Social and Environmental Disclosures: A Comparative Analysis of Listed Nigerian and UK Oil and Gas Companies

A thesis submitted for the degree of Doctor of Philosophy (PhD)

by

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Declaration

Candidate’s declarations:

I, Sani Damamisau Mohammed hereby certify that this thesis submitted in partial fulfilment of the requirements for the award of Doctor of Philosophy (PhD), Abertay University, is wholly my own work unless otherwise referenced or acknowledged. This work has not been submitted for any other qualification at any other academic institution.

Signed ………………………………………………………………………….

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I, Professor Kouhy Reza hereby certify that the candidate has fulfilled the conditions of the Resolution and Regulations appropriate for the degree of Doctor of Philosophy (PhD) in Abertay University and that the candidate is qualified to submit this thesis in application for that degree.

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I certify that this is a true and accurate version of the thesis approved by the examiners, and that all relevant ordinance regulations have been fulfilled.

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Dedication

This is dedicated to the memory of my late father to my beloved mother, to Mallam Muhammadu Damamisau and to my wife and children.

Abstract

Exploration, production and marketing of oil and gas by listed Nigerian oil and gas companies are fraught with lots of negative social and environmental impacts. Corporate social disclosure is a medium employed by corporations to communicate their impacts and commitments to the society and environment. Therefore, the main aim of this study is to describe and explain social and environmental disclosure practices by listed Nigerian oil and gas companies as gauged with disclosure by listed UK oil and gas companies for the period 2004-2013. The objectives are to determine the nature of disclosures by sampled companies, measure and analyse quantity and quality of the disclosures, analyse trends of the disclosures, find out differences in the disclosures and to explore the effects of corporate characteristics on the disclosures. Content analysis of annual reports and accounts and sustainability reports, scoring quality of disclosures based on Global Reporting Initiative disclosure guidelines, two samples t-tests and Panel Corrected Standard Errors (PCSE) regression analysis were employed to achieve the aim and objectives of the study. Legitimacy debate and vulnerability and exploitability analytical framework were espoused to develop a theoretical framework to underpin the study.

Results indicate Nigerian companies making disclosure on fewer social and environmental aspects than UK companies. Quantity and quality of disclosure by Nigerian companies are low compared to UK companies. While quantity of disclosure by both showed increasing trends, quality of disclosure depicted decreasing trends. Sampled companies are found complying with mandatory social disclosure. Corporate size, leverage, efficiency and liquidity are found significant in explaining disclosures by sampled companies. Low quantity and quality of disclosure by listed Nigerian oil and gas companies is indicating low social accountability. This result may be useful to policy makers in the industry to dialogue with managers of the companies on the importance of their social accountability to overall national sustainable development efforts. Likewise, policy makers may put in place regulatory and enforcement mechanisms on social disclosures as mandating disclosure is found effective. Disclosure practices by listed Nigerian oil and gas companies portrayed the significance of colonial relationship between Nigeria and the UK. The use of modified words counts content analysis, and the theoretical framework that underpins the study might be of significance in this study in particular and social disclosure studies in general.

TABLE OF CONTENTS

DECLARATION I
CERTIFICATE OF APPROVAL I
ACKNOWLEDGEMENT II
DEDICATION III
ABSTRACT IV
TABLE OF CONTENTS V
LIST OF TABLES XII
LIST OF FIGURES XV
LIST OF APPENDICES XVI
DEFINITIONS XVII
1 CHAPTER ONE INTRODUCTION 1
1.1 BACKGROUND TO THE STUDY 1
1.2 STATEMENT OF RESEARCH PROBLEM AND JUSTIFICATION OF THE STUDY 4
1.3 AIM AND OBJECTIVES OF THE STUDY 8
1.4 MAIN RESEARCH QUESTIONS 9
1.5 THE RESEARCH HYPOTHESES 10
1.6 THEORETICAL FRAMEWORK FOR THIS STUDY 10
1.7 METHODOLOGY AND METHODS 14
1.8 STRUCTURE OF THE THESIS 15
1.9 CONCLUSION 17
2 CHAPTERTWO ANALYTICAL LITERATURE REVIEW: CORPORATE SOCIAL RESPONSIBILITY (CSR); CORPORATE SOCIAL AND ENVIRONMENTAL DISCLOSURE (CSED) AND CORPORATE SOCIAL DISCLOSURE THEORIES (CSDT) 18
2.1 INTRODUCTION 18
2.2 CORPORATIONS AND CORPORATE REPORTING 19
2.3 CORPORATE SOCIAL RESPONSIBILITY (CSR) 21
2.3.1 Evolution of Corporate Social Responsibility (CSR) 22
2.3.2 Goals and Objectives of Corporate Social Responsibility 27
2.4 CORPORATE SOCIAL AND ENVIRONMENTAL DISCLOSURE (CSED) 29

2.4.1 Types and Drivers of Corporate Social and Environmental Disclosures 31
2.4.2 Determinants of CSEDs 37
2.5 NATURE, QUANTITY (VOLUME) AND QUALITY (COMPLIANCE) OF SEDS 59
2.5.1 Nature of Disclosure 59
2.5.2 Quantity (volume) or Extent of Disclosure 63
2.5.3 Quality of SEDs 65
2.6 CONTENT ANALYSIS 69
2.6.1 Content Analysis in Social and Environmental Accounting Research (SEAR) 72
2.7 COMPARATIVE STUDIES 80
2.7.1 Comparative Studies Between UK and Other Developed Countries 81
2.7.2 Comparative Studies Between Developed and Developing Countries and UK and Developing Countries 82
2.8 THE GLOBAL OIL AND GAS INDUSTRY 85
2.8.1 Social and Environmental Impacts of the Oil and Gas Industry 86
2.8.2 Corporate Social and Environmental Disclosure in the Oil and Gas Industry 88
2.9 GLOBAL SOCIAL AND ENVIRONMENTAL REPORTING GUIDELINES ... 92
2.9.1 The United Nations Global Compact (UNGC) 92
2.9.2 The Global Reporting Initiative (GRI) 95
2.9.3 The Oil and Gas Industry Guidance on Voluntary Sustainability Reporting (OGIGVSR) 98
2.10 THEORIES OF CORPORATE REPORTING 101
2.10.1 Political Economy Theory 103
2.10.2 Accountability Theory 104
2.10.3 Institutional Theory 106
2.10.4 The Stakeholder Theory 108
2.10.5 Legitimacy Theory 113
2.10.6 Vulnerability and Exploitability Theory 118
2.11 THEORETICAL FRAMEWORK FOR THIS STUDY 125
2.12 CONCLUSION 130

3 CHAPTER THREE CORPORATE SOCIAL AND ENVIRONMENTAL DISCLOSURE IN NIGERIA AND UK 131

3.1 INTRODUCTION 131
3.2 HISTORICAL BACKGROUND OF NIGERIA 131
3.2.1 Nigerian Social and Political Contexts 132

3.2.2 Nigerian Legal Context 133
3.3 CORPORATE SOCIAL AND ENVIRONMENTAL DISCLOSURE PRACTICES IN NIGERIA 140
3.4 THE NIGERIAN OIL AND GAS INDUSTRY 143
3.4.1 The Environment of Niger Delta 146
3.4.2 Social and Environmental Impacts of the Nigerian Oil and Gas Industry 148
3.4.3 Statutory Regulations on Society and Environment in the Oil and Gas Industry 156
3.4.4 Institutional Frameworks on Society and Environment in the Oil and Gas Industry 158
3.4.5 Corporate Social and Environmental Disclosure Practices in the Nigerian Oil and Gas Industry 162
3.5 SOCIAL AND ENVIRONMENTAL DISCLOSURE IN THE UK 166
3.6 THE UK OIL AND GAS INDUSTRY 167
3.6.1 The North Sea 168
3.6.2 Social and Environmental Impacts in the UK Oil and Gas Industry 170
3.6.3 Regulatory Frameworks in the UK Oil and Gas Industry 171
3.6.4 Social and Environmental Disclosure Practices in the UK Oil and Gas Industry 173
3.7 CONCLUSION 175

4 CHAPTER FOUR RESEARCH METHODOLOGY AND METHODS 176

4.1 INTRODUCTION 176
4.2 PHILOSOPHICAL ASSUMPTIONS ABOUT SOCIAL SCIENCE RESEARCH 177
4.2.1 Ontological Assumptions 179
4.2.2 Epistemological Assumptions 180
4.3 PHILOSOPHICAL ASSUMPTIONS UNDERPINNING THIS STUDY 181
4.4 RESEARCH METHODOLOGY 182
4.4.1 Research Strategy for this Study 183
4.4.2 Population of the Study, Sample Size, and Sample Selection 185
4.4.3 Sources and Nature of Data for the Study 186
4.4.4 Content Analysis in this Study 187
4.4.5 Variables Description and Measurement within this Study 190
4.4.6 Analysis of Data 195
4.5 CONCLUSION 208

5 CHAPTER FIVE DESCRIPTIVE AND ANALYTICAL RESULTS 209
5.1 Introduction 209
5.2 Descriptive Statistics 210
5.3 Quantity of Words Disclosure on Aspects and Sub-categories of SEDs by Nigerian Companies 2004 to 2013 211
5.3.1 Quantity of Social Disclosure 2004 to 2013 211
5.3.2 Quantity of Environmental Disclosure 2004 to 2013 225
5.3.3 Quantity of Words Disclosure on Social and Environmental Disclosure Categories by Nigerian Companies 2004 to 2013 226
5.4 Quality of SEDs by Nigerian Companies 2004 to 2013 229
5.4.1 Quality of Disclosure on Aspects and Sub-Categories of Social Disclosure by Nigerian Companies 2004 to 2013 229
5.4.2 Quality of Disclosure on Aspects of Environment by Nigerian Companies 2004 to 2013 232
5.5 Quantity of Words Disclosure on Aspects and Sub-categories of SEDs by UK Companies 2004 to 2013 237
5.5.1 Quantity of Social Disclosure 2004 to 2013 237
5.5.2 Quantity of Disclosure on Aspects of Environment 2004 to 2013 242
5.5.3 Quantity of Disclosure on Social and Environmental Categories by UK Companies 2004 to 2013 244
5.6 Quality of SEDs by UK Companies 2004 to 2013 248
5.6.1 Quality of Disclosure on Aspects and Sub-categories of Social Disclosure by UK Companies 2004 to 2013 248
5.6.2 Quality of Disclosure on Aspects of Environment Category by UK Companies 2004 to 2013 252
5.7 Results of Regression Analyses of Quantity and Quality of Disclosure by Nigerian and UK Oil and Gas Companies 2004 to 2013 257
5.7.1 Results of Regression Analysis of Determinants of Quantity and Quality of SEDs by Nigerian Oil and Gas Companies 2004 to 2013 260
5.7.2 Regression Analysis Results of Determinant of Quantity and Quality of Disclosure by UK Oil and Gas Companies 2004 to 2013 265
5.8 Comparative Analysis of Quantity and Quality of SEDs by Nigerian and UK Oil and Gas Companies 2004 to 2013 272

5.8.1 Comparison of the Quantity of Words Disclosure by UK and Nigerian Companies 2004 to 2013 272
5.8.2 Comparison of Quantity of SED Aspects and Sub-categories by UK and Nigerian Companies 2004 to 2013 275
5.8.3 Comparison of Quality of SEDs by UK and Nigerian Companies 2004 to 2013 280
5.8.4 Two Samples t-test Comparison of Quantity and Quality of Disclosure by UK and Nigerian Companies 2004 to 2013 286
5.9 COMPARISON OF REGRESSION ANALYSES RESULTS OF DETERMINANTS OF QUANTITY AND QUALITY OF DISCLOSURE BY UK AND NIGERIAN COMPANIES 2004 TO 2013 293
5.10 CONCLUSION 296

6 CHAPTER SIX DISCUSSIONS OF RESULTS 298

6.1 INTRODUCTION 298
6.2 OBJECTIVE 1: TO FIND OUT THE NATURE OF SEDS BY LISTED NIGERIAN AND UK OIL AND GAS COMPANIES 299
6.2.1 Disclosure by Listed Nigerian Oil and Gas Companies 299
6.2.2 Disclosure by Listed UK Oil and Gas Companies 303
6.2.3 Comparison of Nature of SEDs by Listed Nigerian and UK Oil and Gas Companies 309
6.3 OBJECTIVE 2: TO ASSESS THE QUANTITY AND QUALITY OF SEDS BY LISTED NIGERIAN AND UK OIL AND GAS COMPANIES 311
6.3.1 Quantity and Quality of Disclosure by Listed Nigerian Oil and Gas Companies 311
6.3.2 Quantity and Quality SEDs by Listed UK Oil and Gas Companies 315
6.3.3 Comparison of Quantity and Quality of SED by Listed Nigerian and UK Oil and Gas Companies 318
6.4 OBJECTIVE 3: TO ASSESS THE TRENDS OF QUANTITY AND QUALITY OF SED BY LISTED NIGERIAN AND UK OIL AND GAS COMPANIES 2004 TO 2013 320
6.4.1 Trends of SEDs by Listed Nigeria Oil and Gas Companies 2004 to 2013 320
6.4.2 Trends of SEDs by Listed UK Oil and Gas Companies 2004 to 2013 323
6.4.3 Comparing trends of Quantity and Quality of SED by Listed Nigerian and UK Oil and Gas Companies 2004 to 2013 326

6.5 OBJECTIVE 4: TO FIND OUT DIFFERENCES IN THE QUANTITY AND QUALITY OF SEDS BY LISTED NIGERIAN AND UK OIL AND GAS COMPANIES 2004 TO 2013 327
6.6 OBJECTIVE 5: TO EXPLORE THE EFFECT OF CORPORATE SIZE, PROFITABILITY, LEVERAGE, LIQUIDITY, EFFICIENCY AND TAX ON THE QUANTITY AND QUALITY OF SEDS BY SAMPLED COMPANIES 331
6.6.1 The Effect of Corporate Size, Profitability, Leverage, Liquidity, Efficiency and Tax on the Quantity and Quality of SEDs by Listed Nigerian Oil and Gas Companies 331
6.6.2 The Effect of Corporate Size, Profitability, Leverage, Liquidity, Efficiency and Tax on the Quantity and Quality of SEDs by Listed UK Oil and Gas Companies 335
6.6.3 Conclusion 347

7 CHAPTER SEVEN SUMMARY, FINDINGS, RECOMMENDATIONS AND CONCLUSIONS 349

7.1 INTRODUCTION 349
7.2 SUMMARY OF CHAPTERS 349
7.3 FINDINGS BY THE STUDY 353
7.3.1 Objective 1 353
7.3.2 Objective 2 355
7.3.3 Objective 3 356
7.3.4 Objective 4 356
7.3.5 Objective 5 357
7.3.6 Gauging Disclosures by Nigerian with UK companies 359
7.4 POLICY RECOMMENDATIONS 361
7.5 CONTRIBUTIONS OF THE STUDY 363
7.6 LIMITATIONS OF THE STUDY 365
7.7 RECOMMENDATIONS FOR FUTURE RESEARCH 366
7.8 GENERAL CONCLUSIONS 367

LIST OF REFERENCES 373

APPENDIX I -SOCIAL AND ENVIRONMENTAL DISCLOSURE CATEGORIES GRI 2, 3 & 3.1 438

APPENDIX II - SAMPLE OF WORDS COUNTS CONTENT ANALYSIS RECORDING FORM 480

APPENDIX III: UNIT ROOTS, MULTICOLLINEARITY, CONTEMPORANEOUS AND SERIAL CORRELATIONS TESTS (NIGERIA AND UK) 482

APPENDIX IV: RESULTS OF LEVENE'S EQUALITY OF VARIANCE RATIO TEST ON QUANTITY AND QUALITY OF DISCLOSURE BY UK AND NIGERIAN COMPANIES............490

APPENDIX V: SHAPIRO-WILK TEST FOR NORMAL DATA ON QUANTITY AND QUALITY OF DISCLOSURE BY UK AND NIGERIAN COMPANIES 491

LIST OF TABLES

Table3:1 Mandatory Social and Environmental Disclosure by SEC in Nigeria 137
Table 3:2 Contribution of Oil and Gas to Foreign, Total National Revenue and GDP 2004 to 2013 144
Table 3:3 Reported Major Oil Spill Incidences in Nigeria 1978 to 2012 152
Table 3:4 Nigeria's Gas Flare Volumes and Ranking among Top 20 global Flaring Countries 2004 to 2013 153
Table 3:5 Types of Mandatory Social and Environmental Disclosure in UK 166
Table 4:1 Disclosure Quality Scoring and Rating Criteria 193
Table 5:1 Quantity of Words on Aspects and Sub-categories of Social Disclosure by Nigerian Companies 223
Table 5:2 Quantity of Words Disclosure on Aspects of Environment by Nigerian Companies 225
Table 5:3 Quantity of Words on Social and Environmental Disclosure Sub-categories by Nigerian Companies 227
Table 5:4 Quantity of SED Words by Nigerian Companies 229
Table 5:5 Quality of Disclosure on Aspects and sub-categories of Social Disclosure by Nigerian Companies 230
Table 5:6 Environment Disclosure Quality Score by Nigerian Companies 232
Table 5:7 Disclosure Quality Scores on Social and Environmental Sub-categories by Nigerian Companies 234
Table 5:8 SED Quality Scores by Nigerian Companies 236
Table 5:9 Quantity of Words Disclosure on Social Aspects by UK Companies 238
Table 5:10 Quantity of Words Disclosure on Social Aspects by UK Companies 239
Table 5:11 Quantity of Words Disclosure on Sub-categories of Disclosure 240
Table 5:12 Aspects of Environmental Disclosure Category by UK Companies 243
Table 5:13 Quantity of Words on Social and Environmental Disclosure Sub-categories by UK Companies 246
Table 5:14 Quantity of SED Words by UK Companies 248
Table 5:15 Disclosure Quality Scores on Aspects of Social Disclosure by UK Companies 249
Table 5:16 Disclosure Quality Scores on Aspects of Social Disclosure by UK Companies 250

