: Firm lagged market value has an impact on firm current corporate governance performance for high performing firms.

H_{5j(ii)}: Firm lagged market value has an impact on firm current corporate governance performance for low performing firms.

When corporate governance is considered as a social activity, high performing firms show that lagged financial health has a negative significant (β -0.043 at $p < 0.10$) impact on current corporate governance performance, while lagged market value shows insignificant impact. All the remaining pathways show the same results as before, this is the same for the control variables. All the pathways beta coefficients, significant and r-square values are shown in the table below. The results support H_{5i(i)} and do not support H_{5j(i)}.

For low performing firms, the lagged firm financial health has a negative significant (β -0.128 at $p < 0.05$) impact on current corporate governance performance, while lagged market value shows insignificant results. All the other variables continue to show the same results, as the table below shows for both high and low performing firms. H_{5i(ii)} is supported not H_{5j(ii)}.

Table 37: Shows the hypotheses results for lagged firm performance on current corporate governance performance for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
FIRMAGE -> LAGGED FINANCIAL HEALTH	-0.038	0.114	-0.003	0.825
FIRMAGE -> LAGGED MARKET VALUE	-0.15***	0	-0.107**	0.014
FIRMSIZE -> LAGGED FINANCIAL HEALTH	-0.112***	0	-0.012	0.203
FIRMSIZE -> LAGGED MARKET VALUE	-0.249***	0	-0.257***	0
INDUSTRY -> LAGGED FINANCIAL HEALTH	-0.115***	0	0.009	0.407
INDUSTRY -> LAGGED MARKET VALUE	0.125***	0.006	0.018	0.694
LAGGED FINANCIAL HEALTH -> CURRENT ECONOMIC	-0.085	0.374	-0.205	0.113
LAGGED FINANCIAL HEALTH -> CURRENT ENVIRONMENT	-0.043*	0.081	-0.186***	0
LAGGED FINANCIAL HEALTH -> CURRENT GOVERNANCE	-0.043*	0.088	-0.128**	0.015
LAGGED FINANCIAL HEALTH -> LAGGED MARKET VALUE	0.197*	0.068	-0.318***	0
LAGGED LEVERAGE -> LAGGED FINANCIAL HEALTH	0.232***	0	0.818***	0
LAGGED LIQUIDITY -> LAGGED FINANCIAL HEALTH	-0.066	0.444	-0.053**	0.048
LAGGED MARKET VALUE -> CURRENT ECONOMIC	0.372***	0	0.015	0.912
LAGGED MARKET VALUE -> CURRENT ENVIRONMENT	-0.008	0.792	0.068*	0.085
LAGGED MARKET VALUE -> CURRENT GOVERNANCE	0.013	0.626	-0.013	0.811
LAGGED PROFITABILITY -> LAGGED FINANCIAL HEALTH	0.102	0.34	-0.479***	0
R-SQUARE				
CURRENT ECONOMIC	0.131		0.039	
CURRENT ENVIRONMENT	0.01		0.045	
CURRENT GOVERNANCE	0		0.01	
LAGGED FINANCIAL HEALTH	0.093		0.974	
LAGGED MARKET VALUE	0.16		0.263	

***p<0.01, **p<0.05 *p<0.10

Lagged firm performance on current community relation.

H_{5k(i)}: Firm lagged financial health has an impact on firm current community performance for high performing firms.

H_{5k(ii)}: Firm lagged financial health has an impact on firm current community performance for low performing firms.

H_{5l(i)}: Firm lagged market value has an impact on firm current community performance for high performing firms.

H_{5l(ii)}: Firm lagged market value has an impact on firm current community performance for low performing firms.

When community relation is taken as the only social activity, high performing firms show that lagged firm financial health has a negative significant (β -0.052 at $p < 0.05$) impact on firm current community related activity, while lagged market value shows an insignificant impact. All other variables show the same results, as well as the control variables. The results support $H_{5k(i)}$ only, but do not support $H_{5l(i)}$.

Low performing firms also show that lagged financial health (β -0.096 at $p < 0.01$) has a negative impact on current community relation performance, while lagged market value shows an insignificant impact. All other variables show the same results. The following table shows the pathways weights, p-value, and r-square value results for both high performing and low performing firms. Therefore, only hypothesis $H_{5k(ii)}$ is supported.

Table 38: shows the hypotheses results for lagged firm performance on current community relation for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
FIRMAGE -> LAGGED FINANCIAL HEALTH	-0.038*	0.09	-0.003	0.811
FIRMAGE -> LAGGED MARKET VALUE	-0.15***	0	-0.107**	0.014
FIRMSIZE -> LAGGED FINANCIAL HEALTH	-0.112***	0	-0.012	0.189
FIRMSIZE -> LAGGED MARKET VALUE	-0.249***	0	-0.257***	0
INDUSTRY -> LAGGED FINANCIAL HEALTH	-0.115***	0	0.009	0.44
INDUSTRY -> LAGGED MARKET VALUE	0.125***	0.004	0.018	0.698
LAGGED FINANCIAL HEALTH -> CURRENT COMMUNITY	-0.052**	0.016	-0.096***	0.002
LAGGED FINANCIAL HEALTH -> CURRENT ECONOMIC	-0.085	0.329	-0.205*	0.1
LAGGED FINANCIAL HEALTH -> CURRENT ENVIRONMENT	-0.043*	0.086	-0.186***	0
LAGGED FINANCIAL HEALTH -> LAGGED MARKET VALUE	0.197*	0.052	-0.318***	0
LAGGED LEVERAGE -> LAGGED FINANCIAL HEALTH	0.232***	0	0.818***	0
LAGGED LIQUIDITY -> LAGGED FINANCIAL HEALTH	-0.066	0.428	-0.053**	0.05
LAGGED MARKET VALUE -> CURRENT COMMUNITY	-0.023	0.431	-0.027	0.648
LAGGED MARKET VALUE -> CURRENT ECONOMIC	0.372***	0	0.015	0.908
LAGGED MARKET VALUE -> CURRENT ENVIRONMENT	-0.008	0.774	0.068*	0.085
LAGGED PROFITABILITY -> LAGGED FINANCIAL HEALTH	0.102	0.34	-0.479***	0
R-SQUARE				
CURRENT COMMUNITY	0.002		0.002	
CURRENT ECONOMIC	0.131		0.039	
CURRENT ENVIRONMENT	0		0.045	
LAGGED FINANCIAL HEALTH	0.093		0.974	
LAGGED MARKET VALUE	0.16		0.263	

***p<0.01, **p<0.05 *p<0.10

Lagged firm performance on current employee relation.

H_{5m(i)}: Firm lagged financial health has an impact on firm current employee relation performance for high performing firms.

H_{5m(ii)}: Firm lagged financial health has an impact on firm current employee relation performance for low performing firms.

H_{5n(i)}: Firm lagged market value has an impact on current employee relation performance for high performing firms.

H_{5n(ii)}: Firm lagged market value has an impact on current employee relation performance for low performing firms.

High performing firms show that lagged firm financial health has a negative significant (β -0.073 at $p < 0.05$) impact on firm current employee relation, and lagged market value shows a positive significant (β 0.142 at $p < 0.01$) impact on current employee relation performance. The other sustainability dimensions, as well as the financial information, continue to have the same results. Also, all other pathways and control variables have the same impacts as earlier, as the table below shows. Both two hypotheses H_{5m(i)} and H_{5n(i)} are supported by the results.

Low performing firms show that only lagged financial health has a significant negative (β -0.097 at $p < 0.10$) impact on current employee relation performance, while lagged market value shows insignificant findings. In the same way as before, the other variables show the same results. The following table shows the pathways coefficients, p-values, and r-square for both groups of firms. The results supports H_{5m(ii)} only.

Table 39: Shows the hypotheses results for lagged firm performance on current employee relation for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient t	P Values	Coefficient t	P Values
FIRMAGE -> LAGGED FINANCIAL HEALTH	-0.038	0.102	-0.003	0.832
FIRMAGE -> LAGGED MARKET VALUE	-0.15***	0	-0.107***	0.008
FIRMSIZE -> LAGGED FINANCIAL HEALTH	-0.112***	0	-0.012	0.23
FIRMSIZE -> LAGGED MARKET VALUE	-0.249***	0	-0.257***	0
INDUSTRY -> LAGGED FINANCIAL HEALTH	-0.115***	0	0.009	0.405
INDUSTRY -> LAGGED MARKET VALUE	0.125***	0.004	0.018	0.684
LAGGED FINANCIAL HEALTH -> CURRENT ECONOMIC	-0.085	0.337	-0.205*	0.082
LAGGED FINANCIAL HEALTH -> CURRENT EMPLOYEE RELATION	-0.073**	0.045	-0.097*	0.059
LAGGED FINANCIAL HEALTH -> CURRENT ENVIRONMENT	-0.043*	0.076	-0.186***	0
LAGGED FINANCIAL HEALTH -> LAGGED MARKET VALUE	0.197*	0.054	-0.318***	0
LAGGED LEVERAGE -> LAGGED FINANCIAL HEALTH	0.232***	0	0.818***	0
LAGGED LIQUIDITY -> LAGGED FINANCIAL HEALTH	-0.066	0.399	-0.053*	0.051
LAGGED MARKET VALUE -> CURRENT ECONOMIC	0.372***	0	0.015	0.906
LAGGED MARKET VALUE -> CURRENT EMPLOYEE RELATION	0.142***	0	-0.004	0.932
LAGGED MARKET VALUE -> CURRENT ENVIRONMENT	-0.008	0.79	0.068*	0.079
LAGGED PROFITABILITY -> LAGGED FINANCIAL HEALTH	0.102	0.339	-0.479***	0
R-SQUARE				
CURRENT ECONOMIC	0.131		0.039	
CURRENT EMPLOYEE RELATION	0.02		0.004	
CURRENT ENVIRONMENT	0		0.045	
LAGGED FINANCIAL HEALTH	0.093		0.974	
LAGGED MARKET VALUE	0.16		0.263	

***p<0.01, **p<0.05 *p<0.10

Lagged firm performance on current product performance.

H_{5p(i)}: Firm lagged financial health has an impact on firm current product performance for high performing firms.

H_{5p(ii)}: Firm lagged financial health has an impact on firm current product performance for low performing firms.

H_{5q(i)}: Firm lagged market value has an impact on firm current product performance for high performing firms.

H_{5q(ii)}: Firm lagged market value has an impact on firm current product performance for low performing firms.

The results for high performing firms show that the lagged market value has a positive significant (β 0.117 at $p < 0.01$) impact on firm current product related activities, while firm lagged financial health shows insignificant findings. Again, all the other variables pathways coefficients remained the same, as shown on the table below. The results support only hypothesis H_{5q(i)}.

Low performing firm results show that lagged financial health has a negative significant (β -0.197 at $p < 0.01$) impact on current firm product related activities performance, while lagged market value shows a positive significant (β 0.149 at $p < 0.01$) impact on current product performance. The other variables' impacts remained the same. The following table shows the results for the hypotheses testing for both high and low performing firms. It shows the coefficients of the pathways, their p-values, and r-square. The results appear to support both of the two hypotheses for low performing firms. The results support both hypotheses H_{5p(ii)} and H_{5q(ii)}.

Table 40: : shows the hypotheses results for lagged firm performance on current product performance for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
FIRMAGE -> LAGGED FINANCIAL HEALTH	-0.038	0.112	-0.003	0.82
FIRMAGE -> LAGGED MARKET VALUE	-0.15***	0	-0.107**	0.013
FIRMSIZE -> LAGGED FINANCIAL HEALTH	-0.112***	0	-0.012	0.176
FIRMSIZE -> LAGGED MARKET VALUE	-0.249***	0	-0.257***	0
INDUSTRY -> LAGGED FINANCIAL HEALTH	-0.115***	0	0.009	0.396
INDUSTRY -> LAGGED MARKET VALUE	0.125***	0.004	0.018	0.696
LAGGED FINANCIAL HEALTH -> CURRENT ECONOMIC	-0.085	0.343	-0.205	0.111
LAGGED FINANCIAL HEALTH -> CURRENT ENVIRONMENT	-0.043*	0.088	-0.186***	0
LAGGED FINANCIAL HEALTH -> CURRENT PRODUCT	0.003	0.901	-0.197***	0
LAGGED FINANCIAL HEALTH -> LAGGED MARKET VALUE	0.197*	0.053	-0.318***	0
LAGGED LEVERAGE -> LAGGED FINANCIAL HEALTH	0.232***	0	0.818***	0
LAGGED LIQUIDITY -> LAGGED FINANCIAL HEALTH	-0.066	0.425	-0.053**	0.049
LAGGED MARKET VALUE -> CURRENT ECONOMIC	0.372***	0	0.015	0.912
LAGGED MARKET VALUE -> CURRENT ENVIRONMENT	-0.008	0.789	0.068*	0.083
LAGGED MARKET VALUE -> CURRENT PRODUCT	0.117***	0	0.149***	0
LAGGED PROFITABILITY -> LAGGED FINANCIAL HEALTH	0.102	0.332	-0.479***	0
R-SQUARE				
CURRENT ECONOMIC	0.131		0.039	
CURRENT ENVIRONMENT	0		0.045	
CURRENT PRODUCT	0.012		0.081	
LAGGED FINANCIAL HEALTH	0.093		0.974	
LAGGED MARKET VALUE	0.16		0.263	

***p<0.01, **p<0.05 *p<0.10

Lagged firm performance on current diversity.

H_{5r(i)}: Firm lagged financial health has an impact on firm current diversity performance for high performing firms.

H_{5r(ii)}: Firm financial health has an impact on firm current diversity performance for low performing firms.

H_{5s(i)}: Firm lagged market value has an impact on firm current diversity performance for high performing firms.

H_{5s(ii)}: Firm lagged market value has an impact on firm current diversity performance for both high and low performing firms.

High performing firms results show that the lagged financial health has a positive impact on current firm diversity with (β 0.081 at $p < 0.01$), while lagged market value has a negative significant (β - 0.201 at $p < 0.01$) impact on current firm diversity. The other remaining pathways continue to show the same results (table below). The results support both hypotheses, as there is an impact on firm lagged performance on current diversity performance. *H_{5r(i)}* and *H_{5s(i)}* accepted.

Low performing firms also show that lagged firm financial health has a positive (β 0.145 at $p < 0.01$) impact on current firm diversity performance, while this is seen to be insignificant with lagged market value. The other pathways show the same results. The results appear to support *H_{5r(ii)}* only. The table below shows the hypotheses results from SmartPLS for both groups of firms.

Table 41 : shows the hypotheses results for lagged firm performance on current diversity performance for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
FIRMAGE -> LAGGED FINANCIAL HEALTH	-0.038	0.114	-0.003	0.827
FIRMAGE -> LAGGED MARKET VALUE	-0.15***	0	-0.107**	0.011
FIRMSIZE -> LAGGED FINANCIAL HEALTH	-0.112***	0	-0.012	0.231
FIRMSIZE -> LAGGED MARKET VALUE	-0.249***	0	-0.257***	0
INDUSTRY -> LAGGED FINANCIAL HEALTH	-0.115***	0	0.009	0.399
INDUSTRY -> LAGGED MARKET VALUE	0.125***	0.005	0.018	0.697
LAGGED FINANCIAL HEALTH -> CURRENT DIVERSITY	0.081***	0.002	0.145***	0.008
LAGGED FINANCIAL HEALTH -> CURRENT ECONOMIC	-0.085	0.338	-0.205*	0.093
LAGGED FINANCIAL HEALTH -> CURRENT ENVIRONMENT	-0.043*	0.088	-0.186***	0
LAGGED FINANCIAL HEALTH -> LAGGED MARKET VALUE	0.197*	0.056	-0.318***	0
LAGGED LEVERAGE -> LAGGED FINANCIAL HEALTH	0.232***	0	0.818***	0
LAGGED LIQUIDITY -> LAGGED FINANCIAL HEALTH	-0.066	0.437	-0.053**	0.044
LAGGED MARKET VALUE -> CURRENT DIVERSITY	-0.201***	0	-0.014	0.766
LAGGED MARKET VALUE -> CURRENT ECONOMIC	0.372***	0	0.015	0.908
LAGGED MARKET VALUE -> CURRENT ENVIRONMENT	-0.008	0.779	0.068*	0.091
LAGGED PROFITABILITY -> LAGGED FINANCIAL HEALTH	0.102	0.332	-0.479***	0
R-SQUARE				
CURRENT DIVERSITY	0.039		0.018	
CURRENT ECONOMIC	0.131		0.039	
CURRENT ENVIRONMENT	0		0.045	
LAGGED FINANCIAL HEALTH	0.093		0.974	
LAGGED MARKET VALUE	0.16		0.263	

***p<0.01, **p<0.05 *p<0.10

Lagged firm performance on current human rights.

H_{5t(i)}: Firm lagged financial health has an impact on firm current human rights performance for high performing firms.

H_{5t(ii)}: Firm lagged financial health has an impact on firm current human rights performance for low performing firms.

H_{5u(i)}: Firm lagged market value has an impact firm on firm current human rights performance for high performing firms.

H_{5u(ii)}: Firm lagged market value has an impact on firm current human rights performance low performing firms.

The lagged firm market value for high performing firms is shown to have a significant positive (β 0.112 at $p < 0.01$) impact on current human rights performance, while lagged financial health has insignificant results. The other remaining pathways show the same, as they appear in the table below. The results support *H_{5u(i)}* and do not support *H_{5t(i)}*.

For low performing firms, both lagged financial health and lagged market value show an insignificant impact on firm current human rights performance, while the other variables show the same results as before. Therefore, both of the two hypotheses for low performing firms are not supported by the results. The table that follows shows the hypotheses results on human rights for both high and low performing firms.

Table 42: Shows the hypotheses results for lagged firm performance on current human rights performance for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
FIRMAGE -> LAGGED FINANCIAL HEALTH	-0.038	0.105	-0.003	0.816
FIRMAGE -> LAGGED MARKET VALUE	-0.15***	0	-0.107***	0.007
FIRMSIZE -> LAGGED FINANCIAL HEALTH	-0.112***	0	-0.012	0.22
FIRMSIZE -> LAGGED MARKET VALUE	-0.249***	0	-0.257***	0
INDUSTRY -> LAGGED FINANCIAL HEALTH	-0.115***	0	0.009	0.403
INDUSTRY -> LAGGED MARKET VALUE	0.125***	0.006	0.018	0.683
LAGGED FINANCIAL HEALTH -> CURRENT ECONOMIC	-0.085	0.354	-0.205*	0.088
LAGGED FINANCIAL HEALTH -> CURRENT ENVIRONMENT	-0.043*	0.074	-0.186***	0
LAGGED FINANCIAL HEALTH -> CURRENT HUMANRIGHTS	-0.027	0.19	0.007	0.812
LAGGED FINANCIAL HEALTH -> LAGGED MARKET VALUE	0.197*	0.056	-0.318***	0
LAGGED LEVERAGE -> LAGGED FINANCIAL HEALTH	0.232***	0	0.818***	0
LAGGED LIQUIDITY -> LAGGED FINANCIAL HEALTH	-0.066	0.403	-0.053**	0.036
LAGGED MARKET VALUE -> CURRENT ECONOMIC	0.372***	0	0.015	0.913
LAGGED MARKET VALUE -> CURRENT ENVIRONMENT	-0.008	0.781	0.068*	0.086
LAGGED MARKET VALUE -> CURRENT HUMANRIGHTS	0.112***	0	0.056	0.136
LAGGED PROFITABILITY -> LAGGED FINANCIAL HEALTH	0.102	0.332	-0.479***	0
R-SQUARE				
CURRENT ECONOMIC	0.131		0.039	
CURRENT ENVIRONMENT	0		0.045	
CURRENT HUMANRIGHTS	0.01		0.003	
LAGGED FINANCIAL HEALTH	0.093		0.974	
LAGGED MARKET VALUE	0.16		0.263	

***p<0.01, **p<0.05 *p<0.10

5.8 ADDITIONAL ANALYSES RESULTS.

5.8 a) Analysis 1: Current firm performance on current sustainability performance

After looking at the impact of sustainability, both current/lagged on firm performance (financial health and market value) as Lys et al. (2015) argue that most of the supporters of sustainability believe it has a direct impact on firm performance. Also, after looking at the impact of lagged firm performance on current sustainability, as argued by Hong et al. (2012) Ullmann (1985) and others, in that it depends on a firm's prior period performance and a firm's slack resources. In addition, this thesis examines the current firm performance on the current sustainability performance to see if the same period of firm performance has an impact on the same period of sustainability performance. As found in the meta-analysis by Margolis et al. (2007), there are studies that examine the impact concurrently, that is, the same year of a firm's financial performance on sustainability performance. Thus, the previous hypotheses will be repeated by using the current firm performance on current sustainability performance.

Current firm performance on current sustainability performance results

When all of the three pillars of sustainability are taken as perceptions for high performing firms, firm financial health was seen to have a significant negative (β -0.185, $p < 0.05$) impact on current economic pillar performance, while insignificant to environment and social pillars. Also, market performance showed a significant but positive (β 0.339, $p < 0.01$) impact on current economic performance, and insignificant to current environment and social performance. Firm financial health has a positive significant impact on firm market value (β 0.195, $p < 0.05$). Only leverage showed a significant positive (β 0.227, $p < 0.01$) impact on firm health, while liquidity and profitability are insignificant. All of the control variables showed a significant negative impact on firm performance, except firm age which is insignificant on firm financial health, and industry has a positive impact on market value, as shown in the table below. The results for

social are supported by Pearson correlation, as it was shown to have an insignificant correlation with both Tobin's Q and Z-score.

The low performing firms result shows that firm financial health has a significant negative impact on both current environment and economic performance (β -0.184, $p < 0.01$) and (β -0.632, $p < 0.01$) respectively, but not social performance. The firm market value has a significant impact on all the three sustainability pillars, economic negative impact, environment and social positive impact, with β -0.144, at $p < 0.05$, β 0.128, at $p < 0.01$ and β -0.144, at $p < 0.05$ respectively. Firm financial information all show significant impact on firm health with profitability negative impact, liquidity negative while leverage positive with β -0.482, at $p < 0.01$, β -0.038 at $p < 0.10$ and β 0.828 at $p < 0.01$ respectively. Out of the control variables only, firm age and firm size have a significant negative impact on firm market value remained show insignificant results. The table below shows the pathways weights, p values, as well as r-square for high and low performing firms. The results are the same when each pillar is taken separately (see appendix). The results for social are supported by Pearson correlation, and are shown to have an insignificant correlation with Z-scores and positive significant correlation with Tobin's Q. Also, the environment results are supported by Pearson correlation as shown to have a significant negative correlation with Z-scores and significant positive correlated with Tobin's Q.

Table 43: shows the hypotheses results for current firm performance on current sustainability performance for both high and low performing firms

Pathways (regression weights)	HIGH PERFORMING FIRMS	P Values	LOW PERFORMING FIRMS	P Values
	Coefficient		Coefficient	
FINANCIAL HEALTH -> ECONOMIC	-0.185**	0.032	-0.632***	0
FINANCIAL HEALTH -> ENVIRONMENT	-0.036	0.133	-0.184***	0
FINANCIAL HEALTH -> MARKET VALUE	0.195**	0.024	-0.299***	0
FINANCIAL HEALTH -> SOCIAL	-0.008	0.768	-0.022	0.565
FIRIMAGE -> FINANCIAL HEALTH	-0.032	0.133	0	0.976
FIRIMAGE -> MARKET VALUE	-0.12***	0.001	-0.084**	0.02
FIRMSIZE -> FINANCIAL HEALTH	-0.12***	0	-0.007	0.371
FIRMSIZE -> MARKET VALUE	-0.287***	0	-0.291***	0
INDUSTRY -> FINANCIAL HEALTH	-0.113***	0	0.01	0.331
INDUSTRY -> MARKET VALUE	0.142***	0	0.024	0.553
LEVERAGE -> FINANCIAL HEALTH	0.227***	0	0.828***	0
LIQUIDITY -> FINANCIAL HEALTH	-0.058	0.508	-0.038*	0.096
MARKET VALUE -> ECONOMIC	0.339***	0	-0.144**	0.022
MARKET VALUE -> ENVIRONMENT	-0.006	0.81	0.091***	0.002
MARKET VALUE -> SOCIAL	-0.024	0.415	0.128***	0.001
PROFITABILITY -> FINANCIAL HEALTH	0.104	0.236	-0.482***	0
R-SQUARE				
ECONOMIC	0.123		0.341	
ENVIRONMENT	0		0.051	
FINANCIAL HEALTH	0.09		0.977	
MARKET VALUE	0.174		0.272	
SOCIAL	-0.001		0.015	

***p<0.01, **p<0.05 *p<0.10

Current firm performance on current community performance

When community relation is taken as a social activity only, the results for high performing firms show that firm financial health has a significant negative (β -0.046, $p<0.05$) impact on community relation. However, firm market value showed an insignificant impact on community relation. The result with market value is also supported by Pearson correlation, as it showed to have an insignificant correlation with Tobin's Q. All other pathways show the same results as shown in the following table.

Low performing firms show the same as high performing firms, and only firm financial health has a negative significant (β -0.061, $p < 0.05$) impact on community relation, but market value shows insignificant findings. The insignificant finding with market value was also supported by Pearson, as it was shown to have an insignificant correlation with Tobin's Q. All of the other remaining pathways showed the same results as shown below. The table that follows shows the results for high and low performing firms' path coefficients, p-values, as well as r-square.

Table 44: Shows the hypotheses results for current firm performance on current community performance for both high and low performing firms

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
FINANCIAL HEALTH -> COMMUNITY RELATION	-0.046**	0.021	-0.061**	0.025
FINANCIAL HEALTH -> ECONOMIC	-0.185**	0.035	-0.632***	0
FINANCIAL HEALTH -> ENVIRONMENT	-0.036	0.128	-0.184***	0
FINANCIAL HEALTH -> MARKET VALUE	0.195**	0.024	-0.299***	0
FIRIMAGE -> FINANCIAL HEALTH	-0.032	0.136	0	0.975
FIRIMAGE -> MARKET VALUE	-0.12***	0	-0.084**	0.027
FIRMSIZE -> FINANCIAL HEALTH	-0.12***	0	-0.007	0.348
FIRMSIZE -> MARKET VALUE	-0.287***	0	-0.291***	0
INDUSTRY -> FINANCIAL HEALTH	-0.113***	0	0.01	0.327
INDUSTRY -> MARKET VALUE	0.142***	0.001	0.024	0.546
LEVERAGE -> FINANCIAL HEALTH	0.227***	0	0.828***	0
LIQUIDITY -> FINANCIAL HEALTH	-0.058	0.505	-0.038**	0.079
MARKET VALUE -> COMMUNITY RELATION	-0.036	0.207	0.029	0.5
MARKET VALUE -> ECONOMIC	0.339***	0	-0.144**	0.027
MARKET VALUE -> ENVIRONMENT	-0.006	0.806	0.091***	0.003
PROFITABILITY -> FINANCIAL HEALTH	0.104	0.201	-0.482***	0
R-SQUARE				
COMMUNITY RELATION	0.002		0.001	
ECONOMIC	0.123		0.341	
ENVIRONMENT	0		0.051	
FINANCIAL HEALTH	0.09		0.977	
MARKET VALUE	0.174		0.272	

*** $p < 0.01$, ** $p < 0.05$ * $p < 0.10$

Current firm performance on employee relation.

High performing firms show that firm financial health has a significant negative (β -0.071, $p < 0.01$) impact on employee relation performance, while market value showed a positive significant (β 0.132, $p < 0.01$) impact on employee relation performance. The other pathways' results remained the same as before with the values shown in the table that follows. The employee results are also supported by Pearson correlation, as they were shown to have a positive significant correlation with Tobin's Q, and were negative (but insignificant) with Z-score.

Low performing firms show that both firm performances, that is, firm financial health as well as market value, have an insignificant impact on current firm employee relation performance. The same as shown previously, all of the other variables remained the same as before, including control variables. The following table shows the PLS results for both groups of firms. The employee results are also supported by Pearson correlation, as it was shown to have an insignificant correlation with both Z-scores and Tobin's Q.

Table 45: Shows the hypotheses results for current firm performance on current employee relation performance for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
FINANCIAL HEALTH -> ECONOMIC	-0.185**	0.034	-0.632***	0
FINANCIAL HEALTH -> EMPLOYEE RELATION	-0.076***	0.008	-0.056	0.21
FINANCIAL HEALTH -> ENVIRONMENT	-0.036	0.137	-0.184***	0
FINANCIAL HEALTH -> MARKET VALUE	0.195**	0.023	-0.299***	0
FIRMAGE -> FINANCIAL HEALTH	-0.032	0.135	0	0.977
FIRMAGE -> MARKET VALUE	-0.12***	0	-0.084**	0.022
FIRMSIZE -> FINANCIAL HEALTH	-0.12***	0	-0.007	0.355
FIRMSIZE -> MARKET VALUE	-0.287***	0	-0.291***	0
INDUSTRY -> FINANCIAL HEALTH	-0.113***	0	0.01	0.317
INDUSTRY -> MARKET VALUE	0.142***	0	0.024	0.573
LEVERAGE -> FINANCIAL HEALTH	0.227***	0	0.828***	0
LIQUIDITY -> FINANCIAL HEALTH	-0.058	0.53	-0.038*	0.079
MARKET VALUE -> ECONOMIC	0.339***	0	-0.144***	0.029
MARKET VALUE -> EMPLOYEE RELATION	0.132***	0	0.059	0.163
MARKET VALUE -> ENVIRONMENT	-0.006	0.808	0.091***	0.005
PROFITABILITY -> FINANCIAL HEALTH	0.104	0.182	-0.482***	0
R-SQUARE				
ECONOMIC	0.123		0.341	
EMPLOYEE RELATION	0.018		0.005	
ENVIRONMENT	0		0.051	
FINANCIAL HEALTH	0.09		0.977	
MARKET VALUE	0.174		0.272	

***p<0.01, **p<0.05 *p<0.10

Current firm performance on current product.

The impact of firm financial health on product is insignificant, while firm market value shows a positive significant (β 0.116, $p<0.01$) impact on firm product performance for high performing firms. The remaining pathways show the same as previous, with the values shown in the table below. The product results are supported by Pearson correlation, as it was shown to have an insignificant correlation with Z-score and a positive significant correlation with Tobin's Q.

In low performing firms, both firm financial health as well as market value have a significant impact on product performance, with financial health negative, and market value positive. The values are β -0.217, $p < 0.01$ and β 0.152, $p < 0.01$ respectively. The results remained the same for the other pathways. The following table shows the pathways coefficients, p-values, and r-square for both groups. The results are also supported by Pearson correlation coefficients, as it shows a significantly negative correlation with firm financial health and a significantly positive correlation with market value.

Table 46: Shows the hypotheses results for current firm performance on current product performance for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
FINANCIAL HEALTH -> ECONOMIC	-0.185**	0.037	-0.632***	0
FINANCIAL HEALTH -> ENVIRONMENT	-0.036	0.124	-0.184***	0
FINANCIAL HEALTH -> MARKET VALUE	0.195**	0.026	-0.299***	0
FINANCIAL HEALTH -> PRODUCT	-0.006	0.777	-0.217***	0
FIRMSIZE -> FINANCIAL HEALTH	-0.032	0.146	0	0.975
FIRMSIZE -> MARKET VALUE	-0.12***	0.001	-0.084***	0.023
FIRMSIZE -> FINANCIAL HEALTH	-0.12***	0	-0.007	0.311
FIRMSIZE -> MARKET VALUE	-0.287***	0	-0.291***	0
INDUSTRY -> FINANCIAL HEALTH	-0.113***	0	0.01	0.296
INDUSTRY -> MARKET VALUE	0.142***	0	0.024	0.542
LEVERAGE -> FINANCIAL HEALTH	0.227***	0	0.828***	0
LIQUIDITY -> FINANCIAL HEALTH	-0.058	0.528	-0.038*	0.073
MARKET VALUE -> ECONOMIC	0.339***	0	-0.144**	0.024
MARKET VALUE -> ENVIRONMENT	-0.006	0.801	0.091***	0.004
MARKET VALUE -> PRODUCT	0.116***	0	0.152***	0
PROFITABILITY -> FINANCIAL HEALTH	0.104	0.224	-0.482***	0
R-SQUARE				
ECONOMIC	0.123		0.341	
ENVIRONMENT	0		0.051	
FINANCIAL HEALTH	0.09		0.977	
MARKET VALUE	0.174		0.272	
PRODUCT RELATION	0.011		0.094	

*** $p < 0.01$, ** $p < 0.05$ * $p < 0.10$

Current firm performance on diversity.

Firm financial health has a positive significant impact on diversity performance with (β 0.087, $p < 0.01$), while market value has a significant but negative impact (β -0.217, $p < 0.01$) on diversity. Pearson correlation also supports the results as shown, with diversity correlating significantly negatively with Tobin's Q, while correlating positively (but insignificantly) with Z-scores. The other variable results remained as before, as shown in the table below.

For low performing firms, only firm financial health has a significant positive (β 0.168, $p < 0.01$) impact on firm diversity, while firm market value showed an insignificant impact. Other pathways remain constant. The table that follows shows the results for all the pathways for both groups. The Pearson correlation supports the results, as it showed that the firm Z-score is significantly positively correlated with diversity, while Tobin's Q has an insignificant correlation.

Table 47: shows the hypotheses results for current firm performance on current diversity for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
FINANCIAL HEALTH -> DIVERSITY	0.087***	0	0.168***	0
FINANCIAL HEALTH -> ECONOMIC	-0.185**	0.034	-0.632***	0
FINANCIAL HEALTH -> ENVIRONMENT	-0.036	0.131	-0.184***	0
FINANCIAL HEALTH -> MARKET VALUE	0.195**	0.026	-0.299***	0
FIRMAGE -> FINANCIAL HEALTH	-0.032	0.117	0	0.975
FIRMAGE -> MARKET VALUE	-0.12***	0.001	-0.084**	0.026
FIRMSIZE -> FINANCIAL HEALTH	-0.12***	0	-0.007	0.369
FIRMSIZE -> MARKET VALUE	-0.287***	0	-0.291***	0
INDUSTRY -> FINANCIAL HEALTH	-0.113***	0	0.01	0.304
INDUSTRY -> MARKET VALUE	0.142**	0.001	0.024	0.555
LEVERAGE -> FINANCIAL HEALTH	0.227***	0	0.828***	0
LIQUIDITY -> FINANCIAL HEALTH	-0.058	0.496	-0.038**	0.059
MARKET VALUE -> DIVERSITY	-0.217***	0	-0.001	0.981
MARKET VALUE -> ECONOMIC	0.339***	0	-0.144**	0.02
MARKET VALUE -> ENVIRONMENT	-0.006	0.81	0.091***	0.007
PROFITABILITY -> FINANCIAL HEALTH	0.104	0.216	-0.482***	0
R-SQUARE				
DIVERSITY	0.046		0.024	
ECONOMIC	0.123		0.341	
ENVIRONMENT	0		0.051	
FINANCIAL HEALTH	0.09		0.977	
MARKET VALUE	0.174		0.272	

***p<0.01, **p<0.05 *p<0.10

Current firm performance on current human rights.

High performing firms show that only firm market value has a positive significant (β 0.108, $p<0.01$) impact on human rights, while firm financial health showed an insignificant impact. As usual, the other pathways are constant. The results of human rights are supported by Pearson correlation, as it showed to have a significant positive correlation with Tobin's Q and an insignificant correlation with the Z-scores.

The low performing firms show similar to high, since only firm market value has a significant positive (β 0.08, $p<0.01$) impact on human rights, while

financial health has an insignificant impact. The others still show the same results as before. The table below shows the results of the pathways for high and low performing firms as well.