Table 5:17 Total Disclosure Quality Scores on Sub-categories of Social Disclosure by UK Oil and Gas Companies 251
Table 5:18 Disclosure Quality Scores on Aspects of Environment by UK Companies 253
Table 5:19 Disclosure Quality Scores on Social and Environmental Sub-categories by UK Companies 255
Table 5:20 SED Quality Scores by UK Companies 2004 to 2013 256
Table 5:21 Descriptive Statistics of Quantity and Quality of SEDs by Nigerian Oil and Gas Companies 260
Table 5:22 Regression Analysis Results of Determinants of Quantity of SEDs by Nigerian Oil and Gas Companies 261
Table 5:23 Regression Analysis Results of Determinants of Quality of SEDs by Nigerian Oil and Gas Companies 263
Table 5:24 Summary of Result of Fisher-type Unit Roots Tests on Determinants of Quantity and Quality of Disclosure by UK Companies 265
Table 5:25 Descriptive Statistics of Quantity of SEDs by UK Oil and Gas Companies 266
Table 5:26 Regression Analysis Results of Determinants of Quantity of Social and Environmental Disclosure by UK Companies (Alpha = 0.05; 0.05*, 0.01**, 0.001***)............. 266
Table 5:27 Regression Analysis Results of the Determinants of Quality of Social and Environmental Disclosure by UK Oil and Gas Companies 270
Table 5:28 Quantity of SED Words by Nigerian and UK Companies 273
Table 5:29 Ranking of Aspects of SD on Quantity of Disclosure by Nigerian and UK Companies 276
Table 5:30 Ranking of Sub-categories of Social Disclosure by UK and Nigerian Companies 277
Table 5:31 Ranking of Aspects of Environmental Disclosure by UK and Nigerian Companies.. 277
Table 5:32 Quality of SED Scores by Nigerian and UK Companies 282
Table 5:33 Ranking of Disclosure Quality of Social Aspects by Nigerian and UK Companies.. 284
Table 5:34 Ranking of Quality of Disclosure of Sub-categories of Social Category by Nigerian and UK Companies........................ 285
Table 5:35 Ranking of Quality of Aspects of Environment Disclosure by Nigerian and UK Companies 285

Table 5:36 a & b Bartlett's Equality of Variance Test on Quantity and Quality of Social Disclosure between UK and Nigerian Companies 287
Table 5:37 a & b Results of Levene's Equality of Variances Robustness Tests on Quantity and Quality of Disclosure by UK and Nigerian Companies. 288
Table 5:38 a & b Two Samples t-tests with Unequal Variances on Quantity and Quality of Disclosure by Nigerian and UK oil and Gas Companies 290
Table 5:39 a & b Results Two of Sample Wilcoxon Rank-Sum (Mann-Whitney) Tests on Quantity and Quality of Disclosures by UK and Nigerian Companies 292
Table 5:40 Comparing Regression Analyses Results of Determinants of Quantity of Disclosure by UK and Nigerian Companies 293
Table 5:41 Comparing Regression Analyses Results of Determinants of Quality of Disclosure by UK and Nigerian Companies 2004 - 2013 295
Table 6:1 Summary of Findings 339
Table 6:2 Summary of Practical Social Problems, Disclosure Findings, and Gaps Between the Two: Nigeria 345
Table 6:3 Summary of Practical Environmental Problems, Disclosure Findings, and Gaps Between the Two: Nigeria 346

LIST OF FIGURES

Figure 1.1 Structure of the Thesis..16
Figure 2.1 Phases of Corporate Acceptance of CSR 24
Figure 2.2 Components of SEDs in this Study..............................32
Figure 2.3 Theoretical Framework for this Study 128
Figure 5.1 Social and Environmental Disclosure by Nigerian Companies 226
Figure 5.2 Yearly Trends of Quantity of SED by Nigerian Companies 2004 to 2013..228
Figure 5.3 Quality of SEDs by Nigerian Companies Broken into S & E...234
Figure 5.4 Yearly Trends of SED Quality by Nigerian Companies 235
Figure 5.5 Quantity of SED Words Broken into S & E................245
Figure 5.6 Yearly Trends of Quantity of SED by UK Companies 2004 to 2013...247
Figure 5.7 Yearly Trends of Quality of SED by UK Companies Broken into S & E 2004 to 2013...254
Figure 5.8 Yearly Trends of Quality of SED by UK Companies 2004 to 2013...256
Figure 5.9 Yearly Quantity of SED Words by Nigerian and UK Companies 2004 to 2013..272
Figure 5.10 Yearly Trends of Quality of SED Scores by Nigerian and UK Companies 2004 to 2013 281

LIST OF APPENDICES

APPENDIX I - Social and Environmental Disclosure Categories GRI 2, 3 & 3.1……………………………………………………………………..439

APPENDIX II - Words Counts Content Analysis Recording Sample Form...444

Appendix III: Unit Roots, multicollinearity, Contemporaneous and Serial Correlations Tests (Nigeria and UK) ……………......445

APPENDIX IV: Results of Levene's Equality of Variance ratio test on quantity and quality of disclosure by UK and Nigerian companies…………………………………………………………….............453

APPENDIX V: Results of Wilcoxon rank-sum (Mann-Whitney) on quantity and quality of social disclosure by UK and Nigerian companies………………………………………………………………………………454

Definitions

Alphabet	Abbreviations	Meanings
A	**AGO**	Automotive Gas Oil
	APEC	Arab Petroleum Exporting Countries
	API	American Petroleum Institute
	AOGP	Association of Oil and Gas Producers
	AIDS	Acquired Immune Deficiency Syndrome
	AGRA	Associated Gas Reinjection Act
	AGRAA	Associated Gas Reinjection (Amendment) Act 2004
	AGRAC	Associated Gas Reinjection (Continued Flaring) Act 1984
	ANG	Associated Natural Gas
	AGF	Associated Gas Flaring
	ACS	Average Compliance Scores
	ASIC	Australian Securities and Investment Commission
B	**BPEO**	Best Practicable Environmental Option
	BGS	British Geological Survey
C	**CR**	Corporate Responsibility
	CSR	Corporate Social Responsibility
	CSR	Corporate Social Reporting
	CBN	Central Bank of Nigeria
	CSED/CSEDs	Corporate Social and Environmental Disclosure/(s)
	CSDT	Corporate Social Disclosure Theories
	CFP	Corporate Financial Performance
	CED	Committee for Economic Development
	CMAI	Chemical Manufacturers Association of India
	CSD	Corporate Social Disclosure
	CLT	Central Limit Theorem
	CSER	Corporate Social and Environmental Reporting
	CEOs	Chief Executive Officers
	CEREs	Coalition of Environmentally Responsible Economies
	CC	Corporate Citizenship
	CAMD	Companies and Allied Matters Decree
	CCG	Code of Corporate Governance
	CA	Coastguards Agency
	CSDs	Corporate Social Disclosures
D	**DPR**	Department of Petroleum Resources
	DGSO	Domestic Gas Supply Obligations
	DECC	Department of Energy and Climate Change
	DBEER	Department for Business, Enterprise and Regulatory Reforms

D	**DEFRA**	Department for Environment, Food and Rural Affairs
E	**EMS**	Environment Management Systems
	EPI	Environmental Performance Index
	ECS	European Continental Shelf
	EDU	Energy Development Unit
	ECCA	English Companies Consolidation Act
	EBIT	Earnings Before Interest and Taxes
	EFR	Ethical Funds Researchers
	EMSs	Environmental Management Systems
	ESG	Environment, Social and Governance
	ESI	Environmental Sustainability Index
	ESSRC	Economic and Social Science Research Council
F	**FCPA**	Foreign Corrupt Practices Act
	FASB	Financial Accounting Standard Board
	FSRA	Financial Service Reforms Act
	FEPA	Federal Environmental Protection Agency
	FTSE	Financial Times Stock Exchange
	FRCN	Financial Reporting Council of Nigeria
	FME	Federal Ministry of Environment
	FMPR	Federal Ministry of Petroleum Resources
	FMOC	Foreign Multinational Oil Companies
	FGLS	Feasible Generalised Least Square
	FWW	First World War
G	**GRI**	Global Reporting Initiative
	GFC	Global Financial Crisis
	GDI	Gender Development Index
	GC	Global Compact
	GNI	Gross National Income
	GDP	Gross Domestic Product
	GFR	Gas Flaring Related
	GLS	Generalised Least Square
H	**HSE**	Health, Safety and Environment
	HSE	Health and Safety Executive
	HSWA	Health and Safety at Work Act
	HMRC	Her Majesty Revenue and Custom
I	**IOCs**	International Oil Companies
	IMF	International Monetary Fund
	ITT	International Telephone and Telegraph
	IRI	Initiative for Responsible Investment
I	**ILO**	International Labour Organizations
	IEA	International Energy Agency
I	**ILOFPRW**	International Labour Organisation Fundamental Principles and Rights at Work

	IPIECA	International Petroleum Industry Environmental Conservation Association
	IAS	International Accounting Standard
	ICPSO	International Convention for the Pollution of the Sea by Oil
J	**JSE**	Johannesburg Stock Exchange
K	**KPI**	Key Performance Indicators
L	**LSE**	Lagos Stock Exchange
	LSE	London Stock Exchange
M	**MNCs**	Multinational Companies
	MNCs	Multinational Corporations
	MRGHG	Mandatory Reporting on Green House Gases
	MENA	Middle East and North African Countries
	MCA	Maritime and Coastguard Agency
	MA	Maritime Agency
N	**NNPC**	Nigerian National Petroleum Corporation
	NAFTA	North American Free Trade Agreement
	NER	New Economic Regulations
	NOCs	National Oil Companies
	NSEA	Nigerian Stock Exchange Act
	NSEC	Nigerian Securities and Exchange Commission
	NASB	Nigerian Accounting Standard Board
	NESREA	National Environmental Standards Regulations Enforcement Agency
	NNPC	Nigerian National Population Commission
	NNOC	Nigerian National Oil Company
	NGC	Nigerian Gas Company
	NOSDRA	National Oil Spill Detection and Response Agency
	NOSCP	National Oil Spill Contingency Plan
	NDDC	Niger Delta Development Commission
	NCD	Nigerian Companies Decree
	NGOs	Non-Governmental Organisations
O	**OMPADEC**	Oil Mineral Producing Areas Development Commission
	OECD	Organization for Economic Cooperation and Development
O	**OECDGME**	Economic Cooperation and Development Guidelines for Multinational Enterprise
	OPEP	Oil Pollution Emergency Plans
	OD	Offshore Division
	OGIGVSR	Oil and Gas Industry Guidance on Voluntary Sustainability Reporting

P	**PMS**	Premium Motor Spirit
	PDI	Power Distance Index
	PDPA	Petroleum Drilling and Production Act
	PIU	Petroleum Inspectorate Unit
	PDF	Portable Document Format
	PCSER	Panel Corrected Standard Error Regression
	PCSE	Panel Corrected Standard Errors
	PCSERA	Panel Corrected Standard Error Regression Analysis
R	**ROE**	Return on Equity
	RDED	Rio Declaration on Environment and Development
S	**SED**	Social and Environmental Disclosure
	SEDs	Social and Environmental Disclosures
	SR	Social Responsibility
	SRDR	Social Responsibility Disclosure and Reporting
	SA	Social Audit
	SHSE	Shanghai Stock Exchange
	SZSE	Shenzhen Stock Exchange
	SC	Service Companies
	SR	Sustainability Reporting
	SD	Sustainable Development
	SRI	Socially Responsible Investments
	SAS	Statements of Accounting Standards
	SEA	Social and Environmental Accounting
	SEAR	Social and Environmental Accounting Research
T	**TBL**	Triple Bottom Line
	TPES	Total Primary Energy Supply
	TAT	Total Assets Turnover
	TOA	Tax Ordinance Act
	TSCS	Time Series Cross Section
U	**UJV**	Unincorporated Joint Venture
	USA	United States of America
	UKOOA	United Kingdom Offshore Operators Association
	UN	United Nations
	UNGC	United Nations Global Compact
	UDHR	Universal Declaration of Human Rights
	UNHDI	United Nations Human Development Index
	UNDP	United Nations Development Program
U	**UNCED**	United Nations Commission on Environment and Development
	UK	United Kingdom

U	**US**	United States
	UNICEF	United Nations Children Emergency Fund
Z	**ZCCA**	Zetland County Council Act

CHAPTER ONE
INTRODUCTION

1.1 Background to the Study

The use of coal and petroleum fuels in new steam engines played a significant role in the industrial revolution of eighteenth century which marked the beginning of new forms of developments (Paul 2006). Modern corporate organisations emerged as a result of this industrial revolution (Freeman 1984) with profit maximization motive as their primary concern (Friedman 1970). Accountability by these emerging modern corporate organisations mainly takes the form of rendering accounts to business owners in form of statements on (1) financial position as at the end of period (2) comprehensive income for the period (3) changes in equity for the period and (4) cash flows for the period (IAS 2016)[1]. However, over time awareness about the impacts of businesses and their interplay with society, environment and socio-regulatory pressures resulted into demand for businesses to give due consideration to the society and the environment (Rajat et al. 2006). Corporate responses to these demands for social and environmental commitments lead to the discharge of Corporate Responsibility (CR) or Corporate Social Responsibility (CSR) as it is known today (Rajat et al. 2006).

However, acceptance by corporations to conduct their activities in manners that are socially responsible and assume more social

[1] IAS denotes International Accounting Standard: IAS 1, 2016 require the presentation of notes comprising summary of significant accounting policies and other explanatory information and a statement of financial position as at the beginning of the earliest comparative period in addition to above four.

responsibility should be accompanied by reporting (Dowling and Pfeffer 1975, Gray, Kouhy and Lavers 1995a, Hassan 2012). This brings about the concept of Corporate Social Reporting (CSR), which encompasses environmental reporting[2]. Corporate social disclosure is an important element of corporate social accountability (Hassan 2012); and this involves provision of information on effort made to address corporate social impacts (Frynas 2009) and commitment to sustainable development (Jenkins and Yakovleva 2006).

Corporate social disclosure practices and studies about such practices are however reported as being more commonly undertaken in developed countries of Europe, United States of America (USA), Canada, and Australia (Tsang 1998, Dobers and Halme 2009b, John, Daniel and Angel 2012 Sulaiman, Abdullah and Fatima 2014, Lauwo and Otusanya 2014, Alkababji 2014). However, there is greater need for corporate social disclosure and studies on such disclosure in emerging and less developed countries (Samuels 1990, Maunders, Gray and Owen 1990, Gray and Kouhy 1993, Hanafi 2006, Belal, Cooper and Roberts 2013). The argument is based on the prevalence of social injustice, environmental degradation, extraction of primary resources, poverty, climate change, corruption and human rights violations (Samuels 1990, Gray and Owen 1990, Gray and Kouhy 1993, Hanafi 2006, Belal, Cooper and Roberts 2013). However, significant increases in global disclosure practices in 2015 are accounted by developing countries particularly India, Indonesia, Malaysia and South Africa (KPMG 2015).

[2] The term corporate social reporting is documented as having synonyms; Cooper *et al*., (2005, p.954), used “corporate social accounts”, “social accounting”, “social and environmental accounting” and “social and environmental report”, to mean the same thing.

Evidently, reported recent increases in Social and Environmental Disclosure (SED) practices are mainly accounted for by disclosure in the Asia Pacific region represented by India, Indonesia and Malaysia with South Africa being the only African country. Therefore, this study supports the argument by Belal, Cooper and Roberts (2013) that little is still known about corporate SED practices in many of the emerging and less developed countries. Indeed, corporate social disclosure practices are very low in these countries (Tsang 1998, Suttipun and Stanton 2012, Juhmani 2014, Sulaiman, Abdullah and Fatima 2014, Lauwo and Otusanya 2014, Alkababji 2014). Particularly on Nigeria, corporate social disclosure practice is an evolving phenomenon (Uwalomwa 2011c, Waziri and Masud 2012) as corporate organisations are more concerned with making profit, paying less attention to social accountability (Iyoha 2010).

Oil and gas exploration, production and distribution activities are dominantly carried out by International Oil Companies (IOCs) through Unincorporated Joint Venture (UJV) with Nigerian National Petroleum Corporation (NNPC) in Nigeria (Hassan 2012, Saidu 2014). These joint agreements are under no obligation to render accounts on Nigerian operations, which could be an incentive to render social accountability. Therefore, in consistent with Iyoha (2010) they are mainly concerned with financial accountability, which is also globally consolidated. Consequently, there is lack of social accountability by IOCs in Nigeria (Asaolu et al. 2011, Hassan 2012, Waziri and Masud 2012, Hassan and Kouhy 2013, Hassan and Kouhy 2014, Hassan and Kouhy 2015). Therefore, it will not be surprising if listed Nigerian oil and gas companies are found not rendering social accountability or the accountability is found low. This is more so taking into account that sampled Nigerian companies are publishing few pages of annual reports and accounts with emphasis on financial disclosure. The next section focuses on statement of the problem, which provides the basis for this study.

1.2 Statement of Research Problem and Justification of the Study

Nigeria is a country blessed with oil and gas resources with proved oil reserves of 37.10 billion barrels as at end of December 2015 making it the eleventh in global ranking (BP 2016). Similarly, it has 180.50 trillion cubic feet of proved natural gas reserves placing it in the ninth position of global ranking as at the end of December 2015 (BP 2016). Oil was first discovered in commercial quantity in the country in 1956 and its exploration and production has been on in the country since then (Hassan 2012). The Central Bank of Nigeria (CBN) reported that oil and gas revenues accounts for 69.80% of its foreign exchange earnings contributing approximately 70% to total government revenues and 8.4% to its GDP in 2013 (CBN 2015)[3].

However, exploration and production of oil and gas resources are fraught with many social and environmental problems (Frynas 2009, Alazzani and Wan-Hussin 2013). In Nigeria, onshore oil and gas exploration and production activities in the Niger Delta region reduces food and cash crops production making people poor in the region. This is consequent to converting farming land and fishing ponds for oil and gas activities (Akoroda 2000, Ebegbulem, Ekpe and Adejumo 2013). Increased child mortality, maternal morbidity and mortality, malaria, bronchial and respiratory diseases and typhoid fever are common in the oil and gas producing region (Okereke and Orjiafor 2011). Nigeria represents the country with second highest volume of Associated

[3] This is the most recent publication by the Central Bank of Nigeria

Gas Flaring (AGF) in the world (World Bank 2013). Excessive exploration and seismic activities are found as having negative impacts on soil fertility and quality of crops (Jike 2004, Benedict 2011). Oil spillage[4] is reported as another major environmental impact of oil and gas operations in Nigeria (Malumfashi 2008, Madueme 2010, Hassan 2012, Ebegbulem, Ekpe and Adejumo 2013) .