Table 48: Shows the hypotheses results for current firm performance on current human rights for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
FINANCIAL HEALTH -> ECONOMIC	-0.185**	0.038	-0.632***	0
FINANCIAL HEALTH -> ENVIRONMENT	-0.036	0.128	-0.184***	0
FINANCIAL HEALTH -> HUMANRIGHTS	-0.023	0.277	0.024	0.343
FINANCIAL HEALTH -> MARKET VALUE	0.195**	0.023	-0.299***	0
FIRMAGE -> FINANCIAL HEALTH	-0.032	0.138	0	0.973
FIRMAGE -> MARKET VALUE	-0.12***	0	-0.084**	0.038
FIRMSIZE -> FINANCIAL HEALTH	-0.12***	0	-0.007	0.346
FIRMSIZE -> MARKET VALUE	-0.287***	0	-0.291***	0
INDUSTRY -> FINANCIAL HEALTH	-0.113***	0	0.01	0.282
INDUSTRY -> MARKET VALUE	0.142***	0	0.024	0.561
LEVERAGE -> FINANCIAL HEALTH	0.227***	0	0.828***	0
LIQUIDITY -> FINANCIAL HEALTH	-0.058	0.539	-0.038*	0.062
MARKET VALUE -> ECONOMIC	0.339***	0	-0.144**	0.023
MARKET VALUE -> ENVIRONMENT	-0.006	0.811	0.091***	0.006
MARKET VALUE -> HUMANRIGHTS	0.108***	0	0.08***	0.007
PROFITABILITY -> FINANCIAL HEALTH	0.104	0.235	-0.482***	0
R-SQUARE				
ECONOMIC	0.123		0.341	
ENVIRONMENT	0		0.051	
FINANCIAL HEALTH	0.09		0.977	
HUMANRIGHTS	0.009		0.001	
MARKET VALUE	0.174		0.272	

***p<0.01, **p<0.05 *p<0.10

Current firm performance on current corporate governance.

The high performing firms show that both firm performances have an insignificant impact on corporate governance. While other pathways hold the same results as previous. Pearson correlation supports the results, as governance showed to have an insignificant correlation with both Z-scores and Tobin's Q.

The low performing firms show market value to have a significant positive impact on corporate governance (β 0.094, $p < 0.05$), while financial health shows insignificant results. The same results hold for the remaining pathways, as shown below. The following table shows the pathway results for both firms groups. Pearson correlation supports the results as shown, and governance correlates positively with Tobin's Q.

Table 49: Shows the hypotheses results for current firm performance on current corporate governance for both high and low performing firms.

Pathways (regression weights)	HIGH PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
FINANCIAL HEALTH -> CORPORATE GOVERNANCE	-0.025	0.26	-0.076	0.124
FINANCIAL HEALTH -> ECONOMIC	-0.185**	0.041	-0.632***	0
FINANCIAL HEALTH -> ENVIRONMENT	-0.036	0.128	-0.184***	0
FINANCIAL HEALTH -> MARKET VALUE	0.195**	0.023	-0.299***	0
FIRMAGE -> FINANCIAL HEALTH	-0.032	0.121	0	0.973
FIRMAGE -> MARKET VALUE	-0.12***	0	-0.084**	0.023
FIRMSIZE -> FINANCIAL HEALTH	-0.12***	0	-0.007	0.329
FIRMSIZE -> MARKET VALUE	-0.287***	0	-0.291***	0
INDUSTRY -> FINANCIAL HEALTH	-0.113***	0	0.01	0.335
INDUSTRY -> MARKET VALUE	0.142***	0	0.024	0.541
LEVERAGE -> FINANCIAL HEALTH	0.227***	0	0.828***	0
LIQUIDITY -> FINANCIAL HEALTH	-0.058	0.52	-0.038**	0.079
MARKET VALUE -> CORPORATE GOVERNANCE	0.012	0.629	0.094**	0.045
MARKET VALUE -> ECONOMIC	0.339***	0	-0.144**	0.028
MARKET VALUE -> ENVIRONMENT	-0.006	0.809	0.091***	0.005
PROFITABILITY -> FINANCIAL HEALTH	0.104	0.227	-0.482***	0
R-SQUARE				
CORPORATE GOVERNANCE	-0.001		0.016	
ECONOMIC	0.123		0.341	
ENVIRONMENT	0		0.051	
FINANCIAL HEALTH	0.09		0.977	
MARKET VALUE	0.174		0.272	

*** $p < 0.01$, ** $p < 0.05$ * $p < 0.10$

5.8 b) Analysis 2: Sustainability strengths/concerns and Firm performance

a) Sustainability strengths and concerns separate to firm performance.

Since some previous research argues that there is a different impact of sustainability actions (i.e., strengths and concerns) to firm financial performance (Bird et al. 2007). The analyses shown on the table below regarding the impact of sustainability strength and sustainability concerns separately, in order to examine their impact on firm financial health and market value.

For high performing firms, it is shown that social strengths have a positive significant impact on both firm financial health and firm market value with values (β 0.071, $p < 0.05$) and (β 0.121, $p < 0.01$) respectively. Environment strengths are shown to have a significant impact only on firm market value, which is positive (β 0.053, $p < 0.05$). Economic has a significant positive impact on firm market value (β 0.37, $p < 0.01$) only. All other pathways together with control variables path coefficients, p values, and R-squares are shown in the table below under high performing strengths. For concerns, the results show that social concerns have a positive significant (β 0.099, $p < 0.01$) impact on firm market value only, but not on firm financial health. Also, environment concerns have a positive significant (β 0.026, $p < 0.10$) impact on firm market value only. Economic has a positive significant impact on firm market value, and an insignificant impact on firm financial health with values on market (β 0.384, $p < 0.01$). All remaining pathways are shown in the table below under the high firms' concerns row.

For low performing firms, the environment strengths are shown to have a positive significant (β 0.066, $p < 0.05$) impact on firm market value only, while this is insignificant on firm financial health. Social strengths are insignificant on both firm financial health and market value. Economic has a significant impact (β -0.517, $p < 0.01$) on financial health only. The other pathways are shown in the table below under low firms' strengths. Both social concerns and environment concerns showed an insignificant impact on both firm financial

health and market value. All others are shown in the table below under low firms concerns.

Table 50: Shows results for both high and low performing firms' strengths and concerns on firm performance.

Pathways (regression weights)	HIGH FIRMS STRENGTH		LOW FIRMS STRENGTH		HIGH FIRMS CONCERNS		LOW FIRMS CONCERNS	
	Coefficient	P Values	Coefficient	P Values	Coefficient	P Values	Coefficient	P Values
ECONOMIC -> FINANCIAL HEALTH	-0.042	0.163	-0.517** *	0	-0.036	0.184	-0.521** *	0
ECONOMIC -> MARKET VALUE	0.37***	0	0.058	0.514	0.384** *	0	0.044	0.602
ENVIRONMENT -> FINANCIAL HEALTH	-0.029	0.171	0.003	0.357	0.01	0.296	0	0.929
ENVIRONMENT -> MARKET VALUE	0.053**	0.022	0.066**	0.039	0.026*	0.083	0.012	0.683
FINANCIAL HEALTH -> MARKET VALUE	0.227**	0.012	-0.251** *	0	0.233** *	0.006	-0.268** *	0
FIRMAGE -> FINANCIAL HEALTH	-0.022	0.148	0.01	0.257	-0.028*	0.093	0.009	0.271
FIRMAGE -> MARKET VALUE	-0.17***	0	-0.105** *	0.01	-0.17***	0	-0.098**	0.014
FIRMSIZE -> FINANCIAL HEALTH	-0.15***	0	0.009	0.303	-0.122** *	0.001	0.013	0.278
FIRMSIZE -> MARKET VALUE	0.413** *	0	-0.338** *	0	-0.379** *	0	-0.292** *	0
INDUSTRY -> FINANCIAL HEALTH	-0.121** *	0	0.002	0.744	-0.11***	0	0.001	0.847
INDUSTRY -> MARKET VALUE	0.102** *	0.001	0.041	0.341	0.132** *	0	0.029	0.491
LEVERAGE -> FINANCIAL HEALTH	0.22***	0	0.816** *	0	0.226** *	0	0.815** *	0
LIQUIDITY -> FINANCIAL HEALTH	-0.037	0.339	0.008	0.282	-0.041	0.348	0.008	0.249
PROFITABILITY -> FINANCIAL HEALTH	0.096*	0.08	-0.006	0.916	0.096*	0.085	-0.002	0.971
SOCIAL -> FINANCIAL HEALTH	0.071**	0.028	0	0.976	-0.001	0.483	-0.008	0.26
SOCIAL -> MARKET VALUE	0.121** *	0	0.043	0.149	0.099** *	0	-0.036	0.326
R-SQUARE								
FINANCIAL HEALTH	0.09		0.997		0.088		0.997	
MARKET VALUE	0.323		0.273		0.318		0.269	

***p<0.01, **p<0.05 *p<0.10

b) Firm performance to sustainability strengths and concerns.

After looking at sustainability strength and concerns impacts on firm performance, now, it is going to be examined the other way round, which is the impact of firm performance on sustainability strength and concerns scores. The results for high firms show that firm financial health has a significant negative (β -0.185, $p < 0.05$) impact on the firm economic performance pillar only, while this is insignificant to environment and social pillars performance. While market value has a significant impact on all the sustainability pillars, with a negative impact on environment and social strengths with (β -0.106, $p < 0.01$) and (β -0.096, $p < 0.01$) respectively and positively on (β 0.339, $p < 0.01$) economic pillars. However, firm financial health is shown to have a significant positive impact on environment concerns (β 0.052, $p < 0.01$), while this is negative on economic (β -0.185, $p < 0.05$). Market value shows to have an impact on all sustainability pillars with negative on environment and social concerns with (β -0.19, $p < 0.01$) and (β -0.164, $p < 0.01$) respectively, while on economic it is positive with the value the same as in the strengths.

For low performing firms, firm financial health has a positive impact on social strengths, with (β 0.081, $p < 0.10$) and negative on economic (β -0.632, $p < 0.01$) performance, while market value has a negative impact on all sustainability pillars with environment strengths (β -0.081, $p < 0.01$), social strengths (β -0.096, $p < 0.01$), and economic performance (β -0.144, $p < 0.05$). While firm financial health has a positive impact on environmental concerns (β 0.191, $p < 0.01$), and negative impact on firm economic performance (β -0.632, $p < 0.01$), market value has a negative impact on all sustainability pillars, and the impact on environment concerns is (β 0.119, $p < 0.01$), social concerns is (β -0.162, $p < 0.01$), and economic performance is (β -0.144, $p < 0.05$).

All the other pathways coefficients weights, p values, as well as r-square for both groups of firms performing strengths and concerns are shown in the table below.

Table 51: Shows results for both high and low performing firm performance on sustainability strengths and concerns.

Pathways (regression weights)	HIGH FIRMS STRENGTH		LOW FIRMS STRENGTH		HIGH FIRMS CONCERNS		LOW FIRMS CONCERNS	
	Coefficient	P Values	Coefficient	P Values	Coefficient	P Values	Coefficient	P Values
FINANCIAL HEALTH -> ECONOMIC	-0.185**	0.023	0.632**	0	-0.185**	0.022	0.632**	0
FINANCIAL HEALTH -> ENVIRONMENT	-0.006	0.392	0.029	0.221	0.052**	0.002	0.191**	0
FINANCIAL HEALTH -> MARKET VALUE	0.195**	0.015	0.299**	0	0.195**	0.016	0.299**	0
FINANCIAL HEALTH -> SOCIAL	-0.001	0.492	0.081*	0.053	0.013	0.27	0.054	0.18
FIRMAGE -> FINANCIAL HEALTH	-0.032*	0.079	0	0.976	0.032**	0.059	0	0.975
FIRMAGE -> MARKET VALUE	0.12***	0	0.084**	0.025	0.12***	0	0.084**	0.027
FIRMSIZE -> FINANCIAL HEALTH	0.12***	0	-0.007	0.33	0.12***	0	-0.007	0.307
FIRMSIZE -> MARKET VALUE	0.287**	0	0.291**	0	0.287**	0	0.291**	0
INDUSTRY -> FINANCIAL HEALTH	0.113**	0	0.01	0.33	0.113**	0	0.01	0.318
INDUSTRY -> MARKET VALUE	0.142**	0	0.024	0.548	0.142**	0	0.024	0.583
LEVERAGE -> FINANCIAL HEALTH	0.227**	0	0.828**	0	0.227**	0	0.828**	0
LIQUIDITY -> FINANCIAL HEALTH	-0.058	0.259	0.038**	0.058	-0.058	0.271	-0.038*	0.073
MARKET VALUE -> ECONOMIC	0.339**	0	0.144**	0.023	0.339**	0	0.144**	0.029
MARKET VALUE -> ENVIRONMENT	0.106**	0	0.081**	0.003	0.19***	0	0.119**	0
MARKET VALUE -> SOCIAL	0.096**	0	0.079**	0.01	0.164**	0	0.162**	0
PROFITABILITY -> FINANCIAL HEALTH	0.104	0.116	0.482**	0	0.104	0.111	0.482**	0
R SQUARE								
ECONOMIC	0.123		0.341		0.123		0.341	
ENVIRONMENT	0.01		0.005		0.033		0.065	
FINANCIAL HEALTH	0.09		0.977		0.09		0.977	
MARKET VALUE	0.174		0.272		0.174		0.272	
SOCIAL	0.007		0.014		0.024		0.032	

***p<0.01, **p<0.05 *p<0.10

c) Lagged sustainability strengths and concerns on firm performance.

After looking at the impact of sustainability strengths and concerns on firm performance, and also firm performance on sustainability strengths and concerns. Now, the lagged strengths and concerns are going to be examined on current firm performance for both high and low performing firms. The results for high performing firms show that the lagged social strengths have a positive impact on both current firm financial health and firm market value, with values of (β 0.075, $p < 0.05$) and (β 0.168, $p < 0.01$) respectively, lagged economic have a positive impact on firm market value only (β 0.393, $p < 0.01$), while lagged environment strengths showed insignificant findings. The high performing lagged environment concerns were shown to have a positive impact on market value, but this was very low (β 0.029, $p < 0.1$); also, social lagged concerns have a positive impact on firm market value (β 0.095, $p < 0.01$) and lagged economic have a positive impact on current market value (β 0.404, $p < 0.01$). The other pathways coefficients weights and p-values are shown in the table below under the high firms' strengths column and high firm concerns column, as well as r-square value.

For low performing firms, lagged strength for both social and environment showed an insignificant impact on firm financial health and market value. Lagged economic showed to have a negative impact on firm financial health, and a positive impact on current market value with values (β -0.474, $p < 0.01$) and (β 0.151, $p < 0.10$) respectively. For low firms, lagged social concerns showed to have a significant negative impact on current firm market value (β -0.094, $p < 0.01$), while this was insignificant on firm financial health, and lagged environment concerns showed to have an insignificant impact on both firm financial health and firm market value. Lagged economic have almost the same results (β -0.477, $p < 0.01$) and (β 0.145, $p < 0.10$) on firm financial health and market value respectively. The other remained as shown in the table below.

Table 52: Shows the results of both lagged strengths and lagged concerns on current firm performance for both high and low performing firms.

Pathways (regression weights)	HIGH FIRMS STRENGTH		LOW FIRMS STRENGTH		HIGH FIRMS CONCERNS		LOW FIRMS CONCERNS	
	Coefficient	P Values	Coefficient	P Values	Coefficient	P Values	Coefficient	P Values
ECONOMIC -> FINANCIAL HEALTH	-0.004	0.474	0.474**	0	0	0.498	0.477**	0
ECONOMIC -> MARKET VALUE	0.393**	0	0.151*	0.079	0.404**	0	0.145*	0.094
ENVIRONMENT -> FINANCIAL HEALTH	-0.039	0.132	0.004	0.406	0.001	0.487	-0.001	0.911
ENVIRONMENT -> MARKET VALUE	0.005	0.444	0.007	0.78	0.029*	0.092	0.008	0.787
FINANCIAL HEALTH -> MARKET VALUE	0.265**	0.015	0.227**	0.002	0.275**	0.011	0.234**	0.002
FIRMAGE -> FINANCIAL HEALTH	-0.022	0.176	0.013	0.137	-0.028	0.105	0.013	0.186
FIRMAGE -> MARKET VALUE	0.137**	0	0.094**	0.024	0.144**	0	0.103**	0.016
FIRMSIZE -> FINANCIAL HEALTH	0.148**	0.001	0.012	0.189	0.129**	0	0.018	0.164
FIRMSIZE -> MARKET VALUE	0.426**	0	0.292**	0	0.381**	0	0.246**	0
INDUSTRY -> FINANCIAL HEALTH	0.123**	0	0.004	0.506	0.111**	0	0.003	0.601
INDUSTRY -> MARKET VALUE	0.138**	0	0.071	0.147	0.176**	0	0.066	0.172
LEVERAGE -> FINANCIAL HEALTH	0.226**	0	0.823**	0	0.233**	0	0.822**	0
LIQUIDITY -> FINANCIAL HEALTH	-0.081	0.26	0.004	0.646	-0.083	0.26	0.004	0.662
PROFITABILITY -> FINANCIAL HEALTH	0.077	0.124	-0.032	0.668	0.077	0.134	-0.03	0.657
SOCIAL -> FINANCIAL HEALTH	0.075**	0.032	0.003	0.5	0.015	0.311	-0.008	0.254
SOCIAL -> MARKET VALUE	0.168**	0	0.012	0.7	0.095**	0.002	0.094**	0.007
R-SQUARE								
FINANCIAL HEALTH	0.088		0.995		0.086		0.995	
MARKET VALUE	0.363		0.262		0.355		0.269	

***p<0.01, **p<0.05 *p<0.10

d) Lagged firm performance on sustainability strengths and concerns

After looking at lagged sustainability strengths and concerns on current firm performance, now the lagged firm performance are examined on current sustainability strengths and concerns. For high performing firms, the results show that the lagged firm financial health only has an impact on economic pillars (β -0.229, $p < 0.01$) while it is insignificant on firm social strengths and environment strengths. However, lagged firm financial health has a positive impact on environment concerns (β 0.053, $p < 0.01$) and a negative impact on economic performance. Lagged market value has a positive impact on economic performance (β 0.332, $p < 0.01$) while it has a negative impact on current firm environmental and social strengths with values (β -0.114, $p < 0.01$) and (β -0.087, $p < 0.01$) respectively. It is negative on environment and social concerns with values (β -0.194, $p < 0.01$) and (β -0.166, $p < 0.01$) respectively. All the other pathways are shown in the table below.

For low performing firms, the lagged firm financial health has a negative significant (β -0.652, $p < 0.01$) impact on current economic performance; also, it has a positive impact on both environment strengths and concerns with values (β 0.053, $p < 0.10$) and (β 0.204, $p < 0.01$) respectively, and a positive impact on social concerns (β 0.082, $p < 0.05$). Lagged market value has a negative impact on environment and social strengths, with values (β -0.064, $p < 0.05$) and (β -0.108, $p < 0.01$) respectively; it is also negative on environment and social concerns with values (β -0.092, $p < 0.05$) and (β -0.105, $p < 0.05$) respectively and a negative impact on current economic performance (β -0.18, $p < 0.05$). All the other pathways' coefficients' weights, p-values, and r-square, are shown under the columns of low firms strengths and low firms concerns.

Table 53: Shows the results of lagged firm performance on current firm sustainability strengths and concerns for high and low performing firms.

Pathways (regression weights)	HIGH FIRMS STRENGTH		LOW FIRMS STRENGTH		HIGH FIRMS CONCERNS		LOW FIRMS CONCERNS	
	Coefficient	P Values	Coefficient	P Values	Coefficient	P Values	Coefficient	P Values
FINANCIAL HEALTH -> ECONOMIC	0.229**	0.005	0.652**	0	0.229**	0.005	0.652**	0
FINANCIAL HEALTH -> ENVIRONMENT	-0.01	0.332	0.053*	0.08	0.053**	0.003	0.204**	0
FINANCIAL HEALTH -> MARKET VALUE	0.197**	0.022	0.318**	0	0.197**	0.029	0.318**	0
FINANCIAL HEALTH -> SOCIAL	-0.004	0.438	0.044	0.273	0.002	0.461	0.082**	0.044
FIRMAGE -> FINANCIAL HEALTH	-0.038**	0.05	-0.003	0.827	-0.038**	0.049	-0.003	0.825
FIRMAGE -> MARKET VALUE	-0.15***	0	0.107**	0.012	-0.15***	0	0.107**	0.013
FIRMSIZE -> FINANCIAL HEALTH	0.112**	0	-0.012	0.214	0.112**	0	-0.012	0.242
FIRMSIZE -> MARKET VALUE	0.249**	0	0.257**	0	0.249**	0	0.257**	0
INDUSTRY -> FINANCIAL HEALTH	0.115**	0	0.009	0.401	0.115**	0	0.009	0.392
INDUSTRY -> MARKET VALUE	0.125**	0.005	0.018	0.688	0.125**	0.002	0.018	0.686
LEVERAGE -> FINANCIAL HEALTH	0.232**	0	0.818**	0	0.232**	0	0.818**	0
LIQUIDITY -> FINANCIAL HEALTH	-0.066	0.201	-0.053*	0.055	-0.066	0.204	-0.053*	0.053
MARKET VALUE -> ECONOMIC	0.332**	0	-0.18**	0.016	0.332**	0	-0.18**	0.013
MARKET VALUE -> ENVIRONMENT	0.114**	0	0.064**	0.037	0.194**	0	0.092**	0.014
MARKET VALUE -> SOCIAL	0.087**	0.002	0.108**	0	0.166**	0	0.105**	0.013
PROFITABILITY -> FINANCIAL HEALTH	0.102	0.161	0.479**	0	0.102	0.166	0.479**	0
R-SQUARE								
ECONOMIC	0.132		0.355		0.132		0.355	
ENVIRONMENT	0.011		0.004		0.035		0.061	
FINANCIAL HEALTH	0.093		0.974		0.093		0.974	
MARKET VALUE	0.16		0.263		0.16		0.263	
SOCIAL	0.006		0.012		0.025		0.02	

***p<0.01, **p<0.05 *p<0.10

5.9 CHAPTER SUMMARY

The chapter showed all the required analyses that should be done for this thesis. The chapter explained and presented all the diagnostic tests and screening of the data required, such as sample size which met the rule of thumb, and how missing data was treated by using mean replacement, as all the variables considered have missing value of less than 5% the threshold shown earlier. The collinearity test was found not to have a problem after some variables dropped, and the normality test was shown not to have a normal distribution, but is not assumption required for the PLS-SEM. So, further analyses were investigated and shown in the descriptive statistics. The Pearson correlation matrix was then used to support the findings of the results. Then, all the constructs were assessed for validity and reliability. Finally, all the hypotheses were investigated by using SmartPLS 3 and the results were presented and explained in depth, including path coefficients, the significance of the pathways, and the r-square. Also, additional analyses were performed to support the hypotheses results. Next, the chapter is going to discuss the results and findings from this chapter, and it is going to relate with prior research if there is a consistency of the results.

CHAPTER SIX: DISCUSSION CHAPTER

6.1 INTRODUCTION

The chapter focuses on the findings from the previous chapter and explains the research hypotheses results. The chapter discusses these findings of the research and how they are related to the previous studies findings. The chapter also discusses the contribution of this thesis to the sustainability literature. At the beginning, the research questions will be revisited and then examine the hypotheses results discussion and its relation to prior researches.

6.2 RESEARCH QUESTIONS AND DISCUSSION OF FINDINGS

The main research question in this thesis was introduced in the first chapter, and its sub questions that will help to answer the general question. The main question is “Do sustainability activities have an impact on firm performance”? In order to answer the question, another nine sub-questions and the hypotheses have been developed and examined. The discussion will follow, as each question will be revisited with the hypotheses used to answer the question, findings, discussion, and support from previous studies.

Research sub-question 1: Is there any relationship between firms' sustainability performance and firm financial health for high performing firms?

The research hypothesis that was developed to help answer this question is $H_{1(i)}$ as stated in the previous chapter. The results found that when the three sustainability pillars were considered all together, only social dimension has a significant positive (β 0.059, $p < 0.05$) impact on firm financial health, while the remaining two dimensions show insignificant results. Since financial health is measured by the Zmejiwski score, the financial distress, which means the higher the score the higher the firm is financially unhealthier. It shows that the positive impact of social on financial health means the higher the social performance, the higher the firm will be financially unhealthier. This can be interpreted, as social activities incur costs which affect the firm financial health.

The results are consistent with the results by Becchetti et al. (2008) when they found that firm performance (measured by return on asset) decreases with the increase in corporate social performance. Also, Chang & Kuo (2008) found a negative relationship between profitability and firm performance, but low sustainable firms. Servaes, H. & Tamayo (2013) found corporate social responsibilities to have a negative impact on firm financial performance and sales growth. Also, Flammer (2015) found that there is an increase in abnormal return from corporate social; however, it diminishes for high corporate social firms which the author concludes that there is a benefit at the beginning and additional investment in those activities decreases firm performance, the author found that in the firm that scores less in KLD, the strength is about the double. Most of the previous research argues that corporate social responsibilities expenses are more than their benefits, or they are not directly income generating tasks; rather, they incur unnecessary costs (Lys et al. 2015; Becchetti et al. 2008; M. L. Barnett 2007; O'Dwyer 2002c) and they actually incur risks (KPMG 2013). Albertini (2013) argue that firms are implementing more than required by the law on sustainability. As the findings of this thesis come from high performing groups (those that have high scores) in corporate social responsibilities, it means that those firms put more efforts or invest more in those activities which incur more costs than their returns, which lead to a positive relation on firm social activities and firm financial distress. Ullmann (1985) argues that for a firm to get a high score in social activities they have to use more resources and this is the reason why some research gets adverse findings. This might be a reason, as the group is a high performing group, so it seems they invest more in those activities that lead them to getting high scores, but unfortunately, this also destroys firm financial health in turn. Ullmann (1985) insists that firms should not allocate too many resources or too few resources in those activities; thus, the optimal level is the best option. Also, as cited by Moore (2001) quoted "there may be an optimum level of social performance beyond which the expenditures devoted to such activity detract from, rather than contribute to financial performance" (Moore 2001 p.g 300).

However, when the three pillars considered each one separately as a perception, each pillar showed an insignificant impact on firm financial health, as hypotheses H_{1a(i)} for environment only, H_{1b(i)} for social only, and H_{1c(i)} for economic only, as shown in the results chapter. The insignificant findings might be due to the fact that firms motivate them to engage in sustainability. As Huang & Watson (2015) argue, a firm's motivation to sustainability initiatives might have an impact on the results of the sustainability and firm performance. They argue that if firm motivation is to benefit the community and not the stockholders, it might lead to negative or insignificant findings, since sustainability uses resources. However, they also argue that if a firm makes sustainability initiatives a competitive strategy, the effective use of strategy might result to a positive findings on the relationship. Thus, by knowing what motives firms have to initiate sustainability, we might be able to clearly show the relationship between sustainability and firm performance. Also, as argued by McWilliams & Siegel (1997), the costs of engaging in corporate social responsibilities might decrease firm short term performance (accounting based measure); thus, it might be seen to be the opposite of maximizing shareholders wealth (McWilliams & Siegel 1997 in Wang & Berens 2014), but firms can get benefit in the long run (Orlitzky et al. 2003). However, the issue is further investigated in the following sections and hopefully everything will be clear on the relationship between sustainability and firm performance.

The results support the *shareholder theory* by Friedman (1970), in that the main objective of any business is to increase the owners' wealth by being involved in other activities, and to take a firm's resources, which are already scarce, is to harm the firm's financial performance. Negative or insignificant are the results of firm altruism, as it benefits the others with its own expenses (Friedman 1970). Friedman (1970) quoted that "... responsibility is to conduct the business in accordance with their desires, which generally will be to make as much money as possible while conforming to the basic rules of the society, both those embodied in law and those embodied in the ethical custom". (Friedman 1970 p.g 1) added that spending beyond what is good for corporations or according to legal requirements can harm the firm performance.

To sum up, any firm that considers sustainability activities have to fulfill the legal requirements, or have to make sure that the costs do not outweigh the benefits so that the firm will remain financially healthier.

The implication of this result for managers and other firm decision makers from all the positions is to make sure that only the optimal level of the resources should be spent in sustainability activities, not too much than required. This is because putting more resources is to destroy the firm financial health as well as owners' wealth, with no benefit to the businessess.

Research sub-question 2: Is there any relationship between firms' sustainability performance and firm financial health for low performing firms?

The hypothesis that examined this question is $H_1(ii)$, as stated in the previous chapter. The results show that only economic dimensions show significant negative ($\beta -0.521$, $p < 0.01$) impact on firm financial health, while social and environment show an insignificant impact. As mentioned before, the higher the value of Z-score, the higher the firm is financially distressed. Therefore, as the relation is negative, it can be interpreted that the higher the economic performance, the lower the firm is financially distressed, so the firm is financially healthier. This is true, since firm economic performance has been measured by firm profitability as a measure indicated in Waymond (2011). A return on asset, which is one of the profit ratios of the firm, so, the higher the firm's profit, the less the chance to be financially unhealthier. The same results were found when each sustainability pillar was considered separately as the hypotheses $H_{1a(ii)}$ for environment only, $H_{1b(ii)}$ for social performance only, $H_{1c(ii)}$ for economic pillar only, as shown in the results chapter before.

For both high and low performing firms, the insignificant findings above are consistent with the findings by McWilliams & Siegel (2001) Ullmann (1985) Aupperle et al. (1985) Margolis & Walsh (2001) and Lee & Park (2009) for casino. The results are also consistent with the findings by

Wagner (2005), in that there is no significant relationship between environment performance and economic performance, especially for the firms that have input prevention strategy. The reason for such insignificance might be the presence of other factors that are between sustainability and firm performance, which is impossible to predict the relationship that exists by chance (Ullmann 1985). There are no advantages or disadvantages when firms practice corporate social responsibilities (Aupperle et al. 1985). Therefore, one can not judge on the impact of sustainability on firm financial performance only for current sustainability scores on firm current financial health. It might be that the impact occurs after some time (the issue will be looked later in this chapter). However, in any case, firms should make sure that the benefit of those activities outweighs the cost.

Research sub-question 3: Is there any relationship between firm sustainability performance and firm market value for high performing firms?

In order to investigate and answer this question, the hypothesis $H_{2(i)}$ has been developed (as stated in the previous chapter). The results found that both economic (β 0.369, $p < 0.01$) and social (β 0.06, $p < 0.05$) performance have a positive impact on firm market value. This means that the higher the firm performance in social activities, the higher the market value of the firms, and also the higher the economic performance, the higher the firms market value. In addition, environment performance also showed a significant positive (β 0.088, $p < 0.01$) impact on firm market value when it was taken by itself as a perception, as the results for hypothesis $H_{2a(i)}$ showed in the last chapter. The social and economic pillars continue to show a significant positive impact, even when they were considered individually, as shown in the results for hypotheses $H_{2b(i)}$ for social only and $H_{2c(i)}$ for economic only.

The results are consistent with the results by Berthelot et al. (2012), as they found that investors value sustainability activities in Canada. Orlitzky et al. (2003) in meta-analysis, found a positive relation between sustainability and firm financial performance and market value. KPMG (2013) reported that from the firms surveyed around the globe, 4100 firms emphasize that sustainability enhances firm market value. This was consistent with the results by Dowell et al. (2000), who found a positive relation between environment and market value, as measured by Tobin's Q. This was also consistent with Albertini (2013) in the meta-analysis that environmental performance has a positive relation with firm performance. This was also consistent with much of the other previous research, who found a positive relation between sustainability and firm market value, such as (Servaes, H. & Tamayo 2013; Wagner 2010; Schadewitz & Niskala 2010; Cormier et al. 2011; Orlitzky et al. 2003) to mention a few, as many already mentioned and discussed in detail in the literature review chapter.

The results are supported by the stakeholder's theory Freeman (1984), in that firms have to focus on other stakeholders as well when operating their businesses in order to survive in the long run, and not just shareholders. The implication for this result is when managers want to attract more investors they should engage in sustainability activities, but still with the precaution that they should make sure that do not harm firm financial health.

Research sub-question 4: Is there any relationship between firm sustainability performance and firm market value for low performing firms?

The research hypothesis that answers the question is the hypothesis H_{2(ii)} in the previous chapter. The hypothesis result found that all the three sustainability pillars when taken together have an insignificant impact on firm market value. Moreover, even if each dimension is taken separately as a perception, all show the insignificant results, as shown in the results chapter for

hypotheses H_{2a(ii)} for environment performance only, H_{2b(ii)} for social performance only, and H_{2c(ii)} for economic performance only.

The results are consistent with the findings of Murray et al. (2006), as they found insignificant relation results. Ullmann (1985) argue that there might be other factors that influence the relationship between them, but this cannot be predicted as it is only by chance. There are no bad or good things that a firm can get when practicing sustainability (Aupperle et al. 1985). The insignificant results of environment on firm market value are consistent with the results by Cormier & Magnan (2007) when they found in Canada and France that the environment issue does not have a significant impact on firm market value. They argue that the insignificant findings in Canada and France might be due to the fact that investors' perceptions on environment information proved to be unreliable and inconsistent, or the information provided is too narrow to make a decision from it. As found by Moneva & Cuellar (2009), that investors do not value environment information as they consider non-financial environmental information to be irrelevant in making decisions, and the costs are end-of-pipe and not for improvement in the long run. Also, environmental information is most reported by companies that have high damage (e.g., more toxic waste), so it does not truly represent a better picture Delmas & Blass (2010) and is just to conceal their negative impact (Solomon & Lewis 2002; O'Dwyer 2002c).

The insignificant results might be since this is the low performing group, and it might be that the scores they get (which are actually low) do not have any influence on investors' decision making. Therefore, in order for a firm in a low performing group to attract more investors they should at least put more effort on sustainability activities. Therefore, the results of the hypotheses for high and for low performing firms on market value support each other.

Research sub-question 5: Which of the social dimensions have an impact on firm financial health for high performing firms?

In order to investigate which of the social dimensions, as categorized by KLD (community, employee relation, human rights, diversity, and product related activities) have an impact on financial health. The hypotheses $H_{3a(i)}$ for community was developed in the previous chapter and the result was insignificant. $H_{3c(i)}$, for employee relation also showed insignificant results. $H_{3e(i)}$ for product performance showed insignificant findings. $H_{3g(i)}$ for diversity showed positive significant (β 0.087, $p < 0.01$) and $H_{3i(i)}$ for human rights performance showed insignificant findings. As some of the previous studies also included corporate governance as one of the social activities, the hypothesis $H_{3k(i)}$ was developed and the results were shown to be significant negative (β -0.04, $p < 0.10$).

Therefore, the results show that for all the social activities, the results are insignificant except for diversity (positive) and corporate governance (negative), which were shown to have an impact on firm financial health. For diversity it can be interpreted that the more a firm diversifies, the more the chance the firm has of becoming financially distressed (financially unhealthier). While governance can be interpreted as the higher the performance of firm governance, the lower the chance for a firm to be in financial distress. Thus, corporate governance helps to enhance firm financial performance to be healthier.

The diversity results are consistent with the results by Dale-olsen et al. (2013) in Norway, in that complying with the government rule to diversify was found to increase costs and no increase in firm financial performance, neither revenue nor return on assets. Also, Matsa & Miller (2013) and Judge (2003) in their research, found diversity to have an adverse effect on firm financial performance. Also, Shrader et al. (1997) found a negative relation between diversity (having women on board) and firm financial performance (ROA and ROE). The positive impact of diversity on financial health (financial distress) might be because more diversified groups take more time and resources to

reach to a certain decision, which might lead to inefficient and ineffective ways of using firm resources and affecting firm financial health. As argued by Burke (2000), homogenous groups can quickly reach a specific decision more efficiently than a diversified group. Murray (1989) and Miller et al. (1998) argue that diversity incurs costs to the firms, so it seems that the costs to diversify exceeds the benefits. Burton (1991) insists that firms that diversify have to make sure that they appoint a person with the required characteristics and knowledge so that the difference will appear not just to have a representation that a firm is diversifying. Fondas (2000) report that firms diversify to show other stakeholders, and only to accomplices the rule for the number required. Therefore, it might be that firms that diversify only want to show other stakeholders that they have diversified members with no aim of enhancing the firm performance; that is why the results were shown to have an adverse impact on firm performance.

The results of corporate governance are consistent with the findings by Bhagat & Bolton (2008) in they found a significant positive relationship between corporate governance and firm financial performance, as measured by ROA. Also, consistent with the results by Brown & Caylor (2004) for the corporate governance, independent directors showed a positive relation with firm performance, as measured by ROE and Profit margin. Also, the results are consistency with the results by Bauer et al. (2008), in that the higher the governance performance, the higher the financial performance of the firm. Therefore, as discussed in the literature, the corporate governance is like a heart for any business, as the rules, procedures, responsibilities, decisions, vision, mission, goals, and objectives all are there. Therefore, better corporate governance performance leads to better firm financial performance, as this thesis found. The implications are that if a firm wants to enhance its financial health, then they have to make sure that they have good corporate governance, as it has been found to decrease financial distress.

The insignificant results of employee relation on firm financial performance are consistent with the results by Maditinos et al. (2011) Daryae

et al. (2011) Firer & Williams (2003) who also found insignificant results on the relation between human capital and firm financial performance, as measured by profitability indicators. However, it can not be judged, since employee relation builds and develops by time, so focusing on current employee relation and current firm financial performance might not show any relation; however, in time it might be (this issue will be looked at later in the chapter). The same goes for community relation, product/customer relation, and human rights, in that all of these factors might have an impact over time, as they take time to develop and show their impact (as will be shown later in the chapter).

Research sub-question 6: Which of the social dimensions have an impact on firm financial health for low performing firms?

The low performing hypotheses have been developed to investigate which social dimensions have an impact on firm financial health. Hypotheses H_{3a(ii)} for community relation performance (insignificant), H_{3c(ii)} for employee relation (insignificant), H_{3e(ii)} for product (insignificant), H_{3g(ii)} for diversity (insignificant), and H_{3i(ii)} for human rights performance (insignificant). All the dimensions show insignificant findings. Also, corporate governance examined H_{3k(ii)} and showed insignificant results.

The insignificant findings with corporate governance to firm financial performance are consistent with the results by Bhagat & Black (2002) and Bhagat & Black (2000), when they got insignificant findings on the relationship between corporate governance and firm financial performance ROA. Consistent with the results by Chaghadari & Chaleshtori (2011), for the insignificant results of three dimensions: corporate governance board independency, board size, and ownership structure, with firm financial performance.

The same was discussed earlier for the insignificant findings of other social activities. They might take time for the impact to appear (which this thesis will discuss later).

Research sub-question 7: Which of the social dimensions have impact on firm market value for high performing firms?

To answer this question, a number of hypotheses were developed in the previous chapter. $H_{3b(i)}$ for community relation, which showed significant positive (β 0.071, $p < 0.01$). $H_{3d(i)}$ for employee relation also showed significant positive (β 0.10, $p < 0.01$). $H_{3f(i)}$ for product still shows insignificant findings. $H_{3h(i)}$ for diversity performance continue to show negative significant (β -0.014, $p < 0.05$) and also with market value, $H_{3j(i)}$ for human rights brought insignificant results. The hypothesis $H_{3l(i)}$ for corporate governance showed insignificant results. Thus, the results show that only community and employee relation are positively reflected in the market, while diversity is negatively reflected along with human rights, product and governance insignificant.

The employee relation findings are consistent with the results found by Bird et al. (2007), when they found that employee relation has a positive impact on market value. This is also consistent with Lin et al. (2012), when they found a positive relation between human capital and market to book value. It is also consistent with the results by Daryae et al. (2011), Maditinos et al. (2011) Lin et al. (2012), who found a positive relationship between market value and human capital. The results are not consistent with the Rodgers et al. (2013), when they found insignificant to market value and significant to firm financial health. Thus, employee relation is reflected by the market, and managers should try their best to use employees' skills and knowledge, which will help in inventing new ideas, increase production, and use their skills and abilities efficiently. The results support the resource based view that employees have intangible skills that are rare, unsubstitutable, valuable, and inimitable. Therefore, by having a good relation with them will help them to enhance those skills through training, education, providing good working conditions, and providing family care, etc. They will be encouraged to put more effort on job which will lead to the reduction of several costs, such as turnover and increased performance. Thus, firms will gain a competitive advantage over their competitors and enhance firm market value.

The negative relation of diversity is consistent with Ahern & Dittmar (2011) that in Norwegian companies, firms that have diversified in high positions have a negative impact on market value, as measured by Tobin's q. This is also consistent with the results found by Lee & Erika (2007), who found firms that diversify by including women on board have a negative impact on market value.

The insignificant relation with corporate governance is consistent with findings by Bhagat & Black (2000) and Hermalin & Weisbach (1991) when they found it insignificant with Tobin's Q. The insignificant results with market value are consistent with the results by Bauer et al. (2008) when they found corporate governance, as measured by board accountability, corporate behavior, and market for control have an insignificant impact on firm market value. The results for the impact on firm market value show that investors do not see that corporate governance as something that should be consider in making an investment decision. The reason might be that investors believe that the governance aim is to increase the wealth of owners so it is the firms' responsibility to make sure that the activities, procedures, processes, and decisions made should be related to owner's wealth. This might be a reason why investors consider governance irrelevant in making decisions, as they know it is their duty. Investors see that managers and high positions have incentives of doing things that have their own interests. Therefore, investors do not take into consideration firm corporate governance as they consider it irrelevant and reliable on investment decision.

Research sub-question 8: Which of the social dimensions have an impact on firm market value for low performing firms?

The hypotheses have been developed to identify the activities that have an impact on firm market value, as stated in the previous chapter. The results for the hypotheses $H_{3b(ii)}$ for community relation showed insignificant findings. $H_{3d(ii)}$ for employee relation also showed insignificant results. $H_{3f(ii)}$ for product performance showed insignificant results. $H_{3h(ii)}$ for diversity showed significant positive β 0.062, $p < 0.10$). $H_{3j(ii)}$ for human rights and $H_{3l(ii)}$ for corporate governance both showed insignificant results. All social dimensions show insignificant findings except for diversity, which continues to show high performance.

The results show the same as on the impact on firm financial health. All social activities showed insignificant on firm financial health and market value for low performing firms (with the exception of diversity on market value showed negative as already discussed). This can be said since this is for the low performing group that has a low score in sustainability activities. Therefore, those performance do not have any influence on firm financial health as well as market value as they might be low scores and are not relevant for investors to react on them or draw any decision.

However, the further analysis on the impact of the social activities performance on the next year firm performance will be examined and discussed in the following section.

Research question 9: Does the prior year sustainability performance influence current period firm performance or it is the other way round? That is to say, does prior year firm performance influence sustainability in current period?

In order to answer this question, hypothesis 4 and hypothesis 5 have been developed. The hypothesis 4 examines the impact of lagged sustainability performance on current firm performance and hypothesis 5 examine the impact of lagged firm performance on current sustainability. The thesis starts with the discussion of the findings of the hypothesis 4: lagged sustainability performance.

“Doing well by doing good”: Lagged sustainability performance to current firm performance.

9(i) a- Lagged sustainability to current firm financial health for high performing firms.

The hypothesis $H_{4a(i)}$ considered all three lagged sustainability performance as a perception. The results show that only lagged social performance has a positive impact on firm financial health (β 0.058, $p < 0.10$). This means that in the previous year, good social performance increased firm financial distress, as discussed in sub-question 1 above. Even when the pillars are taken separately, the lagged environment ($H_{4c(i)}$) showed the same insignificant results, $H_{4e(i)}$ for lagged social became insignificant, $H_{4g(i)}$ for lagged economic (insignificant).

Also, for lagged social dimensions, lagged community $H_{4i(i)}$ (insignificant), lagged employee relation $H_{4k(i)}$ (insignificant), lagged diversity $H_{4m(i)}$ (positive significant β 0.107, $p < 0.01$) lagged product $H_{4o(i)}$ (negative significant β -0.049, $p < 0.05$), lagged human rights performance $H_{4q(i)}$ (insignificant), lagged corporate governance performance $H_{4s(i)}$ (insignificant).

Therefore, the results didn't change even when using lagged sustainability to current firm financial performance, since the results were the same in sub question 1 above and sub question 5 above, except for lagged

product only, because the result changed from an insignificant to a negative relation to firm financial distress as expected, in that product related activities like customer relation need time to develop and show their impact.

The negative product relation result means the increased product related activities help firms to become financially healthier. The result is consistent with the results by Ittner & Larcker (1998) that there is a positive relationship between satisfying the customers and firm financial performance. Also, consistent with the results by Curkovic et al. (2000), that product quality has a significant positive relation with firm financial performance, as measured by ROA. By providing good quality products, firms will be able to satisfy customer needs, which in turn will be able to retain them, and therefore reduce future transaction costs, low risks, and increased word of mouth. As a result, customers repeat buying a variety of goods from the firm, which will lead to more cash inflow and this will also help firms to have high financial performance. This is also consistent with Anderson et al. (1994) who found a positive relation between customer relation with firm financial performance in Sweden.

The results for the impact of product on firm financial health are supported by the *stakeholder theory* (Freeman 1984), that firms should consider other groups when making their decisions, such as customers, employees, and shareholders, etc. While producing their products and services, firms should care about the health and safety of the user, the quality that consumers prefer, and the relation with the customer. It means firms are considering other stakeholders and not just their shareholders, thus, the stakeholder theory supports the findings.

To sum up, the results show that there is no difference even if lagged sustainability was used. The results are the same except for product related activities only, which show its impact after some time as it develops.

b) Lagged sustainability to current firm financial health for low performing firms.

To investigate the impact of lagged sustainability to firm financial performance, the hypotheses have been developed as stated earlier. The results show that all lagged sustainability pillars have an insignificant impact on current $H_{4a(ii)}$. Even if the pillars are considered separately, $H_{4c(ii)}$ for lagged environment (insignificant), $H_{4e(ii)}$ for lagged social only (insignificant), $H_{4g(ii)}$ for lagged economic only (insignificant). These results are the same as sub question 2, except economic showed a negative significant impact, and now it is insignificant.

For the social dimensions, the lagged community $H_{4i(ii)}$ (insignificant), lagged employee $H_{4k(ii)}$ (insignificant), lagged diversity $H_{4m(ii)}$ (insignificant), lagged product $H_{4o(i)}$ insignificant, lagged human rights $H_{4q(ii)}$ (insignificant), lagged corporate governance $H_{4s(ii)}$ (insignificant). The results are the same as in sub question 6. These show that the social dimensions effect for low performing firms on firm financial performance do not depend on the time, nor current social performance, nor lagged social performance. All have the same insignificant findings. The insignificant results are consistent with the results by Lys et al. (2015), as they got insignificant results on the relationship between firm financial performance measured by return on asset and the sustainability performance.

To sum up, the results of the impact of sustainability on firm financial performance for low performing firms are the same, regardless of current or lagged sustainability used, and might be since the low performing firms have very low scores in those activities so they do not have any influence or impact on firm performance.

c) Lagged sustainability to current market value for high performing firms.

Now, let's look at lagged sustainability on current firm market value. Hypothesis H_{4b(i)} shows that lagged economic performance (β 0.332, $p < 0.01$) and lagged social performance (β 0.079, $p < 0.01$) have a significant positive impact on current firm market value. When taken separately, lagged environment performance also has a positive significant (β 0.065, $p < 0.05$) impact on current firm market value H_{4d(i)}. Lagged social H_{4f(i)b} and lagged economic H_{4h(i)} continued to show a positive significance even when each one was considered separately. The results are the same as in sub question 3, even if the lagged sustainability was considered instead of current sustainability performance.

For social dimensions, lagged community H_{4j(i)} (positive significant β 0.073, $p < 0.05$), lagged employee relation H_{4l(i)} (positive significant β 0.073, $p < 0.01$), lagged diversity H_{4n(i)} (insignificant), lagged product H_{4p(i)} (insignificant), lagged human rights H_{4r(i)} (insignificant), lagged corporate governance H_{4t(i)} (insignificant). The results are all the same as sub-question 7, except for diversity, which was negative significant and now it is insignificant.

It shows that almost the impact does not matter where it is for current sustainability performance or for lagged sustainability performance; all lead to the same results on market value for high performing firms.

d- Lagged sustainability to current market value for low performing firms.

Lagged sustainability has been examined and the following results were reported for low performing firms. The lagged sustainability H_{4b(ii)} lagged social (β 0.088, $p < 0.05$) show positive significant impact, while environment and economic show an insignificant impact. Also, when taken separately, lagged environment H_{4d(ii)} (insignificant), lagged social H_{4f(ii)} have the same results, which are positive, lagged economic H_{4h(ii)} (insignificant).

The results differ from the results of sub-question 4 only with social performance. When current social performance was considered before, it

showed insignificant results, while now when lagged social performance is taken into test, the results are positive significant. This shows that it takes time for social performance to show its impact on market value, which might be because it takes time for a market to get news related to firm social performance. Thus, market values are prior to the year of firm social performance when making their decisions.

When social activities were taken each one by one the results show that lagged community $H_{4j(ii)}$ has insignificant impact, lagged employee $H_{4l(ii)}$ also insignificant, lagged diversity $H_{4n(ii)}$ insignificant results, lagged product $H_{4p(ii)}$ showed significant positive (β 0.056, $p < 0.10$), lagged human rights $H_{4r(ii)}$ has insignificant), lagged corporate governance $H_{4t(ii)}$ also showed insignificant findings. The results differ from 8 only on product. The impact was insignificant, while now it has become positive significant while diversity was positive significant and is now insignificant. This means that product related activities show their impact over a time and not immediately, the same as in the high performing with firm financial results shown before, while diversity shows its impact at the same time by the time the effects disappear.

The results of the product positive relation to market value are consistent with the results found by Fornell et al. (2006) Luo & Bhattacharya (2006) Aksoy et al. (2008), who found a positive relation between product related activities to firm market value. The results are also consistent with Gupta et al. (2004), that firm value increases by five percent when it retains its customers by building a relation with them and satisfying their needs. The results are also consistent with the results found by Anderson et al. (2004), who found positive results with market value, as measured by the same indicator used in this research, a Tobin's Q.

To sum up, the results for low performing firms show that there are some differences on the impact of sustainability if it is taken as current or lagged on market value. The results support the argument that it takes time for sustainability activities to show their impact on firm performance.

“Doing good by doing well”: Lagged firm performance to current sustainability performance.

After looking for the lagged sustainability on firm performance, the thesis will now examine and discuss the impact of lagged firm performance to current sustainability performance. To look at this hypothesis, 5 have been developed as shown in the results and analysis chapter. First, the thesis focuses on the impact of lagged firm financial performance on current sustainability performance, and then it will look at lagged market value on current sustainability performance.

9(ii) a-Lagged firm financial health to current sustainability performance for high performing firms.

The results chapter found that lagged firm financial performance $H_{5a(i)}$ has a negative significant ($\beta -0.043$, $p < 0.01$) impact only on current environment performance. That is, the higher the value of firm financial distress, the less the impact on environment performance. This is true as financially healthier firms have to focus first on the core objectives of the business and then they can consider other activities like environment activities. The results for the environment show the same results, even if they are considered by themselves as hypothesis $H_{5c(i)}$ found. The social $H_{5e(i)}$ and economic $H_{5g(i)}$ are also shown to be insignificant when they considered separately. The results show that the higher the health of the firm in the prior period will lead to a higher environmental performance in current period.

For social dimension, the lagged financial health showed an impact on current corporate governance $H_{5i(i)}$, which is significant negative ($\beta -0.043$ at $p < 0.10$), for current community relation performance. $H_{5k(i)}$ showed significant negative ($\beta -0.052$ at $p < 0.05$), current employee relation performance $H_{5m(i)}$ has significant negative ($\beta -0.073$ at $p < 0.05$), current product $H_{5p(i)}$ showed insignificant results, current diversity $H_{5r(i)}$ showed significant positive ($\beta 0.081$ at $p < 0.01$), current human rights performance $H_{5t(i)}$ has an insignificant impact.

The lagged financial health (the higher the number, the more a firm is financially distressed) negative impact on current firm community relation

means that the more the firm is financially distressed in the prior year, the less the firm engages in community relation. The more the firm is financially healthier in the prior year, the more the firm engages in community relation at present. Therefore, firm engagement in community relation activities depends on slack resources. The result is consistent with the results by Seifert et al. (2004) that having slack resources has a positive impact on giving; however, giving does not have a significant impact on getting. The same is true for this research, as lagged firm financial performance has a significant impact on community activities, but community activities were not seen to have an impact on firm financial health. This is also consistent with Kobeissi & Damanpour (2009) that banks' profitability influences firm engagement in community relation activities. Therefore, the slack resource based view plays a significant role in corporate social activities.

The results for the lagged financial health (the higher the more the distressed) which show a negative relation with current employee relation shows that the more a firm is financially distressed, the less the firm is involved in employee related activities. This is true because firms that have good financial performance will have slack resources to invest to their employees related activities like training, providing a chance for further education such as scholarships, teaching students different skills such as computing, and so on. These skills and knowledge develop overtime and they are inimitable, unsubstitutable, valuable, and are rare, which helps firm to gain a competitive advantage and hence firm performance. Therefore, the results support the resource based view (Barney 1991). Employee relation results are consistent with the results by Maditinos et al. (2011), as they found a positive relationship between firm human capital and firm financial performance in Greece. This is also consistent with Crook et al. (2011) in their meta-analysis, in which they found that human capital has a positive relation with firm performance. This is also consistent with (Lin et al. 2012; Ertugrul 2011; Darabi et al. 2012; Roca-Puig et al. 2011), who found a positive relation between human capital and firm financial performance. The environment results are consistent with the results by Wagner & Schaltegger (2004) when they found the positive relation

between firm profit and environment performance. The other social activities are as discussed before.

The most important findings are firms' prior period financial performance is crucial as it will have enough slack resources to put in sustainability activities. Therefore, the results support the slack resource based view, as well as the "Doing good by doing well".

b) Lagged firm financial health to current sustainability performance for low performing firms.

Firm lagged financial health shows a negative impact on current environment performance (β -0.186 at $p < 0.01$) and economic performance (β -0.205 at $p < 0.10$) in $H_{5a(ii)}$. When taken separately, lagged financial performance shows the same impact on current environment $H_{5c(ii)}$, social same insignificant results $H_{5e(ii)}$, economic same significant negative $H_{5g(ii)}$.

For social dimensions, lagged financial health to current corporate governance $H_{5i(ii)}$ has a negative significant impact (β -0.128 at $p < 0.10$), current community relation $H_{5k(ii)}$ has a negative significant impact (β -0.096 at $p < 0.01$), current employee relation $H_{5m(ii)}$ has a negative significant (β -0.097 at $p < 0.10$), current product $H_{5p(ii)}$ showed a negative significant (β -0.197 at $p < 0.01$), current diversity $H_{5r(ii)}$ showed a positive significant (β 0.145 at $p < 0.01$), and current human right $H_{5t(ii)}$ shows insignificant results.

These results support the slack resource view, as in the findings of the research 9(i)b above, the lagged sustainability shows an insignificant impact, while now the lagged financial health show a negative impact. The results are consistent with the results by (Margolis et al. 2007), that prior period financial performance has more impact on corporate philanthropy in the meta-analysis of 167 studies. These findings support the view that in order for a firm to participate in other activities, they should have slack resources, which will enable them to invest in those activities. Also, for social dimensions, all lagged

dimensions were insignificantly related to firm current financial health, while now lagged firm financial health also shows an impact on current social dimensions. These also support the slack resource based view.

To sum up, the prior period financial performance is important for the next period for practicing sustainability activities.

c) Lagged firm market value to current sustainability performance for high performing firms.

The lagged firm market value $H_{5b(i)}$ on current sustainability was seen to have an impact on current economic performance, which showed positive significant (β 0.372, $p < 0.01$). When considered separately, it still shows insignificant to current environment $H_{5d(i)}$, current social $H_{5f(i)}$ same showed insignificant findings, current economic $H_{5h(i)}$ showed positive significant.

For social dimensions, lagged financial health on current community relation $H_{5l(i)}$ had an insignificant result, current employee relation $H_{5n(i)}$ showed a positive significant impact (β 0.142 at $p < 0.01$), current product related activities $H_{5q(i)}$ also positive significant (β 0.117 at $p < 0.01$), current diversity $H_{5s(i)}$ has a negative significant (β - 0.201 at $p < 0.01$), current human rights $H_{5u(i)}$ has a positive significant (β 0.112 at $p < 0.01$), current governance $H_{5j(i)}$ was also shown to be insignificant.

The significance of human rights is consistent with the results by Islam & McPhail (2011) when they found that the big firms in the U.S. and the E.U. put more effort on human rights issues, and also they disclosed them, such as eliminating child labor, freedom of association, and no forced labor, etc. Since they are big companies, it means they are financially healthier and have already got enough resources, thus, they have slack resources to invest in human rights activities. All the hypotheses related to human rights showed insignificant results, but only the lagged market value showed a positive relation. This means that the prior year performance is important in examining the firms' involvement in sustainability activities. All other social activities have already

been discussed earlier. The slack resources play the major role as already discussed. .

d) Lagged firm market value to current sustainability performance for low performing firms.

To examine the impact of lagged market value on current sustainability, the following hypothesis has been developed: H_{5b(ii)}, the impact is on current environment, which showed a positive significant (β 0.068 at $p < 0.10$). Also, when each pillar was taken separately, the results were the same H_{5d(ii)} for current environment only showed positive significant, current social H_{5f(ii)} showed the same insignificant findings, current economic H_{5h(ii)} also showed the same insignificant findings.

For social dimensions, lagged market value on current corporate governance H_{5j(ii)} showed insignificant results, current community H_{5l(ii)} has insignificant findings, current employee relation H_{5n(ii)} have insignificant results, current product related activities H_{5q(ii)} showed positive significant (β 0.149 at $p < 0.01$), current diversity H_{5s(ii)} showed insignificant, same current human rights H_{5u(ii)} insignificant findings. The results related to the prior research were already discussed earlier, and showed that firm lagged market value has an influence on current environment and product related activities for low performing firms. This also means the prior year firm performance plays a big role on investing in social activities.

Firm financial information

Firm financial information profitability liquidity and leverage also showed interesting results. Even though for high performing firms, most of the time profitability and liquidity showed insignificant results, though this cannot be concluded. However, leverage for high firms as well as low performing firms showed to have a positive significant impact on firm financial health. Since financial health is financial distress, the more the firm leverage, the more firms' financial distress increases, which means the more probability there is

for the firm to go bankrupt. In addition, for low performing firms, when lagged sustainability, current/lagged firm performance hypotheses were examined, profitability and liquidity showed a significant negative impact on firm financial health. These mean that the more the firm profitability and liquidity, the less the firm financially distresses. Also, the financial distress is negatively related to firm market value which means the more the firm is financially distressed, the less the market value of that firm. These findings are supported by Blanco et al. (2013) and (Rodgers et al. (2013).

Control variables results

In all the hypotheses examined for high performing firms, all the control variables had a significant negative relation on both firm financial health and market value, except for industry, which showed positive to market value and firm size was insignificant to firm financial health. However, when lagged financial health was considered, it became negatively significant also. For low performing firms only, firm size and firm age were negative significant to market value. Therefore, these support the prior findings that firm size, firm age, and industry by Artiach et al. 2010; Lys et al. 2015; Blanco et al. 2013; Chang & Kuo 2008; Wagner 2010) have an impact on the relationship between sustainability and firm performance. However, from the descriptive table results, high performing mean for firm size are 23056.13, while low performing firms show a mean firm size is 2271.70; this means that larger firms have enough resources to invest in sustainability than smaller firms. The results are consistent with the results by Artiach et al. 2010) as they found that large firm size has a higher sustainability performance. As Ullmann (1985) argues, firm size matters since large firms are more focused toward the public, have more resources, and incur sunken costs and economies of scale. Also, firm age shows that high performing mean is 64.92, but low performing firm mean age is only 43.20. This also supports the belief that firm age has some role in firm participation in sustainability activities, as firms in the beginning years have to focus on growth and gaining market, before later looking at other wider activities like sustainability activities (Wagner 2010).

The Model

The Throughput model was more appropriate for the research as the model consists of four constructs which are important in making decision. The information construct consists of the information that is available for the decision makers in this research the firm financial information from financial statements are the information available. Another construct is perception construct that is how the decision makers believe or knowledge about the sustainability activities. Then the judgment construct is when the decision makers compares and rank the available options and finally the decision construct when the decision reach the final decision. The formation of this model was most appropriate as these four constructs are the crucial parts of decision making and the pathways also helped to get the results of the thesis. In most prior sustainability research there were no model that were followed (Allouche & Laroche 2005) researchers used only the available ratings. Few research use conceptual model like (Surroca et al. 2010) and (Orlitzky & Benjamin 2001) and no decision model were used.

The Throughput Model was successful to get the findings of this thesis. For example in high performing firms the perception (social) showed to have significant impact on Judgment (financial health) which in turn showed impact on decision (market value), thus Ruling guide pathway. Also perception (environment, social, economic) showed to have direct significant impact on decision (market value), thus Expedient pathway. Also for example information (profitability, liquidity, leverage) showed to have correlation with perception (economic, social, environment) which then impact on decision (market value) thus Revisionist pathway. Furthermore, the perception (social, economic, environment) showed to correlate with information (profitability, liquidity, leverage) to judgment (financial health) then to decision (market value) thus both Value driven pathways and Global perspective pathways. Moreover, in low performing firms, information (profitability, liquidity, leverage) showed to have impact on judgment (financial health) which in turn has impact on decision (market value), thus Analytical pathway. These are just few mentioned

just to show the successful of the model to the findings of the thesis and many others are in the results chapter. These follow those who use the model and reach to the conclusions like Rodgers et al. (2013), Guiral et al. (2010) and others.

6.3 COMPARISON BETWEEN SUSTAINABILITY PILLARS

Since sustainability consists of three pillars: environment, economic, and social, as discussed in the literature review chapter. The thesis found that for high performing firms all the three pillars have a positive significant impact on firm market value, while low performing showed only the social pillar to have a significant impact on market value. The impacts are more through the economic pillar (β 0.377, $p < 0.01$), followed by the social pillar (β 0.119, $p < 0.01$), and lastly by the environment pillar (β 0.088, $p < 0.01$). Therefore, investors value all the pillars; however, they are influenced more by the economic pillar than social and environment performance.

However, firm performance (firm financial health and market value) for both high and low performing firms has an impact on the economic and environment pillars more than on the social pillar. This means that firm performance influences managers and high positions to make more effort and investments on the economic and environment pillars than in social pillar. The results are consistent with the results by Brent & Labuschagne (2006) and Lehtonen (2004) that firms put more effort on environment and economic pillars and less on the social pillar. This is also consistent with Chabowski et al. (2011), who found more effort is given to the economic pillar than the other two. In addition, Ballou et al. (2012) found that firms put more effort on environment initiatives, which is the same as in this thesis, whereby the most impact from firm performance pathways are on the environment pillar than social pillar.

6.4 COMPARISON BETWEEN HIGH AND LOW PERFORMING FIRMS

After analyzing the hypotheses, the section compares those pathways that were significant in both high and low performing firms to examine the strengths of the relationship.

For both firms, current firm financial health has an impact on the current community with high performing firm financial health has -0.046 on community relation performance, while low has -0.061 on current community relation performance. This means that the increase of firm financial distress, the community relation score decreases by 0.046 for high performing firms, while for low performing firms, with an increase of firm financial distress, the community performance decreases by 0.061. This also shows that the impact is stronger in low performing group than in high performing group.

Moreover, both high and low performing firms' current firm financial health have an impact on current diversity performance. The high performing firm financial health has 0.087 on current diversity, while for low performing firms financial health has 0.168 on current diversity. This means that with an increase of firm financial distress, the diversity increases by 0.087 for high performing firms, while for low performing firms the current diversity increased by 0.168. The relationship is stronger for low performing firms than for high performing firms.

Current market value has an impact on current product performance for both groups of firms. The high performing firms' current market value has a 0.116 impact on current product, while for low performing firms, the current market value has a 0.152 impact on current product performance. This means that with an increase of firm market value, the product performance increased by 0.116 for high performing firms, while for low performing firms, with an increase of market value, the product performance increased by 0.152. The results also show that the relation is stronger for low performing firms than for high performing firms.

For both high and low firms, financial health showed to have an impact on current environment performance, with high performance showing -0.043, while low firms relation is -0.186. This means that the impact is more for low performing firms, that is, the greater the increase of firm financial distress, the more the decreased environment performance (-0.186) for low performing firms, while for high environment, performance decreases by 0.043 only. The impact is stronger for low performing firms than for high performing firms.

Moreover, for both groups of firms, lagged firm financial health has an impact on current community performance. High performing firm financial health has a -0.052 impact on the current community, while the low has -0.096 on community performance. This means that the more a firm's prior year financial distress, the less will be the firm's current community performance; furthermore, the high community performance decreases by 0.052, while for low communities, this decreases by 0.096. Therefore, the more effect is on low performing firms.

Also, both high and low firm lagged financial health has an impact on current employee relation performance. The high performing firm financial health has -0.073 on current employee relation performance, while for low performing firms this is -0.097 on current employee relation performance. This means that an increase in the prior period firm financial distress, the employee relation performance for high performing firm decreases by 0.073, while for low performing firms, employee relation performance decreases by 0.097. This continues to show that the strengths of impact are greater in low performing firms.

Furthermore, for both groups, lagged financial health has an impact on current governance performance. High performing firms lagged firm financial has -0.043 on current corporate governance performance, while low performing has -0.128 on current firm corporate governance performance. These means an increase of the prior period financial distress leads to a decrease of 0.043 current governance performance for high performing firms, while for low

performing firms it leads to a decrease of 0.128 current governance performance. Therefore, the greater effect is still in low performing firms.

For both high and low performing firms, lagged firm financial health has an impact on current diversity. The high performing firm financial health has a 0.081 impact on current diversity, while low performing firms lagged financial health has a 0.145 impact on current diversity. This means that for high performing firms, an increase of the prior period of firm financial distress makes the diversity increase by 0.081, while for low performing firms, the diversity increases by 0.145. This also shows that the strong impact is more in low performing firms than in high performing firms.

Firm lagged market value has an impact on current product for both high and low performing firms. For high performing firms, lagged financial health has a 0.117 impact on current product, while for low performing firms, the lagged financial health has a 0.149 impact on current product performance. This means that an increase of prior period market value leads to an increase of 0.117 product performance for high performing firms, while for low performing firms, an increase of prior market value leads to an increase on firm product of 0.149. In the same way as above, the relation is stronger for low performing firms than for high performing firms.

For both high and low performing firms, the results showed there is a positive impact of sustainability on firm market value. However, for low performing firms it takes time to show the impact, as discussed earlier. For example, lagged social showed to have an impact on current market value for both high and low performing firms. The high performing firms lagged social has 0.079 on current market value, while for low lagged firms, social has 0.088 on firm market value. In the same way as before, the relation is stronger for low performing firms than for high performing firms.

Therefore, for the discussion above, it can be seen that the impact is stronger for low performing firms than for high performing firms, which is

consistent with the results by (Flammer 2015), who found more return for the firms that perform low activities in corporate social responsibilities.

Comparison between current and lagged sustainability.

By comparing the results of current and lagged with previous studies it can be seen that, the results by Rodgers et al. (2013) found that current sustainability has significant positive impact on both firm financial health and firm market value. In the additional analysis the authors found current employee relation to have positive significant impact on firm financial health only while insignificant with market value, current customer have positive significant for both firm financial health and market value while current community has insignificant on both. While this research found current social activities to have positive significant impact on both current firm financial health and market value for top performing firms while insignificant for low performing firms for both. When taken each dimension for top performing firms current community and employee have positive impact on market value while diversity have positive with financial health and negative with market value, governance negative with firm financial health while for low all insignificant except diversity still show negative with market value.

For lagged firm performance Rodgers, Choy, et al. (2013) found that lagged firm financial health has insignificant impact on current sustainability performance while lagged firm market value has positive significant impact on current sustainability. While this research found lag firm financial health to have negative impact on firm current environmental performance, community relation, employee, governance while positive with current diversity for both group of firms. While, lag market value has positive impact on current employee relation, product, human rights and negative on current diversity.

Blanco et al. (2013) found that the lagged sustainability to have positive significance impact on current firm profitability while they found insignificant to current market value. This research found for top performing firms that lagged social activities to have positive impact on both firm financial health

and market value. With activities lag diversity showed to have positive impact on firm financial health, lag product activities have negative impact on firm financial health while lagged community and employee showed to have positive impact on firm market value. While for low found lag social to have positive impact on market value and insignificant on firm financial health.

6.5 Additional analyses findings

a) Additional analysis 1 findings.

When additional analysis was performed for the impact of current firm performance on current sustainability performance, for high performing firms both financial health and market value have an impact on economic performance only. While financial health has a negative impact on community and employee relation and positive on diversity, market value has a positive significant impact on employee relation, product, and human rights, but a negative impact on diversity. Low performing firms show that firm financial health has a significant negative impact on economic, environment, community, and product, while a positive impact on diversity. Market value has a positive impact on environment and social, but negative on economic. Also, market value has a positive impact on product, human rights, and corporate governance.

Additional analysis shows that firm performance and financial position play major roles on sustainability activities; this is because both current and lagged firm performance showed to have an impact on sustainability performance. However, firm lagged financial health showed to have an impact on more sustainability activities than for the current firm financial health on current sustainability. Even though both showed to play a role on the sustainability performance for both high and low performing firms, these results are consistent with the results by (Chang & Kuo 2008a), that firm financial performance measured by profitability have an impact on sustainability performance.

However, for current market value and lagged market value, the impact on sustainability performance was the same for high performing firms. While for low performing firms there is more impact of current market value than on lagged market value on sustainability performance. This means that the market responds immediately on sustainability rather than financial health after some time. This might be the reason why some research found a negative relation between firm financial performance and sustainability, since sustainability incurs costs, which take time to show the benefits.

The results are consistent with the results by Margolis et al. (2007) in the meta analysis for 167 studies, as they found the relation is stronger from firm performance to corporate social activities than the other way around. The results are also consistent with the meta-analysis findings of Allouche & Laroche (2005), that treat firm performance as a determinant of sustainability performance, and a more positive impact than the other way round. Therefore, the findings show that firms have to perform better financially, and then they can engage more in corporate social activities. The results support the resource-based view.

b) Additional analysis 2 findings.

When the sustainability performance was separated into strengths and concerns, the results were as follows:

- a) The impact of sustainability strengths and concerns on firm performance.

The high performing firms' results of the impact of sustainability pillars strengths and concerns on firm financial health were the same as before, when the net social and net environment were considered. There were no differences on the results when the strengths and concerns were examined separately, or when net was used. Social strengths and social net were seen to have a positive impact on firm financial health, while social concerns were shown to be insignificant and also other pillars were insignificant. Also, the impact on firm market value results were the same as before when the net scores were used

(net, strengths, concerns), which were seen to have an impact on market value. Therefore, whatever the research's use, either takes the net scores (strengths minus concerns) or treats each separately (strengths and concerns), so the results do not differ. Since the net score, strengths score, and concerns scores all showed the same findings, it might mean that the negative impact of firms activities are concealed by positive activities, so investors do not just punish a negative single activity of the firms, but they also look at positive activity before they judge or decide on a firm.

For low performing firms, the impact of firm strengths and concerns on firm financial health are also the same as in net scores, as used in the hypotheses earlier. Both environment and social net showed insignificant results, the same as in social and environment strengths and concerns, where the results are insignificant. However, the impact on market value and environment strengths showed to have a positive impact on market value, while all others showed (net environment, environment concerns showed insignificant) also insignificant results due to social strengths and concerns on market value. The results show that the positive environment activities are rewarded in the market.

- b) The impact of firm performance on sustainability strengths and concerns.

The results of firm performance on sustainability strengths and concerns for high performing firms showed that firm financial health results on strengths were the same as in net before, however, now it is shown to have a positive impact on environment concerns only. The results mean that the more the firm is financially distressed, the more the chance the firm has not to care on environment activities, so it harms the environment and the concerns scores increase. Also, low performing firms showed the same results, in that the firm financial health (distress) has a positive relation with environmental concerns. The more the firm is distressed, the more the firm does not care about the environment, thus, the higher the concerns are. The results support the previous findings results that were supported by the slack resource view. Low

performing firms also show a positive impact on firm social strength; this result supports the high performing results earlier, when it was found that there was a positive relation between firm financial health and social performance. Also low performing firms showed firm financial distress to have significant positive impact on environment concerns. Thus the results continue to support the previous findings and slack resource based view.