The above social and environmental impacts of oil and gas exploration and production in Nigeria are among the major factors responsible for persistent conflicts and crimes in the oil and gas producing region due to failure of accountability (Murthy 2007, Hassan 2012)**.** There are also problems associated with downstream sector of the industry from which some companies in the Nigerian samples are drawn. Adulteration of petroleum products most especially Premium Motor Spirit (PMS) or Petrol, Automotive Gas Oil (AGO), and Kerosene have been reported (NNPC 2014). Evidently, adulteration of kerosene in particular has been the cause of loss of many human lives in Nigeria (NNPC 2014). On the overall, adulteration of petrol leads to engine malfunctioning, components failure and safety problems, which become magnified, with high performance modern engines (Kamil, Sardar and Ansari 2008). Similarly, increased emission of carbon monoxide, oxides of nitrogen and other toxic substances are also reported as consequences of petroleum products adulteration (Muralikrisha, Kishor and Venkata 2006).

In addition to aforementioned social and environmental impacts of oil and gas companies, IOCs that dominates oil and gas exploration, production and distribution activities in Nigeria are

[4] Oil spill is simply defined as the accidental release of oil in the environment due to human activities which could be in water or on land. It is an aspect of environmental pollution with enormous environmental consequences (Odogwu, 2013).

not rendering adequate social accountability (Asaolu et al. 2011, Waziri and Masud 2012, Hassan and Kouhy 2015). IOCs in Nigeria are operating through UJV with NNPC; and as earlier stated these Joint Ventures are not under obligation to prepare and render annual report and accounts on Nigerian operations (Hassan 2012, Saidu 2014). This legal vacuum provided the IOCs an avenue not to acknowledge the social and environmental impacts of their operations. If the IOCs are acknowledging their actions and inactions on the society and environment through disclosure, such could have achieved informative accountability (Frynas 2009, Hassan 2012).

Furthermore, such disclosure could serve as solution or at least means to reducing their social and environmental impacts (Prakash and Rappaport 1977, Hamil 1999, Hanafi 2006, Belal, Cooper and Roberts 2013). This is attainable based on reported engagement of stakeholders by corporate organisations on social disclosure (Post 2012). Therefore, if IOCs in Nigeria are acknowledging their social and environmental impacts by providing disclosure in their annual reports and accounts or sustainability reports, such may provide basis for engaging with stakeholders and perhaps serve as means of reducing the problems. However, listed Nigerian oil and gas companies are becoming very important players in the industry by taking up significant stakes relinquished by IOCs in Nigeria (Obasi 2013, Shosanya 2013). Such divestments by IOCs are projected to continue and listed Nigerian oil and gas companies are expected to take up such divestments (NNPC 2014). Listed Nigerian oil and gas companies emerged as a result of nationalising and listing some operations of IOCs in 1990s while others were incorporated in later years (Adebayo 2011, Adeyemo 2008). Thus, it could be argue that they are deep rooted in the corporate culture of oil and gas companies from Western counties and USA. Specifically, on UK, there are strong economic, legal and corporate linkages between Nigeria and the United Kingdom. For instance, Nigeria's economic and legal systems derived basic features from the inherited British economic and legal systems (Falola and Heaton 2008). Likewise, the first Nigerian corporate law, (the Companies Ordinance of 1912) is identified as a replication of English Companies Consolidation Act (ECCA) 1908 (Amao 2008).

Precisely on the oil and gas industry, Nigeria's Mineral Ordinance of 1914 promulgated during British colonial rule is the main source of Nigerian petroleum laws and regulations (Okonmah 1997, Hassan 2012). Therefore, based on the concept of mutatis mutandis[5], listed Nigerian oil and gas companies are arguably expected to follow the corporate behaviour of UK companies including SED practices. Therefore, this study uses disclosure practices by listed UK oil and gas companies to gauge disclosure by listed Nigerian oil and gas companies. Previous SED studies in the industry focuses mainly on activities of IOCs; thus, there are no existing studies that focus on listed Nigerian oil and gas companies. Therefore, this thesis focuses on the analysis of SED by listed Nigerian oil and gas companies in their annual report and accounts for the period 2004 to 2013[6].

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[5] **Economics:** Latin phrase meaning, approximately, "allowing other things to change accordingly." Used as shorthand for indicating the effect of one economic variable on another, within a system in which other variables that matter will also change as a result. **Law:** a Latin phrase meaning 'with the things having been changed that need to be changed (http://www.dictionarycentral.com/definition/mutatis-mutandis.html).

[6] The end period of this study was conceived as accounting year ending 2013 on its commencement in January 2013 due to untimely availability of data from Nigeria. Therefore, as at time of finishing up there are no available

Thus far, there are existing practical social and environmental problems in Nigeria's oil and gas producing region and the country in general. Similarly, previous SED studies in the industry mainly focus on activities of IOCs with no focus on listed Nigeria oil and gas companies, which are also very important players in the industry. Therefore, this study fills this gap in the literature by looking into SED practices of listed Nigerian oil and gas companies. Similarly, studies in the literature are calling for more SED studies in developing countries (Tsang 1998, Suttipun and Stanton 2012, Belal, Cooper and Roberts 2013). This apparent dearth of literature on social disclosure practices from developing countries like Nigeria could be regarded as a justification for conducting this study. These are motivations for the conduct of this PhD research project to describe and explain SED practices by listed Nigerian oil and gas companies in comparison with listed UK oil and gas companies. The study will undoubtedly add value to knowledge on SED practices in Nigerian oil and gas industry in particular and SED studies in general. Therefore, the main aim and objectives of the study are as follows.

1.3 Aim and Objectives of the Study

The main aim of this study is to attempt to describe and explain SED practices by listed Nigerian oil and gas companies compared with listed UK oil and gas companies. The specific objectives of the study are as follows:

(i) To determine the nature of SEDs by sampled listed Nigerian and UK oil and gas companies;

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additional data from Nigeria to extend the scope of the sudy beyond 2013. Similarly, December, 2016 which is the extended end date of the study is past approaching, therefore, time is another limitation to extending the scope of the sudy beyond 2013.

(ii) To measure and analyse the quantity (volume) and quality (compliance) of SEDs by listed Nigerian and UK oil and gas companies using GRI guidelines;

(iii) To analyse trends of quantity and quality of SEDs by listed Nigerian and UK oil and gas companies; and

(iv) To find out differences in quantity and quality of SEDs by sampled listed Nigerian and UK oil and gas companies;

To achieve the above objectives of the research, the following research questions are raised.

1.4 Main Research Questions

The main research questions of this PhD research project are as follows:

1. What is the nature of Social and Environmental Disclosures (SEDs) by sampled listed Nigerian and UK oil and gas companies using Global Reporting Initiative (GRI) disclosure guideline?
2. What are the quantity (volume) and quality (compliance) of SEDs by listed Nigerian and UK oil and gas companies?
3. What are the trends of quantity and quality of SEDs by listed Nigerian and UK oil and gas companies over the period of the study 2004 to 2013?
4. What are the differences in quantity and quality of SEDs by listed Nigerian and UK oil and gas companies over the period of the study?
5. What are the effects of corporate size, profitability, leverage, efficiency, liquidity and tax on quantity and quality of SEDs by listed Nigerian and UK oil and gas companies?

However, answering research questions four and five above entails testing some hypotheses.

1.5 The Research Hypotheses

Total of 14 research hypotheses are developed on the basis of literature review analyses and discussions in order to answer research questions 4 and five 5. Hypotheses 13 and 14 are meant to answer research question 4. Hypotheses 1 to 12 are meant to answer research question 5. These hypotheses are introduced and discussed in chapters 2 (2.4.4) and 3 (3.6.4).

1.6 Theoretical Framework for this Study

This study compares SED practices of sampled listed Nigerian oil and gas companies with sampled listed UK oil and gas companies. Social disclosure is evolving in developing countries like Nigeria (Tsang 1998, Uwalomwa 2011c, Waziri and Masud 2012) on one hand. On the other hand, it is in advanced stage in developed countries like UK (Tsang 1998, Dobers and Halme 2009b, John, Daniel and Angel 2012). Therefore, the motives of social disclosure by companies in the two countries could be the same or different. Thus, the theoretical explanations for the disclosure could also vary. In this regard, this study adopts vulnerability and exploitability argument (Belal, Cooper and Roberts 2013, Hassan and Kouhy 2015, Belal, Cooper and Khan 2015) on one hand and legitimacy debate (Campbell, Craven and Shrives 2003, Tilling and Tilt 2010, Sulaiman, Abdullah and Fatima 2014, Das, Dixon and Michael 2015) on the other to design the theoretical framework for this study.

Oxford dictionary defined vulnerability as exposure to the possibility of being attacked or harmed, either physically or emotionally (Oxford Dictionary 2013). Exploitability denotes tendency to being exploited selfishly or unethically by someone (Oxford Dictionary 2013). The International Monetary Fund (IMF) country classification 2015 divided the world into two major groups as advanced economies and emerging and developing economies (IMF 2015). Emerging and less developed countries are associated with poverty, lower income per capita, less industrialization, low literacy, and high population growth (IMF 2015). However, a number of these countries are endowed with natural resources such as minerals, oil, gas and forests and large human population living in poverty (Belal, Cooper and Roberts 2013). Alongside these resources, legal and regulatory frameworks are weak and less strictly enforced in these countries than in developed countries (Belal, Cooper and Roberts 2013). Indeed, governments drive to legislate and regulate in many developing countries is missing (Hilson 2012).

In their quest to exploit their natural resources to earn revenues, governments in emerging and developing countries provides stabilisation clauses in contracts with corporate organisations harnessing their resources (Sikka 2011). Such stabilisation clauses are found harmful even to future government tax revenues and on social and environmental issues (Sikka 2011, Belal, Cooper and Roberts 2013). For instance, in a comparative analysis of benefits accruing to Nigeria, Indonesia, Malaysia and Equatorial Guinea from their production sharing contracts, Saidu (2014) reported that Nigeria is receiving the lowest profit oil due to stabilization clauses. Similarly, the clauses may restrict raising wages for employees in the future (Sikka 2011, Belal, Cooper and Roberts 2013). Thus, there are a number of vulnerabilities that corporate organisations could exploit.

First, governments quest for revenues from extraction of natural resources results in providing stabilisation clauses detrimental to even future revenues and social and environmental issues. Second, legal and regulatory frameworks are weak to enforce available laws and regulations. Third, citizens as employees of corporate organisations have to contend with low wages. Fourth, on the overall, the societies are characterized by poverty, low literacy and increasing population. These are vulnerabilities, which corporate organisations in emerging and developing countries are exploiting by not rendering social disclosure (Belal, Cooper and Roberts 2013, Belal, Cooper and Khan 2015, Hassan and Kouhy 2015). However, legitimacy theory is found useful in explaining social disclosure in emerging and developing countries (Sulaiman, Abdullah and Fatima 2014, Lu and Abeysekera 2014, Juhmani 2014, Haji 2013, Khan, Muttakin and Siddiqui 2013, Mahadeo and Oogarah-Hanuman 2011a, Mahadeo, Oogarah-Hanuman and Soobaroyen 2011b). These could be debated as indications that corporate organisations in these countries are now recognizing the importance of their legitimacy conferring stakeholders through social disclosure. However, this study consistent with Lipungu (2013) argues that the disclosure may be few on few issues of interest to few and weak legitimacy conferring groups.

Conversely, developed countries are characterised with sustained economic growth, high per capita income, high literacy level, strong legal and regulatory frameworks and enforcement mechanisms (Belal, Cooper and Roberts 2013, IMF 2015). However, considering the profit motive of corporate organisations, they may be tempted to exploit available vulnerabilities even in developed countries. Hence, this study argues that features of developed countries do not translate to absence of corporate exploitability. Rather, these attributes contribute to less vulnerability, which in turn makes them less exploitable when compared with emerging and less developed countries.

In addition, a positive relationship has been established between economic development and social disclosure (Baughn, Nancy and McIntosh 2007, Welford and Frost 2006). Therefore, economic prosperity of citizens in UK may enable them to voice out their concerns on corporate social issues (Utting 2007). Similarly, increase in level of education results in increases in users of corporate reports (Doupnik and Salter 1995) which could be extended to social disclosure. Thus, economic prosperity and high literacy level in the UK in addition to their social and environmental concerns, may translate to more demand for corporate social disclosure. Similarly, strong legal and regulatory frameworks could also be pushing for social disclosure in the UK. Therefore, listed UK oil and gas companies may be making disclosure as legitimacy tool explained by legitimacy theory.

Legitimacy theory posits that for continuity in their operations within societies; corporate organisations attempts to ensure that their actions are suitable, needed, or correct within the norms, values, definitions and beliefs of the societies (Suchman 1995). Therefore, it is assumed that the society allows corporate organisations to continue operations when they are meeting the expectations of the society (Deegan 2007). Thus, the society is the source of legitimacy for organisations arising from the existence of social contract[7] between the organisation and society (Donaldson 1982, Lindblom 1994, Suchman 1995, Campbell

[7] This social contract is defined as "the multitude of implicit and explicit expectations that society has about how an organisation should conduct its operations" (Deegan, 2007).

2003, Branco and Rodrigues 2006, Magness 2006, Deegan 2007) [8].

However, where a corporate organisation is failing in its social contract, the society can impose sanctions such as restricting its operations (Deegan and Rankin 1996). Similarly, the society can limit corporate access to resources, reduce demand for its products through boycotts that may result into corporate collapse (Deegan and Rankin 1996, Solomon 2013)[9]. Therefore, corporate organisations have to ensure their activities are in congruence with societal expectations and perceptions. Next is disclosing their activities as being in congruence with societal expectations (Dowling and Pfeffer 1975, Gray, Kouhy and Lavers 1995a). Thus, social disclosure is one of the tools employed by corporate organisations for legitimacy purposes. Therefore, combination of vulnerability and exploitability analytical framework and legitimacy theory are employed to explain the SED practices of listed Nigerian and UK oil and gas companies. To undertake this study, appropriate methodology and methods are followed as discussed next.

1.7 Methodology and Methods

This PhD research was carried out by first conducting content analysis of annual reports of sampled companies. In this way, the quantity of disclosure by sampled companies was ascertained based on GRI social disclosure guidelines. Quality of the disclosure was determined by scoring consistency of disclosure

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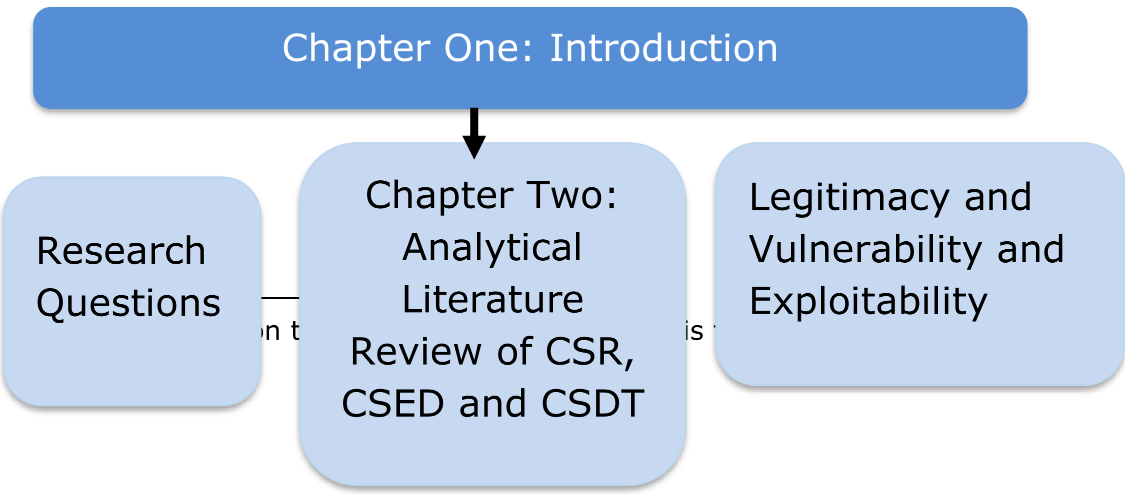
[8] It is argued that it is from this level of legitimacy that most accounting research tends to draw understanding of legitimacy (Tilling and Tilt 2010).

[9] The case of Huntingdon Life Sciences (HLS) a successful market leader in the UK biotechnology industry but turned into a pauper overnight by shareholder activism on animal rights consequent to failure to treat animals with care which is a social and environmental issue is a good demonstration (Solomon, 2013).

with the GRI disclosure guidelines. Similarly, two samples t-tests and Wilcoxon rank-sum (Mann-Whitney) tests were conducted to statistically find out differences in quantity and quality of disclosure by listed Nigerian oil and gas companies as a group and UK oil and gas companies as another group. Likewise, Panel Corrected Standard Errors Regression Analysis (PCSERA)[10] was conducted to determine the effects of corporate size, profitability, leverage, efficiency, liquidity and tax on the quantity and quality of disclosure.

Above quantitative methods are adopted by the study to help in testing 14 developed research hypotheses and answer 5 research questions which in turn result in achieving its main aim and objectives. Thus, the study mainly uses quantitative data; therefore, it is ontologically objective in trying to determine the reality of SEDs by listed Nigerian and UK oil and gas companies. Quantitative data used in this study means employing measurable phenomena in obtaining knowledge on SEDs by listed Nigerian and UK oil and gas companies. Therefore, epistemologically, the study believes reality could be understood by the researcher without mixing with that being researched. The ontological and epistemological assumptions of this research are consistent with positivism research paradigm. The structure of the thesis is presented and elaborated in the succeeding section.