- c) The impact of lagged sustainability strengths and concerns on current firm performance.

The results for the impact of lagged sustainability strengths and concerns on firm financial health were the same as when net score was used for high performing firms. Lag social strengths only (same as lag social net) showed to have a positive impact on firm financial health, while others showed insignificant results. Also, the results were the same as when current instead of lagged sustainability was used. The impact of lagged sustainability strengths and concerns on market value were also the same as when lagged sustainability net scores were used earlier. Also, the results are almost the same as when current sustainability was used. Therefore, the results show almost no difference if the net scores or strengths and concerns were used separately, and this shows that investors look at all the activities that firms do, rather than a single activity that should be punished or rewarded; they look over all corporate social responsibilities firms do. Therefore, for high performing firms, the results were the same either sustainability net, sustainability strengths, or sustainability concerns; thus, it doesn't matter if a research uses a net score or treats it separately. The results support the earlier hypotheses results that firm social activities incur costs which might affect firm financial health, but they are also valued positively in the market; thus, this supports the view that spending to an optimum level, as argued earlier.

For low performing firms, lagged sustainability strengths and concerns showed insignificant results to firm financial health (same as when net scores were used). The results are also the same as when current sustainability strengths and concerns were used. However, when net scores were used, lagged

social was shown to have a positive impact on firm market value, whereas lagged social strengths showed an insignificant impact on firm market value and lagged social concerns showed a negative impact on market value. The results showed that firm social concerns are punished in the market. Therefore, the results support each other in general.

- d) The impact of lagged firm performance on current sustainability strengths and concerns.

The results for the lagged firm performance for high performing firms showed that lagged firm financial health has a positive impact on firm environment concerns. This showed that the higher the firm financial distress, the more the firm become careless on environment activities and the more the firm environment becomes concerned. Also, for low performing firms the lagged financial health has a positive relation with firm social and environment concerns. This means that the more the firms financial distress, the more the chance for a firm not to care about the environment and social activities. This supports the results earlier when the lagged firm financial health for both high and low was shown to have a negative impact on environmental net score earlier. That is, the higher the firm's lagged firm financial distress, the lower the firm environment net score. Therefore, the results support each other and support the slack resource based view. In addition, low performing firms also showed to have a positive impact on firm environment strength, which might be that the more the firm is prior period financially distressed, the more the firm puts on environment activities. This might be that firms are trying to invest in environmental activities such as pollution prevention, pollution control, and so on, which, as shown from literature, that pollution prevention means using the available resources in a more efficient way, so that no wastage of resources, and thus low firms are trying to improve their performance by putting more on environment activities. For both high and low performing firms, when the sustainability is separated between the strengths and concerns, the results showed the lagged market value results were the same as in the current market value results shown before.

6.6 SUMMARY OF THE FINDINGS

High performing firms.

When the relationship examined almost no differences between the current/lagged sustainability performances on current firm financial health. Both (current and lagged) sustainability showed a positive impact on firm financial health. This means as social performance increases, the firm financially becomes healthier, and financial distress is increased. Therefore, it can be said that social performance incurs more costs than its benefits. Moreover, both (current and lagged) show a positive relationship between diversity and firm financial performance. The same as social, the more firm diversity performance, the more a firm becomes financially healthier. Since the results are for high performing firms, it shows that they spend more than the benefits they get from those activities.

The only difference is current governance is shown to have a negative relation with current firm financial health. Which means corporate governance helps firms to improve financial health as well as lagged product, which shows a negative relation with current firm financial health.

The impact of firm financial health on sustainability performance showed more interesting results. Both current and lagged firm financial health has more impact on sustainability activities. When examined, it was seen to have a negative impact on current environment, current community, current employee relation, and current corporate governance. This means that since the relation is negative, the more the firm becomes financially distressed and the less the firms become involved in those sustainability activities. However, the impact was more for lagged financial health than current financial health. This means that the prior year firm performance plays an important part in sustainability activities practice. Therefore, the slack resources based view is supported.

Diversity shows a positive relation in all the four cases of current/lagged sustainability current/lagged financial health. It can be concluded that diversity

incurs costs and should be taken into consideration when firms decide to diversify. However it might be that firms that are in bad firm financial performance decide to diversify so that they can improve firm performance. As found by (Ryan & Haslam 2005) that firms that appoint women, were having bad financial performance in the last five prior to the appointment than those who appoint male.

The results show there are almost the same findings for the relationship of current/lagged sustainability and firm current market value. Most of the activities (for both current and lagged; economic, social, environment, community relation, employee relation) were shown to have a positive impact on firm current market value. That is, the market/investors value or consider those activities when making their investment decisions.

For both current and lagged market value, the relation is also positive on current economic, current employee relation, current product related activities, and current human rights performance. This shows that the impact is bidirectional, as sustainability activities impact firm market value as well as market value, which has an impact on sustainability activities.

However, diversity is shown to have a negative relation with market value. Since current diversity shows a negative impact on current market value, current, as well as lagged market value show a negative relation with current diversity. This means that markets punish firms that diversify, and this might be because investors know that it actually has a positive impact on firm financial distress, as found in the previous hypotheses or might be the firms that are in difficult financial performance decide to diversify so that can make improvement. So, the hypotheses findings support each other.

The first additional analysis of when current firm performance was used on current sustainability, firm financial health had an impact, but more of an impact was shown on lagged firm financial health, while the current market value on sustainability showed the same impact as lagged market value. Therefore, supporting the results of the hypotheses.

In the second additional analysis made when sustainability was separated between strengths and concerns, the results were the same as when current/lagged net sustainability scores, current/lagged market value when used in the hypotheses above, thus supporting the results. The only difference is the firm current/lagged financial health was seen to have a positive impact on environment concerns, so it adds to the evidence that firm performance plays a crucial role on sustainability participation.

Low performing firms.

The same as in high performing firms, there are almost the same results on the impact of current/lagged sustainability to current firm financial health for low performing firms. Only the current economic pillar showed to have a negative impact on current firm financial health. All other pathways were insignificant.

The same as the high performing firms, the firm financial health showed very interesting findings. Both current as well as lagged financial health have an impact on firm sustainability performance. These show that firm financial health plays a big part in a firm's decision to sustainability practice. However, there was more impact is on firm lagged financial health, which showed to have a significant negative impact on current environment, current economic, current corporate governance, current employee relation performance, and current product related activities. These all support that the prior period firm financial position plays an important role in the next period of sustainability performance. Also, current as well as lagged firm financial health, has positive impact on diversity.

For low firms, current sustainability shows an insignificant impact on current market value, except for diversity, which shows a positive relation. However, for lagged sustainability, social and product related activities are seen to have a positive impact on current firm market value. This shows that it takes time until the market find information related to firm sustainability activities and to make ties with customers.

Also, both current and lagged market value is shown to have an impact on sustainability activities. The more impact there is by the current market value on current sustainability activities, which was seen to have a positive impact on current environment performance, product related activities, human rights, and corporate governance. For low performing firms, diversity was seen to be valued in the market.

The second additional analysis made when strengths and concerns were separated, the results continued to hold the same as when net scores were used for both current/lagged sustainability on current firm performance. The only difference is that the lagged social net score showed a positive impact on market value, while the lagged social concern showed a negative impact on market value, thus supporting the previous findings that investors who consider social activities when making decisions and punish the negative activities done by businesses.

Both high and low performing firms.

For both high performing and low performing firms, there were almost the same findings when current or lagged sustainability were used to examine on firm financial health almost all insignificant with very few exceptions, as shown above.

Also, for both high and low performing firms, firm financial performance is the major reason a firm participates in sustainability activities, since both current and lagged firm financial health were seen to have an impact on sustainability performance. In addition, lagged financial health performance shows to have a significant impact on the involvement of firms' sustainability activities than current firm financial health for both high and low performing firms.

Since all the above findings showed that current as well as lagged firm performance have an impact on sustainability activities; thus, the resource based view and slack resource based view support all findings. However, more impact has been shown by lagged firm performance, and this is supported by

the argument by Hong et al. 2012; Campbell 2007; A. Ullmann 1985; Lys et al. 2015; P. . Clarkson et al. 2011 that previous period firm performance is important for firms to engage in sustainability activities, the better the prior performance, the more the chance for firms to engage in other activities as they will have slack resources to spend on those activities. As Ullmann (1985) argues, firms that do well have slack resources that can afford to pay for sustainability activities and perform high in those activities. Hong et al. (2012) reported that the doing good companies are already known as doing well companies. Therefore, firm financial health is important to determine the firm engagement in sustainability activities. It can be said that financial health performance precedes sustainability performance.

The findings also showed that both current as well as lagged market value have an impact on sustainability performance, with high performing firms this is no different when either current or lagged was used. But for low performing firms, there is a greater impact when current market value was used. It can be said that there is a reciprocal relationship for firm sustainability performance and firm market value, especially for high performing firms, but also for low performing firms; however, the impact of sustainability on market value takes time, while the reverse is immediate. Therefore, the impact is bidirectional and more is shown when market value is used, and this is consistent with Orlitzky et al. (2003) for bidirectional; however, they found more by accounting based measure than market based measure.

The results show that firm performance has more impact on future sustainability performance, and the impact is more on firm accounting measure performance than market measure, which is consistent with Margolis et al. (2007). Thus, it seems that firms that are performing better accounting performance tend to put more emphasis on sustainability activities. Even if there are impact on both directions from sustainability to firm performance (especially for market value), and from firm performance to sustainability (strong with accounting measure). The direction impact is more from firm performance to sustainability than the other way around. Therefore, firms have

to do well in providing services or products which they sell at reasonable prices, so they can get good profit (accounting based measure) then they can do other activities, as argued that only firms that are successful can be asked for more social activities (Campbell 2007).

The implications of the results are that whatever a firm is in either group (high or low), if its wants to increase firm performance, then it has to consider sustainability activities. In order for a firm to attract more investors, the most activities that firms should put more effort on are: environment activities, product related activities, community relation, and employee relation, as well as governance.

The environment related activities, for example, trying to reduce the pollution caused by the firms, and more specifically, input strategy pollution control, as previously discussed in the literature, are more efficient and effective ways of using raw materials and also to reduce the cost of production.

Product related activities like product quality and user friendly and also customer relation improvement help to retain customers, and will thus increase cross buying and reduce transaction costs, as well as increasing sales to new customers through word of mouth of the existing customers.

Community related activities such as charitable donations to the community, supporting elderly and poor, events or activities that will enhance the community relation, so all this will make communities consider either buying or working to the firms, which increase firm performance.

Employee related activities like provide further education, training on various programs that enhance various skills, training employees on using the machines and equipment prevent less accidents from happening, and also provide family care activities or programs so that they will consider a company as a family member. It also helps to provide facilities so that they can produce more in less time and save their efforts for other activities.

In order for a firm to improve its financial health, it should focus on product related activities and corporate governance. However, firms can also engage in other activities, but attention should be paid on costs in order not to exceed the benefits, or just to invest until the minimum requirements to avoid penalties and build ties with other stakeholders, as the thesis found for high performing firms, to have a positive relation on social performance on firm financial distress. Also, the diversity issue should be taken into further consideration, as in most cases it was seen to have a positive relation with firm financial distress and also had a negative relation with market value.

In summary, there is a reciprocal relationship between firm sustainability performance and firm performance, especially more on market based measures than in accounting based measure. Lastly, firm performance (both firm financial health and market value) plays a significant role on sustainability performance.

The study findings confirm the arguments and call from (Rodgers, Choy, et al. 2013; Huang & Watson 2015; Porter et al. 2007) for high and low performing firms, as the impact on CSR on firm performance differs between them, even though almost all are seen to have an impact on the relationship; however, the relation is stronger for low performing firms than for high performing firms. Also, a call by (Chang & Kuo 2008a) states that all the three pillars should be considered when examining sustainability, and results were shown above. In addition, the findings responded a call by (Hull & Rothenberg 2008) that different dimensions of corporate social responsibilities might have different impacts, as shown before. Finally, the results are supported by stakeholders theory, and the resource based view, as well as slack resources. This is the same for shareholder theory, but only with high performing firms as they seem to spend more and the benefits obtained from those activities might less than costs. As well as most of the relations that appeared significant on high and low performing firms, the results showed that the low performing firms have stronger relations than for high performing firms, which is consistent with the results by Flammer (2015).

6.7 CHAPTER SUMMARY

The chapter discussed the hypotheses results from the previous chapter in depth, and also the research questions from the beginning of this thesis for both groups of firms, that is, high performing firms and low performing firms. The chapter also connect the findings with the prior researches findings in how are they related. Also, it showed the theories that have supported the findings of this thesis. The next chapter is going to conclude this thesis.

CHAPTER SEVEN: CONCLUSION

7.1 INTRODUCTION

The chapter gives a summary of the thesis, its aim and objectives of the study, the approach used to answer the research question, and the hypotheses. The findings are also introduced with the discussion and contribution of the thesis. Also, the limitation of the study and the recommendation for the future research will be addressed.

The area of this research thesis is very important, as the world, especially companies, faces a big challenge in climate change. As there is a consensus that businesses should adjust themselves for climate change. That is, businesses should expand their activities to not only to focus on its short term financial performance, but also be able to sustain their businesses to survive in the long run, while they should also be forward looking. If the businesses stick to looking at the short run financial performance, they will end up with high losses in the near future, and bankruptcy. This is due to the increased stakeholders needs from the companies and the increased ways of communications, technologies and globalisation all around the world. For example, a company that has a headquarter in the U.S. can have its production activities in other countries, so the company has to focus on the needs of the stakeholders that are in the U.S., as well as in the other country of production. However, if the company fails to provide the needs, then the company might have a short run profit but a long run loss. So, in order for a business to be sustainable in the long run, they should make sure that they care about everything that surrounds the business. For example, businesses have to care about the environment, and this is where the businesses get the natural resources to produce their products and services. Also, businesses have to care about the society where the people provide the businesses their skills, knowledge, and resources, which help businesses to run their activities, and so on. Therefore, companies have to take into consideration the environment and

social activities, and also make sure they have good economic performance at the same time.

Researches have been done but the findings were contradictory; some were positive, others were negative, and inconclusive results were found, as discussed in detail in the literature chapter before. Various reasons were raised because of the contradictory findings, such as a lack of measures, theories, clear definition, quality of data, methods involved, firm industry, size, and so on (as mentioned in the literature). There are also reasons that make firms implement (even if it is loss bearing), such as pressure from external stakeholders, government rules, high position interest, and the decision not to implement corporate social issues, for example, not business obligation, lack of external pressure, absence of enough resources. After a long literature review that considered the contradictory and insignificant findings, the question still remained unsolved, which led to raising this thesis research question “Do sustainability activities have an impact on firm performance?”. The thesis first focused on the impact of sustainability in both current and lagged on firm performance (firm financial health and market value). Then it look at this the other way around, in the lagged firm performance impact on current sustainability performance, and also two additional analysis were performed to support the results of the hypotheses. The thesis further extended by comparing firms that performed better and those that did not perform well in order to get clear findings on the issue.

The thesis considered both firms that are performing well and those that do not perform well on social responsibilities and examine on the impact to its firm performance. The thesis focused on a seven years period (2007-2013). The data for corporate social responsibilities were taken from the KLD database and the financial information from Thompson One Banker Online. The thesis used the decision making model “Throughput Model” by (Rodgers 1997) and the softwares used are SmartPLS 3 and Spss software to run the statistical analysis and test the hypotheses.

7.2 FINDINGS OF THE THESIS

The thesis found the following:

- There were a positive relation on sustainability for both current and lagged on firm market value for both high and low performing firms. However ,for low performing firms, it takes time to show its impact on the market value.
- Moreover, current as well as lagged market value have an impact on sustainability performance for both groups. The more impact was found on current market value on sustainability performance for low groups. While for high performing firms, the impact was on the same activities, whether this was a current or lagged market value used.
- For the high performing firms in sustainability, the social dimension has an adverse impact on firm health as it has a positive relation with firm financial distress. While corporate governance and product related activities improve firm health, as they have a negative relation with firm financial distress.
- The low performing firms impact of current/lagged sustainability on firm performance were almost all insignificant on firm financial health.
- The results were almost the same, and either the current /lagged sustainability was used to examine its impact on firm financial health for both groups of firms (high and low).
- Firm performance (firm financial health and market value) are important for firm to engage in sustainability activities.
- Firm financial health are important for firm involvement on sustainability performance. More impact was found with lagged firm financial health on sustainability activities for both high and low performing firms.
- When the relations were found in both groups, the low performing tend to have a stronger relation with both firm financial health as well as market value than in the high performing group.

- Diversity showed to have a positive impact on firm financial distress and a negative relation with market value, except for low performing firms, who showed a positive impact on current market value only.

7.3 THE THESIS KNOWLEDGE CONTRIBUTION

From this thesis, already three papers have been drawn with some already submitted to the journal with the expectation to be accepted. The first is the conceptual paper with the review of related literature on the sustainability. The second and third papers are the empirical papers which covers the relations between the sustainability performance and the firm performance and the causality relationship are in process of submission to journals. The thesis add to the literature as it consider both firm financial health and market value at the same time, also it focus on top and low performing sustainability firms to see the impact on firm performance. It add to the literature as it consider more period, also by focusing on the sustainability pillars as well as each dimension in deep so stakeholders can understand which activities have more impact on firm performance. The thesis has implications for managers, investors, and other stakeholders as well and other contributions already discussed in chapter one. Finally, further publications are considered from the area of the this thesis.

7.4 LIMITATIONS

The study used only secondary data from KLD and Thompson. Future research can include primary data either from investors or managers to gain more knowledge on how they consider sustainability in their decisions, firm strategy, or what motivates them to practice sustainability.

Also, although the use of PLS has been recognised to increase its use, it is a new trend and has been shown to be less, while also needed in corporate social responsibilities. Still, future study can conduct the time series analysis to see for how long the sustainability activities has an impact on firm performance and when its impact disappears.

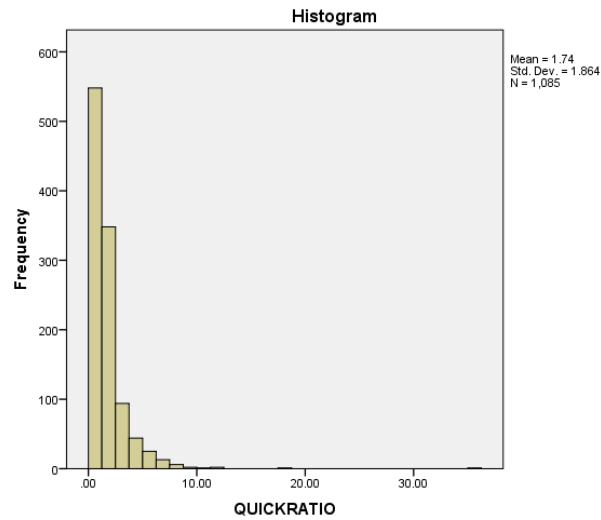
Also, due to the diversity in showing unexpected results, future research should consider the issue in depth, in addition to the reasons behind this.

APPENDICES

Tables show missing values and normality test for each variable for top performing firm.

1- QUICK RATIO

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
QUICKRATIO	1085	100.0%	0	0.0%	1085	100.0%



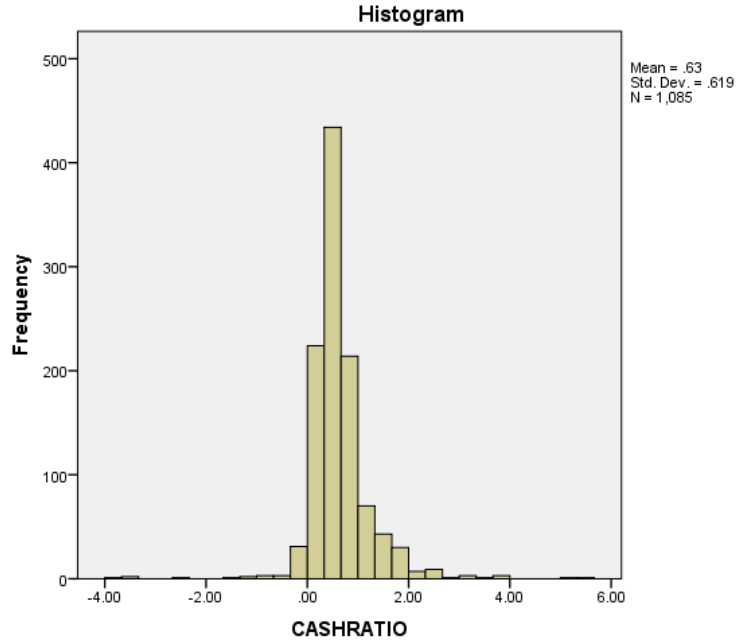
Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
QUICKRATIO	.211	1085	.000	.562	1085	.000

a. Lilliefors Significance Correction

2- CASHRATIO

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
CASHRATIO	1085	100.0%	0	0.0%	1085	100.0%



Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
CASHRATIO	.149	1085	.000	.787	1085	.000

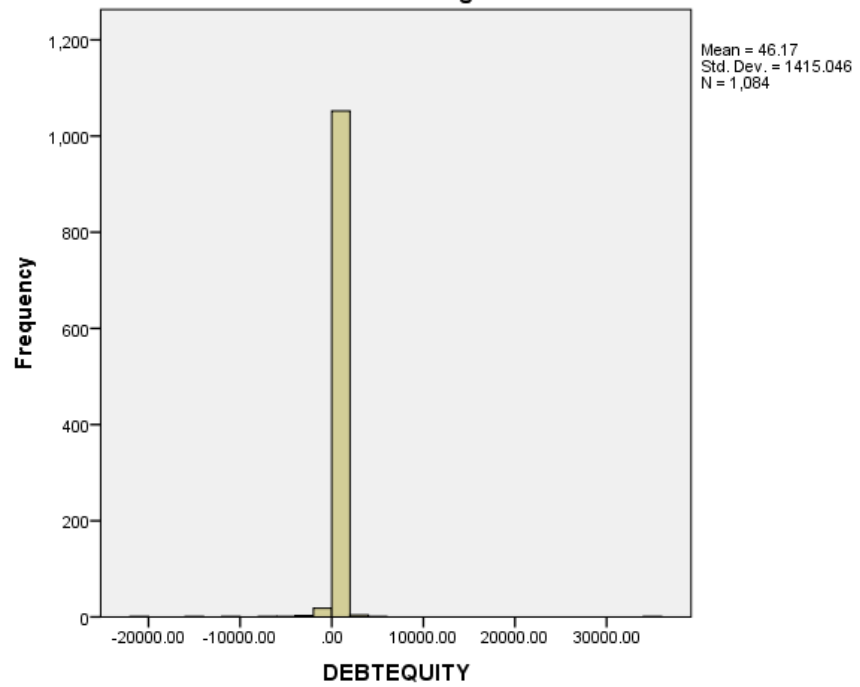
a. Lilliefors Significance Correction

3-DEBT EQUITY

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
DEBTEQUITY	1084	99.9%	1	0.1%	1085	100.0%

Histogram



Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
DEBTEQUITY	.463	1084	.000	.098	1084	.000

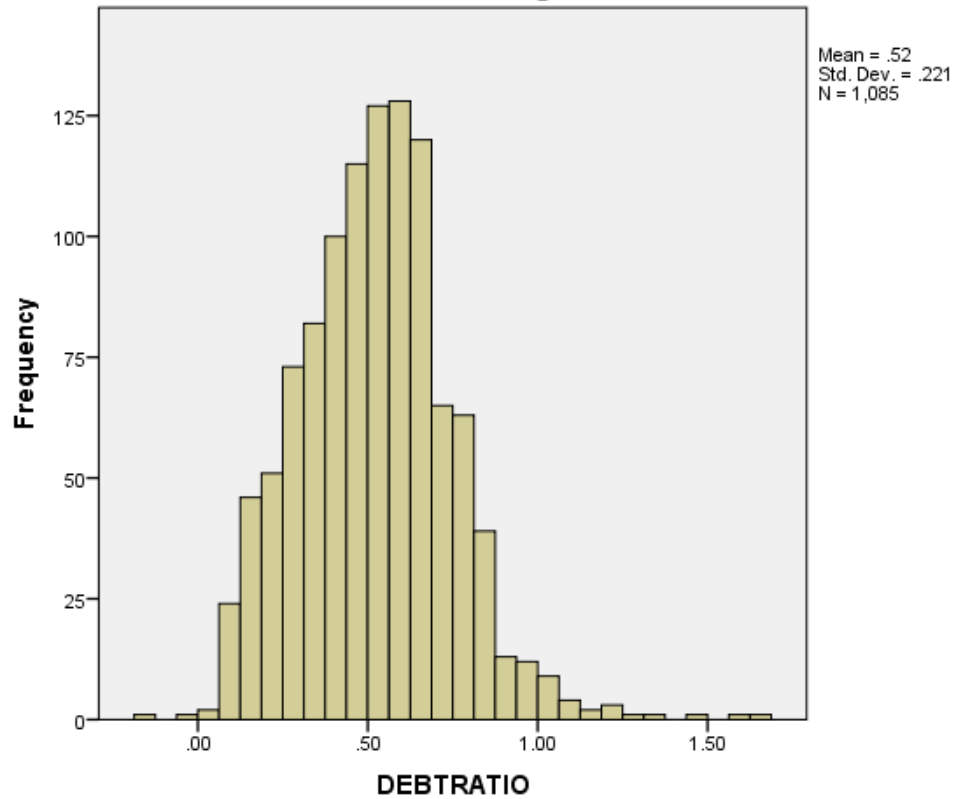
a. Lilliefors Significance Correction

4-DEBTATIO

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
DEBTATIO	1085	100.0%	0	0.0%	1085	100.0%

Histogram



Tests of Normality

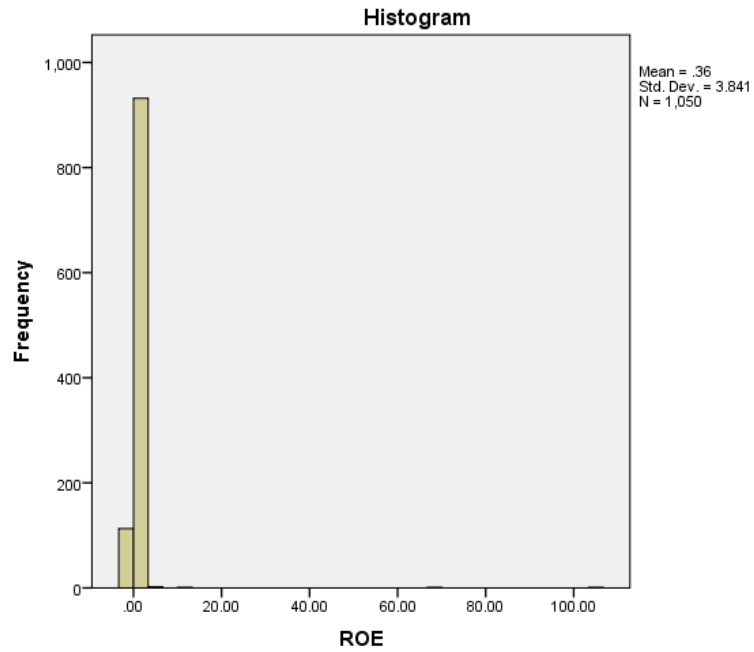
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
DEBTATIO	.031	1085	.017	.984	1085	.000

a. Lilliefors Significance Correction

5-RETURN ON EQUITY

Case Processing Summary

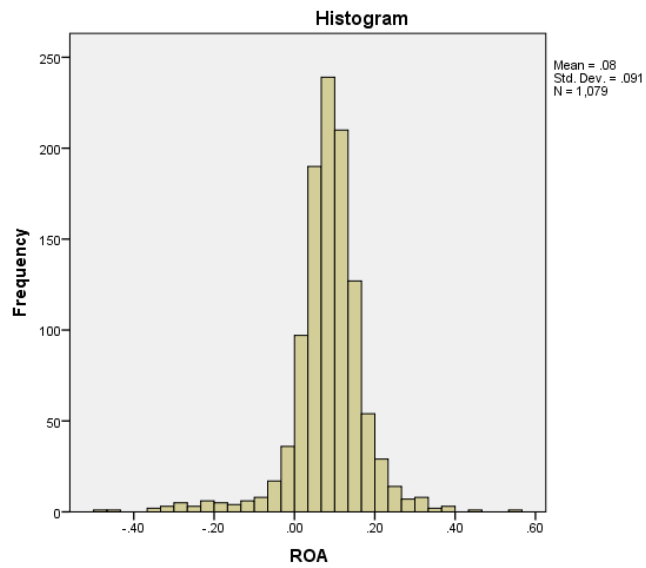
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
ROE	1050	96.8%	35	3.2%	1085	100.0%



6-ROA

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
ROA	1079	99.4%	6	0.6%	1085	100.0%



Tests of Normality

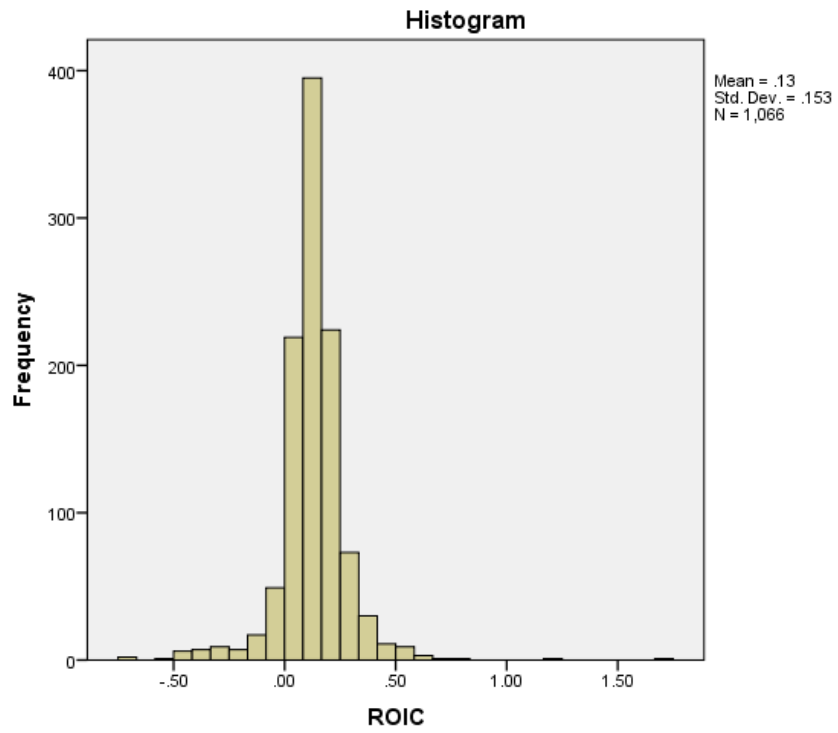
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
ROA	.123	1079	.000	.882	1079	.000

a. Lilliefors Significance Correction

7-ROIC

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
ROIC	1066	98.2%	19	1.8%	1085	100.0%



Tests of Normality

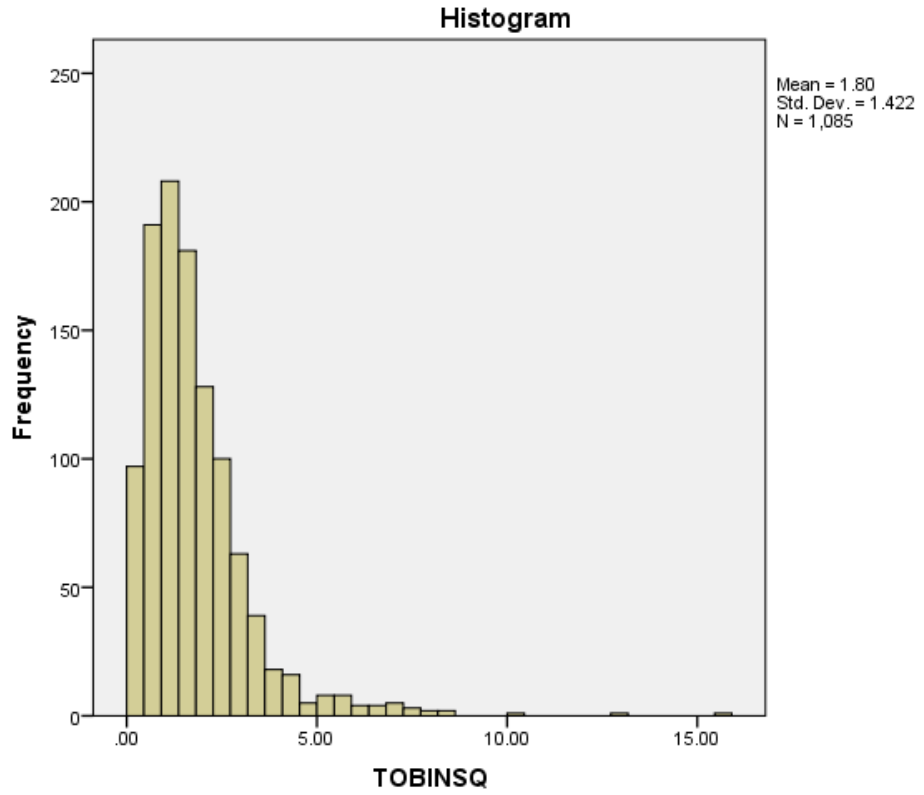
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
ROIC	.122	1066	.000	.835	1066	.000

a. Lilliefors Significance Correction

8-TOBIN'SQ

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
	TOBINSQ	1085	100.0%	0	0.0%	1085



Tests of Normality

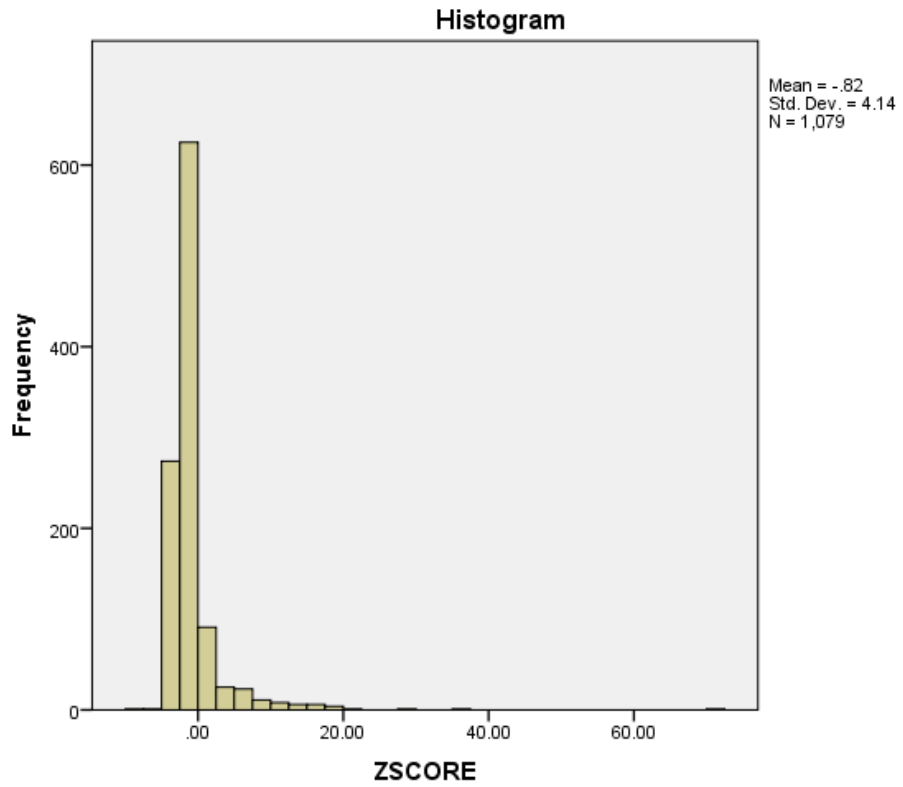
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
TOBINSQ	.125	1085	.000	.786	1085	.000

a. Lilliefors Significance Correction

9-ZSCORE

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
ZSCORE	1079	99.4%	6	0.6%	1085	100.0%