1.8 Structure of the Thesis



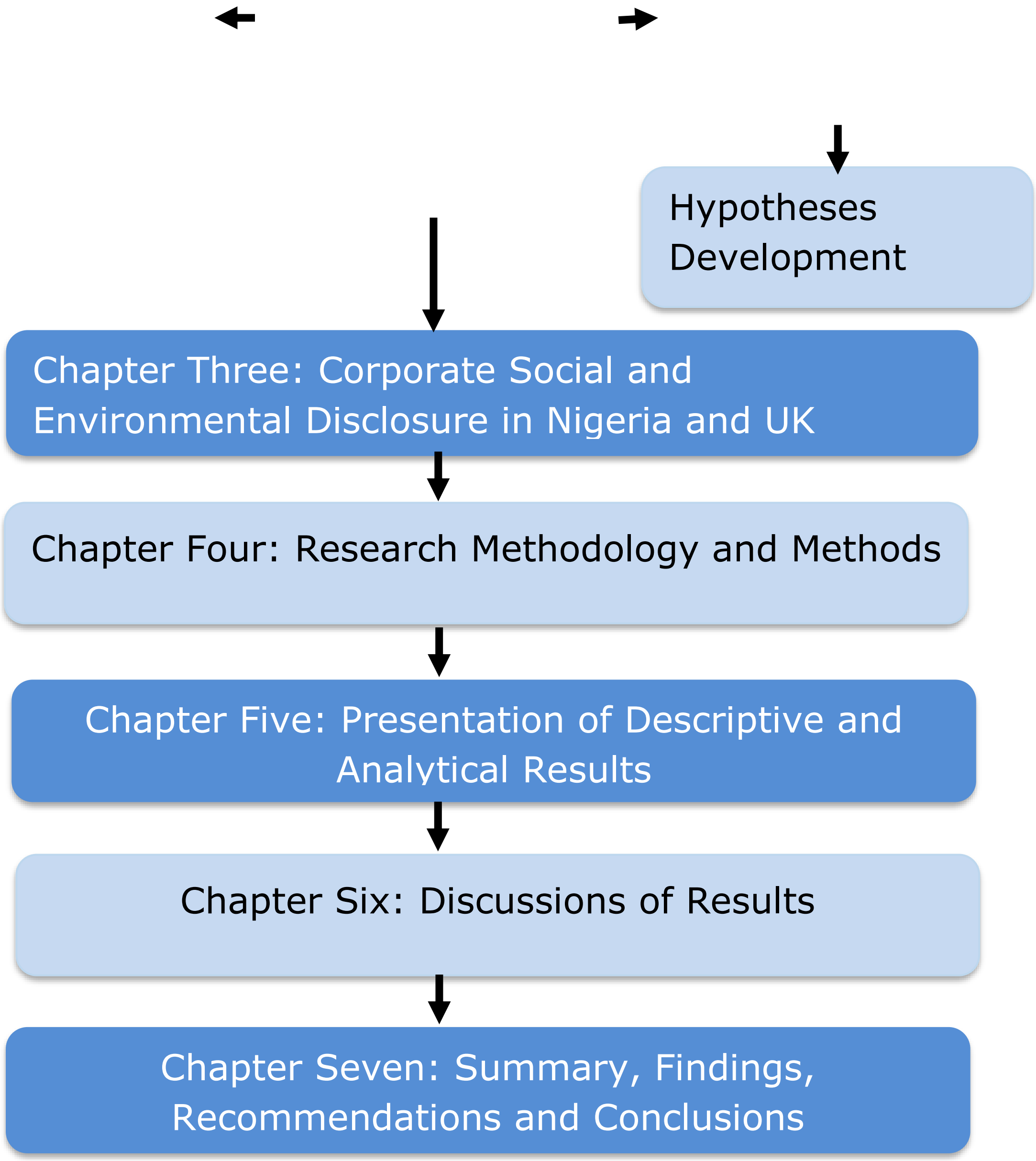


Figure 1.1 Structure of the Thesis

From Figure 1.1, this thesis is structured into seven chapters with chapter one being the introduction. It outlines background to the study, statement of research problem and justification of the study, and the main research questions. Similarly, the aim and objectives of the study; its theoretical framework; methodology and methods and structure of the study are discussed here. Chapter two is analytical literature review of CSR, Corporate Social and Environmental Disclosure (CSED) and Corporate Social Disclosure Theories (CSDT). Chapter three looks into corporate

SEDs in Nigeria and UK in general and in their oil and gas industries in particular. Chapter four is on the research methodology and methods adopted by the study to achieve its aim and objectives. Chapter five is presentation of descriptive and analytical results; chapter six is discussion of results while chapter seven is summary of the thesis, its findings, recommendations and conclusions. Next is conclusion of the chapter and introduction of the next chapter.

1.9 Conclusion

The chapter discussed the background of the study bringing to light the need for SED practice studies in developing countries like Nigeria. Lack of focus by previous studies on SED practices of listed Nigeria oil and gas companies is identified as literature gap that this study attempts to fill. To achieve this, research questions are raised and research hypotheses developed to achieve the aim and objective of the study. The hypotheses are developed from legitimacy debate and vulnerability and exploitability argument, which constitute the theoretical framework underpinning the study. Quantitative data is the main data for this study, which was obtained through content analysis. Therefore, the study believes in objective realism of SED practices by sampled listed Nigerian and UK oil and gas companies. The study believes in the epistemological assumption that valid knowledge about the SED practices of listed Nigeria and UK oil and gas companies could be obtained without the researcher interacting with that being researched. These assumptions are consistent with positivism research paradigm, which the study falls within. Subsequent chapter two is analytical literature review on CSR, CSED and CSDT.

CHAPTERTWO
ANALYTICAL LITERATURE REVIEW: CORPORATE SOCIAL RESPONSIBILITY (CSR); CORPORATE SOCIAL AND ENVIRONMENTAL DISCLOSURE (CSED) AND CORPORATE SOCIAL DISCLOSURE THEORIES (CSDT)

2.1 Introduction

This study seeks to longitudinally describe and explain the SED practices of listed Nigerian oil and gas companies in comparison to listed UK oil and gas companies. Nigeria's economic and legal systems are basically derived from inherited British economic and legal systems (Falola and Heaton 2008, Cotterrell 2013). Similarly, Mineral Ordinance of 1914 promulgated during British colonial rule is the main source of its petroleum laws and regulations (Hassan 2012). Likewise, the first Nigerian corporate law, the Companies Ordinance of 1912 is essentially a replication of ECCA 1908 (Amao 2008). Thus, it could be argued that there are strong linkages between UK and Nigeria's corporate laws. Therefore, using the concept of mutatis mutandis, Nigerian oil and gas companies in this study should be following the corporate behaviour of UK companies including on SED. However, evidence in the literature has shown that oil and gas companies in developed countries like UK provide better SEDs than companies from developing countries like Nigeria (Frynas 2009, Eljayash, James and Kong 2012). Therefore, this PhD study expects UK oil and gas companies to have better social disclosure practices than Nigerian oil and gas companies.

Nonetheless, the study will use disclosure practices of UK oil and gas companies to gauge the disclosure practices of listed Nigerian oil and gas companies. Similarly, the comparison may enable the study to identify possible gaps between disclosure practices by UK and Nigerian companies. Identified disclosure gaps could serve as guide to the Nigerian oil and gas companies to enhance their SED practices. Policy makers in Nigerian oil and gas industry may also use findings from this study in making future policies that will enhance social and environmental accountability by oil and gas companies.

Consequently, this chapter discusses CSR, CSED and CSDT. Although the chapter discusses these issues from global perspectives, research questions and hypotheses to understanding SEDs practices of sampled companies are raised in relevant sections. The chapter is composed of eleven sections and unfold as follows. Section one is the introduction; section two is on corporations and corporate reporting; section three involves discussion on CSR; section four deals with CSED. Section five looks at the nature, quantity (volume) and quality of CSED as reported in the literature; section six is on comparative social disclosure studies. Section seven discusses the global oil and gas industry; section eight look at global social and environmental reporting guidelines. Section nine deals with CSDT; section ten is on chosen theories in this study, while section eleven, which is the last section, is conclusion of the chapter.

2.2 Corporations and Corporate Reporting

In the past decades, activities of business organisations were regarded as quite simple involving the processes of buying raw materials, converting them into products and selling the products to customers. These types of business organisations, which are largely structured along owner-entrepreneur with family dominance, are referred to as the 'production view' of the firm (Freeman 1984). Taking this production view of the firm, in order for the business to be successful the owner-manager-employee needs only to satisfy suppliers and customers. In this situation, apart from government for regulation purposes, information relating to the firm's activities may not be needed by other parties (Freeman 1984). However, increasing population and changing life style resulted in increasing demand for goods and services (Paul 2006). To satisfy the demand, businesses have to increase their production capacities, which require additional capital beyond what owner-manager-employee businesses provides. These additional capitals were provided by banks, and other financing institutions, thus, diluting ownership structure of the firms (Freeman 1984). Increasing industrial production capacities in turn increases the size of industries whose management now goes beyond the owner-manager-employee arrangement (Berle and Means 1932). Consequently, external hands are needed to manage the emerging new business firms, which are referred to as corporations resulting in 'managerial view' of the firm (Freeman 1984). The managerial view of corporations in addition to suppliers and customers require the recognition of interest of employees, the newfound managers and the owners/stockholders (Freeman 1984). Freeman (1984) argument of recognising other groups as important in addition to shareholders laid the foundation of the concept of stakeholders (Key 1999, Belal 2002, Jonker and Foster 2002, Laine 2010).

Although earlier studies had recognized stakeholders (Barnard 1938, Abrams 1951, Eells 1960, CED 1971), the behaviour of the firm was viewed from the neoclassical view of only maximising the wealth of owners (Friedman 1970). From this view, managers of corporations should only take into consideration owners' interest in their decision making and report to them on the corporations' activities. These reports are prepared and reported to answer such questions as (1) what is the accumulated wealth of the business at the end of a particular period? This is answered by the statement of financial position as at the end of the period (2) how much profit was generated by the business over a particular period of time? This is represented in the form of comprehensive income for the period and (3) what cash movement took place over a particular period? This is taken care of by statement of cash flows for the period (4) who are the current owners of the business? This is represented as statement of changes in equity for the period (IAS 2016)[11].

However, in their work Freeman and Reed (1983) and Freeman (1984) suggest that in addition to stockholders, corporations are responsible to other groups such as employees, customers, suppliers, lenders and society. This recognition of other business stakeholders in addition to shareholders changed societal perceptions about the role of business through distinct stages in history. Thus, over time, awareness about the impacts of business and its interplay with society, environment and socio-regulatory pressures resulted into demand for businesses to give due consideration to the society and the environment (Rajat et al. 2006). Corporate responses to the demands bring about CR or CSR (Rajat et al. 2006) as discussed below.

2.3 Corporate Social Responsibility (CSR)

Modern corporate business environments are surrounded by strong public scrutiny from diverse stakeholder groups (Chen and

[11] IAS is International Accounting Standard. IAS 1, 2016 requires that financial statements should composed of these four. In addition, there should be (5) notes, comprising a summary of significant accounting policies and other explanatory information; and (6) a statement of financial position as at the beginning of the earliest comparative period when an entity applies an accounting policy retrospectively or makes a retrospective restatement of items in its financial statements, or when it reclassifies items in its financial statements.

Wang 2011). These stakeholder groups are calling on businesses to accept accountability for not only their economic actions, but also the social and environmental implications of their activities. Thus, many corporate businesses are today not only paying attention to the social and environmental needs of their stakeholders, but are communicating same to maintain positive and cohesive relationship with stakeholders as valuable intangible assets (Deegan, Rankin and Voght 2000, Chen and Wang 2011). Indeed, failure to integrate CRS principles into business practices exposes companies to negative stakeholder perceptions, especially when bad news erupts (Spangler and Pompper 2011). Thus, the significance of the concept of CRS is continuously growing and becoming a global trend in the last decades (Lu and Castka 2009, Carroll and Shabana 2010). This implies that the current level of CSR evolved over time; therefore, looking at this evolution is important.

2.3.1 Evolution of Corporate Social Responsibility (CSR)

Consistent with the argument of Gray, Kouhy and Lavers (1995a) that there is little about CSR, which is not contestable – and contested, its historical evolution is also looked at from varied perspectives. Lee (2008) documents the evolution of CSR on a decade by decade basis from 1950 to 2000; categorizing 1950 to 1960 as the decade of social responsibility of businessmen; 1970's as period of enlightened self-interest; 1980's as the social performance model of CSR; 1990's as the strategic management decade of CSR and 2000 to date as decades of tighter coupling between CSR and Corporate Financial Performance (CFP).

In an evolutionary pattern similar to what Lee (2008) depicted, the 1950's is seen as the beginning of modern era of social responsibility (as it is then known); 1960's as the decade of the expansion of CSR literature; 1970 as definition proliferation era for CSR; the 1980's is termed as the era of fewer CSR definitions, more research and development of alternative themes and 1990 as era of more alternative themes to CSR (Adams 1999). CSR is also seen as evolving from three phases; one, Gestation and Innovation 1960's; two, Development and Expansion 1970's; and three, Maturity and Institutionalization 1980's (Preston 1986). This study looks at the evolution of CSR on decade by decade basis in consistent with Adams (1999) and Lee (2008).

The 1950's is referred to as the beginning of modern history of corporate responsibility (Adams 1999) marked with enactment of numerous legislations to regulate conduct of businesses and protect employees and customers especially in the US (Lee 2008). Bowen (1953) regarded as the father of modern CSR (Adams 1999) defined Social Responsibility (SR) as obligations on businessmen to pursue policies and take decisions that are consistent with values and objectives of the society (Bowen 1953). The decade of 1960's saw the proliferation of more formal definitions of CSR from which the definition by Davis is discussed as outstanding (Adams 1999). Social responsibility is defined as those decisions and actions taken by businessmen that go beyond the economic and technical interest of the firm (Davis 1960).

The 1970's – Adams (1999) opine that one of the most acknowledged contributions to corporate social responsibility in this decade is the definition of social responsibility by the Committee for Economic Development (CED). CED debated that it is with public consent that businesses function and their basic purpose are to serve the society and to the satisfaction of the society (CED 1971). The definition of CSR by Adams (1999) that social responsibilities of businesses are economic, legal, ethical and discretionary expectations that society has of organisations is playing an important role in today's CSR (Lee 2008). However, within the decade, a contradicting view of the social responsibility of business which argues that *the social responsibility of business is to increase its profits* also evolved (Friedman 1970). With regard to acceptance of corporate social responsibility by corporate organisations, the periods are as depicted in below Figure 2.1 and described subsequently.

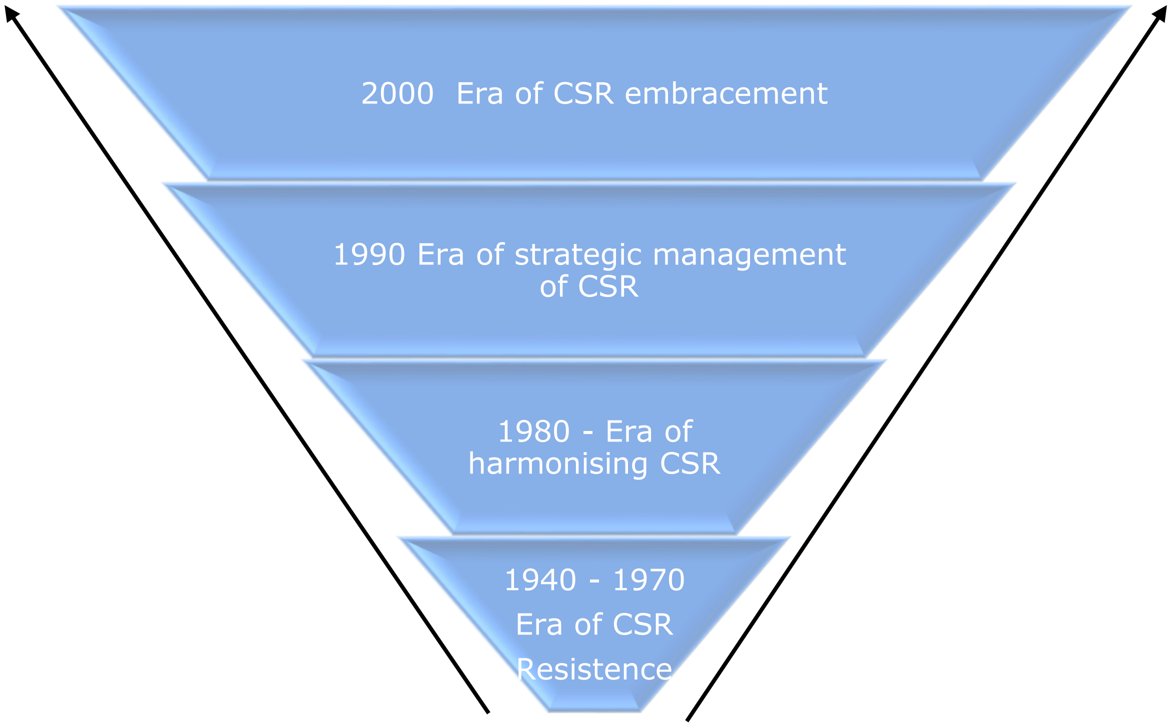


Figure 2.1 Phases of Corporate Acceptance of CSR

The periods of 1940s to 1970s is regarded as the period of resistance to corporate social responsibility by corporate bodies as demonstrated by widespread corporate scandals such as the involvement of International Telephone and Telegraph (ITT) in military coups in Chile in 1970s. Involvement of companies from USA in political corruption scandals leading to the passage of U.S

Foreign Corrupt Practices Act (FCPA). The role of United Fruit in Cuba, Guatemala, and Nicaragua; the 'Baby killer food' of Nestle in 1960s to 1970s; and legitimacy issues raised on the continued existence of Multinational Companies (MNCs) in South Africa (Post 2012).

In 1980's there were efforts to reconcile the two opposing ends of the social responsibility of business (Lee 2008). A rationale that upholds social responsibility without compromising the interest of stockholders was provided by arguing that it is in the long term interest of stockholders that corporations should be socially responsible. If the surrounding society in which businesses operate deteriorates, the businesses may lose critical resources and customers. Therefore, it is in the long term interest of the corporation to support its environment (Wallich and McGowan 1970, Baumol 1970). This is what Lee (2008) termed as the era of enlightened self-interest.