Tests of Normality

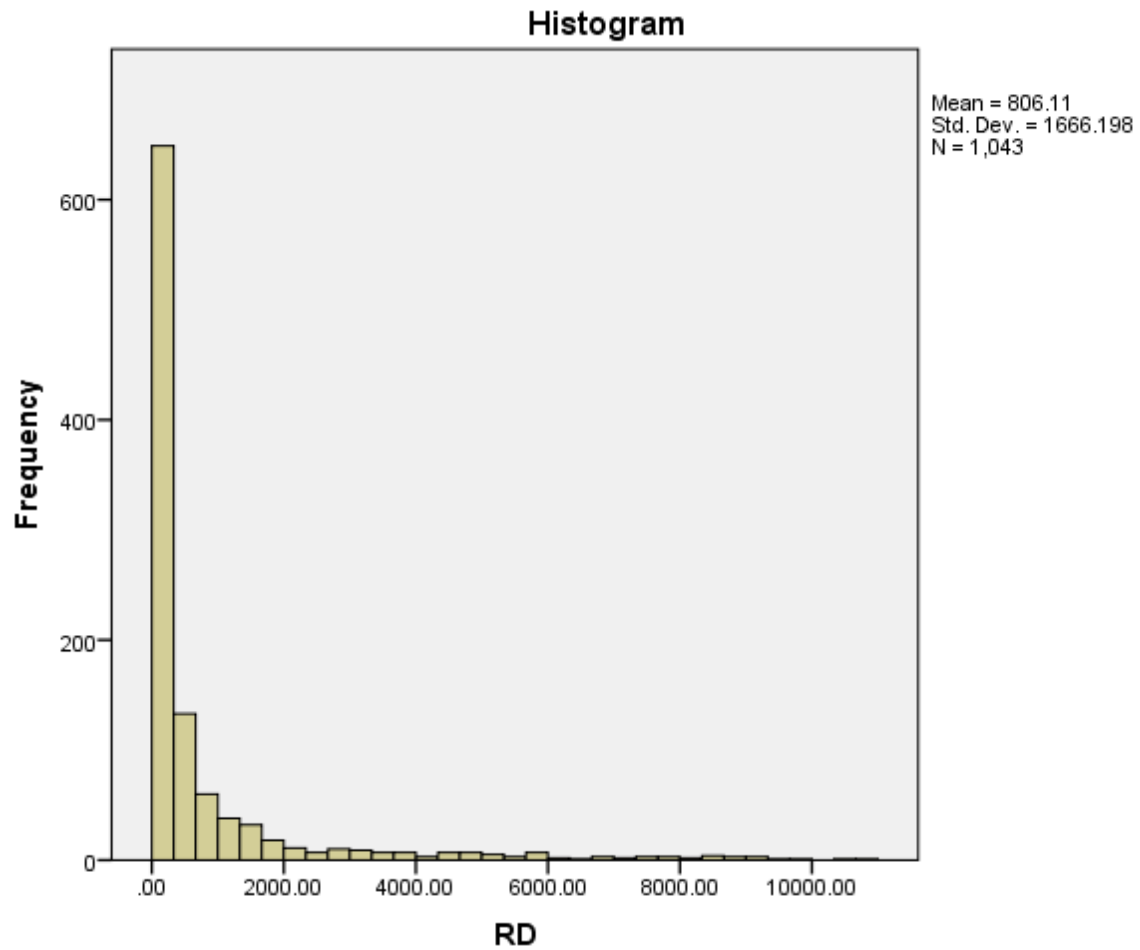
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
ZSCORE	.266	1079	.000	.516	1079	.000

a. Lilliefors Significance Correction

10-R&D

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
RD	1043	96.1%	42	3.9%	1085	100.0%



Tests of Normality

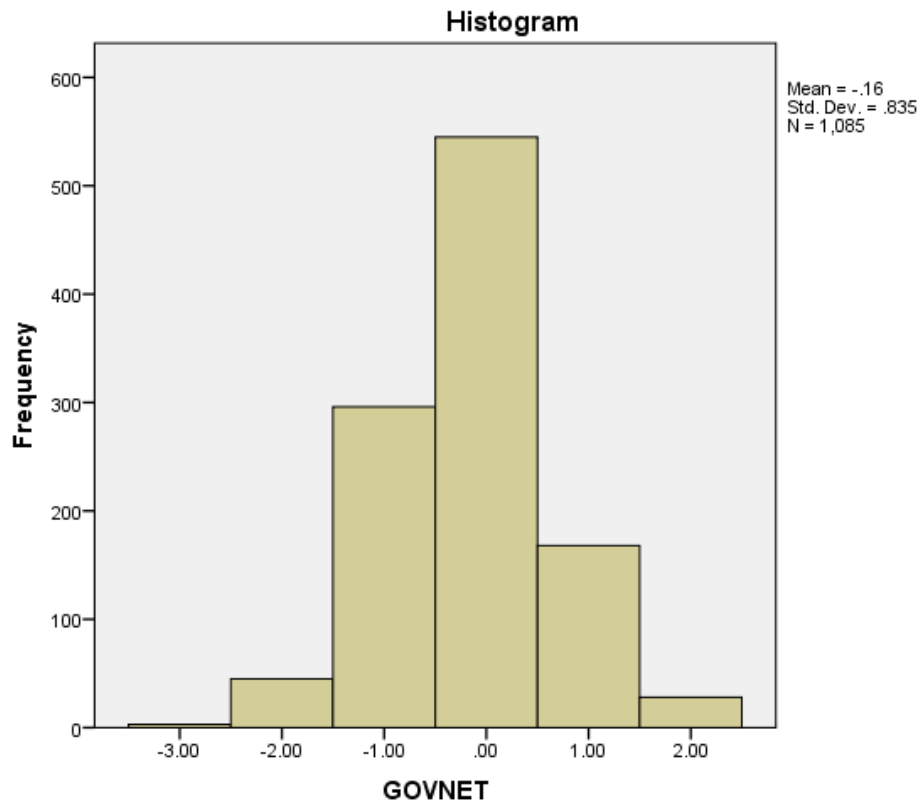
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
RD	.314	1043	.000	.525	1043	.000

a. Lilliefors Significance Correction

11-GOVERNANCE

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
	GOVNET	1085	100.0%	0	0.0%	1085



Tests of Normality

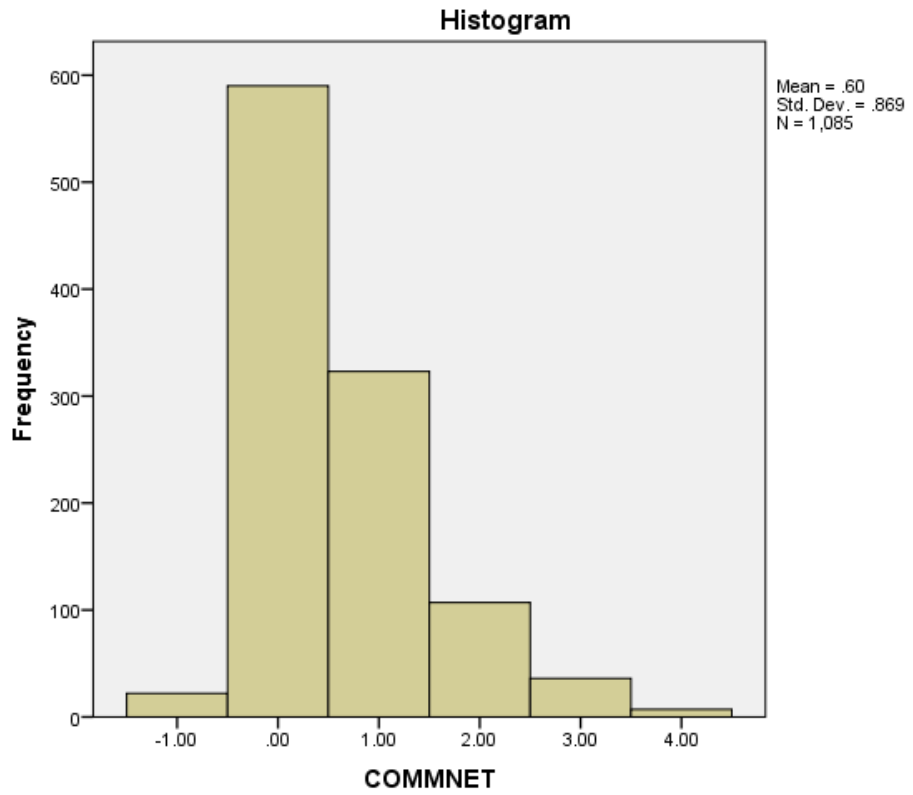
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
GOVNET	.258	1085	.000	.876	1085	.000

a. Lilliefors Significance Correction

12-COMMUNITY

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
COMMNET	1085	100.0%	0	0.0%	1085	100.0%



Tests of Normality

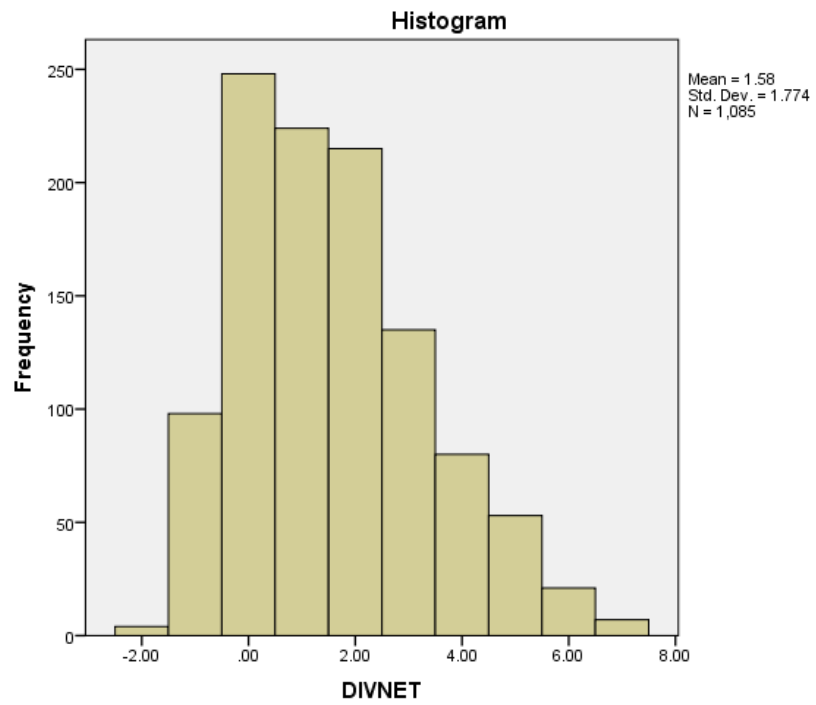
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
COMMNET	.319	1085	.000	.780	1085	.000

a. Lilliefors Significance Correction

13-DIVERSITY

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
DIVNET	1085	100.0%	0	0.0%	1085	100.0%



Tests of Normality

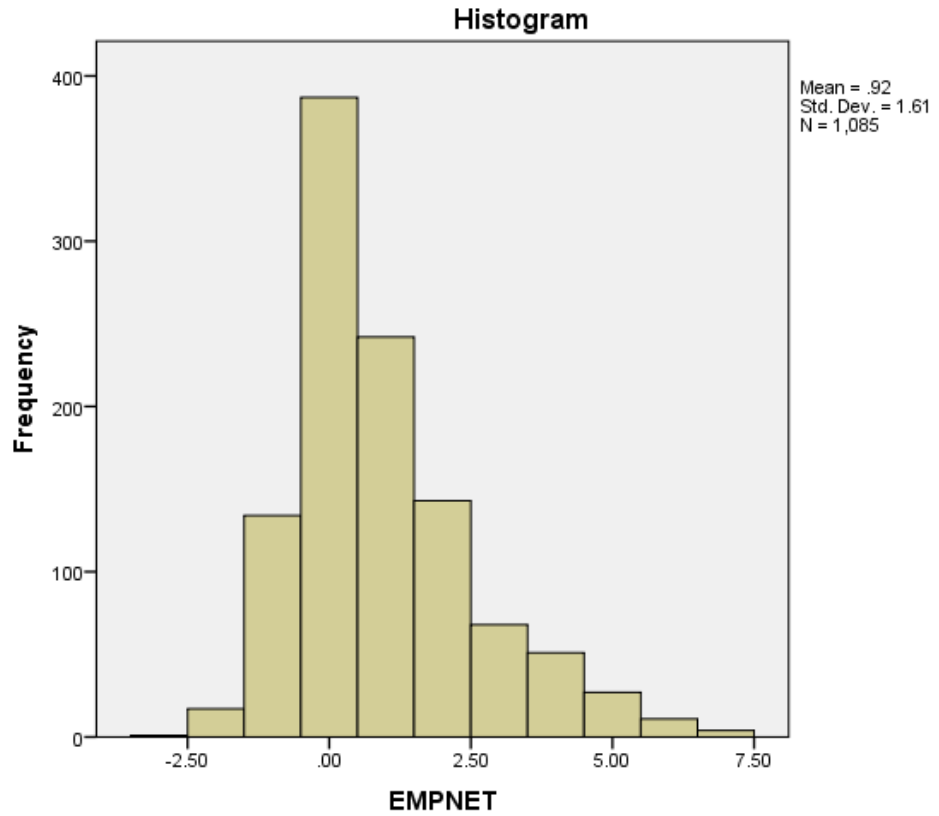
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
DIVNET	.157	1085	.000	.939	1085	.000

a. Lilliefors Significance Correction

14- EMPLOYEE RELATION

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
EMPNET	1085	100.0%	0	0.0%	1085	100.0%



Tests of Normality

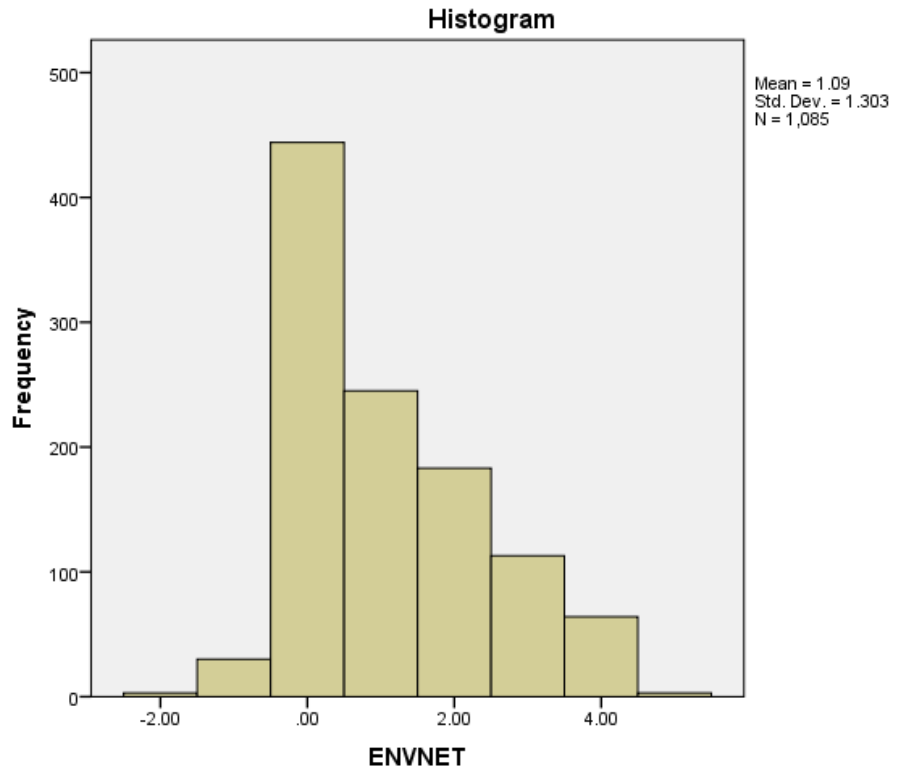
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
EMPNET	.212	1085	.000	.894	1085	.000

a. Lilliefors Significance Correction

15-ENVIRONMENT

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
	ENVNET	1085	100.0%	0	0.0%	1085



Tests of Normality

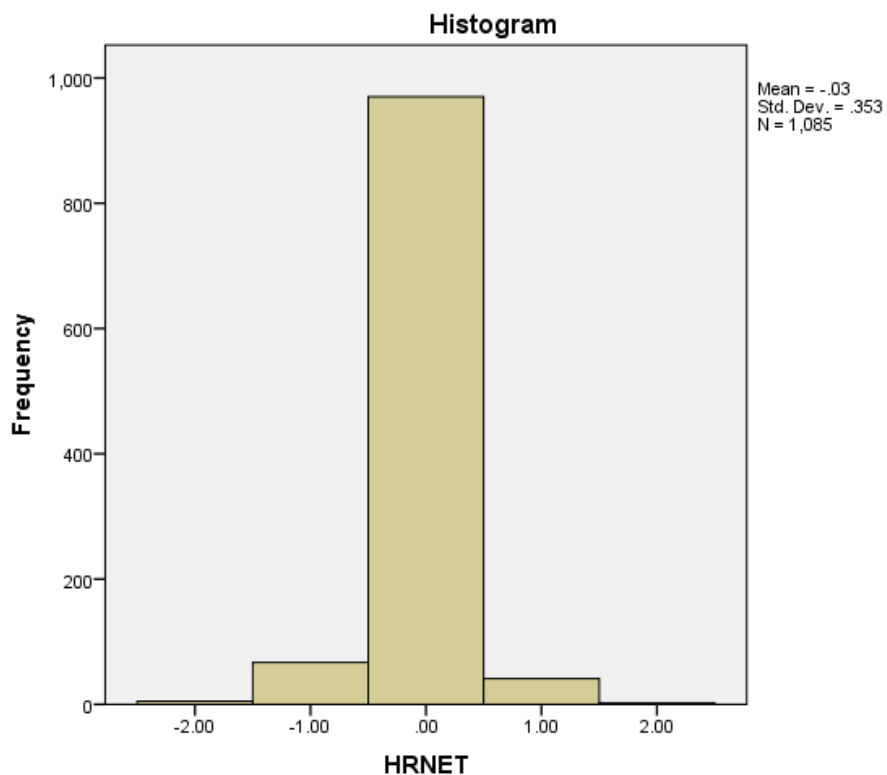
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
ENVNET	.239	1085	.000	.871	1085	.000

a. Lilliefors Significance Correction

16-HUMANRIGHTS

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
HRNET	1085	100.0%	0	0.0%	1085	100.0%



Tests of Normality

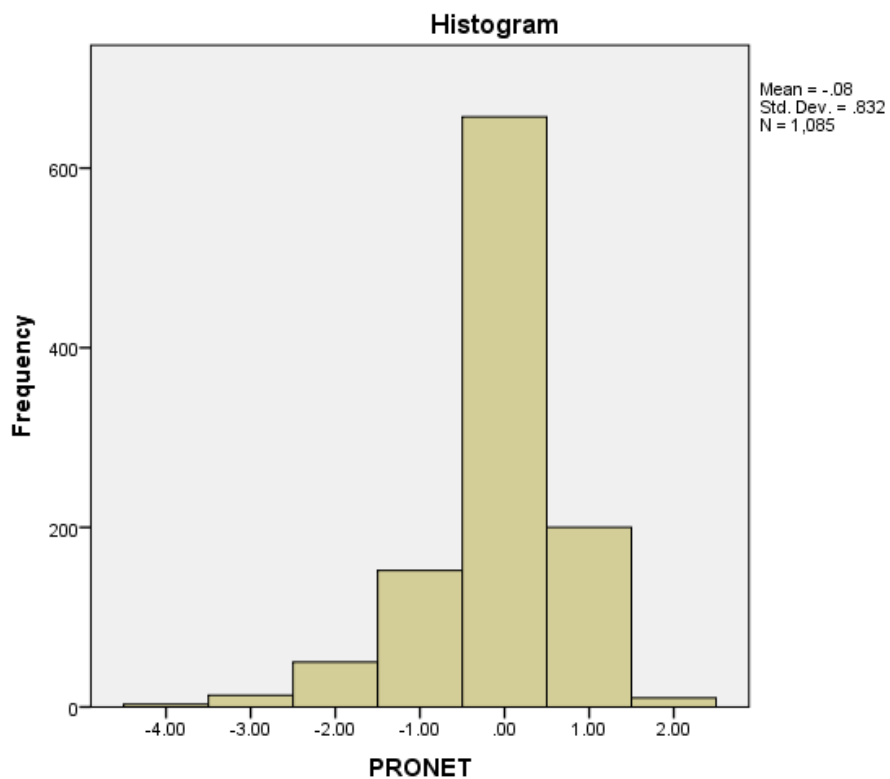
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
HRNET	.467	1085	.000	.439	1085	.000

a. Lilliefors Significance Correction

17-PRODUCT

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
PRONET	1085	100.0%	0	0.0%	1085	100.0%



Tests of Normality

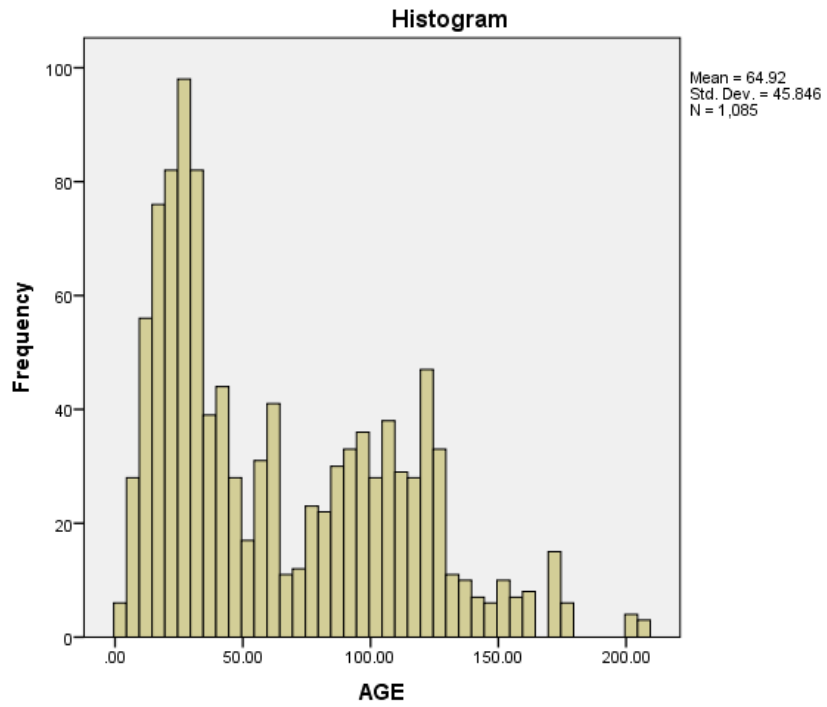
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PRONET	.336	1085	.000	.805	1085	.000

a. Lilliefors Significance Correction

18 AGE

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
AGE	1085	100.0%	0	0.0%	1085	100.0%



Tests of Normality

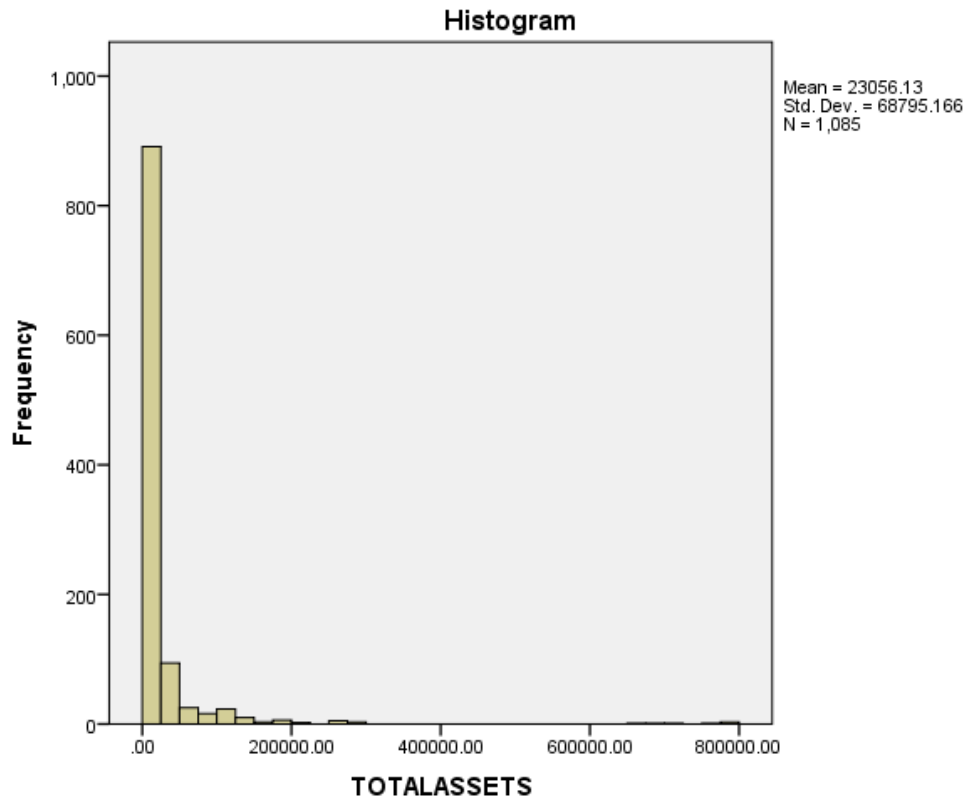
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
AGE	.148	1085	.000	.914	1085	.000

a. Lilliefors Significance Correction

19-TOTALASSETS

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
TOTALASSETS	1085	100.0%	0	0.0%	1085	100.0%



Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
TOTALASSETS	.369	1085	.000	.300	1085	.000

a. Lilliefors Significance Correction

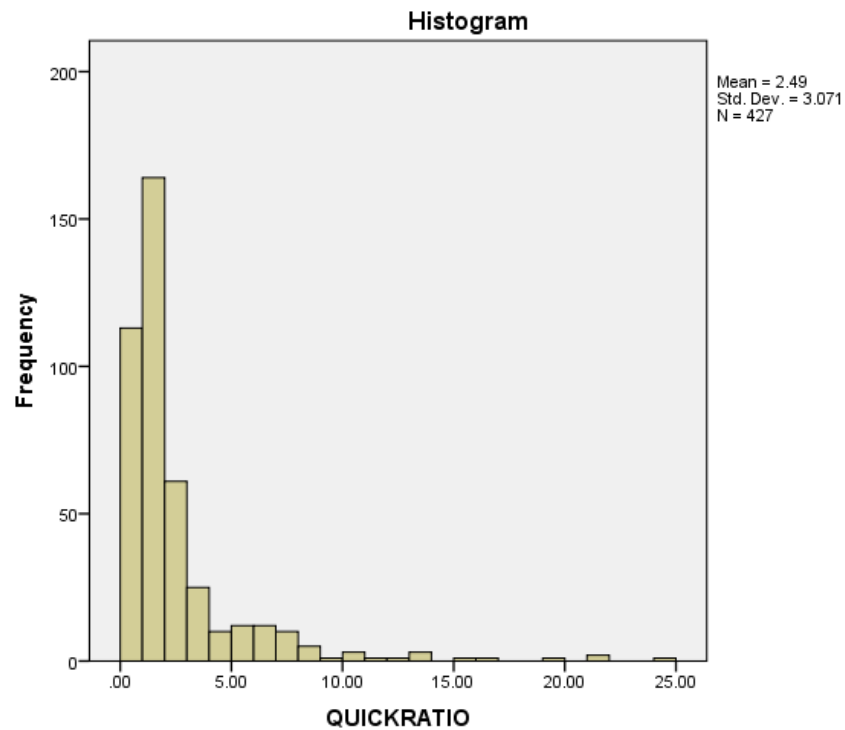
Tables show missing values and normality test for each variable for low performing firms.

1-QUICK RATIO

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
QUICKRATIO	427	100.0%	0	0.0%	427	100.0%

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
QUICKRATIO	.244	427	.000	.612	427	.000

a. Lilliefors Significance Correction



Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
QUICKRATIO	.244	427	.000	.612	427	.000

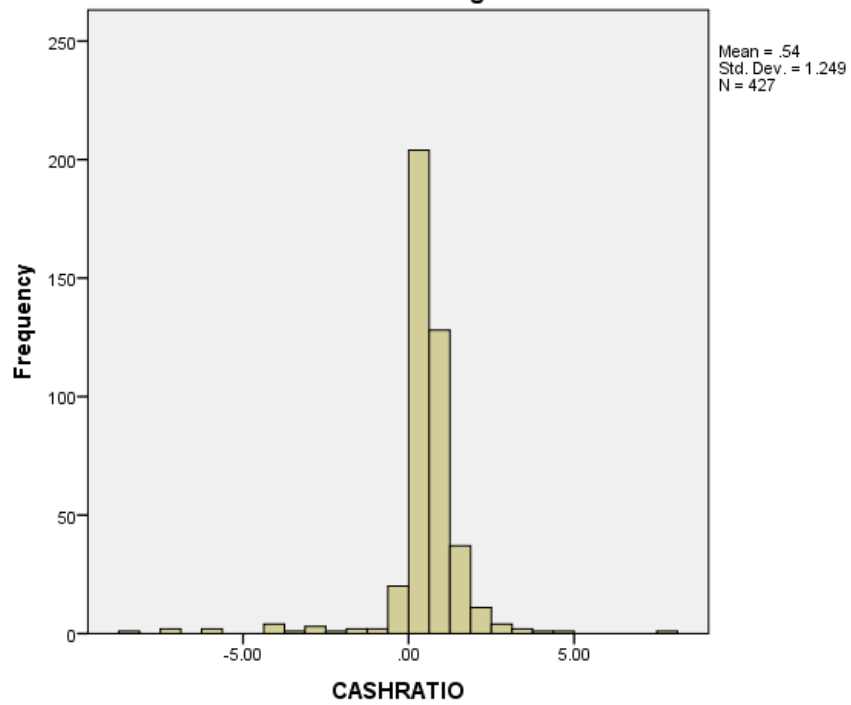
a. Lilliefors Significance Correction

2-CASHRATIO

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
CASHRATIO	427	100.0%	0	0.0%	427	100.0%

Histogram



Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
CASHRATIO	.249	427	.000	.648	427	.000

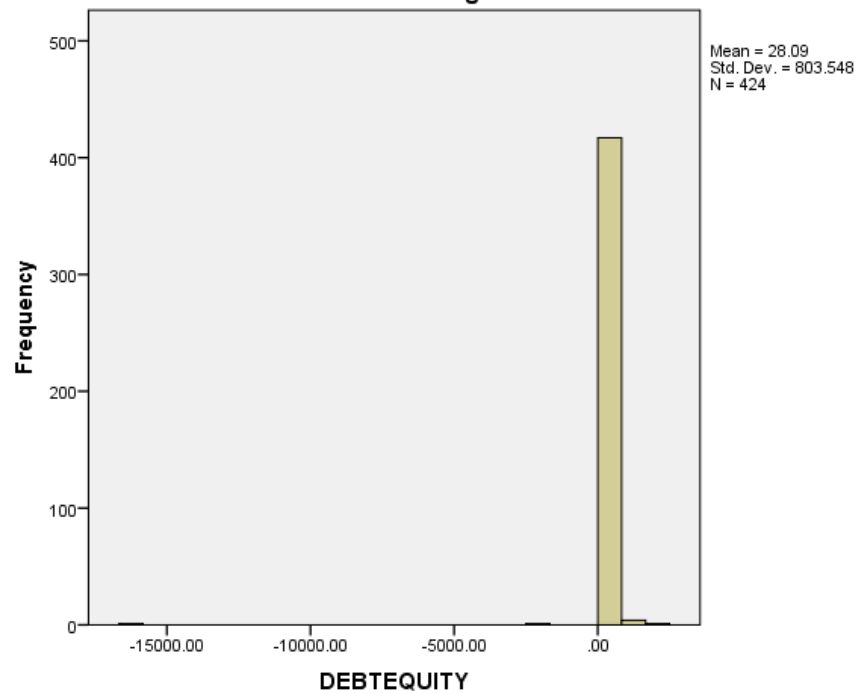
a. Lilliefors Significance Correction

3-DEBTEQUITY

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
DEBTEQUITY	424	99.3%	3	0.7%	427	100.0%

Histogram



Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
DEBTEQUITY	.481	424	.000	.085	424	.000

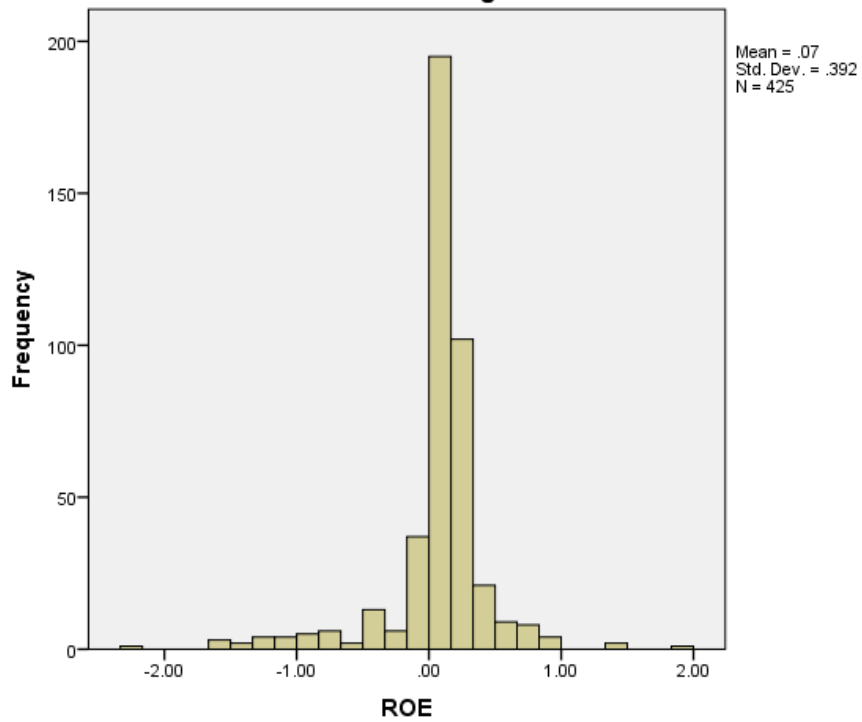
a. Lilliefors Significance Correction

4-ROE

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
ROE	425	99.5%	2	0.5%	427	100.0%

Histogram



Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
ROE	.246	425	.000	.758	425	.000

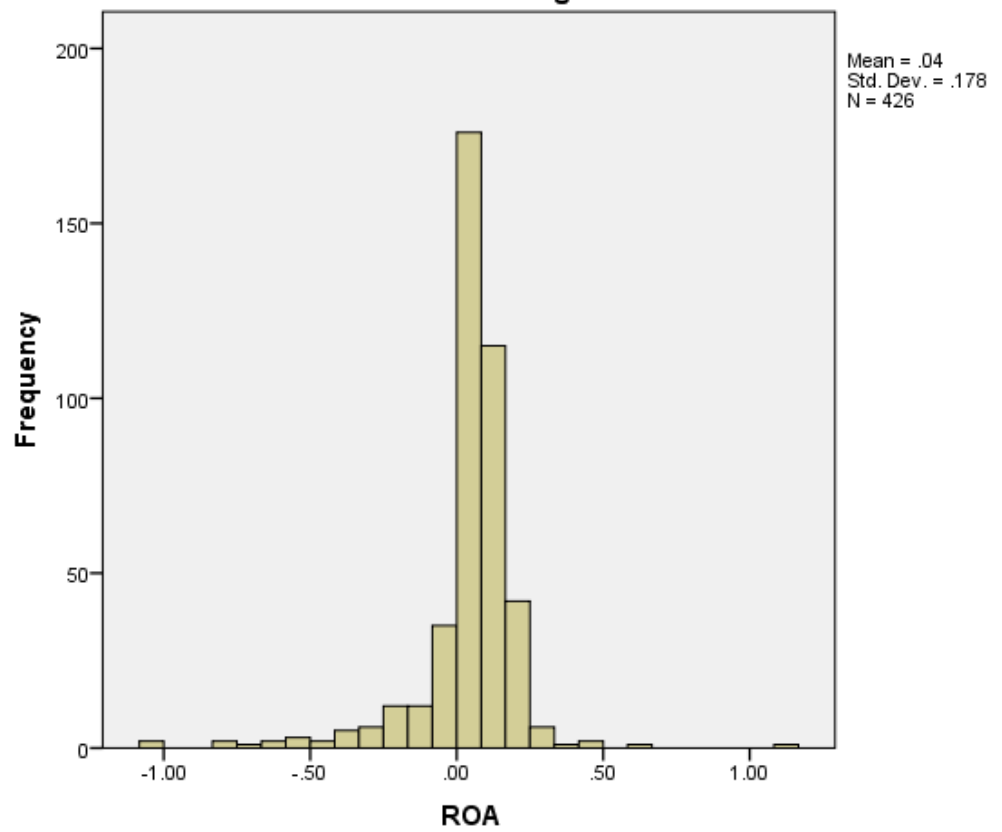
a. Lilliefors Significance Correction

5-ROA

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
ROA	426	99.8%	1	0.2%	427	100.0%

Histogram



Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
ROA	.234	426	.000	.743	426	.000

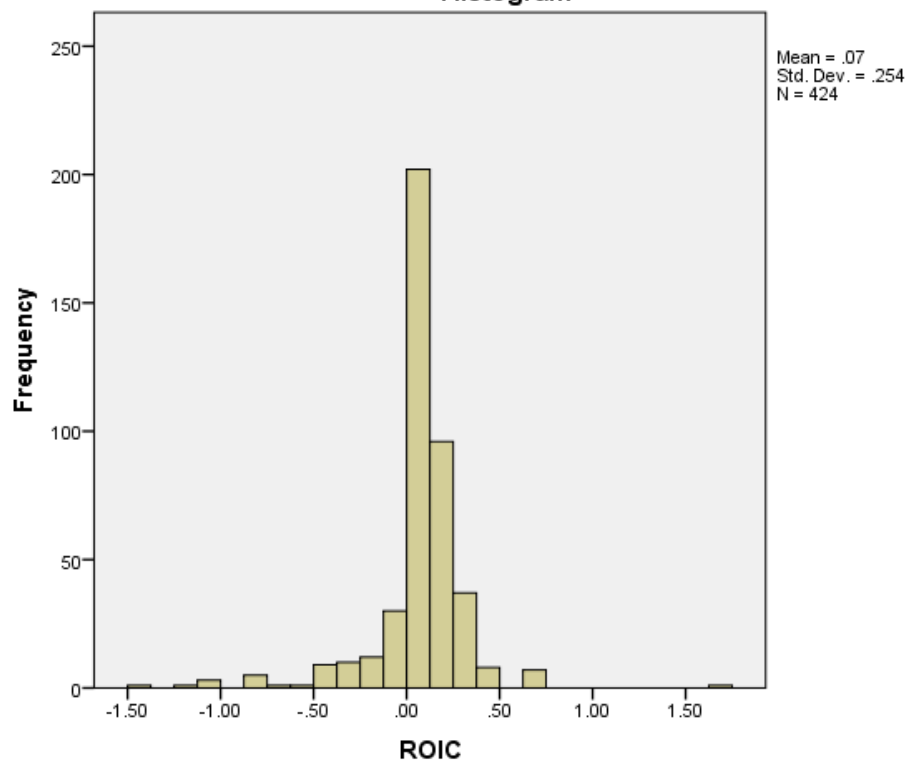
a. Lilliefors Significance Correction

6-ROIC

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
ROIC	424	99.3%	3	0.7%	427	100.0%

Histogram



Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
ROIC	.227	424	.000	.762	424	.000

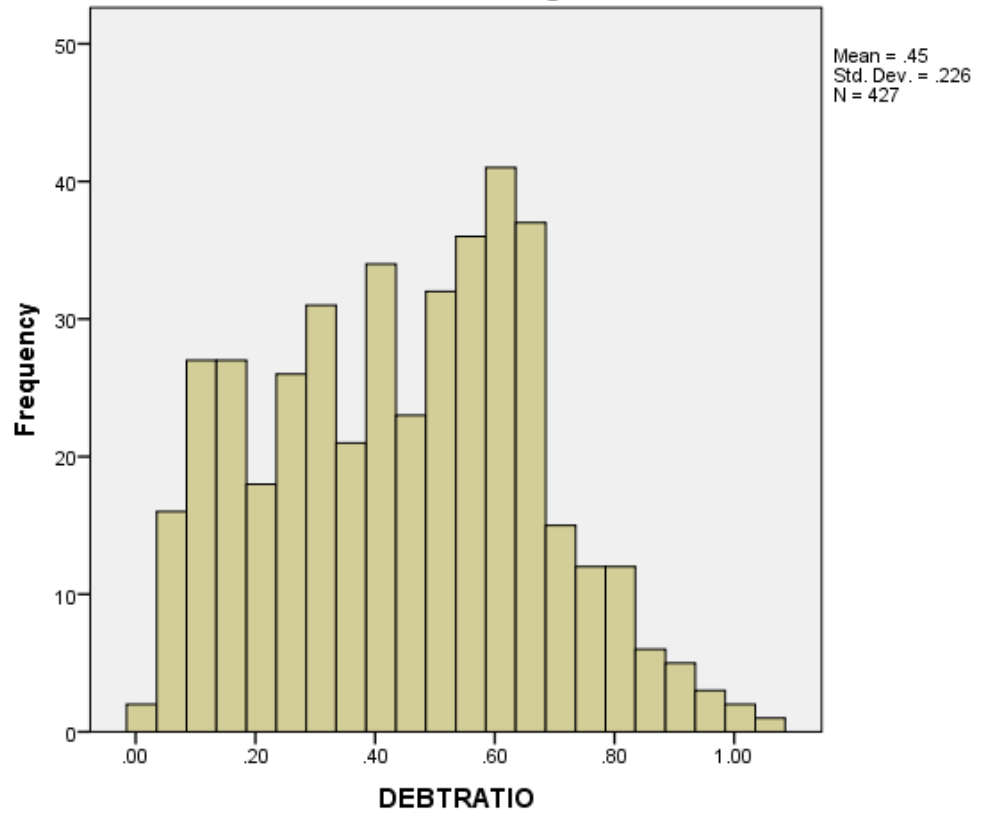
a. Lilliefors Significance Correction

7-DEBTRATIO

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
DEBTRATIO	427	100.0%	0	0.0%	427	100.0%

Histogram



Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
DEBTRATIO	.057	427	.002	.980	427	.000

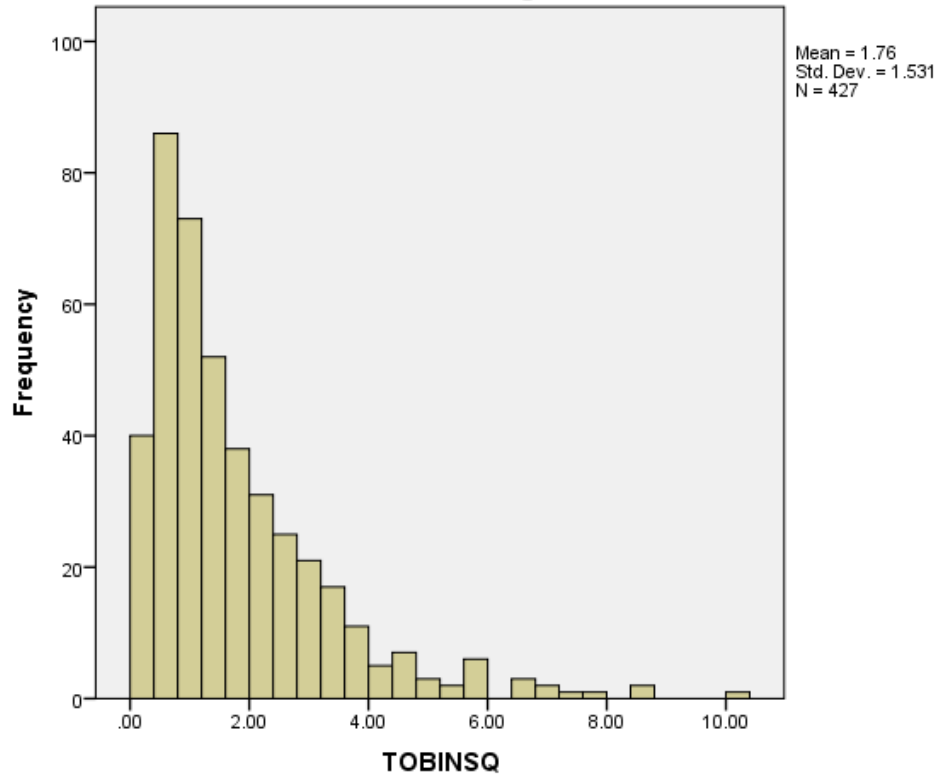
a. Lilliefors Significance Correction

8-TOBIN'S Q

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
TOBINSQ	427	100.0%	0	0.0%	427	100.0%

Histogram



Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
TOBINSQ	.147	427	.000	.824	427	.000

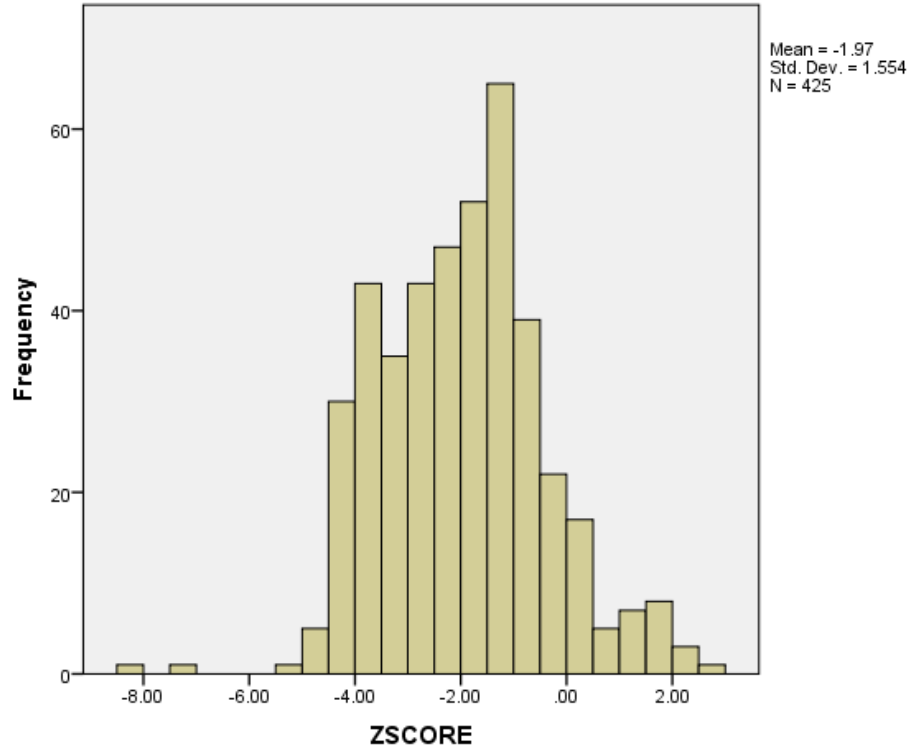
a. Lilliefors Significance Correction

9- ZSCORE

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
ZSCORE	425	99.5%	2	0.5%	427	100.0%

Histogram



Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
ZSCORE	.045	425	.043	.983	425	.000

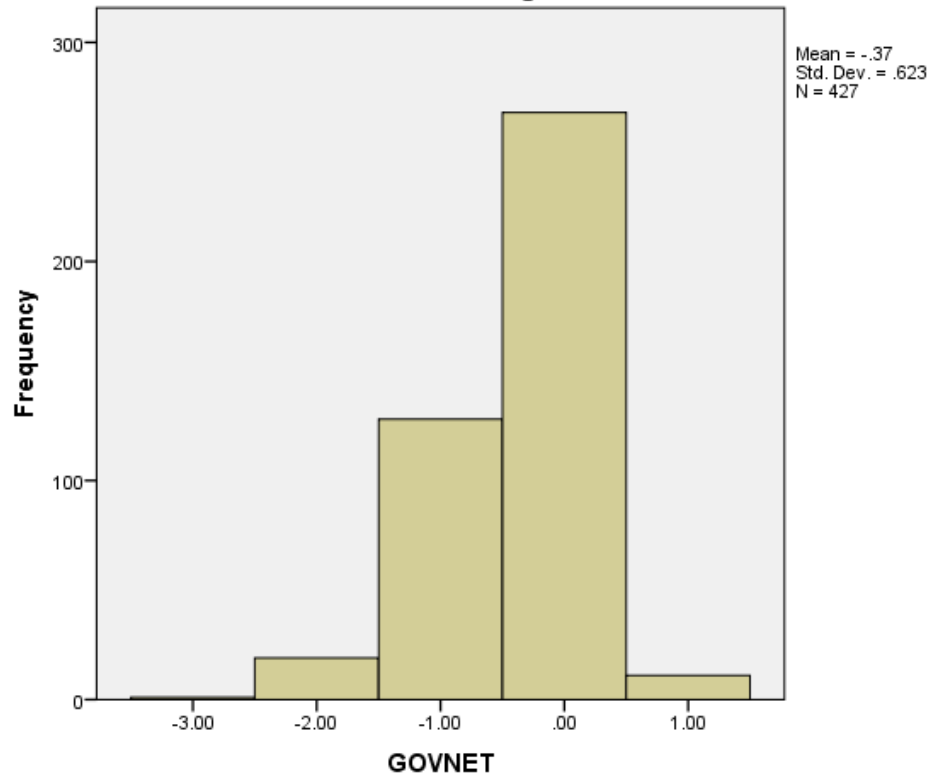
a. Lilliefors Significance Correction

10- GOVERNANCE

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
GOVNET	427	100.0%	0	0.0%	427	100.0%

Histogram



Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
GOVNET	.377	427	.000	.737	427	.000

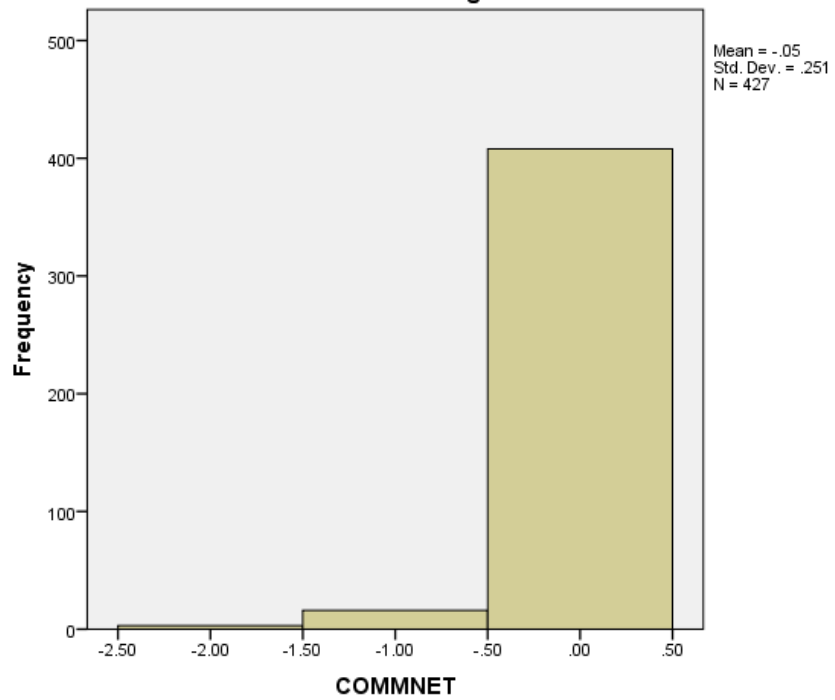
a. Lilliefors Significance Correction

11-COMMUNITY

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
COMMNET	427	100.0%	0	0.0%	427	100.0%

Histogram



Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
COMMNET	.537	427	.000	.205	427	.000

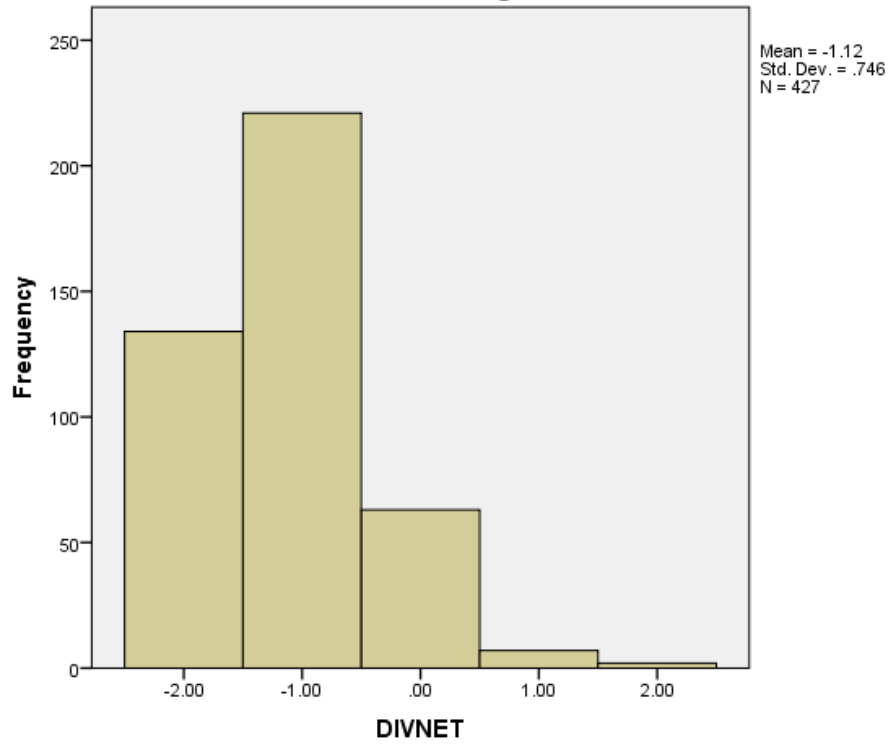
a. Lilliefors Significance Correction

13- DIVERSITY

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
DIVNET	427	100.0%	0	0.0%	427	100.0%

Histogram



Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
DIVNET	.268	427	.000	.811	427	.000

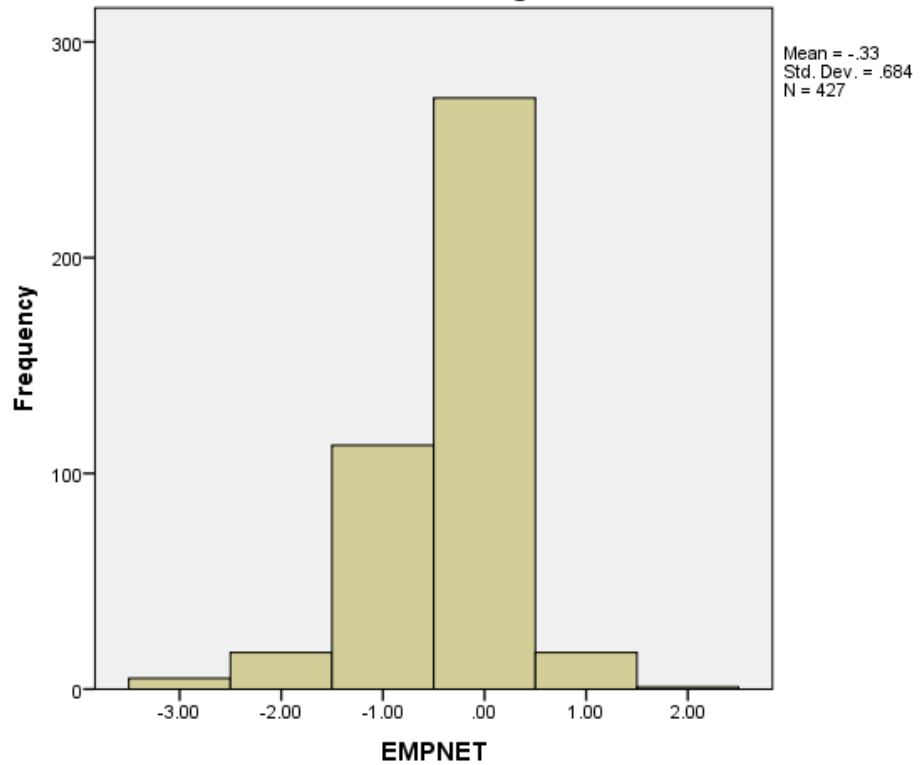
a. Lilliefors Significance Correction

13- EMPLOYEE RELATION

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
EMPNET	427	100.0%	0	0.0%	427	100.0%

Histogram



Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
EMPNET	.372	427	.000	.745	427	.000

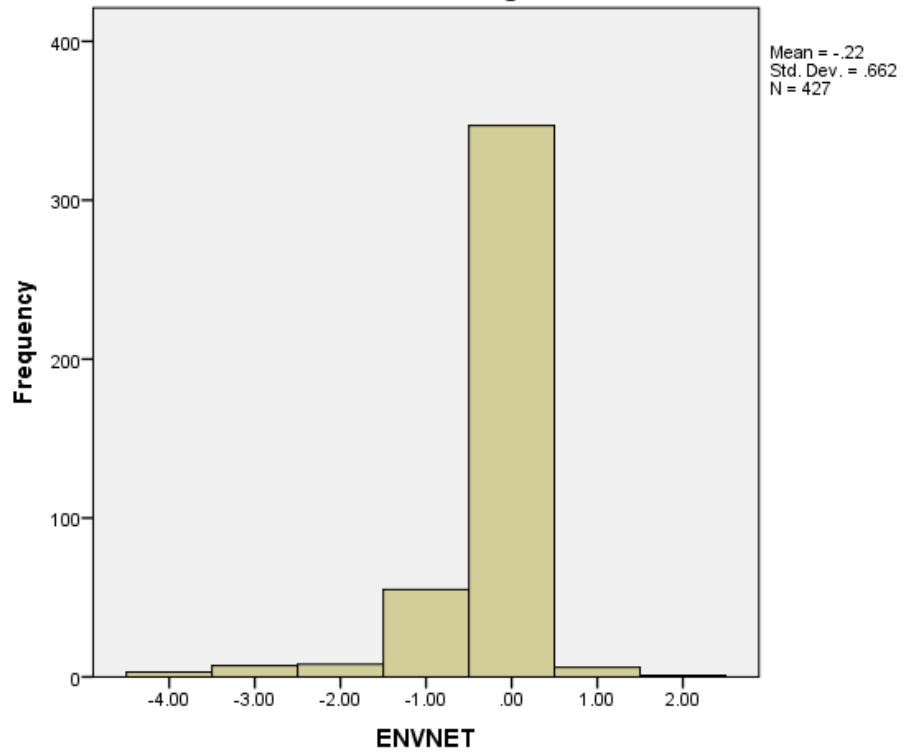
a. Lilliefors Significance Correction

14- ENVIRONMENT

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
ENVNET	427	100.0%	0	0.0%	427	100.0%

Histogram



Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
ENVNET	.462	427	.000	.500	427	.000

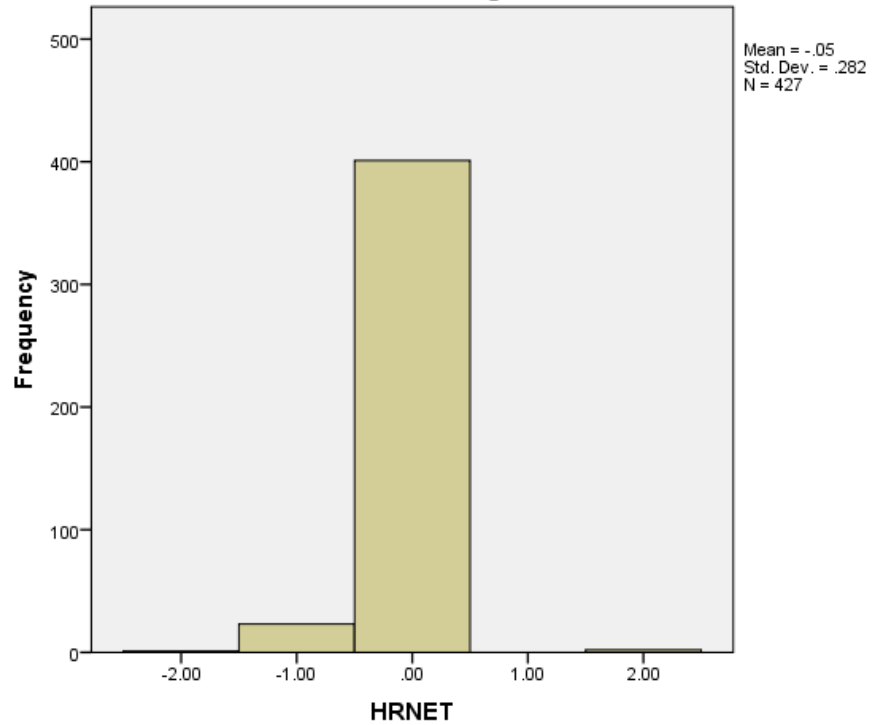
a. Lilliefors Significance Correction

15-HUMANRIGHTS

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
HRNET	427	100.0%	0	0.0%	427	100.0%

Histogram



Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
HRNET	.513	427	.000	.276	427	.000

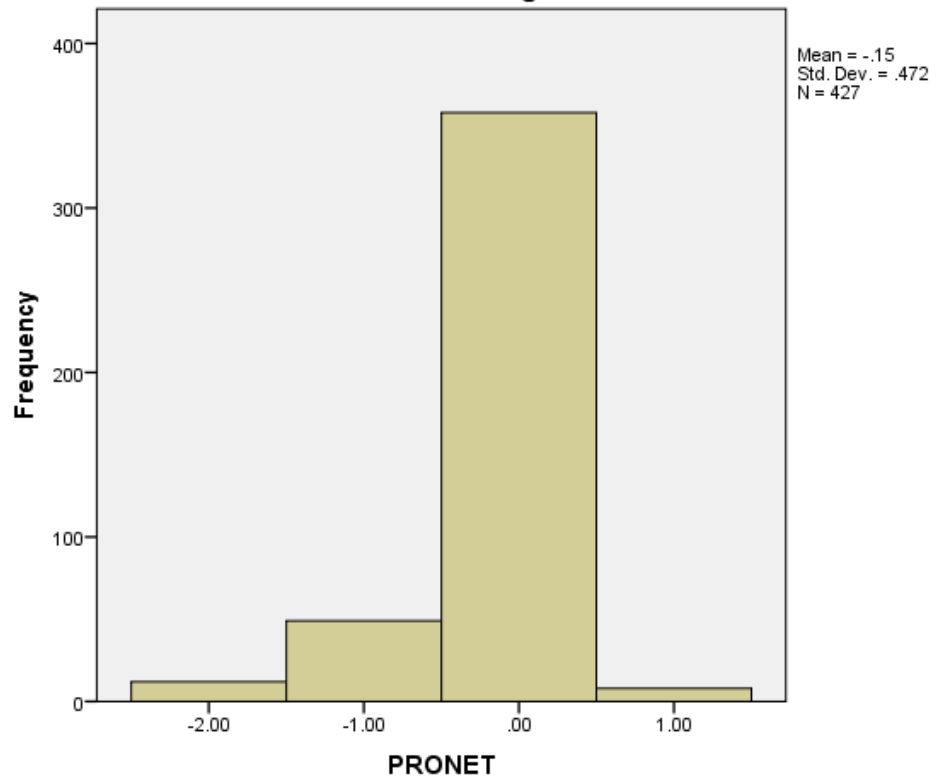
a. Lilliefors Significance Correction

16- PRODUCT

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
PRONET	427	100.0%	0	0.0%	427	100.0%

Histogram



Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PRONET	.483	427	.000	.507	427	.000

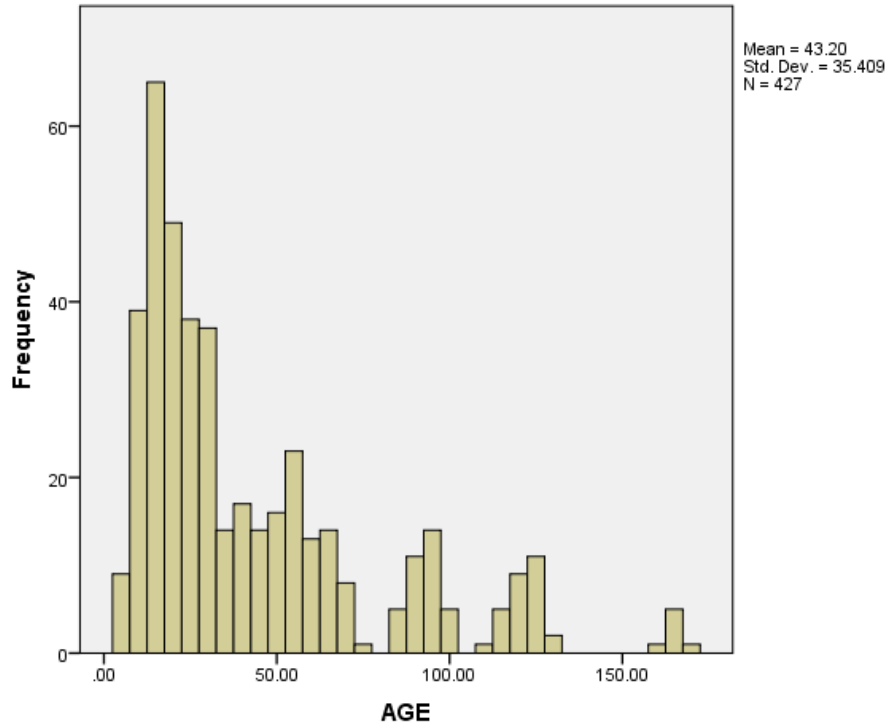
a. Lilliefors Significance Correction

17-FIRM AGE

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
AGE	427	100.0%	0	0.0%	427	100.0%

Histogram



Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
AGE	.179	427	.000	.833	427	.000

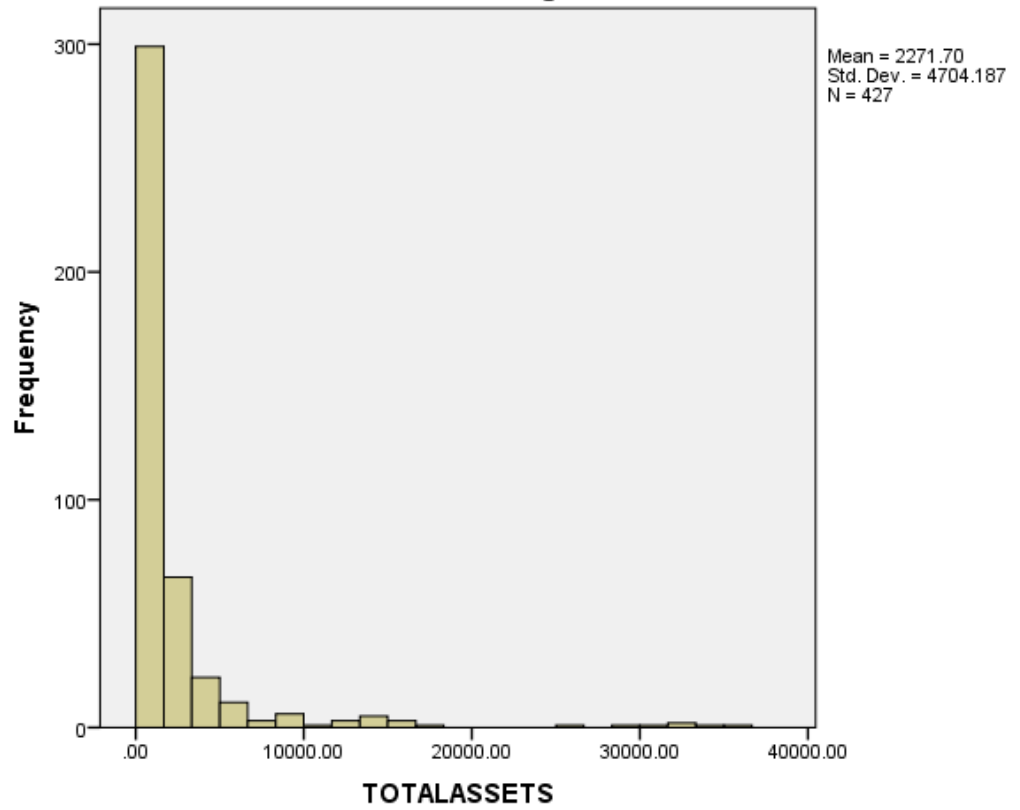
a. Lilliefors Significance Correction

18-TOTAL ASSETS

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
TOTALASSETS	427	100.0%	0	0.0%	427	100.0%

Histogram



Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
TOTALASSETS	.319	427	.000	.448	427	.000

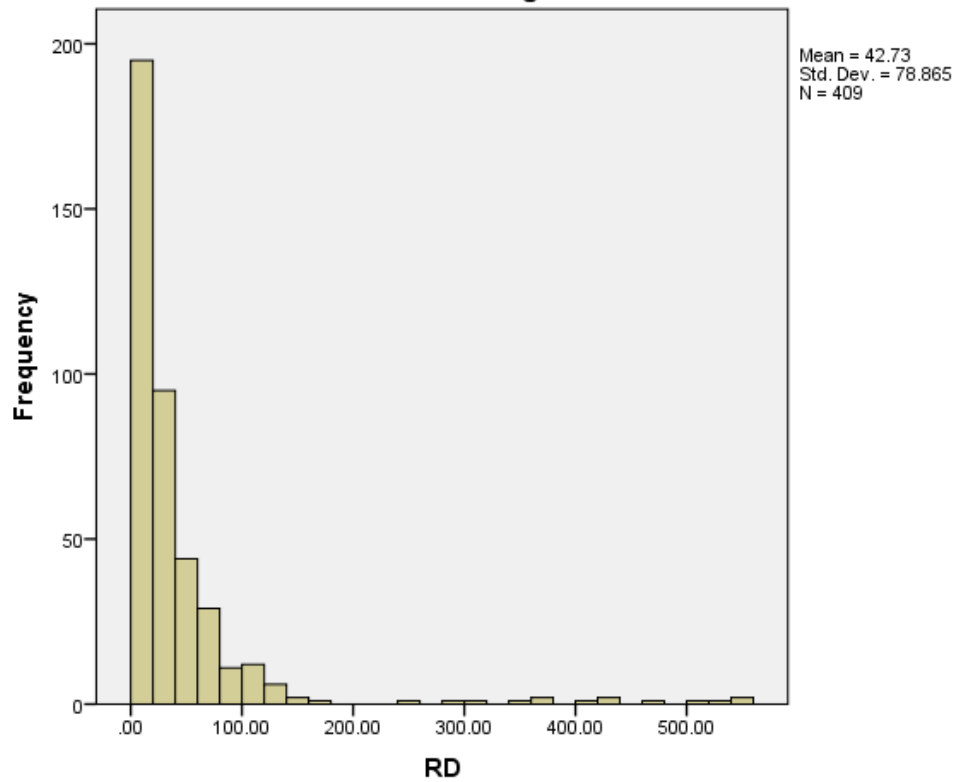
a. Lilliefors Significance Correction

19-R&D

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
RD	409	95.8%	18	4.2%	427	100.0%

Histogram



Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
RD	.294	409	.000	.495	409	.000

a. Lilliefors Significance Correction

Table shows indicator reliability for high performing firms

Indicator reliability HIGH PERFORMING FIRMS							
	FIRMSIZE	ENVIRONMENT	FIRMAGE	INDUSTRY	SOCIAL	MARKET VALUE	FINANCIAL HEALTH
ASSET	1						
ENVNET		1					
FIRMAGE			1				
INDUSTRY				1			
SOCNET					1		
TOBINSQ						1	
ZSCORE							1

Table: shows indicator reliability for low performing firms.

Indicator reliability LOW PERFORMING FIRMS							
	FIRMSIZE	ENVIRONMENT	FIRMAGE	INDUSTRY	SOCIAL	MARKET VALUE	FINANCIAL HEALTH
ASSETS	1						
ENVNET		1					
FIRMAGE			1				
INDUSTRY				1			
SOCINET					1		
TOBINSQ						1	
ZSCORE							1

The results for current firm performance on current environment performance.