Focus on developing or refining existing definitions of CSR results in to research in alternative concepts such as corporate social responsiveness, corporate social performance, business ethics, public policy, stakeholder management (Adams 1999). It is during this period that corporate bodies and governments started responding to demands for corporate social responsibility such as the rooting of the Sullivan Principles[12] reasoned as offering a model of corporate responsibility (Post 2012). The adoption of code of conduct that includes new standards on products management, community engagement and disclosure by the Chemical Manufacturers Association of India (CMAI) after the 1984 incidence at Union Carbide chemical plant (Post 2012). The objection by labour unions and environmental groups of the North

[12] See Bernasek and Porter, 1997

American Free Trade Agreement (NAFTA) for non-provision of protection against sharp labour practices and exploitative environmental activities (Post 2012). The definition by Jones (1980) of CSR remains interesting in the literature (Adams 1999, Lee 2008). He defined corporate social responsibility as a concept entailing that corporations have obligations to other constituents of the society apart from shareholders and goes beyond what is prescribed by the law. The obligations should however be undertaken voluntarily and should go beyond stockholders to include customers, employees, suppliers and neighbouring communities (Jones, 1980).

1990s is contended as the decade that brought to fruition the management revolution that began in 1950s as it addresses the issue of why certain firms performed better than others by applying stakeholder analysis on CSR (Drucker 1993). Thus, it is termed as the decade of strategic social responsibility management (Lee 2008). As such, it is a decade characterized by very few contributions to the definition of CSR and emphasis on corporate social performance, stakeholder theory, business ethics theory, and corporate citizenship (Adams 1999).

From the perspective of CSR studies, over the period 1950 to 1980 researches focused on macro-social level of analysis having ethical theoretical orientation and with no discussions on relationship between CSR and CFP. However, by 1990s the level of analysis is focused on the organisation with managerial theoretical orientation and tight coupling between CSR and CFP (Lee 2008). One of the definitions of CSR during this decade considered important to CSR studies is by Gray, Kouhy and Lavers (1995a) who opined that:

> *"in its broadest sense, CSR may comprise: reporting by an organization on itself; third party reporting on the*

organization; information contained in the annual report and in any other form of communication; both information that are in public and private domain and information communicated through financial, non-financial, quantitative and non-quantitative medium" (Gray, Kouhy and Lavers 1995a, p. 47).

The years 2000 to present are considered as a period in which corporate organisations have realised the importance of establishing standards that will help them be seeing as behaving responsibly either as providers of services, suppliers or manufacturers (Post 2012). Indeed, corporate organisations are dialoguing with civil societies and communities to ensure that they are behaving responsibly to the expectations of their stakeholders and the society at large (Post 2012). The period is regarded as watershed for the establishment and putting in place global guidelines on corporate social responsibility reporting (Cetindamar and Husoy 2007). By being socially responsible, corporations expect to or are achieving certain goals and objectives.

2.3.2 Goals and Objectives of Corporate Social Responsibility

Although demand for corporate social responsibility is sequel to societal concerns about the detrimental impacts of business activities on the society, the main goal of early theorists and practitioners was how businesses could improve the society (Carroll and Shabana 2010). Consistent to this, it is opine that CSR emerge as an approach to addressing social and environmental impacts of businesses (Frynas 2009). Its overall objective is to enable businesses respond to demands of other stakeholders such as employees, customers, and the general public on such issues as human rights, climate change and employee welfare (Jenkins and Yakovleva 2006). Glassman (2006) argues that under the CSR regime, businesses are supposed to, in running their affairs, take into consideration all their stakeholders with a view to achieving sustainable development. Furthermore, by reporting the social and environmental contributions and consequences of their activities, businesses are portraying their being sustainable (Jenkins and Yakovleva 2006). This is consistent with the concept of sustainable development (Brundtland 1987)[13] as elaborated by the Triple Bottom Line (TBL) concept first introduced by Elkington (1993). Similarly, it is in line with McLamb's (2011) position of having a viable economy built on bearable environment and equitable society. It could therefore be argue that the main goal of CSR is for businesses to report on their commitment to achieving global sustainable development.

It has been established that CSR is beneficial to corporate organizations both in the short and long run (Azapagic 2003, Kotler and Lee 2005). It enhances corporate image and clout; increase sales and market share; strengthen brand position; attract, motivate and retain employees; decrease operating costs; and increase corporate appeal to investors and financial analysts (Kotler and Lee 2005). It is also contended that corporate adoption of CSR leads to lowering labour costs; allows easy access to lenders and insurers; increases corporate reputation; attracts ethical investors; influences corporate legislations; lower health and safety costs and increases market advantage of corporate organizations (Azapagic 2003).

[13] Is a United Nations Commission under Mr Go Bruntland mandated to find a new path of development that take into consideration economic, social and environmental issues. Its report came up with a new form of development referred to as sustainable development defined "as development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (United Nations Commission on Environment and Development 1987, p. 37).

Therefore, it could be argue that corporate organisations are reaping some of these benefits by being socially responsible.

However, acceptance by corporations to conduct their activities in manners that are socially responsible and assume more social responsibility to their stakeholders (Freeman 1984) or relevant publics (Lindblom 1994) and the society at large (Gray, Owen and Maunders 1987) should be accompanied by reporting (Dowling and Pfeffer 1975, Gray, Kouhy and Lavers 1995a). This brings about the concept of reporting CSR, which encompasses environmental reporting[14] (Parker 1986, Mathews 1993, 1984, Gray, Kouhy and Lavers 1995a, Branco and Rodrigues 2006, Jenkins and Yakovleva 2006). Indeed, there are other terms that are synonym to CSR. For example, Gray, Kouhy and Lavers (1995a) used CSR and Corporate Social Disclosure (CSD) to mean the same thing. They further reasoned that CSED; Social Responsibility Disclosure and Reporting (SRDR) and even Social Audit (SA) are synonyms to Corporate Social and Environmental Reporting (CSER). This study considers CSED or CSD to mean the same thing consistent with (Gray, Kouhy and Lavers 1995a); the next section looks at CSED in detail.

2.4 Corporate Social and Environmental Disclosure (CSED)

In general, disclosure is the action of making known new or secret information or a fact about something made known (Stevenson 2010). Thus, disclosure is viewed divergently in different fields. For example, from the legal perspective, it refers to provision of copies of or allowing the defence access to any prosecution

[14] The term corporate social reporting is documented as having synonyms; Cooper *et al*., (2005, p.954), used "corporate social accounts", "social accounting", "social and environmental accounting" and "social and environmental report", to mean the same thing.

material not been previously provided capable of undermining prosecution against the accused (Grieve and Thomas 2013). Disclosure is regarded as document held by police and government departments containing impartial and confidential criminal information which employers can use to make safer recruitment decisions (Disclosure Scotland 2016). In accounting and finance, it denotes the act of releasing all relevant information about a company that may influence the decision of investors (Paul et al. 2015, Mahmud and Islam 2015). It could be noted that provision of vital information that will aid in decision making is common to all the definitions about disclosure.

Consistent to varied general definition of disclosure, CSED is also defined from varied perspectives. For instance, it is defined as corporate provision of information about the interaction of the company with the community, employees, and the society at large including the natural environment, environmental protection and resource use (Jenkins and Yakovleva 2006). It is also thought of as conveying of information about activities of a company, its aspirations and public perception on its dealings with employees, community, and consumer issues. Condensed in these, are other issues such as energy usage, fair trade, equal opportunities, corporate governance (Gray and Bebbington 2001). In its broadest sense, CSED may encompass self-reporting and third party reporting on organizations. This include information in the annual report and other forms of corporate communication. The information may be either in public or private domain and it could be financial, non-financial, quantitative, or non-quantitative (Gray, Kouhy and Lavers 1995a).

Having had an insight into definitions of CSED, it is of significance to outline various units of measurements employed in SED studies. Unerman (2000) documents words counts, sentences, average number of lines and proportion of pages as the most commonly units of measuring SEDs[15]. These units of measurement are discussed in detail under 2.6.1.3 on measurement units in content analysis. Literature have documented different types of SEDs and what drives corporations to make the disclosure.

2.4.1 Types and Drivers of Corporate Social and Environmental Disclosures

CSEDs are widely acknowledged as voluntary (Gray, Kouhy and Lavers 1995b, Tsang 1998, Clarke and Gibson-Sweet 1999, Campbell, Craven and Shrives 2003, Roca and Searcy 2012, Alonso-Almeida, Llach and Marimon 2014). However, social disclosure could also be mandatory (Gray, Kouhy and Lavers 1995a, Zainal, Zulkifli and Saleh 2013, Sulaiman, Abdullah and Fatima 2014) and could also be solicited (van der Laan 2009)[16]. This study focuses on voluntary and mandatory social disclosures as depicted in Figure 2.2.

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[15] This study focuses on words counts, sentence counts and proportion of pages.

[16] Solicited disclosure are social disclosure demanded from a company by organisations such as Non-Governmental Organisations (NGOs), Socially Responsible Investments (hereafter SRI) or Ethical Funds Researchers (hereafter EFR), trade union representatives, social and environmental organisations such as Green Peace, Friends of the Earth etc. (van der Laan, 2009). This could be argue as another form of voluntary disclosure, as it remains at the discretion of corporate organisations to oblige to the request or not.

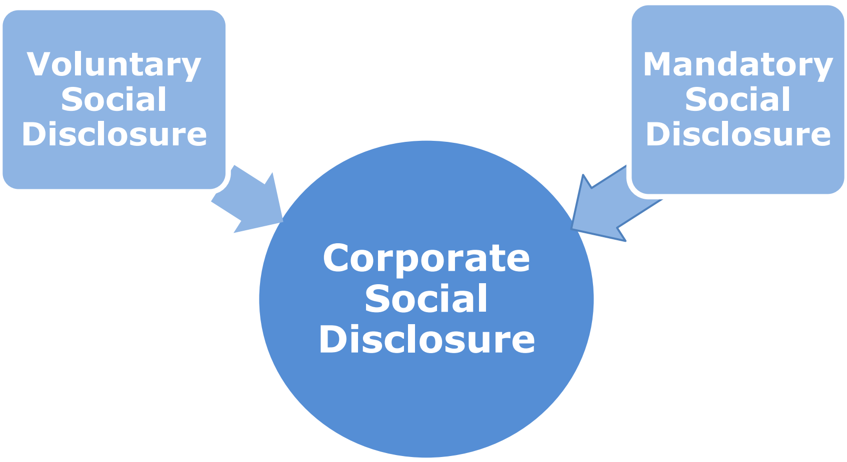

Figure 2.2 Components of SEDs in this Study

(a) Voluntary Social Disclosure

Voluntary disclosure is information provided by corporate organisations beyond that which is required by law (Popova et al. 2013). It is also regarded as information useful to stakeholders for decision making, which are not required by law or code of practice (e.g. annual reports and proxy statements) or that which goes beyond the law (Dawkins and Fraas 2011). However, the Financial Accounting Standard Board (FASB) defines voluntary disclosure as disclosure primarily outside of the financial statements that are explicitly required by accounting rules or standard (FASB 2001). Studies in the literature have documented that much of SEDs by corporate organisations are voluntary. For instance, it is found that non-financial disclosure relating to environmental management and cleaner production process within and outside sampled corporate organisations are carried out on voluntary basis (Alonso-Almeida, Llach and Marimon 2014). Corporate social responsibility disclosure is reported as being influenced by choices, motives and values of corporate officers involved in formulating and taking decisions in the organisation; thus, implying the voluntary nature of corporate social disclosure (Khan, Muttakin and Siddiqui 2013). Similarly, it is concluded that corporate environmental reporting was adopted by sampled companies to discharge voluntary environmental accountability (Hassan 2012).

Equally, it is concluded that corporate sustainability reporting in most jurisdictions is being undertaken voluntarily (Roca and Searcy 2012). Corporate social disclosure is also discussed as corporate efforts to voluntarily address the social concerns of their stakeholders (van der Laan 2009, Monteiro and Aibar-Guzmán 2010, Sotorrío and Sánchez 2010, Maguire 2011). The adoption of such sustainable measures as codes of conduct, best environmental practices, eco-labels, Environmental Management Systems (EMSs) and environmental performance indicators are voluntary initiatives adopted by sampled organisations to show commitment to sustainable development (WTTC. et al. 2002). In addition, corporate organisations have become more responsive to investor’s concern about the environment by voluntarily incorporating the impact of their activities in their annual reports beginning from 1980’s (O’Dwyer 2003). Likewise, Clarke and Gibson-Sweet (1999) argues that the broadening of traditional financial accounting to encompass SEDs is a voluntary activity. Corporate social disclosure could also be undertaken to satisfy mandatory social disclosure requirements.

(b) Mandatory Social Disclosure

Mandatory disclosure entails disclosure of information in compliance with legal or statutory laws, capital markets, the stock exchange commissions and accounting standards setting bodies to facilitate evaluation of securities (Wallace and Naser 1995, Owusu-Ansah 1998). Although mandatory disclosures are attributable to corporate financial activities, the requirements are now being extended to social disclosures. For instance, the

Johannesburg Stock Exchange (JSE) made it mandatory for companies to discuss the environment in which they are operating. They should also disclose their impacts on stakeholders, strategies put in place for mitigating potential negative impacts on the society in the form of an integrated report[17] from 2011 and the report should be supported with an independent assurance report. This requirement for an integrated report was preceded by a requirement for sustainability disclosure from 2010 (Ioannou and Serafeim 2014).

Similarly, the Australian government under the Financial Service Reforms Act (FSRA)[18] of 2010 obliged financial services providers to disclose the extent to which labour or environmental, social and ethical considerations are taken into account in the selection, retention or realization of an investments (Bollen, Skully and Wei 2010). Mandatory Reporting on Green House Gases Rule (MRGHGR) referred to as 40 CFR part 9 required large emitters of greenhouse gases to collect and report data relating to their emissions to the Federal Environmental Protection Agency (FEPA) in the USA. The requirement is expected to cover 85% of the nation's greenhouse emissions as reported by Initiative for Responsible Investment (USEPA 2014).

Furthermore, the Shanghai Stock Exchange (SHSE) and the Shenzhen Stock Exchange (SZSE) in China mandated disclosure on Environment, Social and Governance (ESG) in 2008 (Ioannou and Serafeim 2014). SHSE required all companies listed on its corporate governance index, firms with overseas listed shares,

[17] The aim of an integrated report is to allow stakeholders to gain a complete understanding of a company, its strategy and performance, and of how it is dealing with and has addressed its sustainability risks and impacts (Sustainability South Africa, 2014).

[18] The Act is administered by the Australian Securities and Investment Commission (ASIC).

and financial firms to make ESG disclosure. SZSE mandated ESG reporting for all firms listed in the Shenzhen 100 index (Ioannou and Serafeim 2014). Similarly, the revised article 5 of the China company law made it mandatory for all companies to undertake social responsibility disclosure in 2006 (Ioannou and Serafeim 2014). The stock exchange in Malaysia (Bursa Malaysia) made ESG beginning from 31st December, 2007 a listing requirement for all listed companies (Ioannou and Serafeim 2014).

In France, the Grenelle Act of 2009 enforced in 2011, mandates all companies with more than 500 employees that initiated any polluting activity to report on such activities covering air, water, emissions, energy and materials usage (Doucin 2013). Corporate organisations should also report commitment to environmental protection, remediation and limitation of adverse consequences on the natural environment while pursuing economic activities (Doucin 2013). The act also provides for the disclosure of women directors in listed companies and non-listed companies with revenues or total assets of over €50 million (Doucin 2013). This provision of the act is preceded by the New Economic Regulations (NER) enforced in 2002 that requires listed companies to report environmental impacts of their operations in the annual report and accounts (Doucin 2013). The United Kingdom (UK) revised companies' act 2006, mandated listed and large non-listed companies to include in their business reviews information on social matters. This should encompass environmental matters dealing with impacts of company's business on the environment; information on company's employees; and social and community issues (UK Parliament 2006, Theron 2008)[19]. The next section

[19] The provisions are contained in sub section 5a to c of section 147 of the Act.

looks into what drives corporate organisations to be making social disclosure.

(c) Drivers of Social Disclosure

Corporate organisations are driven by certain factors in making social disclosure which could be internal or external (Tsang 1998)[20]. Gaining reputation, favourable market conditions, long-term value creation, and pressures from corporate governing bodies have been identified as drivers for CSEDs (Marston and Shrives 1991, Ahmed and Courtis 1999). Globalization, emergence of new stakeholders, competitiveness (Bichta 2003, Dahlsrud 2008, Lu and Castka 2009); proximity to customer (Robertson and Nicholson 1996) and legislations that businesses have to contend with have put pressure on businesses to adopt decisions that balance between social, environment and economic objectives including disclosure on these for their own sake (Mintzberg 1983).

In addition, shift in power relationships between states, firms and households, improved communication that results in the emergence of civil regulation are among the drivers behind CSR (Cramer 2002, Jenkins and Yakovleva 2006). Similarly, gaining competitive advantage by disclosing (Hart 1995, Shrivastava 1995, Reinhardt 1999, Bansal and Roth 2000, Frynas 2005, Gallego 2006); ensuring business legitimacy (Bansal and Roth 2000, Sharma 2000); and desire to conform to societal norms (Hussain 1999, Bansal and Roth 2000, Cordano and Frieze 2000, Flannery and May 2000) are identified as drivers for corporate social disclosure. Likewise, social disclosure is reported as

[20] The internal drivers are cultural, traditional, political reforms, socio-economic priorities, governance gaps, crisis response, and market access; while the external drivers are international standardization, investment incentives, supply chain, and stakeholder activism

capable of improving corporate image and help in the development of environmentally friendly and sustainable methods of operations (Azapagic 2003, Kotler and Lee 2005, Gallego 2006). They further argue that it reduces anticipated future regulation cost, decrease future liabilities that may arise from progressive externalities. It also enhances better relationship with suppliers and customers and ease recruitment of best labour and lower staff turnover, increase investors and financial analyst and open opportunity to attract ethical investors (Azapagic 2003, Kotler and Lee 2005, Gallego 2006). Thus, various reasons are identified as drivers for making SEDs by corporate organisations. In the same way that literature identified various reasons that drive corporate organisations to make social disclosure; various determinants of corporate social disclosure have also been documented.

2.4.2 Determinants of CSEDs

Various studies in the literature have reported factors that determine the nature, quantity (volume), and quality of CSED (Roberts 1992, Hackston and Milne 1996, Gray et al. 2001, Adams 2002, Alsaeed 2006, Hossain and Reaz 2007, Chau and Gray 2010, Echave and Bhati 2010, Monteiro and Aibar-Guzmán 2010, Farook, Hassan and Lanis 2011, Galani, Alexandridis and Stavropoulos 2011, Eljayash, James and Kong 2012, Haji 2013, Bhattacharyya 2014, van de Burgwal and Vieira 2014, Sulaiman, Abdullah and Fatima 2014, Abdull Razak 2015, Tan, Benni and Liani 2016) which are broadly classified into three categories. These are:

1) General contextual factors such as country of origin, economic, social and political development, cultural, media pressure, and power of stakeholders';

2) Corporate characteristics that look into the peculiar characteristics of the company such as size, profitability, type of industry the company belongs etc.; and
3) Internal contextual factors including corporate governance, existence of corporate social reporting committee (Adams 2002).