Pathways (regression weights)	TOP PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
FINANCIAL HEALTH -> ENVIRONMENT	-0.036	0.107	-0.184***	0
FINANCIAL HEALTH -> MARKET VALUE	0.195**	0.028	-0.299***	0
FIRMAGE -> FINANCIAL HEALTH	-0.032	0.142	0	0.974
FIRMAGE -> MARKET VALUE	-0.12***	0	-0.084**	0.035
FIRMSIZE -> FINANCIAL HEALTH	-0.12***	0	-0.007	0.355
FIRMSIZE -> MARKET VALUE	-0.287***	0	-0.291***	0
INDUSTRY -> FINANCIAL HEALTH	-0.113***	0	0.01	0.322
INDUSTRY -> MARKET VALUE	0.142***	0	0.024	0.562
LEVERAGE -> FINANCIAL HEALTH	0.227***	0	0.828***	0
LIQUIDITY -> FINANCIAL HEALTH	-0.058	0.557	-0.038**	0.053
MARKET VALUE -> ENVIRONMENT	-0.006	0.811	0.091***	0.004
PROFITABILITY -> FINANCIAL HEALTH	0.104	0.222	-0.482***	0
R-SQUARE				

ENVIRONMENT	0		0.051	
FINANCIAL HEALTH	0.09		0.977	
MARKET VALUE	0.174		0.272	

***p<0.01, **p<0.05 *p<0.10

The results for current firm performance on current social performance.

Pathways (regression weights)	TOP PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
FINANCIAL HEALTH -> MARKET VALUE	0.195**	0.024	-0.299***	0
FINANCIAL HEALTH -> SOCIAL	-0.008	0.769	-0.022	0.543
FIRMAGE -> FINANCIAL HEALTH	-0.032	0.12	0	0.974
FIRMAGE -> MARKET VALUE	-0.12***	0	-0.084**	0.035
FIRMSIZE -> FINANCIAL HEALTH	-0.12***	0	-0.007	0.359
FIRMSIZE -> MARKET VALUE	-0.287***	0	-0.291***	0
INDUSTRY -> FINANCIAL HEALTH	-0.113***	0	0.01	0.332
INDUSTRY -> MARKET VALUE	0.142***	0	0.024	0.552
LEVERAGE -> FINANCIAL HEALTH	0.227***	0	0.828***	0
LIQUIDITY -> FINANCIAL HEALTH	-0.058	0.493	-0.038**	0.066
MARKET VALUE -> SOCIAL	-0.024	0.406	0.128***	0.002
PROFITABILITY -> FINANCIAL HEALTH	0.104	0.243	-0.482***	0
R-SQUARE				
FINANCIAL HEALTH	0.09		0.977	
MARKET VALUE	0.174		0.272	
SOCIAL	-0.001		0.015	

***p<0.01, **p<0.05 *p<0.10

The results for current firm performance on current economic performance.

Pathways (regression weights)	TOP PERFORMING FIRMS		LOW PERFORMING FIRMS	
	Coefficient	P Values	Coefficient	P Values
FINANCIAL HEALTH -> ECONOMIC	-0.185**	0.039	-0.632***	0
FINANCIAL HEALTH -> MARKET VALUE	0.195**	0.024	-0.299***	0
FIRMAGE -> FINANCIAL HEALTH	-0.032	0.146	0	0.975
FIRMAGE -> MARKET VALUE	-0.12***	0	-0.084**	0.031
FIRMSIZE -> FINANCIAL HEALTH	-0.12***	0	-0.007	0.356
FIRMSIZE -> MARKET VALUE	-0.287***	0	-0.291***	0
INDUSTRY -> FINANCIAL HEALTH	-0.113***	0	0.01	0.349
INDUSTRY -> MARKET VALUE	0.142***	0.001	0.024	0.563
LEVERAGE -> FINANCIAL HEALTH	0.227***	0	0.828***	0
LIQUIDITY -> FINANCIAL HEALTH	-0.058	0.527	-0.038*	0.086
MARKET VALUE -> ECONOMIC	0.339***	0	-0.144**	0.024
PROFITABILITY -> FINANCIAL HEALTH	0.104	0.226	-0.482***	0
R-SQUARE				
ECONOMIC	0.123		0.341	
FINANCIAL HEALTH	0.09		0.977	
MARKET VALUE	0.174		0.272	

***p<0.01, **p<0.05 *p<0.10

The tables below show the latent constructs correlation for high and low firms

HIGH PERFORMING FIRMS LATENT VARIABLES CORRELATION											
	ECONOMIC	ENVIRONMENT	FINANCIAL HEALTH	FIRMAGE	FIRMSIZE	INDUSTRY	LEVERAGE	LIQUIDITY	MARKET VALUE	PROFITABILITY	SOCIAL
ECONOMIC	1										
ENVIRONMENT	0.116	1									
FINANCIAL HEALTH	-0.114	-0.037	1								
FIRMAGE	0.12	0.123	0.015	1							
FIRMSIZE	0.105	0.296	-0.073	0.314	1						
INDUSTRY	0.064	0.099	-0.158	-0.201	0.059	1					
LEVERAGE	-0.05	0.106	0.215	0.26	0.302	-0.16	1				
LIQUIDITY	0.471	0.04	-0.12	-0.048	0.031	0.107	-0.166	1			
MARKET VALUE	0.306	-0.013	0.192	-0.235	-0.33	0.118	-0.245	0.105	1		
PROFITABILITY	-0.254	-0.008	0.127	0.004	-0.031	-0.02	0.05	-0.103	-0.067	1	
SOCIAL	0.14	0.488	-0.012	0.094	0.463	0.235	0.191	0.003	-0.026	-0.008	1

LOW PERFORMING FIRMS LATENT VARIABLES CORRELATIONS											
	ECONOMIC	ENVIRONMENT	FINANCIAL HEALTH	FIRMAGE	FIRMSIZE	INDUSTRY	LEVERAGE	LIQUIDITY	MARKET VALUE	PROFITABILITY	SOCIAL
ECONOMIC	1										
ENVIRONMENT	0.023	1									
FINANCIAL HEALTH	-0.572	-0.222	1								
FIRMAGE	0.236	-0.099	0.175	1							
FIRMSIZE	0.147	-0.285	0.345	0.393	1						
INDUSTRY	-0.148	0.068	-0.231	-0.29	-0.384	1					
LEVERAGE	-0.068	-0.254	0.855	0.351	0.502	-0.373	1				
LIQUIDITY	0.348	0.128	-0.569	-0.224	-0.203	0.193	-0.479	1			
MARKET VALUE	0.126	0.168	-0.419	-0.257	-0.436	0.228	-0.435	0.161	1		
PROFITABILITY	0.958	0.019	-0.523	0.247	0.141	-0.152	-0.033	0.285	0.121	1	
SOCIAL	-0.025	-0.07	-0.076	-0.032	-0.225	0.112	-0.115	0.062	0.137	-0.06	1

REFERENCES

- Aboody, D., Barth, M. & Kasznik, R., 2004. SFAS123 stock-based compensation expense and equity market value. *The Accounting Review*, 79, pp.251–275.
- Acedo, F.J., Barroso, C. & Galan, J.L., 2006. The resource-based theory: dissemination and main trends. *Strategic Management Journal*, 27(7), pp.621–636. Available at: <http://doi.wiley.com/10.1002/smj.532>.
- Adams, C.A. & Evans, R., 2004. Accountability, Completeness, Credibility and the Audit Expectations Gap. *Journal of Corporate Citizenship*, 2004(14), pp.97–115.
- Adams, C.A., Hill, W.-Y. & Roberts, C.B., 1998. Corporate social reporting practices in Western Europe: legitimating corporate behaviour? *The British Accounting Review*, 30(1), pp.1–21.
- Adams, M. & Hardwick, P., 1998. AN ANALYSIS OF CORPORATE DONATIONS : UNITED KINGDOM EVIDENCE. *Journal of Management Studies*, 35(5).
- Adams, R.B. & Ferreira, D., 2009. Women in the boardroom and their impact on governance and performance☆. *Journal of Financial Economics*, 94(2), pp.291–309. Available at: <http://linkinghub.elsevier.com/retrieve/pii/S0304405X09001421>.
- Africa Merlin-Tao Visser, W., 2002. Sustainability reporting in South Africa. *Corporate Environmental Strategy*, 9(1), pp.79–85.
- Agrawal, A. & Knoeber, C.R., 1996. Firm performance and mechanisms to control agency problems between managers and shareholders. *Journal of financial and quantitative analysis*, 31(3), pp.377–397. Available at: <http://ssrn.com/paper=7524>.
- Ahern, K. & Dittmar, A., 2011. The Changing of the Boards: The Impact on Firm Valuation of Mandated female Board Representation. *The Quarterly Journal of Economics*, p.365 of 363–382. Available at: <http://www.jstor.org.eproxy2.lib.hku.hk/stable/1891120?seq=3>.
- Aksoy, L. et al., 2008. The long-term stock market valuation of customer satisfaction. *Journal of Marketing*, 72(4), pp.105–122.
- Albertini, E., 2013. Does Environmental Management Improve Financial Performance? A Meta-Analytical Review. *Organization & Environment*, 26(4), pp.431–457.
- Allouche, J. & Laroche, P., 2005. A meta-analytical investigation of the relationship between corporate social and financial performance. *Revue de Gestion des Ressources Humaines*, 57(July-Sept), pp.18–41.

- Al-Tuwaijri, S. a, Christensen, T.E. & Hughes, K., 2004. The relations among environmental disclosure, environmental performance, and economic performance: a simultaneous equations approach. *Accounting, Organizations and Society*, 29(5-6), pp.447–471. Available at: <http://linkinghub.elsevier.com/retrieve/pii/S0361368203000321>.
- Ambler, T. et al., 2002. Relating brand and customer perspectives on marketing management. *Journal of Service Research*, 5(1), pp.13–25.
- Anderson, E. & Robertson, T.S., 1995. Inducing multiline salespeople to adopt house brands. *The Journal of Marketing*, pp.16–31.
- Anderson, E.W., Fornell, C. & Lehmann, D.R., 1994. Customer Satisfaction, Market Share, and Profitability: Findings from Sweden. *Journal of Marketing*, 58, pp.53–66. Available at: <http://www.jstor.org/stable/1252310?origin=crossref>.
- Anderson, E.W., Fornell, C. & Mazvancheryl, S.K., 2004. Customer satisfaction and shareholder value. *Journal of Marketing*, pp.172–185.
- Anderson, E.W., Fornell, C. & Rust, R.T., 1997. Customer satisfaction, productivity, and profitability: differences between goods and services. *Marketing Science*, 16(2), pp.129–145.
- Anderson, R.C. & Lee, D.S., 1997. Ownership Studies: The Data Source Does Matter. *The Journal of Financial and Quantitative Analysis*, 32(3), p.311. Available at: <http://www.jstor.org/stable/2331202?origin=crossref>.
- Anton, W.R.Q., Deltas, G. & Khanna, M., 2004. Incentives for environmental self-regulation and implications for environmental performance. *Journal of Environmental Economics and Management*, 48(1), pp.632–654. Available at: <http://linkinghub.elsevier.com/retrieve/pii/S0095069603001025> [Accessed September 24, 2013].
- Artiach, T. et al., 2010. The determinants of corporate sustainability performance. *Accounting & Finance*, 50(1), pp.31–51.
- Aupperle, K.E., Carroll, A.B. & Hatfield, J.D., 1985. an Empirical Examination of the Relationship Between Corporate. , 28(2), pp.446–463.
- Bachman, S.L., 2000. The political economy of child labor and its impacts on international business. *Business Economics*, 35(3), pp.30–41.
- Backhaus, K., Stone, B. & Heiner, K., 2002. Exploring the Relationship Between Corporate Social Performance and Employer Attractiveness. , 41(3), pp.292–318.
- Baker, M.B., 2001. TIGHTENING THE TOOTHLESS VISE: CODES OF CONDUCT AND THE AMERICAN MULTINATIONAL ENTERPRISE. *20 Wisconsin International Law Journal*, 89.

- Ball, A., Owen, D.L. & Gray, R., 2000. EXTERNAL TRANSPARENCY OR INTERNAL CAPTURE ? THE ROLE OF THIRD-PARTY STATEMENTS IN ADDING VALUE TO CORPORATE ENVIRONMENTAL REPORTS 1. *Business Strategy and the Environment*, 9, pp.1–23.
- Ballou, B. et al., 2012. Exploring the strategic integration of sustainability initiatives: Opportunities for accounting research. *Accounting Horizons*, 26(2), pp.265–288.
- Ballow, J.J., Burgman, R. & Molnar, M.J., 2004. Managing for shareholder value: intangibles, future value and investment decisions. *Journal of Business Strategy*, 25(3), pp.26–34.
- Bansal, P., 2005. Evolving sustainably: A longitudinal study of corporate sustainable development. *Strategic management journal*, 26(3), pp.197–218.
- Barclay, D., Higgins, C. & Thompson, R., 1995. The partial least squares (PLS) approach to causal modeling: Personal computer adoption and use as an illustration. *Technology studies*, 2(2), pp.285–309.
- Barnett, M.L., 2007. Stakeholder influence capacity and the variability of financial returns to corporate social responsibility. *Academy of Management Review*, 32(3), pp.794–816.
- Barnett, M.L., 2007. Stakeholder Influence Capacity and the Variability of Financial Returns to Corporate Social Responsibility. *Academy of Management Review*, 32(3), pp.794–816. Available at: <http://amr.aom.org/cgi/doi/10.5465/AMR.2007.25275520>.
- Barney, J., 1991. Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), pp.99–120.
- Bauer, R. et al., 2008. The impact of corporate governance on corporate performance: Evidence from Japan. *Pacific-Basin Finance Journal*, 16(3), pp.236–251.
- Bebchuk, L., Cohen, A. & Ferrell, A., 2009. What Matters in Corporate Governance? *Review of Financial Studies*, 22(2), pp.783–827. Available at: <http://rfs.oxfordjournals.org/lookup/doi/10.1093/rfs/hhn099>.
- Becchetti, L., Di Giacomo, S. & Pinnacchio, D., 2008. Corporate social responsibility and corporate performance: evidence from a panel of US listed companies. *Applied Economics*, 40(5), pp.541–567. Available at: <http://www.tandfonline.com/doi/abs/10.1080/00036840500428112> [Accessed September 25, 2013].
- Bell, D. et al., 2002. Seven barriers to customer equity management. *Journal of Service Research*, 5(1), pp.77–85.

- Bergkvist, L. & Rossiter, J., 2009. Tailor-made single-item measures of doubly concrete constructs. *International Journal of Advertising*, 28(4), pp.607–621.
- Berthelot, S., Cormier, D. & Magnan, M., 2003. ENVIRONMENTAL DISCLOSURE RESEARCH : REVIEW AND SYNTHESIS. *Journal of Accounting Literature*, 22, p.pg 1–44.
- Berthelot, S., Coulmont, M. & Serret, V., 2012. Do investors value sustainability reports? A Canadian study. *Corporate Social Responsibility and Environmental Management*, 19(6), pp.355–363.
- Besser, T.L., 2002. *The conscience of capitalism: Business social responsibility to communities*, Greenwood Publishing Group.
- Besser, T.L. & Miller, N.J., 2004. The Risks of Enlightened Self-Interest: Small Businesses and Support for Community. *Business & Society*, 43(4), pp.398–425.
- Bhagat, S. & Black, B., 2000. The Non-Correlation Between Board Independence and Long Term Firm Performance. *Journal of Corporation Law*, 1(1), pp.231–274.
- Bhagat, S. & Black, B., 2002. The Non-Correlation Between Board Independence and Long-Term Firm Performance. *As published in Journal of Corporation Law*, 27, pp.231–273.
- Bhagat, S. & Black, B., 1999. The Uncertain Relationship Between Board Composition and Firm Performance. *Business Lawyer*, 54(175), pp.921–963. Available at: http://heinonlinebackup.com/hol-cgi-bin/get_pdf.cgi?handle=hein.journals/busl54§ion=33.
- Bhagat, S. & Bolton, B., 2008. Corporate governance and firm performance. *Journal of Corporate Finance*, 14, pp.257–273.
- Bilimoria, D. & Wheeler, J. V, 2000. Women corporate directors: Current research and future directions. *Women in management: Current research issues*, 2, pp.138–163.
- Bird, R. et al., 2007. What corporate social responsibility activities are valued by the market? *Journal of Business Ethics*, 76(2), pp.189–206.
- Blanco, B., Guillamón-Saorín, E. & Guiral, A., 2013. Do Non-socially Responsible Companies Achieve Legitimacy Through Socially Responsible Actions? The Mediating Effect of Innovation. *Journal of Business Ethics*, 117(1), pp.67–83.
- Boehm, A., 2005. The Participation of Businesses in Community Decision Making. *Business & Society*, 44(2), pp.144–177. Available at: <http://bas.sagepub.com/cgi/doi/10.1177/0007650305275770>.
- Bohren, O. & Odegaard, B., 2003. Governance and Performance revisited. *Handbook of Business Strategy*, 4(1), pp.92–97.

- Bouten, L. & Hoozée, S., 2013. On the interplay between environmental reporting and management accounting change. *Management Accounting Research*, 24(4), pp.333–348. Available at: <http://dx.doi.org/10.1016/j.mar.2013.06.005>.
- Bowbrick, P., 2014. *The Economics of Quality, Grades and Brands (Routledge Revivals)*, Routledge.
- Brammer, S. & Millington, A., 2004. Stakeholder Pressure, Organizational Size, and the Allocation of Departmental Responsibility for the Management of Corporate Charitable Giving. *Business & Society*, 43(3), pp.268–295. Available at: <http://bas.sagepub.com/cgi/doi/10.1177/0007650304267536>.
- Brammer, S., Millington, A. & Pavelin, S., 2007. Gender and Ethnic Diversity Among UK Corporate Boards. *Corporate Governance: An International Review*, 15(2), pp.393–403. Available at: <http://ezproxy.auckland.ac.nz/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=bah&AN=24361379&site=ehost-live&scope=site\nhttp://content.ebscohost.com/ezproxy.auckland.ac.nz/ContentServer.asp?T=P&P=AN&K=24361379&S=R&D=bah&EbscoContent=dGJy>.
- Brent, A. & Labuschagne, C., 2006. Social indicators for sustainable project and technology life cycle management in the process industry (13 pp+ 4). *The International Journal of Life Cycle Assessment*, 11(1), pp.3–15.
- Brickley, J.A., Coles, J.L. & Terry, R.L., 1994. Outside directors and the adoption of poison pills*. *Journal of Financial Economics*, 35(January 1993), pp.371–390.
- Brown, D.L., Guidry, R.P. & Patten, D.M., 2010. Sustainability reporting and perceptions of corporate reputation: An analysis using fortune. *Advances in Environmental Accounting & Management*, 4, pp.83–104.
- Brown, L.D. & Caylor, M.L., 2004. Corporate governance and firm performance. , Conference, p.118–n/a. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=586423.
- Buhr, N., 2007. Histories of and rationales for sustainability reporting. *Sustainability accounting and accountability*, pp.57–69.
- Burgess, Z. & Tharenou, P., 2002. Women board directors: Characteristics of the few. *Journal of Business Ethics*, 37(1), pp.39–49.
- Burgess, Z.M. & Tharenou, P., 2000. What distinguishes women nonexecutive directors from executive directors? In *Women on corporate boards of directors*. Springer, pp. 111–127.
- Burkart, M., Gromb, D. & Panunzi, F., 1997. Large shareholders, monitoring, and the value of the firm. *Quarterly Journal of Economics*, 112(August), pp.693–728. Available at:

<http://qje.oxfordjournals.org/content/112/3/693.short> \n <http://qje.oxfordjournals.org/content/112/3/693.abstract>.

- Burke, R.J., 2000a. Company size, board size and numbers of women corporate directors. In *Women on corporate boards of directors*. Springer, pp. 157–167.
- Burke, R.J., 2000b. Women on Canadian corporate boards of directors: still a long way to go. *ISSUES IN BUSINESS ETHICS*, pp.97–110.
- Burton, C., 1991. *The promise and the price: The struggle for equal opportunity in women's employment*, Allen & Unwin.
- Campbell, J.L., 2007. Why would corporations behave in socially responsible ways ? An of corporate theory institutional social responsibility. *Academy of Management Review*, 32(3), pp.946–967.
- Campbell, R., 1996. Letters to Editors:CEO vs Nun: It's a Draw. *Wall Street Journal*.
- Carroll, A.B., 1979. A Three-Dimensional Conceptual Model of Corporate Performance. *The Academy of Management Review*, 4(4), pp.497–505.
- Carter, D. a., Simkins, B.J. & Simpson, W.G., 2003. Corporate Governance, Board Diversity, and Firm Value. *The Financial Review*, 38(1), pp.33–53. Available at: <http://doi.wiley.com/10.1111/1540-6288.00034>.
- Carver, J., 1997. *Boards that make a difference: A new design for leadership in nonprofit and public organizations*, John Wiley & Sons.
- Carver, J., 2002. *On Board Leadership*, Jossey-Bass, A Wiley Company.
- Cassell, C. & Biswas, R., 2000. Managing diversity in the new millennium.
- Černič, J.L., 2008. Corporate Responsibility for Human Rights : A Critical Analysis of the OECD Guidelines for Multinational enterprises. *Human Rights*, 3(1), pp.71–100. Available at: <http://ssrn.com/paper=1317263>.
- Chabowski, B.R., Mena, J.A. & Gonzalez-Padron, T.L., 2011. The structure of sustainability research in marketing, 1958–2008: a basis for future research opportunities. *Journal of the Academy of Marketing Science*, 39(1), pp.55–70.
- Chaghadari, M.F. & Chaleshtori, G.N., 2011. Corporate governance and firm performance. *2011 International Conference on Sociality and Economics Development*, 10.
- Chakravarthy, J., De Haan, E. & Rajgopal, S., 2014. Reputation repair after a serious restatement. *Accounting Review*, 89(4), pp.1329–1363.
- Chang, D. & Kuo, L.R., 2008a. The Effects of Sustainability Development on Firms' Financial Performance – an Empirical Approach. , 380(January), pp.365–380.

- Chang, D. & Kuo, L.R., 2008b. The effects of sustainable development on firm's financial performance – an empirical approach. *sustainable development*, 16(6), pp.365–380.
- Chin, W.W., 1998. Issues and Opinion on Structural Equation Modeling. *MIS Quarterly*, 22(1), p.1.
- Cho, S.Y., Lee, C. & Pfeiffer, R.J., 2013. Corporate social responsibility performance and information asymmetry. *Journal of Accounting and Public Policy*, 32(1), pp.71–83. Available at: <http://dx.doi.org/10.1016/j.jaccpubpol.2012.10.005>.
- Chrisman, J.J. & Carroll, a B., 1984. Corporate responsibility - Reconciling economic and social goals. *Sloan Management Review*, 25(2), pp.59–65.
- Clarkson, P.. et al., 2011. Does it really pay to be green? Determinants and consequences of proactive environmental strategies. *Journal of Accounting and Public Policy*, 30(2), pp.122–144.
- Clarkson, P.M. et al., 2011. Does it really pay to be green? Determinants and consequences of proactive environmental strategies. *Journal of Accounting and Public Policy*, 30(2), pp.122–144.
- Cohen, J.R. et al., 2012. Corporate reporting of nonfinancial leading indicators of economic performance and sustainability. *Accounting Horizons*, 26(1), pp.65–90.
- Cohen, J.R., Krishnamoorthy, G. & Wright, A.M., 2000. Evidence on the effect of financial and nonfinancial trends on analytical review. *Auditing*, 19(1), pp.26–48.
- Contrafatto, M., 2014. The institutionalization of social and environmental reporting: An Italian narrative. *Accounting, Organizations and Society*, 39(6), pp.414–432. Available at: <http://dx.doi.org/10.1016/j.aos.2014.01.002>.
- Contrafatto, M. & Burns, J., 2013. Social and environmental accounting, organisational change and management accounting: A processual view. *Management Accounting Research*, 24(4), pp.349–365. Available at: <http://dx.doi.org/10.1016/j.mar.2013.10.004>.
- Coram, P.J., Monroe, G.S. & Woodliff, D.R., 2009. The value of assurance on voluntary nonfinancial disclosure: An experimental evaluation. *Auditing*, 28(1), pp.137–151.
- Core, J.E., 2001. A review of the empirical disclosure literature: discussion. *Journal of Accounting and Economics*, 31(1-3), pp.441–456. Available at: <http://linkinghub.elsevier.com/retrieve/pii/S0165410101000362>.
- Cormier, D., Ledoux, M.-J. & Magnan, M., 2011. The informational contribution of social and environmental disclosures for investors. *Management Decision*, 49(8), pp.1276–1304. Available at:

<http://www.emeraldinsight.com/10.1108/00251741111163124> [Accessed February 4, 2014].

- Cormier, D. & Magnan, M., 2007. The revisited contribution of environmental reporting to investors' valuation of a firm's earnings: An international perspective. *Ecological economics*, 62(3), pp.613–626.
- Cox, T.H. & Blake, S., 1991. Managing cultural diversity: implications for organizational competitiveness. *Academy of management Executive*, 5(3), pp.45–56.
- Crook, T.R. et al., 2011. Does human capital matter? A meta-analysis of the relationship between human capital and firm performance. *The Journal of applied psychology*, 96(3), pp.443–456.
- Curkovic, S., Vickery, S. & DrÄnge, C., 2000. Quality-related action programs: Their impact on quality performance and firm performance. *Decision Sciences*, 31(4), pp.885–904. Available at: <http://www.scopus.com/inward/record.url?eid=2-s2.0-0012052887&partnerID=40&md5=8a660dc15cb5251b056bebb654f2f29f>.
- Custers, P.J.J.M., 1997. *Capital accumulation and women's labour in Asian economies*, Derde Wereld Centrum.
- Dale-olsen, H., Schöne, P. & Verner, M., 2013. DIVERSITY AMONG NORWEGIAN BOARDS OF DIRECTORS : DOES A QUOTA FOR WOMEN IMPROVE FIRM PERFORMANCE ? , 19(4), pp.110–135.
- Darabi, R., Rad, S.K. & Ghadiri, M., 2012. The Relationship between Intellectual Capital and Earnings Quality. *Research Journal of Applied Sciences, Engineering and Technology*, 4(20), pp.4192–4199.
- Daryaee, A., Pakdel, A. & Darmichi, Q., 2011. INTERDISCIPLINARY JOURNAL OF CONTEMPORARY RESEARCH IN BUSINESS INTELLECTUAL CAPITAL , CORPORATE VALUE AND CORPORATE GOVERNANCE (Evidence from Tehran Stock Exchange (TSE)). *INTERDISPLINARY JOURNAL OF CONTEMPORARY RESEARCH IN BUSINESS*, 3(6), pp.865–874.
- Dasgupta, S., Laplante, B. & Mamingi, N., 2001. Pollution and capital markets in developing countries. *Journal of Environmental Economics and management*, 42(3), pp.310–335.
- Davis, K. & Blomstrom, R.L., 1971. *Business, society, and environment: Social power and social response*, McGraw-Hill.
- Delmas, M. & Blass, V.D., 2010. Measuring corporate environmental performance: the trade-offs of sustainability ratings. *Business Strategy and the Environment*, 19(4), pp.245–260.

- Demsetz, H. & Lehn, K., 1985. The structure of corporate ownership: causes and consequences. *Journal of Political Economy*, 93(6), pp.1155–1177.
- Dhaliwal, D.S. et al., 2011. Voluntary nonfinancial disclosure and the cost of equity capital: The initiation of corporate social responsibility reporting. *Accounting Review*, 86(1), pp.59–100.
- Diltz, J., 1995. Does social screening affect portfolio performance? *The Journal of Investing*, pp.64–9.
- Douglas, W. a., Ferguson, J.-P. & Klett, E., 2004. An Effective Confluence of Forces in Support of Workers' Rights: ILO Standards, US Trade Laws, Unions, and NGOs. *Human Rights Quarterly*, 26(2), pp.273–299.
- Dowell, G. et al., 2000. Do Corporate Standards Global Create Environmental or Destroy Market Value ? *Management Science*, 46(8), pp.1059–1074.
- Drucker, P.F., 1984. Converting social problems into business opportunities: the new meaning of corporate social responsibility. *California Management Review*, 26(2), pp.53–63.
- Eccles, R.G., Serafeim, G. & Krzus, M.P., 2011. Market interest in nonfinancial information. *Journal of Applied Corporate Finance*, 23(4), pp.113–127.
- Edvinsson, L., 1997. Developing intellectual capital at Skandia. *Long Range Planning*, 30(3), pp.320–373. Available at: <http://linkinghub.elsevier.com/retrieve/pii/S0024630197000162>.
- Elkinjton, J., 1998. Partnerships from Cannibals with Forks : The Triple iottom line of 2 1st- Century Business. *ENVIRONMENT QUALITY MANAGEMENT*, Autumn, pp.37–51.
- Erhardt, N.L., Werbel, J.D. & Shrader, C.B., 2003. Board of director diversity and firm financial performance. *Corporate Governance*, 11(2), pp.102–111. Available at: <http://onlinelibrary.wiley.com/doi/10.1111/1467-8683.00011/full>.
- Eric, G. & Shapiro, D.M., 1998. Management and Ownership Effects: Evidence from Five Countries. *Strategic Management Journal*, 19(6), pp.533–553.
- Ertugrul, M., 2011. Employee Friendly Acquirers and Acquisition Performance. , XXXVI(November), pp.1–34.
- Evans, J., 2002. Globalising workers' rights. *Organisation for Economic Cooperation and Development. The OECD Observer*, (234), p.20.
- Firer, S. & Williams, S.M., 2003. Intellectual capital and traditional measures of corporate performance. *Journal of Intellectual Capital*, 4(3), pp.348–360.

- Flammer, C., 2013. Corporate Social Responsibility and Shareholder Value : The Environmental Consciousness of Shareholders. *Academy of Management Journal*, 56(January), pp.758–781.
- Flammer, C., 2015. Does Corporate Social responsibility Lead to Superior Financial Performance? A Regression Discontinuity Approach. *PhD Proposal*, 1, pp.1–46.
- Fogler, H.R. & Nutt, F., 1975. A NOTE ON SOCIAL RESPONSIBILITY AND STOCK VALUATION. *Academy of Management*, 18(1).
- Fondas, N., 2000. Women on boards of directors: gender bias or power threat? In *Women on corporate boards of directors*. Springer, pp. 171–177.
- Fornell, C., 1992. A National Customer Satisfaction Barometer: The Swedish Experience. *Journal of Marketing*, 1(1), pp.6–21. Available at: <http://www.jstor.org/stable/1252129?origin=crossref> <http://www.jstor.org/stable/10.2307/1252129>.
- Fornell, C., Mithas, S., Morgeson, F. V., et al., 2006. Customer Satisfaction and Stock Prices: High Returns, Low Risk. *Journal of Marketing*, 70(1), pp.3–14.
- Fornell, C., Mithas, S., Morgeson III, F. V, et al., 2006. Customer satisfaction and stock prices: high returns, low risk. *Journal of marketing*, 70(1), pp.3–14.
- Fornell, C., Mithas, S., Morgeson, I., et al., 2006. Stock Customer and stock prices : High Returns , low risk. *American Market Association*, 70(1), pp.3–14.
- Foster, G. & Gupta, M., 1997. The customer profitability implications of customer satisfaction. *Available at SSRN 45941*.
- Frank, I., 1980. Foreign Enterprise in Developing Countries: A Supplementary Paper of the Committee for Economic Development.
- Frankel, R., McNicholas, M. & Wilson, P., 1995. Discretionary Disclosure and External Financing. *The Accounting Review*, pp.135–150.
- Freeman, E., 1984. Strategic Management: a stakeholder approach. *Boston: Pitman*, 46.
- Friedman, M., 1970. The Social Responsibility of Business is to Increase its Profits.
- Friedman Milton, 1970. The social responsibility of business is to increase its profits. *New York Times Magazine*, 13, pp.32–33.
- Frost, G.R., 2007. The introduction of mandatory environmental reporting guidelines: Australian evidence. *Abacus*, 43(2), pp.190–216.
- Fry, F. & Hock, R.J., 1976. Who claims corporate responsibility? The biggest and the worst. *Business and society Review*, 18(62), p.5.

- Galbreath, J. & Shum, P., 2012. Do customer satisfaction and reputation mediate the CSR-FP link? Evidence from Australia. *Australian Journal of Management*, 37(2), pp.211–229.
- García-Benau, M.A., Sierra-Garcia, L. & Zorio, A., 2013. Financial crisis impact on sustainability reporting. *Management Decision*, 51(7), pp.1528–1542. Available at: <http://www.emeraldinsight.com/10.1108/MD-03-2013-0102> [Accessed January 25, 2014].
- Goyal, P., Rahman, Z. & Kazmi, A.A., 2013. Corporate sustainability performance and firm performance research: Literature review and future research agenda. *Management Decision*, 51(2), pp.361–379. Available at: <http://www.emeraldinsight.com/10.1108/00251741311301867> [Accessed September 23, 2013].
- Gray, R. et al., 2001. Social and Environmental Disclosure and Corporate Characteristics: A Research Note and Extension. *Journal of Business Finance & Accounting*, 28(3-4), pp.327–356. Available at: <http://www.blackwell-synergy.com/links/doi/10.1111%2F1468-5957.00376>.
- Gray, R. & Gray, S., 2011. Accountability and human rights: A tentative exploration and a commentary. *Critical Perspectives on Accounting*, 22(8), pp.781–789. Available at: <http://dx.doi.org/10.1016/j.cpa.2011.07.004>.
- Gray, R., Kouhy, R. & Lavers, S., 1995. Corporate social and environmental reporting : A review of the literature and a longitudinal study of UK disclosure. *Accounting, Auditing & Accountability Journal*, 8(2), pp.47–77.
- Gray, R., Owen, D. & Adams, C., 1996. *Accounting & accountability: changes and challenges in corporate social and environmental reporting*, Prentice Hall.
- Greenwald, B.C. & Stiglitz, J.E., 1990. *Asymmetric information and the new theory of the firm: Financial constraints and risk behavior*, National Bureau of Economic Research.
- Gruca, T.S. & Rego, L.L., 2005. Customer satisfaction, cash flow, and shareholder value. *Journal of Marketing*, 67(3), pp.115–130.
- Guidry, R.P. & Patten, D.M., 2010. Market reactions to the first-time issuance of corporate sustainability reports: evidence that quality matters. *Sustainability Accounting, Management and Policy Journal*, 1(1), pp.33–50.
- Guiral, A. et al., 2010. Ethical Dilemmas in Auditing: Dishonesty or Unintentional Bias? *Journal of Business Ethics*, 91(1), pp.151–166.
- Gupta, S. & Goldar, B., 2005. Do stock markets penalize environment-unfriendly behaviour? Evidence from India. *Ecological Economics*, 52(1), pp.81–95.

- Gupta, S., Lehmann, D. & Ames Stuart, J., 2004. Valuing customers. *Journal of marketing research*, pp.7–18.
- Hair, J.F. et al., 2012. An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 40(3), pp.414–433.
- Hair, J.F., Ringle, C.M. & Sarstedt, M., 2011. PLS-SEM: Indeed a Silver Bullet. *The Journal of Marketing Theory and Practice*, 19(2), pp.139–152.
- Hair Jr, J.F. et al., 2013. *A primer on partial least squares structural equation modeling (PLS-SEM)*, Sage Publications.
- Haley, U., 1991. Corporate Contributions as Managerial Masques: Reframing Corporate Contributions As Strategies to Influence Society. *Journal of Management Studies*, 28(5), pp.485–509.
- Hart, O., 1993. Economist's View of Fiduciary Duty, *An. U. Toronto LJ*, 43, p.299.
- Hart, S.L., 1995. A natural-resource-based view of the firm. *Academy of management review*, 20(4), pp.986–1014.
- Hart, S.L. & Dowell, G., 2011. A Natural-Resource-Based View of the Firm: Fifteen Years After. *Journal of Management*, 37(5), pp.1464–1479.
- Hassel, L., Nilsson, H. & Nyquist, S., 2005. The value relevance of environmental performance. *European Accounting Review*, 14(1), pp.41–61.
- Healy, P.M. & Palepu, K.G., 1995. The challenges of investor communication The case of CUC International, Inc. *Journal of Financial Economics*, 38(2), pp.111–140.
- Hedley, R. a., 1999. Transnational Corporations and Their Regulation: Issues and Strategies1. *International Journal of Comparative Sociology*, 40(2), pp.215–230. Available at: <http://cos.sagepub.com/cgi/doi/10.1177/002071529904000202>.
- Helmig, B., Spraul, K. & Ingenhoff, D., 2013. Under Positive Pressure: How Stakeholder Pressure Affects Corporate Social Responsibility Implementation. *Business & Society*, XX, pp.1–37.
- Hermalin, B.E. & Weisbach, M.S., 1991. The effects of board composition and direct incentives on firm performance. *Financial Management*, 20(4), pp.101–112. Available at: <http://www.jstor.org/stable/3665716>.
- Hitt, M. a. et al., 2001. Direct and Moderating Effects of Human Capital in Professional on Strategy and Performance Service Firms : a Resource-Based Perspective. *Academy of Management Journal*, 44(1), pp.13–28.

- Hitt, M.A. et al., 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), pp.13–28.
- Holton, V.M., 2000. Taking a seat on the board: women directors in Britain. In *Women on Corporate Boards of Directors*. Springer, pp. 145–155.
- Hong, H., Kubik, J.D. & Scheinkman, J. a, 2012. Financial Constraints on Corporate Goodness. *NBER WORKING PAPER SERIES*. Available at: <http://www.nber.org/papers/w18476>.
- Huang, X.B. & Watson, L., 2015. Corporate social responsibility research in accounting. *Journal of Accounting Literature*, 34, pp.1–16. Available at: <http://dx.doi.org/10.1016/j.acclit.2015.03.001>.
- Hull, C.E. & Rothenberg, S., 2008. Firm performance: The interactions of corporate social performance with innovation and industry differentiation. *Strategic Management Journal*, 29(7), pp.781–789.
- Ilinitch, A.Y., Soderstrom, N.S. & E Thomas, T., 1998. Measuring corporate environmental performance. *Journal of Accounting and Public Policy*, 17(4), pp.383–408.
- Information, A. & Stiglitz, J.E., 2014. Asymmetric Information and the New Theory of the Firm : Financial Constraints and Risk Behavior. , 80(2), pp.159–165.
- Islam, M. & Deegan, C., 2008. *Motivations for an organisation within a developing country to report social responsibility information*, Available at: <http://www.emeraldinsight.com/doi/abs/10.1108/09513570810893272>.
- Islam, M.A., 2015. Human Rights Performance Reporting : a study of Corporations within Australian Financial Sector Human Rights Performance Reporting : a study of Corporations within Australian Financial Sector. , (September), pp.1–29.
- Islam, M.A. & Deegan, C., 2010. Media pressures and corporate disclosure of social responsibility performance information: A study of two global clothing and sports retail companies. *Accounting and Business Research*, 40(2), pp.131–148.
- Islam, M.A. & McPhail, K., 2011. Regulating for corporate human rights abuses: The emergence of corporate reporting on the ILO's human rights standards within the global garment manufacturing and retail industry. *Critical Perspectives on Accounting*, 22(8), pp.790–810. Available at: <http://dx.doi.org/10.1016/j.cpa.2011.07.003>.
- Ittner, C. & Larcker, D., 1998. Are Nonfinancial Measures Leading Indicators of Financial Performance? An Analysis of Customer Satisfaction satisfaction. *Journal of Accounting Research*, 36, p.37. Available at: <http://proquest.umi.com/pqdweb?did=40003711&Fmt=7&clientId=23852&RQT=309&VName=PQD>.

- Jensen, M., 2001. Value maximisation, stakeholder theory, and the corporate objective function. *European Financial Management*, 7(3), pp.297–317.
- Jensen, M.C. & Meckling, W.H., 1976. Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics*, 3(4), pp.305–360.
- Jochnick, C., 1999. Confronting the impunity of non-state actors: new fields for the promotion of human rights. *Human Rights Quarterly*, 21(1), pp.56–79.
- Johnson, S. a. & Sarkar, S.K., 1996. The valuation effects of the 1977 Community Reinvestment Act and its enforcement. *Journal of Banking & Finance*, 20(5), pp.783–803. Available at: <http://www.sciencedirect.com/science/article/pii/0378426696000076>.
- Jones, T.M., 1995. Instrumental Stakeholder Theory : a Synthesis of Ethics and Economics. *The Academy of Management Review*, 20(2), pp.404–437. Available at: <http://www.jstor.org.esc-web.lib.cbs.dk/stable/258852>.
- Judge, E., 2003. Women on board:Help or hindrance? *The Times*, p.21.
- Juran, J.M. & Gryna, F.M., 1980. *Quality planning and analysis*, McGraw-Hill.
- Kang, K.H., Lee, S. & Huh, C., 2010. Impacts of positive and negative corporate social responsibility activities on company performance in the hospitality industry. *International Journal of Hospitality Management*, 29(1), pp.72–82.
- Kaplan, S.N., 1995. Corporate governance and incentives in German companies: Evidence from top executive turnover and firm performance. *European Financial Management*, 1(1), pp.23–36.
- Kaplan, S.N. & Minton, B. a., 1994. Appointments of outsiders to Japanese boards: Determinants and implications for managers. *Journal of Financial Economics*, 36(2), pp.225–258.
- Kaufman, L., 1999. Cutting Through Fog of Growth for Net Retailers. *New York Times*, 1.
- Kedia, B.L. & Kuntz, E.C., 1981. The context of social performance: An empirical study of Texas banks. *Research in corporate social performance and policy*, 3, pp.133–154.
- Khanna, M. & Anton, W.R.Q., 2002. Corporate environmental management: regulatory and market-based incentives. *Land Economics*, 78(4), pp.539–558.
- Klassen, R.D. & McLaughlin, C.P., 1996. The impact of environmental management on firm performance. *Management science*, 42(8), pp.1199–1214.

- Kobeissi, N. & Damanpour, F., 2009. Corporate Responsiveness to Community Stakeholders, Effects of Contextual and Organisational Characteristics. *Business & Society*, 48(3), pp.326–359.
- Kolk, A., 2003. TRENDS IN SUSTAINABILITY REPORTING BY THE FORTUNE GLOBAL 250. *Business Strategy and the Environment*, 12, pp.279–291.
- Kolk, A., Walhain, S. & Susanne van de Wateringen, 2001. ENVIRONMENTAL REPORTING BY THE FORTUNE GLOBAL 250 : EXPLORING THE INFLUENCE OF NATIONALITY AND SECTOR. *Business Strategy and the Environment*, 10, pp.15–28.
- Konar, S. & Cohen, M.A., 2001. Does the market value environmental performance? *Review of Economics and Statistics*, 83(2), pp.281–289.
- Kothari, C.R., 2004. *Research methodology: Methods and techniques*, New Age International.
- KPMG, 2008. International Survey of Corporate Responsibility Reporting 2008. *Methodology*, p.118. Available at: <http://www.kpmg.com/LU/en/IssuesAndInsights/Articlespublications/Documents/KPMG-International-Survey-on-Corporate-Responsibility-Reporting.pdf>.
- KPMG, 2013. The KPMG Survey of Corporate Responsibility Reporting 2013. , p.82.
- KPMG, U., 2006. Carrots and Sticks for Starters. *UNEP, Paris*.
- Krishnan, H. a. & Park, D., 2005. A few good women - On top management teams. *Journal of Business Research*, 58(12), pp.1712–1720.
- Labuschagne, C., Brent, A.C. & van Erck, R.P.G., 2005. Assessing the sustainability performances of industries. *Journal of Cleaner Production*, 13(4), pp.373–385. Available at: <http://linkinghub.elsevier.com/retrieve/pii/S0959652603001811> [Accessed March 19, 2014].
- Lajili, K. & Zéghal, D., 2006. Market performance impacts of human capital disclosures. *Journal of Accounting and Public Policy*, 25(2), pp.171–194. Available at: <http://linkinghub.elsevier.com/retrieve/pii/S0278425406000160>.
- Lee, P.M. & Erika, J., 2007. SHE'-E-OS: GENDER EFFECTS AND INVESTORS REACTIONS TO THE ANNOUNCEMENTS OF TOP EXECUTIVE APPOINTMENTS. *Strategic Management Journal*, 28, pp.227–241.
- Lee, S. & Park, S.Y., 2009. Do socially responsible activities help hotels and casinos achieve their financial goals? *International Journal of Hospitality Management*, 28(1), pp.105–112.

- Lehmann, E. & Weigand, J., 2000. Does the Governed Corporation Perform Better? Governance Structures and Corporate Performance in Germany. *European Finance Review*, 4(1932), pp.157–195.
- Lehtonen, M., 2004. The environmental–social interface of sustainable development: capabilities, social capital, institutions. *Ecological Economics*, 49(2), pp.199–214. Available at: <http://linkinghub.elsevier.com/retrieve/pii/S092180090400076X> [Accessed March 11, 2014].
- Lev, B., 2001. *Intangibles: Management, Measurement, and Reporting.*, Washington: Brooking Institutional Press.
- Levy, F.K. & Shatto, G.M., 1978. The evaluation of corporate contributions. *Public Choice*, 33(1), pp.19–28.
- Lin, L.-S. et al., 2012. Human capital disclosure and organizational performance: The moderating effects of knowledge intensity and organizational size. *Management Decision*, 50(10), pp.1790–1799. Available at: <http://www.emeraldinsight.com/10.1108/00251741211279602>.
- Logsdon, J.M. & Wood, D.J., 2002. Business citizenship: From domestic to global level of analysis. *Business Ethics Quarterly*, 12(02), pp.155–187.
- Lückerath-Rovers, M., 2013. Women on boards and firm performance. *Journal of Management and Governance*, 17(2), pp.491–509.
- Luo, X. & Bhattacharya, C.B., 2006. Corporate social responsibility, customer satisfaction, and market value. *Journal of marketing*, pp.1–18.
- Luo, X., Wieseke, J. & Homburg, C., 2012. Incentivizing CEOs to build customer-and employee-firm relations for higher customer satisfaction and firm value. *Journal of the Academy of Marketing Science*, 40(6), pp.745–758.
- Lys, T., Naughton, J.P. & Wang, C., 2015. Signaling through corporate accountability reporting. *Journal of Accounting and Economics*, 60(1), pp.56–72. Available at: <http://dx.doi.org/10.1016/j.jacceco.2015.03.001>.
- Maddox, K.E., 1981. *Corporate philanthropy*,
- Maditinos, D. et al., 2011. The impact of intellectual capital on firms' market value and financial performance. *Journal of Intellectual Capital*, 12(1), pp.132–151.
- Mahapatra, S., 1984. Investor reaction to a corporate social accounting. *Journal of Business Finance & Accounting*, 11(1), pp.29–40.
- Manetti, G., 2011. The quality of stakeholder engagement in sustainability reporting: empirical evidence and critical points. *Corporate Social Responsibility and Environmental Management*, 18(2), pp.110–122.

- Margolis, J.D., Hillary, E. & Walsh, J., 2007. Does it Pay to be Good? A meta-analysis and redirection of research on the relationship between corporate social and financial performance. *Working Paper, Harvard University*.
- Margolis, J.D. & Walsh, J.P., 2001. *People and profits?: The search for a link between a company's social and financial performance*, Psychology Press.
- Marshall, J., 2001. As Boards Shrink Responsibilities Grow. *Financial Executives*, (June).
- Mats, A., 1995. Management of Knowledge-Intensive Companies.
- Matsa, B.D. a & Miller, A.R., 2013. A Female Style in Corporate Leadership ? Evidence from Quotas †. , 5(3), pp.136–169.
- Matsumura, E.M., Prakash, R. & Vera-Muñoz, S.C., 2014. Firm-value effects of carbon emissions and carbon disclosures. *Accounting Review*, 89(2), pp.695–724.
- Mattis, M.C., 2000. Women corporate directors in the United States. In *Women on corporate boards of directors*. Springer, pp. 43–56.
- Mavrinac, S.C. & Siesfeld, T., 1997. *Measures that Matter: an Exploratory Investigation of Investors Information Needs and Value Priorities*, London: Richard Ivey School of Business, University of Western Ontario.
- McCorquodale, R., 2009. Corporate Social Responsibility and International Human Rights Law. *Journal of Business Ethics*, 87(S2), pp.385–400. Available at: <http://link.springer.com/10.1007/s10551-009-0296-5>.
- McGuire, J.B., Sundgren, A. & Schneeweis, T., 1988. Corporate social responsibility and firm financial performance. *Academy of management Journal*, 31(4), pp.854–872.
- McWilliams, A. & Siegel, D., 2000. Corporate social responsibility and financial performance: correlation or misspecification? *Strategic management journal*, 21(5), pp.603–609.
- McWilliams, A. & Siegel, D., 2001. Corporate social responsibility: A theory of the firm perspective. *Academy of management review*, 26(1), pp.117–127.
- McWilliams, A. & Siegel, D., 2000. Research Notes and Communications Corporate Social Responsibility and Financial Performance : Correlation or Misspecification ? , 609(January 1999), pp.603–609.
- McWilliams, A. & Siegel, D., 1997. The role of money managers in assessing corporate social responsibility research. *The Journal of Investing*, 6(4), pp.98–107.

- McWilliams, A., Siegel, D.S. & Wright, P.M., 2006. Guest Editors' Introduction Corporate Social Responsibility: Strategic Implications. *Journal of Management Studies*, 43(January), pp.1–18.
- Miller, C.C., Burke, L.M. & Glick, W.H., 1998. Cognitive Diversity among Upper Echelon Executives: Implications for Strategic Decision Processes. *Strategic Management Journal*, 19(July 1991), pp.29–58.
- Milstein, M.B., Hart, S.L. & York, A.S., 2002. *Coercion breeds variation: the differential impact of isomorphic pressures on environmental strategies*, Stanford University Press: Stanford.
- Moneva, J.M. & Cuellar, B., 2009a. The Value Relevance of Financial and Non-Financial Environmental Reporting. *Environmental and Resource Economics*, 44(3), pp.441–456. Available at: <http://link.springer.com/10.1007/s10640-009-9294-4> [Accessed March 19, 2014].
- Moneva, J.M. & Cuellar, B., 2009b. The Value Relevance of Financial and Non-Financial Environmental Reporting. *Environmental and Resource Economics*, 44(3), pp.441–456. Available at: <http://link.springer.com/10.1007/s10640-009-9294-4> [Accessed September 24, 2013].
- Moneva, J.M. & Llena, F., 2000. Environmental disclosures in the annual reports of large companies in Spain. *European Accounting Review*, 9(1), pp.7–29.
- Monshipouri, M., Welch, C.E. & Kennedy, E.T., 2003. Multinational Corporations and the Ethics of Global Responsibility: Problems and Possibilities. *Human Rights Quarterly*, 25(4), pp.965–989.
- Moore, G., 1995. Corporate Community Involvement in the UK-Investment or Atonement. *Business Ethics*, 4(3), pp.171–178.
- Moore, G., 2001. Corporate Social and Financial Performance : An Investigation in the U . K . Supermarket Industry. *Journal of Business Ethics*, 34, pp.299–315.
- Morck, R., Shleifer, A. & Vishny, R.W., 1988. Management ownership and market valuation. *Journal of Financial Economics*, 20, pp.293–315. Available at: <http://www.sciencedirect.com/science/article/pii/0304405X88900487>.
- Morgan, N.A. & Rego, L.L., 2006. The value of different customer satisfaction and loyalty metrics in predicting business performance. *Marketing Science*, 25(5), pp.426–439.
- Moskowitz, M., 1972. Choosing socially responsible stocks. *Business and Society Review*, 1(1), pp.71–75.
- Mullen, J., 1997. Performance-based corporate philanthropy: How “giving smart” can further corporate goals. *Public Relations Quarterly*, 42, p.42. Available at:

<http://proquest.umi.com/pqdweb?did=13113047&Fmt=7&clientId=38742&RQT=309&VName=PQD>.

- Murray, A. et al., 2006. Do financial markets care about social and environmental disclosure?: Further evidence and exploration from the UK. *Accounting, Auditing & Accountability Journal*, 19(2), pp.228–255.
- Murray, A., 1989. Top management group heterogeneity and firm performance. *Strategic Management Journal*, 10, p.125. Available at: <http://search.proquest.com/docview/231147649?accountid=14472> \n<http://onlinelibrary.wiley.com/doi/10.1002/smj.4250100710/pdf> \nhttp://proxy.cau.ac.kr/68a90d/_Lib_Proxy_Url/search.proquest.com/docview/231147649?accountid=10113.
- Navarro, P., 1988. Why Do Corporations Give to Charity? *The Journal of Business*, 61(1), p.65.
- Newbert, S. cott L., 2007. Empirical research on the resource-based view of the firm: an assessment and suggestions for future research. *Strategic Management Journal*, 28(2), pp.121–146.
- Norman, W. & MacDonald, C., 2004. GETTING TO THE BOTTOM OF “ TRIPLE BOTTOM LINE.” *Business Ethics Quarterly*, 14(2), pp.243–262.
- Nunnally, J., 1978. Psychometric methods.
- Nygaard, K., 2011. Forced board changes: Evidence from Norway.
- O’Dwyer, B., 2003. Conceptions of corporate social responsibility: the nature of managerial capture. *Accounting, Auditing & Accountability Journal*, 16(4), pp.523–557. Available at: <http://www.emeraldinsight.com/10.1108/09513570310492290> [Accessed January 23, 2014].
- O’Dwyer, B., 2002a. *Managerial perceptions of corporate social disclosure: An Irish story*, Available at: <http://www.emeraldinsight.com/10.1108/09513570210435898> [Accessed February 22, 2014].
- O’Dwyer, B., 2002b. *Managerial perceptions of corporate social disclosure: An Irish story*,
- O’Dwyer, B., 2002c. Managerial perceptions of corporate social disclosure: an Irish story. *Accounting, Auditing & Accountability Journal*, 15(3), pp.406–436.
- Orlitzky, M., 2001. Does Firm Size Comfound the Relationship Between Corporate Social Performance and Firm Financial Performance? *Journal of Business Ethics*, 33(2), pp.167–180.

- Orlitzky, M. & Benjamin, J.D., 2001. Corporate social performance and firm risk: A meta-analytic review. *Business & Society*, 40(4), pp.369–396.
- Orlitzky, M., Schmidt, F.L. & Rynes, S.L., 2003. Corporate social and financial performance: A meta-analysis. *Organization studies*, 24(3), pp.403–441.
- Orsato, R.J., 2006. WHEN DOES IT PAY TO BE GREEN? *California Management Review*, 48(2), p.128.
- Owen, D., 2006. Emerging Issues in Sustainability Reporting. *Business Strategy and the Environment*, 15, pp.217–218.
- Palmer, K., Oates, W.E. & Portney, P.R., 1995. Tightening environmental standards: the benefit-cost or the no-cost paradigm? *The Journal of Economic Perspectives*, 9(4), pp.119–132.
- Parker, L.D., 2014. Corporate social accountability through action: Contemporary insights from British industrial pioneers. *Accounting, Organizations and Society*, 39(8), pp.632–659. Available at: <http://dx.doi.org/10.1016/j.aos.2014.10.001>.
- Pava, M.L. & Krausz, J., 1996. The association between corporate social-responsibility and financial performance: The paradox of social cost. *Journal of Business Ethics*, 15(3), pp.321–357.
- Perrini, F. & Vurro, C., 2010. Corporate sustainability, intangible assets accumulation and competitive advantage. *Symphonya. Emerging Issues in Management*, (2 Intangible Assets & Global Competition).
- Peterson, D.K., 2004. The Relationship between Perceptions of Corporate Citizenship and Organizational Commitment. *Business & Society*, 43(3), pp.296–319. Available at: <http://bas.sagepub.com/cgi/doi/10.1177/0007650304268065>.
- Pfeffer, J. & Salancik, G., 1978. *The External Control Of Organisations: A Resource Dependence Perspective*,
- Pfeffer, J. & Salancik, G.R., 2003. *The external control of organizations: A resource dependence perspective*, Stanford University Press.
- Poncelet, E.C., 2003. Resisting Corporate Citizenship. *Journal of Corporate Citizenship*, 2003(9), pp.97–115.
- Pondeville, S., Swaen, V. & De Rong??, Y., 2013. Environmental management control systems: The role of contextual and strategic factors. *Management Accounting Research*, 24(4), pp.317–332. Available at: <http://dx.doi.org/10.1016/j.mar.2013.06.007>.
- Porter, M.E. et al., 2007. a Conceptual Framework for a Comparative Understanding of Corporate Social Responsibility. *Academy of Management Review*, 32(3), pp.691–718.

- Porter, M.E. & Kramer, M.R., 2007. The Link Between Competitive Advantage and Corporate Social Responsibility. *Harvard business review*.
- Porter, M.E. & Van der Linde, C., 1995. Toward a new conception of the environment-competitiveness relationship. *The journal of economic perspectives*, 9(4), pp.97–118.
- Prahalad, C.K. & Hamel, G., 1994. Strategy as a field of study: Why search for a new paradigm? *Strategic Management Journal*, 15(S2), pp.5–16.
- Preston, L.E. & O'Bannon, D.P., 1997. The corporate social-financial performance relationship. *Business and society*, 36(4), pp.419–429.
- Reich, R.B., 1998. The new meaning of corporate social responsibility. *California management review*, 40(2), pp.8–17.
- Reichheld, F.F. & Sasser, W.E., 1990. Zero defections: quality comes to services. *Harvard business review*, 68(5), pp.105–111.
- Rhoades, L. & Eisenberger, R., 2002. Perceived organizational support: A review of the literature. *Journal of Applied Psychology*, 87(4), pp.698–714. Available at: <Go to ISI>://000177332600008.
- Richard, O.C., 2000. Racial diversity, business strategy, and firm performance: A resource-based view. *Academy of management journal*, 43(2), pp.164–177.
- Richards, D.L., Gelleny, R.D. & Sacko, D.H., 2001. Money with a mean streak? Foreign economic penetration and government respect for human rights in developing countries. *International Studies Quarterly*, pp.219–239.
- Richardson, A.J. & Welker, M., 2001. Social disclosure, financial disclosure and the cost of equity capital. *Accounting, Organizations and Society*, 26(7-8), pp.597–616. Available at: <http://www.sciencedirect.com/science/article/pii/S0361368201000253>.
- Richardson, A.J., Welker, M. & Hutchinson, I.R., 1999. Managing Capital Market Reactions to Corporate Social Responsibility. *International Journal of Management Reviews*, 1(1), pp.17–43.
- Roberts, R.W., 1992. Determinants of corporate social responsibility disclosure: an application of stakeholder theory. *Accounting, Organizations and Society*, 17(6), pp.595–612.
- Robinson, G. & Dechant, K., 1997. Building a Business Case for Diversity. *The Academy of Management Executive (1993-2005) VO - 11*, 11(3), p.21. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=edsjsr&AN=edsjsr.4165408&lang=de&site=eds-live&authtype=ip,uid>.

- Roca-Puig, V., Beltrán-Martín, I. & Segarra Cipres, M., 2011. Combined effect of human capital, temporary employment and organizational size on firm performance. *Personnel Review*, 41(1), pp.4–22. Available at: <http://www.emeraldinsight.com/doi/abs/10.1108/00483481211189910>.
- Rodgers, W., 1997. *Throughput modeling: Financial information used by decision makers.*, GREENWICH: JAI PRESS.
- Rodgers, W., Choy, H.L. & Guiral, A., 2013. Do Investors Value a Firm's Commitment to Social Activities? *Journal of Business Ethics*, 113(2), pp.607–623.
- Rodgers, W. & Guiral, A., 2011. Potential model misspecification bias: Formative indicators enhancing theory for accounting researchers. *International Journal of Accounting*, 46(1), pp.25–50. Available at: <http://dx.doi.org/10.1016/j.intacc.2010.12.002>.
- Rodgers, W., Hiu, C.L. & Guiral, A., 2013. Do Investors Value a Firm's Commitment to social Activities? *Journal of Business Ethics*, 113(2), pp.607–623.
- Rodgers, W. & Housel, T.J., 2004. The effects of environmental risk information on auditors' decisions about prospective financial statements. *European Accounting Review*, 13(3), pp.523–540.
- Rodrigue, M., Magnan, M. & Boulianne, E., 2013. Stakeholders' influence on environmental strategy and performance indicators: A managerial perspective. *Management Accounting Research*, 24(4), pp.301–316. Available at: <http://dx.doi.org/10.1016/j.mar.2013.06.004>.
- Rodríguez, F.J.G. & del Mar Armas Cruz, Y., 2007. Relation between social-environmental responsibility and performance in hotel firms. *International Journal of Hospitality Management*, 26(4), pp.824–839.
- Rose, C., 2007. Does female board representation influence firm performance? The Danish evidence. *Corporate Governance*, 15(2), pp.404–413.
- Rowley, T. & Berman, S., 2000. A brand new brand of corporate social performance. , 39(4), pp.397–418.
- Rust, R.T., Moorman, C. & Dickson, P.R., 2002. Getting return on quality: revenue expansion, cost reduction, or both? *The Journal of Marketing*, pp.7–24.
- Ryan, M.K. & Haslam, S.A., 2005. The glass cliff: Evidence that women are over-represented in precarious leadership positions. *British Journal of Management*, 16(2), pp.81–90.
- Saeidi, S.P. et al., 2015. How does corporate social responsibility contribute to firm financial performance? The mediating role of competitive advantage, reputation, and customer satisfaction. *Journal of Business Research*, 68(2), pp.341–350.

- Sauer, D.A., 1997. The impact of social-responsibility screens on investments performance: evidence from Domini 400 Social Index and Domini Equity Mutual Fund. *Review of Financial Economics*, 6(2), pp.137–49.
- Saunders, Lewis, P. & Thornhill, A., 2011. *Research methods for business students*, 5/e,
- Schadewitz, H. & Niskala, M., 2010. Communication via responsibility reporting and its effect on firm value in Finland. *Corporate Social Responsibility and Environmental Management*, 17(2), pp.96–106.
- Schaefer, A., 2004. Corporate Sustainability-Intergrating Environmental and Social Concerns. *Corporate Social Responsibility and Environmental Management*, 187, pp.179–187.
- Schwartz, R.A., 1968. Corporate philanthropic contributions. *The Journal of Finance*, 23(3), pp.479–497.
- Seifert, B., Morris, S. a. & Bartkus, B.R., 2004. Having, Giving, and Getting: Slack Resources, Corporate Philanthropy, and Firm Financial Performance. *Business & Society*, 43(2), pp.135–161. Available at: <http://bas.sagepub.com/cgi/doi/10.1177/0007650304263919>.
- Servaes, H. & Tamayo, a., 2013. The impact of corporate social responsibility on firm value: The role of customer awareness. *Management Science*, 59(5), pp.1045–1061. Available at: <http://faculty.london.edu/hservaes/ms2013.pdf>.
- Shaffer, G. & Zhang, Z.J., 2002. Competitive One-to-One Promotions. , 48(9), pp.1143–1160.
- Shane, P.B. & Spicer, B.H., 1983. Market response to environmental information produced outside the firm. *Accounting Review*, pp.521–538.
- Sharfman, M., 1996a. The construct validity of the Kinder, Lydenberg & Domini social performance ratings data. *Journal of Business Ethics*, 15(3), pp.287–296.
- Sharfman, M., 1996b. The construct validity of the Kinder, Lydenberg & Domini social performance ratings data. *Journal of Business Ethics*, 15(3), pp.287–296.
- Shelton, R.K. & Wachter, K., 2005. Effects of global sourcing on textiles and apparel. *Journal of Fashion Marketing and Management: An International Journal*, 9(3), pp.318–329. Available at: <http://www.emeraldinsight.com/doi/abs/10.1108/13612020510610444>.
- Shrader, C.B., Blackburn, V.B. & Iles, P., 1997. Women In Management And Firm Financial Performance : An Exploratory Study. *Journal of Managerial Issues*, 9(3), pp.355–372.

- Simnett, R., Vanstraelen, A. & Chua, W.F., 2009. Assurance on sustainability reports: An international comparison. *Accounting Review*, 84(3), pp.937–967.
- Singh, V., Vinnicombe, S. & Johnson, P., 2001. Women Directors on Top UK Boards. *Corporate Governance: An International Review*, 9(3), pp.206–216. Available at: <http://dx.doi.org/10.1111/1467-8683.00248>.
- Snell, S.A. & Dean, J.W., 1992. Integrated manufacturing and human resource management: A human capital perspective. *Academy of Management Journal*, 35(3), pp.467–504.
- Solomon, A. & Lewis, L., 2002. INCENTIVES AND DISINCENTIVES FOR CORPORATE ENVIRONMENTAL DISCLOSURE. *Business Strategy and the Environment*, 11, pp.154–169.
- Solomon, J.F. & Solomon, A., 2006. Private social, ethical and environmental disclosure. *Accounting, Auditing & Accountability Journal*, 19(4), pp.564–591.
- Spar, D.L., 1998. The Spotlight and the Bottom Line: How Multinationals Export Human Rights. *Foreign Affairs*, 77(2), pp.7–12. Available at: <http://www.jstor.org/stable/20048784>.
- Stanwick, P.A. & Stanwick, S.D., 1998. The relationship between corporate social performance, and organizational size, financial performance, and environmental performance: An empirical examination. *Journal of business ethics*, 17(2), pp.195–204.
- Stern, B., 2000. How to Regulate Globalisation.
- Stewart, T. & Ruckdeschel, C., 1998. Intellectual capital: The new wealth of organizations.
- Strand, R., 1983. A systems paradigm of organizational adaptations to the social environment. *Academy of Management Review*, 8(1), pp.90–96.
- Stubbs, W., Higgins, C. & Milne, M., 2013. Why Do Companies Not Produce Sustainability Reports? *Business Strategy and the Environment*, 22(7), pp.456–470. Available at: <http://doi.wiley.com/10.1002/bse.1756> [Accessed February 20, 2014].
- Sullivan R, 2003. *Business and human rights: dilemmas and solutions*. Editor, ed., Sheffield: Greenleaf.
- Surroca, J., Tribó, J.A. & Waddock, S., 2010. Corporate responsibility and financial performance: The role of intangible resources. *Strategic Management Journal*, 31(5), pp.463–490.
- Sveiby, K.E., 1997. *The new organizational wealth: Managing and measuring knowledge-based assets*, Berrett-Koehler Publishers.

- Takala, T. & Pallab, P., 2000. Individual, collective and social responsibility of the firm. *Business Ethics: A European Review*, 9(2), pp.109–118.
- Thomas, J.S., 2001. A Methodology for Linking Customer Acquisition to Customer Retention. *Journal of Marketing Research*, 38(2), pp.262–268.
- Ullmann, A., 1985. Data in search of a theory: a critical examination of the relationships among social performance, social disclosure, and economic performance of US firms. *Academy of management review*, 10(3), pp.540–557.
- Ullmann, A. a, 1985. Data in Search of a Theory : A Critical Examination of the Relationships among social performance, social disclosure and economic performance of U.S.Firms. *Academy of Management*, 10(3), pp.540–557.
- Urbach, N. & Ahlemann, F., 2010. Structural Equation Modeling in Information Systems Research Using Partial Least Squares. *Journal of Information Technology Theory and ...*, 11(2), pp.5–40. Available at: [http://iris.ebs.edu/accessdb/WWW/iris_pub_web.nsf/wwwPublAuthorSingleEng/A58520D5E3C484DCC1257C50007F8697/\\$file/Urbach et al. 2010 Structural Equation Modeling in IS Research Using PLS.pdf](http://iris.ebs.edu/accessdb/WWW/iris_pub_web.nsf/wwwPublAuthorSingleEng/A58520D5E3C484DCC1257C50007F8697/$file/Urbach%20et%20al.%202010%20Structural%20Equation%20Modeling%20in%20IS%20Research%20Using%20PLS.pdf).
- Vafeas, N., 1999. The nature of board nominating committees and their role in corporate governance. *Journal of Business Finance & Accounting*, 26(1-2), pp.199–225.
- Vormedal, I. & Ruud, A., 2009. Sustainability Reporting in Norway – an Assessment of Performance in the Context of Legal Demands and Socio-Political Drivers. *Business Strategy and the Environment*, 18, pp.207–222.
- Waddock, S., 2003. MYTHS AND REALITIES OF SOCIAL INVESTING. *Organization & Environment*, 16(3), pp.369–380.
- Waddock, S. a. & Graves, S.B., 1997. The Corporate Social Performance - Financial Performance Link. *Strategic Management Journal*, 18(December 1994), pp.303–319.
- Waddock, S.A. & Graves, S.B., 1997a. The corporate social performance. *Strategic management journal*, 8(4), pp.303–319.
- Waddock, S.A. & Graves, S.B., 1997b. THE CORPORATE SOCIAL PERFORMANCE-FINANCIAL PERFORMANCE LINK. *Strategic Management Journal*, 18(4), pp.303–319.
- Wagner, M., 2005. How to reconcile environmental and economic performance to improve corporate sustainability : corporate environmental strategies in the European paper industry. *Journal of environmental management*, 76(2), pp.105–118.

- Wagner, M., 2010. The role of corporate sustainability performance for economic performance: A firm-level analysis of moderation effects. *Ecological Economics*, 69(7), pp.1553–1560. Available at: <http://linkinghub.elsevier.com/retrieve/pii/S0921800910000741> [Accessed September 23, 2013].
- Wagner, M. & Schaltegger, S., 2004. The Effect of Corporate Environmental Strategy Choice and Environmental Performance on Competitiveness and Economic Performance:: An Empirical Study of EU Manufacturing. *European Management Journal*, 22(5), pp.557–572.
- Walsh, J.P. & Margolis, J.D., 2003. Misery Loves Rethinking Companies : Social Initiatives by Business Joshua D . Margolis. *Science*, 48(2), pp.268–305. Available at: <http://asq.sagepub.com/content/48/2/268.short>.
- Van der Walt, N. & Ingley, C., 2003. Board Dynamics and the Influence of Professional Background, Gender and Ethnic Diversity of Directors. *Corporate Governance: An International Review*, 11(3), pp.218–234. Available at: <https://alpha2.latrobe.edu.au/validate?url=http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=10472839&site=ehost-live&scope=site>.
- Wang, W.-K. et al., 2014. Does corporate social responsibility influence the corporate performance of the U.S. telecommunications industry? *Telecommunications Policy*, 38(7), pp.580–591. Available at: <http://linkinghub.elsevier.com/retrieve/pii/S0308596114000056>.
- Wang, Y. & Berens, G., 2014. The Impact of Four Types of Corporate Social Performance on Reputation and Financial Performance. *Journal of Business Ethics*, 131(2), pp.337–359.
- Waymond, R., 2011. *Biometric and Auditing Issues Addressed in a Throughput Model*,
- WCED, 1987. *Our Common Future*. In Oxford: Oxford University Press.
- Westaway, J., 2012. Globalization, Transnational Corporations and Human Rights – A New Paradigm. *International Law Research*, 1(1), pp.63–73. Available at: <http://www.ccsenet.org/journal/index.php/ilr/article/view/21661>.
- White, L., 2001. “Effective governance” through complexity thinking and management science. *Systems Research and Behavioral Science*, 18(3), pp.241–257. Available at: <http://doi.wiley.com/10.1002/sres.373>.
- White, L. & Lee, G.J., 2009. Operational research and sustainable development: Tackling the social dimension. *European Journal of Operational Research*, 193(3), pp.683–692. Available at: <http://linkinghub.elsevier.com/retrieve/pii/S0377221707010314> [Accessed March 18, 2014].
- Whitehead, P.J., 1976. *Some economic aspects of corporate giving*.

Whitener, E.M., 2001. Do “high commitment” human resource practices affect employee commitment?: A cross-level analysis using hierarchical linear modeling. *Journal of Management*, 27(5), pp.515–535.

Yermack, D., 1996. Higher market valuation of companies with a small board of directors. *Journal of Financial Economics*, 40(2), pp.185–211.

Zahra, S.A. & Stanton, W.W., 1988. The implications of board of directors composition for corporate strategy and performance. *International journal of management*, 5(2), pp.229–236.