This study focuses on the first two categories.

2.4.2.1 General Contextual Factors

Prior studies on corporate social disclosure investigated the relationship between nature and extent (quantity) and quality of disclosure and general contextual factors within which the disclosures are made. These include country of origin; economic; cultural dimensions; social and political contexts; time period of the study; specific events; pressure from the media; and the influence of corporate stakeholders. Country of origin, economic, and cultural contexts are further discussed below.

(a) Country of Origin

The literature has found country where SEDs are made as a factor in determining the disclosures. For example, differences in social disclosure practices found between Brazilian and Spanish sampled companies are attributed to country of origin (Greccoa et al. 2013). Similarly, country of origin and region are reported as significant determinants of differences in corporate social disclosure in a comparative analysis of sampled Asian companies and companies from Western Europe, East/Central Europe, Australia/New Zealand, US/Canada, Middle East and Africa (Baughn, Nancy and McIntosh 2007). In the same vein, it is concluded that differences in social disclosure practices between sampled Norwegian, Danish and United States companies are due to country of origin (der Laan Smith, Adhikari and Tondkar 2005).

Likewise, difference in nature and patterns of environmental disclosure between Germany and United Kingdom are attributed to environmental regulations, industry, social and political pressures, which are obviously important components of country of origin (Adams and Kuasirikun 2000). Similarly, country of origin is reported as the key determinant of differences in social disclosure found between sampled firms from Australia, Singapore, Malaysia and Hong Kong (Williams and Pei 1999). Multinational companies of continental Europe were found making more voluntary social disclosure than multinationals from America and United Kingdom and the differences are attributed to county of origin (Meek, Roberts and Gray 1995). The level of economic development of a country is another factor identified as a key determinant of corporate social disclosure.

(b) Economic Development

The term economic development has been defined as the method by which the society in an attempt to improve quality of life, creates, retains, and reinvests wealth (Summers 2011). Positive relationship between economic development and nature and quantity of CSEDs has been documented by Baughn, Nancy and McIntosh (2007). Similarly, the existence of link between a country's economic development and the development of CSEDs is reported (Welford and Frost 2006). Higher levels of wealth could provide resources and access to technology for social and environmental initiatives, while higher levels of per capita could allow citizens to both as consumers and employees demand for CSEDs (Ramasamy and Hung 2004). In this regard, Environmental Performance Index (EPI)[21] reported countries of the advanced economies as strongest performers on social and environmental issues in its annual report for 2016 (Hsu 2016). Indeed, economic development is identified as the main driver to putting in place social and institutional capacity and establishment of laws and policies that could address SEDs (Nwabuzor 2005). Therefore, it is concluded that economic development provides the social and institutional capacity of making efforts to ensuring environmental sustainability (Husted 2005). In this light, it is opine that post materialist values such as environmental protection is more akin with advanced countries where there is economic security (Inglehart 1997). Nigeria is a developing country (IMF 2014) and social and environmental disclosures are evolving issues (Uwalomwa and Jafaru 2012b). Therefore, quantity and quality of social disclosure by sample Nigerian oil and gas companies are likely to be low when compared with disclosure by UK companies. National cultural dimension is also another important factor determining the nature and volume (quantity) of corporate social disclosure.

(c) National Cultural Dimensions

Four natural cultural dimensions i.e. power distance, individualism versus collectivism, masculinity versus femininity and uncertainty avoidance have been identified as determinants of corporate social disclosure (Hofstede 1991, Hofstede, Hofstede and Minkov 2010). Gray, Owen and Maunders (1988) developed four accounting values namely professionalism, uniformity, conservatism, and secrecy and relate them to these cultural dimensions as determinants of CSEDs. Power distance denotes the degree that people within a society accepts unequal

[21] EPI is a global metrics for ranking countries' performance on protection of human health and ecosystems http://epi.yale.edu/.

distribution of power (Archambault and Archambault 2003) or depicting the degree to which less powerful members in a country's institutions and organizations expect and accept that power is distributed unequally (Hofstede 1991).

Power distance as measure of secrecy determines disclosure; indedd, it is found that countries with low secrecy level provide more disclosure than those with high secrecy (Orij 2010). Similarly, Gray, Owen and Maunders (1988) report that secrecy increases with power distance as secrecy increases, the amount of disclosure decreases. Nigeria is a high power distance country with a score of 77 while UK is low power distance country with a score of 33 on the Power Distance Index (PDI)[22] used by Hofstede, Hosftede and Minkov (2010). Drawing from the findings of Gray, Owen, and Maunders (1988) and Orji (2010); Nigeria's categorization as a country with high power distance means high secrecy which in turn results in less corporate social disclosure. While UK's low power index score means low secrecy which may translate to more disclosure. Therefore, sampled Nigerian oil and gas companies are likely to make less disclosure than UK companies.

Individualism versus collectivism describes the degree to which people are independent as opposed to collectivism (Archambault and Archambault 2003) or the relationship existing between individual and other fellow individuals (Kale 1996). Secrecy is found associated with individualism; thus, more individualistic societies have high secrecy, thereby resulting in low social disclosure. On the other hand, collective societies have less secrecy, thus, have more disclosure (Salter and Niswander 1995). However, secrecy is found decreasing with individualism,

[22] The power distance index is based on a maximum scale of 110 (Hofstede, Hofstede and Minkov, 2010).

thus, more individualistic societies have less secrecy, thereby having more disclosure (Gray, Owen and Maunders 1988). These are two opposing findings from two studies that looked into individualism versus collectivism. The differences in findings could be attributed to differences in sample size and time period of the study. Nigeria is reported as having a score of 21 on collectivism; while UK has a score of 88 on individualism (Hofstede, Hofstede and Minkov 2010)[23]. Disclosure increases with individualism (Zarzeski 1996). Similarly, secrecy decreases corporate disclosure but secrecy reduces with individualism thereby allowing more disclosure (Gray, Owen and Maunders 1988). Therefore, Nigeria's classification as a collectivist country while UK as a highly individualistic country could translate to less disclosure by Nigerian companies and more disclosure by UK companies.

On masculinity versus femininity; masculine societies are characterized by achievement, bravery, aggressiveness, and material success while feminine societies stress relationships, decorum, and caring for the weak (Archambault and Archambault 2003). Secrecy is found decreasing with masculinity; thus, more masculine societies have less secrecy which results in more disclosure. Consequently, less masculine societies have high secrecy resulting in low disclosure (Gray, Owen and Maunders 1988). Conversely, it is found that countries with high masculinity make lower levels of disclosure than countries with low masculinity (Orij 2010, der Laan Smith, Adhikari and Tondkar 2005). Park et al (2007) statistically found negative relationship

[23] Values from 5 – 50 on the scale indicates collectivism while 50 – 95 indicates individualism (Hofstede, Hofstede, and Minkov, 2010).

between Environmental Sustainability Index (ESI)[24] and masculinity. Nigeria is having 46 scores while UK has 66 scores on the masculinity index[25]; thus, UK is more masculine than Nigeria (Hofstede, Hofstede and Minkov 2010). Secrecy which limits disclosure decreases with high masculinity scores, thereby increasing disclosure (Gray, Owen and Maunders 1988).

Uncertainty avoidance signifies the extent to which people feel endangered by unknown situations (Archambault and Archambault 2003) or lack of forbearance for opacity and the need for formal rules (Kale 1996). Secrecy increases with uncertainty avoidance resulting in low disclosure (Gray, Owen and Maunders 1988). On uncertainty avoidance, Nigeria scored 53 on the scoring index (Hofstede, Hofstede and Minkov 2010)[26]; while the scores for UK is 35. Corporate social disclosures are associated with uncertainty avoidance as disclosures are found decreasing with high uncertainty avoidance (Zarzeski 1996) and secrecy increases with high uncertainty avoidance and high secrecy decreases disclosure (Gray, Owen and Maunders 1988). Nigeria's uncertainty avoidance score of 53 and UK's 35 could imply low corporate social disclosure by sampled Nigerian companies than UK companies.

Another country contextual factor that influences disclosure is level of education. As level of education increases, users of corporate reports also increase (Doupnik and Salter 1995). This is implying that corporate disclosure increase with level of education. Nigeria is categorized among low human developed

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[24] Environmental Sustainability Index is an environmental disclosure index that measure overall progress towards environmental sustainability http://sedac.ciesin.columbia.edu/data/collection/esi/ .

[25] The index is on a total scale of 85 with 5 – 44 indicating femininity and 45 – 85 indicating masculinity (Hoftede, Hoftede and Minkov, 2010).

[26] The Uncertainty avoidance index has a maximum score of 112 (Hofstede, Hofstede and Minkov, 2010)

countries by the United Nations Human Development Index (UNHDI) on education whereas UK is classified among countries with very high HDI on education (United Nations 2014). Drawing from Doupnik and Salter (1993); Nigeria's low education development index could translate to low demand of corporate disclosure by citizens than UK. Therefore, sampled Nigerian companies are likely to make lower quantity and quality of disclosure than UK companies.

Legal system as a contextual factor is also reported as useful in explaining extent of corporate disclosure (Hope 2003b). Doupnik and Salter (1995) classified countries into common law and Romano-Germanic families[27]. They found that common law countries have higher disclosure scores than Romano-Germanic countries. Similarly, it is argued that common law creates an enabling environment for shareholder oriented corporate governance that may result in increased social disclosure to satisfy shareholders' needs (Ball, Kothari and Robin 2000). Likewise, it is found that companies in common law countries made more social disclosure (Jaggi and Low 2000). These broad contextual factors as determinants of corporate social disclosure could be useful in explaining the disclosure practices of Nigerian and UK oil and gas companies. Another broad determinant of corporate social disclosure is corporate internal characteristics elaborated below.

2.4.2.2 Corporate Characteristics

Corporate characteristics are peculiar attributes of a company making disclosure which can be used to make comparison over time within the company itself and as a basis of inter-company

[27] Common law countries are characterized by legal system that are case specific while Romano-Germanic countries have codified laws including accounting standards (Doupnik and Salter 1995).

comparison (Archambault and Archambault 2003). The following characteristics employed in this study are further elaborated.

(a) Size of the Company

The Oxford American desk dictionary and thesaurus (2010) defined size as "the proportions, spatial dimensions, greatness or bulk of anything". Measures employed as proxies for size in SED studies are sales volume (Hackston and Milne 1996, Tagesson et al. 2009, Galani, Alexandridis and Stavropoulos 2011, Alexander and Buchholz 1978, Alkababji 2014, van de Burgwal and Vieira 2014), asset value (Hackston and Milne 1996, Hossain and Reaz 2007, van de Burgwal and Vieira 2014, Juhmani 2014), and number of employees (Hackston and Milne 1996, Tagesson et al. 2009). Corporate size is a variable frequently used in SED studies and there are number of arguments on its influence on disclosure. Large firms are claimed as more exposed to scrutiny from the general public and social and environmental pressure groups than small firms, thus, are likely to make more disclosure (Ayadi 2004). By making more social disclosure, large firms are likely to obtain funds at lower cost (Botosan 1997, Abdulhaq and Muhamed 2015). Similarly, large firms are more geographically spread, therefore, have larger market for products. This may translate to having more diversified stakeholder groups thereby making such firms to disclose more information than small firms (Brammer and Pavelin 2008). Likewise, large firms are more subjected to trends analysis than small firms, thus, they make more disclosure (Mackinnon and Dalimunthe 1993).

Furthermore, managers of large firms are likely to understand the benefits accruing from making more disclosure, while managers of small firms may feel competitively endangered by making more disclosure (Abdur Roufa 2011). To ensure positive social image, large firms are likely to report more environmental information as legitimacy tool (Akrout and Othman 2013). Similarly, there are arguments that large firms have sufficient human and monetary resources for collecting, analyzing and presenting extensive data at minimal cost which smaller firms may not easily undertake (Zimmerman 1983, Alsaeed 2006). However, it is contended that in order to avoid the political costs of tightening regulations and increasing tax and social obligations, large firms are likely to withhold value relevant information (Jensen and Meckling 1976). Therefore, drawing from preceding arguments, size could be influencing sampled companies in this study to be making more or less SEDs as legitimacy tool. SED studies in both developed and developing countries have found mixed results on the impact of corporate size on CSEDs.

Numerous studies in the literature in developed and developing countries have established that corporate size is positively associated with CSEDs. From the developed countries, Reyes-Rodríguez, Ulhøi and Madsen (2016) found corporate size as a significant determinant of corporate environmental disclosure by listed companies in Denmark. Giannarakis (2015) concluded that corporate size is significantly positively associated with environmental disclosure by listed companies in Fortune 500. Firm size is found statistically and positively related with volume of environmental disclosure by Dutch companies (van de Burgwal and Vieira 2014). Statistical analysis of relationship between SEDs and size by listed Australian firms showed significant positive relationship between the two variables (Bhattacharyya 2014). Dong and Burrit (2010) attributed disclosure levels to selection of large companies as samples, arguing that if smaller companies should be used, disclosure levels may change, thus, size could be regarded as a determinant. Corporate size is found having significant positive relationship with social disclosure by 500 largest listed Portuguese companies (Monteiro and Aibar-Guzmán 2010). Tagesson et al (2009) documents that disclosure increase with corporate size by Swedish listed corporations. Corporate size is found influencing the extent of SEDs in a comparative study between Italy and USA (Boesso and Kumar 2007).

Positive association between corporate size and level of disclosure is found in disclosures by non-financial sector in Greece (Galani, Alexandridis and Stavropoulos 2011). In analyzing SEDs of ten largest mining companies, Jenkins and Yakovleva (2006) found the largest four in terms of total assests as making more disclosure attributing this to their assets bases. Alazzani and Wan-Hussin, (2013) reported Chevron as the largest company in studied companies and has the highest level of environmental disclosure, thus, confirming size as determinant of quantity of disclosure. Conversely, McNally, Eng. and Hasseldine (1982) found no relationship between company size and extent of disclosure in New Zealand. Corporate size is reported as not having statistical significance on disclosure in a multinational study (Prado-Lorenzo et al. 2008).

Positive association between corporate size and SEDs is also reported in studies in developing countries. Firm size is found having significant effects on corporate responsibility disclosure in Indonesia (Tan, Benni and Liani 2016). Size is reported as having significant positive relationship with social disclosure by listed companies in Saudi Arabia (Abdull Razak 2015). Alkababji (2014) reported significant correlation between corporate size and corporate social disclosure in the annual reports of sampled Palestinian companies. Likewise, company size is reported as significant in explaining the quantity of corporate social disclosure (Haji 2013). Alazzani and Wan-Hussin, (2013) reported Chevron as the largest company in studied companies and has the highest level of environmental disclosure, thus, confirming size as determinant of quantity of disclosure. Positive relationship is reported between size and amount of disclosure by listed companies in Thailand (Suttipun and Stanton 2012). However, firm size is reported as non-significant in determining corporate disclosure in Egypt (Samaha and Dahaway 2011). Thus far, there are mixed results on the effect of corporate size on SEDs in both developed and developing countries. This study argues that as a way of seeking and maintaining legitimacy with wide stakeholders and to reduce public and political pressure, corporate size will determine disclosure by sampled companies consistent with legitimacy theory. Therefore, the study explores the effects of this variable on disclosure by sampled companies from a developed (UK) and a developing (Nigeria) countries by testing below developed hypotheses.

$H_{1.0}$: There is no relationship between the quantity of SEDs by sampled companies and size
$H_{1.a}$: There is relationship between the quantity of SEDs by sampled companies and size

$H_{2.0}$: There is no relationship between the quality of SEDs by sampled companies and size
$H_{2.a}$: There is relationship between the quality of SEDs by sampled companies and size

Another internal characteristic is profitability.

(b) Profitability

Profitability denotes the ability of an investment to earn a return or financial gain (Tulsian 2014). Therefore, if management can make a corporation profitable, then, it should have knowledge and understanding of social and environmental issues, thereby making more disclosure on that (Belkaoui and Karpik 1989). Similarly, profitable corporations have the economic resources to make social disclosure (Cowen, Ferreri and Parker 1987, Hackston and Milne 1996, Pirsch, Gupta and Grau 2007). Likewise, profitable corporations are exposed to political pressure and public scrutiny; therefore, they are likely to use disclosure to reduce negative impact of these pressures (Ng and Koh 1994, Tagesson et al. 2009). Proxies commonly used for corporate profitability are one, return on asset (Hackston and Milne 1996, Luo and Wu 2010, Galani, Alexandridis and Stavropoulos 2011, Luo and Wu 2010); two, net profit (Gray and Bebbington 2001, Echave and Bhati 2010, Nandi and Gosh 2012) and three, return on Equity (Belkaoui and Karpik 1989, Hackston and Milne 1996, Tagesson et al. 2009, Luo and Wu 2010, Menassa 2010, Ljungdahl 1999, Monteiro and Aibar-Guzmán 2010). SED studies have employed this variable in both developed and developing countries and findings revealed mixed results.

Statistical analysis of relationship between social disclosure and profitability is reported in a study of listed Australian companies (Bhattacharyya 2014). Positive correlation is found between extent of social disclosure and profitability by studied Swedish listed companies (Tagesson et al. 2009). Similarly, SED levels of top four mining companies out of sampled ten companies from developed countries were attributed to their financial profitability (Jenkins and Yakovleva 2006). Companies with high turnover among studied samples drawn largely from multinational oil companies of developed countries, are found making more social disclosure than those with low turnover (Depraz et al. 2004). Social disclosure levels are found statistically positively associated with profitability in Australia (Hackston and Milne

1996). Strong positive correlation between profitability and social disclosure by UK companies is documented by Gray and Bebbington (2001). Similarly, using the Fortune 500 companies, positive association is found between CSD and profitability (Roberts 1992). However, some studies found negative relationship between SEDs and profitability. Significant negative relationship is found between profitability and extent of CSEDs (Wallace and Naser 1995, Belkaoui and Kahl 1978). There are also studies that found no relationship between corporate profitability and SEDs.

In a study that investigated for statistical relationship between corporate profitability and social disclosure by listed firms in Greece, no relationship was found between the two variable (Galani, Alexandridis and Stavropoulos 2011). A study of listed Spanish companies found no statistical association between corporate profitability and social disclosure (Echave and Bhati 2010). Findings from studied Portuguese companies reveal that environmental disclosure levels are not statistically correlated with profitability (Monteiro and Aibar-Guzmán 2010). Similarly, corporate profitability is found not statistically significant in explaining SEDs by listed Australian companies (Reverte 2009). Using Fortune 500 companies, profitability is found not significantly associated with extent of corporate social disclosure (Patten 1991). Results from analysis of relationship between voluntary social disclosure and corporate profitability in a study involving companies drawn from US, UK and Continental Europe showed no significant relationship between the two variables (Meek, Roberts and Gray 1995). Thus, there are mixed results from SED studies on the influence of this variable on SEDs. Profitability is also used as a variable in SEDs studies in developing countries like Nigeria.

Corporate profitability is documented as a significant determinant of social disclosure by listed Saudi Arabian companies (Abdull Razak 2015). Similarly, social responsibility reporting by listed companies in Kuwait is found having significant positive association with corporate profitability (Al-ajmi, Al-Muttairi and Al-Duwaila 2015). Strong positive association is reported between profitability and extent of disclosure by listed Banks in Lebanon (Menassa 2010). Profitability is reported as a significant determinant of the levels of social disclosure in China (Luo and Wu 2010). Using return on equity and return on assets, Nie (2009) concluded that firms with higher profitability make more social disclosure in China. However, no significant association is found between profitability and environmental disclosure levels by listed companies in Thailand (Suttipun and Stanton 2012). Similarly, no relationship is found between profitability and social disclosure levels of sampled Saudi Arabian companies (Alsaeed 2006).

From the proceedings, it could be said that studies on profitability as a determinant of social disclosure yielded diverse results in both developed and developing countries. This study predicts that profitable companies in the sample will be providing more social disclosure in order to swerve away political and public pressure due to their profitability as a legitimacy strategy. Therefore, the study explores the effect of this variable on SEDs by companies from UK and Nigeria by testing the below hypotheses.

$H_{3.0}$: There is no relationship between the quantity of SEDs by sampled companies and profitability.

$H_{3.a}$: There is relationship between the quantity of SEDs by sampled companies and profitability.

$H_{4.0}$: There is no relationship between the quality of SEDs by sampled companies and profitability.

$H_{4.a}$: There is relationship between the quality of SEDs by sampled companies and profitability.

Another corporate characteristic used in SED studies is leverage.

(c) Leverage

Leverage is seen as the degree of using borrowed funds to increase potential gains or losses of corporate organizations beyond that which could be provided if the organization uses its own funds (D'Hulster 2009). Thus, a high leveraged firm implies the use of more debts in financing its operations than its own funds, while a low leveraged firm is one that employs less of borrowed funds in its operations (Glancy 2015). It is expressed as the ratio of debt to equity (Nissim and Penman 2003). Relating leverage to disclosure, corporate managers in leveraged companies are likely to increase disclosure in order to reduce agency costs between insiders and creditors. Therefore, in order to satisfy creditors interested in SEDs, leveraged companies are likely to make more disclosures (Alsaeed 2006, Christopher and Filipovic 2008, Ma and Zhao 2009, Aly, Simon and Hussainey 2010, Akrout and Othman 2013, Zhang 2013). In contrast, it is claimed that highly leveraged companies are more likely to share information with their creditors, thus, making less disclosure (Zarzeski 1996).

Several empirical studies have examined the relationship between leverage and social disclosure. Most SED studies used leverage as a control variable in determining its effect on social disclosure. Some studies have found the variable as a statistically significant determinant of social disclosure (Gallego-Álvarez and Quina-Custodio 2015, Juhmani 2014, Sulaiman, Abdullah and Fatima 2014, Branco and Rodrigues 2008, Naser et al. 2006). Other studies found mixed results on the influence of the variable on SEDs (Nandi and Ghosh 2013, Zhang 2013); while other studies reported the variable as not statistically associated with social disclosure (Al-ajmi, Al-Muttairi and Al-Duwaila 2015, Akrout and Othman 2013, Echave and Bhati 2010, Reverte 2009, Purushothaman et al. 2000). The following studies conducted in developed and emerging and less developed countries report a significant relationship between leverage and social disclosure.

Corporate leverage is reported as having a significant and positive influence on social disclosure by listed companies largely from developed countries (Gallego-Álvarez and Quina-Custodio 2015, Purushothaman et al. 2000). Leverage is also reported as significantly associated with social disclosure practices of sampled Portuguese companies (Branco and Rodrigues 2008). However, leverage is found having no association with social disclosure by listed Spanish companies (Echave and Bhati 2010, Reverte 2009). From the context of developing countries, leverage is reported as having significant relationship with SED practices by sample firms in Bahrain (Juhmani 2014). Similarly, significant positive association between leverage and environmental disclosure quality is reported by listed Malaysian firms (Sulaiman, Abdullah and Fatima 2014). Also, significant relationship between social disclosure and leverage by sampled companies in Qatar is reported (Naser et al. 2006). There are studies that revealed mixed results on the effect of leverage on SEDs from developing countries. Nandhi and Gosh (2013) found mixed result in the same study on listed Indian companies. Leverage was found significantly associated with social disclosure in two out of ten year's longitudinal study; while it is not significantly associated with disclosure in eight years. In a cross industry study of listed companies in China, leverage is found as not statistically significant with environmental disclosure in mining and chemical industries, but is approaching significance in the electrical industry (Zhang 2013). However, the study found leverage as significant in the mining industry and moderately significant in the electrical and chemical industries on social disclosure (Zhang 2013).

Results showing no significant relationship between corporate leverage and SEDs is also reported in the literature. Leverage is found having no association with corporate social responsibility disclosure by listed Kuwait companies (Al-ajmi, Al-Muttairi and Al-Duwaila 2015). Akrout and Othman (2013) found no statistical relationship between leverage and corporate environmental disclosure by listed companies from Arab Middle East and North African countries (MENA). Similarly, leverage is reported as statistically insignificant in determining corporate disclosure on the internet by listed Egyptian companies (Purushothaman et al. 2000, Reverte 2009, Aly, Simon and Hussainey 2010). Likewise, no statistical relationship is found between corporate leverage and SEDs by listed companies from Singapore (Purushothaman et al. 2000). Therefore, there are contradicting results from the literature on the effects of leverage as a determinant of corporate disclosure. This study predicts highly leveraged companies to be making more social disclosures as legitimacy strategy to satisfy creditors interested in social disclosures. Thus, the study explores the effect of leverage on SED practices of sampled Nigerian and UK oil and gas companies by testing the below hypotheses.

$H_{5.0}$: There is no relationship between quantity of SEDs by sampled companies and leverage.
$H_{5.a}$: There is relationship between quantity of SEDs by sampled companies and leverage.

$H_{6.0}$: There is no relationship between quality of SEDs by sampled companies and leverage.
$H_{6.a}$: There is relationship between quality of SEDs by sampled companies and leverage.

The efficiency of management in using available corporate assets could be another corporate characteristic that may have effect on SED practices as presented below.

(d) Efficiency

Efficiency is being viewed from varied perspectives. From economic view point, efficiency measures the ability of an organization to produce and distributes its products at the lowest possible costs (Black, Hashimzade and Myles 2009). From business perspective, efficiency measures the ability of management to generate enough revenue relative to amount of money invested in the business (Lindsayt, 2014). Thus, although efficiency is viewed differently, what is common in both standpoints is simply the ability to produce desired results using minimum efforts, expenses or wastes (Neufeldt 1995). This study is viewing efficiency from the perspective given by Lindsayt (2014). This type of efficiency can be measured through various accounting ratios[28] which is the viewpoint that this study explores its effects on CSEDs.

Total Assets Turnover (TAT) ratio which measures management's efficiency in utilising both short and long term assets to generate sales is used in the context of this study. High asset turnover is the most desired when measuring efficiency using this ratio (Lindsayt, 2014). CSEDs are additional corporate responsibility in addition to its main role of making profits (Friedman 1970). However, CSEDs are capable of increasing sales and market share, decrease operating costs, and lower labour costs (Azapagic

[28] Lindsayt (2014) documents nine (9) different efficiency rations: Accounts Receivable Turnover; Inventory Turnover; Accounts Payable Turnover; Total Assets Turnover; Fixed Asset Turnover; Operating Expense Ratio; Return on Investment; Average Collection Period; Average Payment Period.

2003, Kotler and Lee 2005). Therefore, if management is able to utilise available short and long term assets together with available human resources to generate acceptable revenues, then it should utilise the same resources to provide SEDs in order to reap the above benefits. Thus, this study explores the effects of efficiency measured by total assets turnover on the quantity and quality of SEDs by sampled listed Nigerian and UK oil and gas companies. However, to the best of the author's knowledge, there is dearth of prior literature that employ this corporate variable in this kind of study; the below hypotheses are developed here.

$H_{7.0}$: There is no relationship between quantity of SEDs by sampled companies and efficiency.
$H_{7.a}$: There is relationship between the quantity of SEDs by sampled companies and efficiency.

$H_{8.0}$: There is no relationship between quality of SEDs by sampled companies and efficiency.
$H_{8.a}$: There is relationship between quality of SEDs by sampled companies and efficiency.

Corporate liquidity is another characteristic used in determining its influence on corporate SED practices.

(e) Liquidity

Corporate liquidity depicts corporate ability to meet its current obligations with short term assets (Poznanski, Sadownik and Gannitsos 2013). There are arguments on the influence of this variable on CSEDs. For instance, it is argued that corporate organisations with high liquidity will based on signalling theory make more disclosure than companies with low liquidity (Abd El salam 1999). A contradicting argument is, consistent with agency theory, companies with low liquidity will disclose more corporate information to satisfy the needs of shareholders and creditors (Aly, Simon and Hussainey 2010). These arguments are extended to SED practices on which there are studies that found relationship between SEDs and the variable (Subramaniam, Samuel and Mahenthiran 2016, Nandi and Ghosh 2013, Samaha and Dahaway 2011, Ezat and Em-Masry 2008). Some other studies found no relationship between the two variables (Al-ajmi, Al-Muttairi and Al-Duwaila 2015, Hussainey, Elsayed and Razik 2011, Aly, Simon and Hussainey 2010). The following results are from studies in developed and developing countries. From the developed countries, Coebergh (2011) reported positive relationship between liquidity and SEDs by listed companies from Netherlands.

In the context of developing countries, firms with high liquidity are found making more social responsibility disclosure in Malaysia (Subramaniam, Samuel and Mahenthiran 2015). Nandi and Ghosh (2013) found positive relationship between corporate liquidity and SEDs by sampled Indian companies. Liquidity is also documented as having positive association with CSDs by listed Egyptian companies (Samaha and Dahaway 2011). Conversely, it is reported that there is no association between corporate liquidity and social disclosure by listed Kuwait companies (Al-ajmi, Al-Muttairi and Al-Duwaila 2015). Similarly, no relationship is found between corporate liquidity and social disclosure by listed Egyptian companies (Hussainey, Elsayed and Razik 2011, Samaha and Dahaway 2011, Aly, Simon and Hussainey 2010). From the literature reviewed, there are varied results on the effects of corporate liquidity on social disclosure. This study predicts that companies with liquidity will provide more SEDs to legitimise relationship with investors and other stakeholders. Thus, the study employs the variable to explore its effects on SEDs by Nigerian and UK oil and gas companies by testing below developed hypotheses.

$H_{9.0}$: There is no relationship between quantity of SEDs by sampled companies and liquidity.
$H_{9.a}$: There is relationship between the quantity of SEDs by sampled companies and liquidity.

$H_{10.0}$: There is no relationship between quality of SEDs by sampled companies and liquidity.
$H_{10.a}$: There is relationship between quality of SEDs by sampled companies and liquidity.

Tax is another corporate variable that could be a determinant of CSEDs as discussed below.

(f) Tax

Corporate organisations are required by law to make payment of tax to governments through designated agencies on profits made from their operations. Payment of tax by corporate organisations is seen as meeting an obligation and a portrayal of responsible behaviour that ensures harmonious relationship not only with the government but even the general public (Lanis and Richardson 2013). Although payment of tax is seen as a good corporate behaviour, corporate organisations tend to be reluctant in paying tax as it is seen as additional burden (Baker 2008, Pricewatercoopers 2013). Indeed, corporate organisations are following legal means to avoid tax and even illegal ways to evade tax by establishing aggressive tax schemes (Lanis and Richardson 2013).

Nonetheless, it could be argue that if corporate organizations pay more tax; they are likely to make elaborate explanations on such payments in an effort to portray themselves as good citizens. Similarly, they are likely to make reference on such payments while making disclosure on other social or environmental information. From this perspective, corporate organisations will make more social disclosure in those years they pay more tax, than in those years that they do not pay tax or pay less.

Therefore, this study explores the effect of tax on the quantity and quality of SEDs by sampled companies by testing the below hypotheses.

$H_{11.0}$: There is no relationship between quantity of SEDs by sampled companies and corporate tax.
$H_{11.a}$: There is relationship between quantity of SEDs by sampled companies and corporate tax.

$H_{12.0}$: There is no relationship between quality of SEDs by sampled companies and corporate tax.
$H_{12.a}$: There is relationship between quality of SEDs by sampled companies and corporate tax.

Testing hypotheses 1 to 12 developed in the preceding sections enable the study to achieve objective 5. Other objectives of this study include finding out the nature of SEDs by sampled companies and assessing the quantity and quality of the disclosures. There are literature findings on nature, extent (quantity) and quality of SEDs which are reported as varying among companies in the same country (Tagesson et al. 2009, Spangler and Pompper 2011, Eljayash, James and Kong 2012) and across different countries (Guthrie and Parker 1990, Adams 2002). Thus, it might be useful to look into such findings.

2.5 Nature, quantity (volume) and quality (compliance) of SEDs

SED studies have looked into the nature, quantity and quality of disclosure as presented below.

2.5.1 Nature of Disclosure

Studies that look into the nature of SEDs look at it from varied viewpoints. Some studies looked at it by categorizing the disclosure into purely descriptive (use of narratives only); non-financial (quantitative other than financial information); and financial (Zeghal and Ahmed 1990, Guthrie and Parker 1990, Walden and Schwartz 1997, Williams and Pei 1999, Belal and Lubinin 2009). Other studies look at nature of disclosure by examining at what and what disclosure categories, aspects or indicators are made (Trotman 1979, Guthrie and Parker 1990, Andrew, Guthrie and Teoh 1989, Gray, Kouhy and Lavers 1995a, Tsang 1998, Adams and Kuasirikun 2000, Elmogla 2009, Gallego 2006, Sotorrío and Sánchez 2010, Eljayash, James and Kong 2012, Alazzani and Wan-Hussin 2013).

This study examines the nature of disclosure by evaluating social and environmental performance indicators disclosed by sampled companies consistent with the study by Alazzani and Wan-Hussin (2013). There are a number of studies on nature of disclosure from this perspective in developed and developing countries. Environmental information relating to habitats protected or restored; initiatives to reduce greenhouse gas emissions and reduction achieved; and total number and volume of significant spills were the most reported by sampled UK oil and gas companies (Alazzani and Wan-Hussin 2013). The nature of social disclosure by sampled Spanish corporations include programs of employee training, health and safety at work place, community social performance goals, grants, donations, sponsorship and financial assistance (Sotorrío and Sánchez 2010). These are followed by environmental variables of sustainable use of resources, control of greenhouse gas emissions and waste prevention and recycling thus, social category could be said to be the most disclosed (Sotorrío and Sánchez 2010). Oil and gas companies are reported as making more disclosure on employee theme of the social category, then environment in Australia (Dong and Burritt 2010). Employee theme of the social category is documented as the most disclosed with 90% of the sample reporting on it, while 85% of the sample made disclosure on biodiversity aspects of environment by listed Russian companies (Belal and Lubinin 2009).

Furthermore, social indicators of labor practices and decent work, strategy and management, non-discrimination, freedom of association, child labor etc. are the most reported, followed by environmental indicators of water, energy, biodiversity, waste and effluents by listed companies in Spain (Gallego 2006). Political donations, activities, and statements, and equal opportunities are the most reported ethical/social issues by UK and German companies. Product impact information, policy statements, overall disclosure, and capital investments are the most reported environmental issues respectively (Adams and Kuasirikun 2000). Employee related disclosure is found as the most popular disclosure, community disclosure as widely practiced, while environmental disclosure also rose significantly during the studied period by UK corporations (Gray, Kouhy and Lavers 1995a). Sampled UK and US companies are reported as making more disclosure on community involvement in the social disclosure category (Guthrie and Parker 1990). Human resources theme of the social category is the most disclosed followed by environment in Australia (Trotman 1979).

From developing countries, the most disclosed theme in the social category by Libyan corporations is employee with only 9.2% of the sample making small amount of environmental disclosure (Elmogla 2009). In the social category, labor theme is disclosed the most at 88.09% (Elmogla 2009). Social category items of human resources and community involvement are documented as the most disclosed social items followed by environment category by studied companies in Singapore (Tsang 1998). Human resources disclosure are reported as the most disclosed by listed companies in Malaysia and Singapore (Andrew, Guthrie and Teoh 1989). There are studies that used companies drawn from developed and developing countries. Education and training, environmental management, risk management, environmental accidents, wastes, environmental policy, litigation about environmental issues, land rehabilitation and remediation, sustainable development, air emissions, spill, environmental auditing, water, effluents and environmental spending activities were reported as the most disclosed environmental issues by oil and gas companies from Middle East, North Africa, UK, US (Eljayash, James and Kong 2012). Using global oil and gas companies, greenhouse gas emissions, energy use, hydrocarbon spills, discharge to water, gas flared and environmental management respectively, were found the most disclosed by sampled oil and gas companies (Frynas 2009).

Results from reviewed studies have revealed the nature of SEDs and results are indicating that social disclosure category is the most widely disclosed category by companies from both developed and developing countries. Employee related disclosure in particular is dominant in the social category followed by disclosure on community. Companies from developed countries are making disclosure on environment category. The most disclosed environmental information is biodiversity followed by emissions, effluents and waste, materials, and environmental investment. However, companies from developing countries are not providing environmental information in their SED practices. Therefore, the study expects to find both Nigerian and UK companies making more social disclosure than environmental disclosure. However, there are more growing societal environmental concerns and commitments from governments and corporations of developed countries in recent years (Manickam 2010). Therefore, the study anticipates significant environmental disclosure by UK companies. The quantity (volume) or extent of SEDs is also assessed in the literature.

2.5.2 Quantity (volume) or Extent of Disclosure

Quantity (volume) or extents of disclosure depicts volume of social disclosure which could be obtained by counting number of words, number of sentences, average lines or proportion of pages disclosed. In evaluating quantity of SED, the disclosure index is the main guide for ascertaining what is and what is not SED. A disclosure index is a broad list of selected items that are likely to be in the annual reports and accounts or other documents of corporate organizations (Marston and Shrives 1991). It is also defined as a research instrument used in measuring the extent of information provided by an entity in its documents based on a list of selected items (Hassan and Martson 2010). Similarly, it is seen as a measure of the level of information either voluntary or mandatory provided by corporate organizations. It is calculated on the basis of specific elements observed in the corporate documents (Scaltrito 2015).

Disclosure index in SED studies could be constructed by the researcher or adopt existing disclosure index developed by other researchers (Bushman et al. 2004, Ali, Chen and Radhakrishnan 2007, Hassan and Martson 2010). There are number of SED studies on ascertaining quantity of disclosure in developed and developing countries. In the context of developed countries, the extent of social and environmental reporting by Australian companies is found fairly low (Bhattacharyya 2014). The quantity of disclosure by European companies is reported as high in comparison with companies from Arab Petroleum Exporting Countries (APEC) in a cross-country study (Eljayash, James and Kong 2012). Increasing extents of social disclosure by Australian companies are reported before (2006) and in the Global Financial

Crisis (GFC) year of 2008 (Mia and Al-Mamun 2011). The extents of environmental disclosure by Portuguese companies are documented to have increased over the period 2002 to 2004 (Monteiro and Aibar-Guzmán 2010). From the perspective of developing countries, significant increase in extent of SEDs by Saudi Arabian companies are reported over the period 2010 to 2012 (Aldosari and Atkins 2015). Quantity of social disclosure by listed Palestinian corporations are found fairly low (Alkababji 2014). Significant increase in quantity of social disclosure by Malaysian companies is reported for studies in 2006 and in 2009 (Haji 2013). Social disclosure by listed commercial banks in Malawi is found low disclosing less than one third of items in the social disclosure framework used in the study (Lipunga 2013). The quantity of environmental disclosure by oil and gas companies from Arab Petroleum Exporting Countries is found low compared to disclosure by European companies in the sample (Eljayash, James and Kong 2012). Low quantity of social disclosure is documented in the annual report and accounts of Bangladesh companies (Abu Sufian 2012).

Furthermore, the extent of disclosure on environmental policy, management systems, impacts on biodiversity and target for improvements by Malaysian palm oil companies are reported as low (Othman and Ameer 2010). Bangladesh listed companies' extent of social reporting practices are adjudged as very low (Azim, Ahmed and Islam 2009). Banks in India are found making considerable quantity of voluntary social disclosure in their annual reports and accounts (Hossain and Reaz 2007). Quantity of SED by listed companies in Bangladesh are reported as low (Hossaini, Islam and Andrew 2006). Environmental information provided by listed companies in Hong Kong are found low (Chan and Welford 2005). It could be noted from reviewed studies that companies from developed countries are providing more quantity of SEDs than companies from developing countries. This may be consistent with reported societal concerns on impacts of corporate activities on society and environment on one hand. On the other hand, it may be portraying commitments of governments and corporate organizations to the society and environment in developed countries (Manickam 2010). Therefore, this study expects to find UK companies providing more quantity of SEDs than Nigerian companies. However, following the concept of mutatis-mutandis, disclosure by Nigerian companies are also expected to be significant in comparison to the UK companies. Within the context of this study quantity and volume of disclosure are used to mean the same thing. SEDs studies have also advanced by looking into the quality of disclosures.

2.5.3 Quality of SEDs

In addition to ascertaining quantity of SEDs, studies are also looking into quality of disclosure jointly or separately (Chiu and Wang 2015, van de Burgwal and Vieira 2014, Sulaiman, Abdullah and Fatima 2014, Lu and Abeysekera 2014, Khan and Hassan 2014, Iatridis 2013, Eljayash, James and Kong 2012, Holder-Webb et al. 2009, Clarkson et al. 2008, Hanafi 2006, Elijido-Ten 2004, Kent and Chan 2003). Quality is described as a multi-faceted concept (Frazer 1992); elusive (Neave 1994) hence, it is value laden (Harvey and Green 1993). Thus, quality means different thing to different people, however, it may simply be considered as "degree of excellence" (Chandrupatla 2009). Consequently, quality of SED is also ascertained from different perspectives. First, it could be meaning oriented (rhetorical) aimed at capturing the actual meaning of information in corporate documents (Johnson et al. 2006, He and Baruch 2010).

Second, is specificity quality which measure the degree of precision of provided SED information (Wiseman 1982, Rizk, Dixon and Woodhead 2008, Yusoff, Othman and Yatim 2013, Scaltrito 2015)[29]. Third is compliance which is seen as the act of complying or obedience to a command or request (Hutter 1997, Scaltrito 2015). Compliance quality is employed in SED studies to assess the level to which disclosure comply with the requirement of a developed disclosure index (Clarkson et al. 2008, Lu and Abeysekera 2014, Sulaiman, Abdullah and Fatima 2014). Therefore, in all the three ways of assessing the quality of SED, provided information are scored based on developed or adopted disclosure index (Scaltrito 2015). There are two main types of scoring SED namely; weighted (Barret 1977, Morhardt, Baird and Freeman 2002, Gallego 2006, Branco and Rodrigues 2008, Clarkson et al. 2008, Haji 2013) and unweighted (Hassan and Martson 2010, Zhang 2013, Scaltrito 2015).

In the weighted approach, items of information are considered not of equal importance, thus, different weight is attach to each item based on its specified importance in an already developed weighting scheme (Hassan et al. 2009, Hassan and Martson 2010). The objective of this approach is to differentiate the importance of provided information (Scaltrito 2015). However, attaching weight is fraught with subjectivity in determining degree of relevance (Ashton 1974, Dhaliwal 1980, Scaltrito 2015). The approach could be futile as it tried to encapsulate the subjective weight of multitude of users (Cooke 1989, 1992). Weighted scoring could be carried out using three approaches; first, dichotomous; second, dichotomous and quantitative and

[29] For example; Wiseman (1982) scored quantitative information three (3), Specific but non-quantitative two (two) and one (1) for general information. Yusoff, Othman and Yatim (2013) scored general information one (1), qualitative, two (2), quantitative, three (3) and combination four (4) points.

third, score range (Scaltrito 2015). In the first approach, a score of 1 is assigned if the required information is provided, otherwise 0 is assigned. A score of 2 is assigned if information provided is in quantitative and qualitative terms; 1 is scored if information is only qualitative; while 0 is assigned if the information is not provided in the second approach. In the third approach, range of score for example 0 to 5 established based on defined parameter is used to score an information in consideration of its elements. In the unweighted type of scoring, all information is treated equally (Scaltrito 2015).

Disclosure index is used in SED studies in developed countries from varied perspectives. A scorecard is used to measure the quality of environmental disclosure by listed Dutch companies (van de Burgwal and Vieira 2014). Similarly, the quality of environmental disclosure was measured using a 7 points Likert scale to score disclosed items by listed US companies (Holder-Webb et al. 2009). The quality of environmental disclosure by sampled US firms was assessed by scoring developed environmental disclosure index (Clarkson et al. 2008). Similarly, disclosure index is employed differently in developing countries. Developed disclosure index was scored in determining the quality of social disclosure by listed Taiwanese companies (Chiu and Wang 2015). However, SEDs was measured by obtaining stakeholders perceived importance of each disclosure indicator in their developed GRI disclosure index (Lu and Abeysekera 2014).

The level of quality of SED in studies conducted in developed and developing countries are documented in the literature. Among the less than half of listed Australian companies that make environmental disclosure, the compliance quality of the disclosure is low (Kent and Chan 2003). A specificity evaluation of quality of SED by listed Taiwanese companies conclude that the quality is unsatisfactory especially on environmental information (Chiu and Wang 2015). Similarly, compliance quality of environmental reporting among oil and gas companies in Pakistan is reported as low (Khan and Hassan 2014). Firms with good corporate governance structures, having institutional investors and being audited by the big 4[30] auditing firms are found having higher environmental compliance quality scores among listed Malaysian firms (Iatridis 2013). The compliance quality of environmental disclosure by listed oil and gas companies from Middle Eastern and North African countries is found low compared with disclosure by listed oil and gas companies from developed countries (Eljayash, James and Kong 2012). Compliance quality of SED practices of listed Egyptian companies are reported as low in quality compared to listed UK companies (Hanafi 2006). Likewise, the compliance quality of environmental disclosure is reported as low confined only to provision of general or vague descriptions by listed Malaysian companies (Elijido-Ten 2004). Thus far, compliance quality evaluation of SED is dominant in studies conducted in both developed and developing countries. Similarly, in both contexts the level of the quality is predominantly low.

From the preceding sections, four main research questions are raised. 1) What is the nature of SEDs by sampled listed Nigerian and UK oil and gas companies based on adopted GRI disclosure guidelines? 2) What is the quantity (volume) and quality (compliance) of SEDs by listed Nigerian and UK oil and gas companies? 3) What are the trends of quantity and quality of SEDs by listed Nigerian and UK oil and gas companies 2004 to 2013? 4) What are the differences in quantity and quality of SEDs by listed Nigerian and UK oil and gas companies 2004 to

[30] The big four are not specified in the study. However, the big four (4) auditing firms generally refers Price Water Coopers (PWC); Deloitte; KPMG and KY http://www.accountancyage.com/static/top50-this-year

2013? Content analysis is the most widely used method of determining the nature, quantity and quality of SEDs. Therefore, subsequent section discusses content analysis in general and in Social and Environmental Accounting (SEA) literature.

2.6 Content Analysis

Content analysis is defined as "a method by which selected items of qualitative data are systematically converted to numerical data for analysis" (Collis and Hussey 2014, p. 166). It is a research method in which synthetic classification process of coding and identifying themes or patterns in a text data are employed to allow for subjective interpretation of the context of the data (Hsieh and Shannon 2005). The method is also seen as a research method that takes volume of qualitative material and attempts to identify core consistencies and meanings through reduction and sense making efforts (Patton 2002). Similarly, the method is defined as "a research technique for making replicable and valid inferences from data according to their context" (Krippendorff 1980, p. 21). It is also defined as any technique that systematically and objectively identifies special characteristics of messages for making inferences (Holsti 1969).

The method is associated with the positivist research paradigm (Collis and Hussey 2014) and is described as quantitative analysis of qualitative data (Morgan 1993) which is objective, systematic and quantitative (Berelson 1952). However, the method is described as a diagnostic tool employed by qualitative researchers in trying to make meaning from mass of open-ended material (Mostyn 1985). Content analysis assumes that extent of disclosure signifies the importance of the disclosed topic to reporting entity (Krippendorff 1980). Therefore, the goal of content analysis is to provide knowledge and understanding of the phenomenon being studied (Downe-Wamboldt 1992). The method is useful in developing objective inferences about a subject of interest in any type of communication (Kondracki, Wellman and Amundson 2002). It is particularly considered beneficial in assessing events or processes in social groups when public records exist and is likewise helpful in conducting exploratory or descriptive studies (Carney 1972).

The main strength of this method is that it allows the use of retrospective data and track and detect changes over time and this could be useful for building data base. It helps in eliminating unwanted interaction effects between subject and the researcher (Kondracki, Wellman and Amundson 2002). The method allows for the study of processes that have occurred over a long period of time or that may reflect trends in a social system (Babbie 2013). Despite these strengths, some weaknesses and criticisms of the method have been documented. The method is limited to examining already recorded messages, oral, written, graphic or videotaped which can only permit analysis after being recorded in some different manner (Alston and Bowles 2003). It can only identify relationships and correlations but is ineffective in testing causal relationships between variables (Kondracki, Wellman and Amundson 2002, Alston and Bowles 2003). Quantitative and qualitative content analyses have been used in the SED accounting literature (Kondracki, Wellman and Amundson 2002); however, the focus of this study is on quantitative content analysis.

Quantitative content analysis entails the use of such forms of formal measurements as word frequencies, space measurement, and time counts among others to measure how often an issue is mentioned in documents. In this way, the importance attached to an issue in the document is deduced from its number of occurrence, or the space it occupies in the document (Binsbergen 2013). The method is argued as objective and systematic (Berelson 1952) and quantitative (Berelson 1952, Silverman 1993). Similarly, it is described as a method of quantitative analysis of qualitative data (Morgan 1993); thus, a method associated with the positivist (Collis and Hussey 2014). In order to undertake content analysis certain established steps, need to be followed. These steps begin with data preparation which entails transforming the data in such a way that it allows for analysis based on what the researcher wants to know (Patton 2002). The next step is defining the unit of analysis which could be a theme expressed as single word, a phrase, a sentence, a paragraph or pages of document (Minichiello et al. 1990, De Wever et al. 2006). Subsequent step is development of categories and a coding scheme which could be from the data, previous related studies and theories (Glaser and Strauss 1967). The next step is to test the coding scheme using sample of texts which may help in solving problems associated with definition of categories and ensure coding consistency (Weber 1990). Having achieved coding consistency, it can then be applied to the entire research texts and at this stage the coding consistency need to be assessed again. Drawing conclusions from the coded data is the next step while reporting methods and findings is the last step (Schilling 2006). Content analysis can be undertaken using manual or computer technique.

For long content analysis was being undertaken manually. However, sequel to technological advancement, computer systems are now playing significant roles in conducting content analysis. Obviously, the choice of the appropriate technique to use depends on a number of considerations. These may include the amount of material to be analysed, number of researchers involved in the analysis, their level of experience on the techniques, financial constraints, availability of computers, scanners, and soft wares, long term goal of the research and individual preference which may play a vital role. However, research design lies with human hand and this should not be compromised with computer analysis (Kondracki, Wellman and Amundson 2002). Similarly, computer analysis cannot substitute full reading of texts by human to obtain more valid result. Indeed, there is no computer program that could 'analyse' data for a researcher as computers are not meant to substitute human thought; rather they are aid to strong thoughts. Similarly, computers cannot evaluate context, therefore, the researcher has to do this (Weitzman and Miles 1995b). Therefore, computer soft-wares should only be used where it can reduce the tediousness of work or increase its accuracy (Kondracki, Wellman and Amundson 2002). Despite above shortcomings of the computerized technique, it is discussed that computer coding process is faster and more consistent than manual technique (Smith et al. 1996). Content analysis is described as the most extensively used method of data collection in CSR studies (Gray, Kouhy and Lavers 1995b, Lungu, Caraiani and Dascalu 2011b, Sulaiman, Abdullah and Fatima 2014, Abdulhaq and Muhamed 2015).

2.6.1 Content Analysis in Social and Environmental Accounting Research (SEAR)

SEAR is mostly undertaken from the perspectives of analysing social disclosure as means of corporate accountability; measuring social performance and social disclosure or attempting to find relationship between social disclosure and firms' financial performance. Different approaches to analysis of corporate social disclosure have been documented in the literature. Vourvachis (2007) reports indexing and volumetric approaches; while (Owusu-Ansah 1998) documents frequency and index approaches. However, Gray, Kouhy and Lavers (1995b) stated that content analysis generally follows two paths: namely, number of disclosure and amounts of disclosure[31]. They further argue that, though determining the volume of disclosure involves more work, it provides richer data set than determining number of disclosure. Indeed, determining number of disclosure is subsumed in the determination of volume of disclosure. To determine volume of disclosure, various units of measurement are employed in social disclosure studies. Word counts (Zeghal and Ahmed 1990, Deegan and Gordon 1996, Deegan and Rankin 1996, Campbell, Craven and Shrives 2003, Suttipun and Stanton 2012, Lee 2015); sentence counts (Hackston and Milne 1996, Buhr 1998, Williams and Pei 1999, Tilt 2001, Ogden and Clarke 2005, Branco, Eugenio and Ribeiro 2008, Eugénio 2009); average lines (Patten 2002, García-Ayuso and Larrinaga 2003, Belal and Lubinin 2009); and proportion of pages (Gray, Kouhy and Lavers 1995b, Momin 2006, Lungu, Caraiani and Dascălu 2011) are used and a researcher is free to choose the method considered most appropriate (Williams 1999).

Content analysis has been used to determine the nature and extent (quantity or volume) of SEDs (Trotman 1979, Guthrie and Mathews 1985, Tinker and Neimark 1987, Andrew, Guthrie and Teoh 1989, Guthrie and Parker 1990, Gray, Kouhy and Lavers 1995a, Tsang 1998, Adams and Kuasirikun 2000, Gallego 2006,

[31] Index approach is a quantitative approach to content analysis that looks for the presence or absence of an item of disclosure (Vourvachis, 2007). It could be undertaken by using a simple binary scheme of 1 and 0 for the presence and absence of disclosure (Haji, 2013; Clarkson et al., 2008; Vourvachis, 2007; Branco and Rodrigues, 2006; Gallego, 2006). Similarly, it could be undertaken following weighted approach by assigning weight based on perceived importance of the disclosure (Mahmoud, 2009; Holder-Web et al., 2009; Morhardt, Baird and Freeman (2002). In the Frequency approach, the number of occurrence of disclosing an item of information is recorded in studied document to determine how frequent it is in the document (Owusu_ansah, 1998).

Belal and Momin 2009, Belal and Lubinin 2009, Sotorrío and Sánchez 2010, Alazzani and Wan-Hussin 2013). For instance, Gallego (2006) used content analysis by detecting the presence or absence of information to assess SEDs by listed companies in Spain. Similarly, Alazzani and Wan-Hussin (2013) employed content analysis in detecting the presence or absence of disclosure. Other studies have employed the method to determine quality of disclosure (Kent and Chan 2003, Thompson and Zakaria 2004, Clarkson et al. 2008, Saleh, Zulkifli and Muhamad 2010, Eljayash, James and Kong 2012, Iatridis 2013, Sulaiman, Abdullah and Fatima 2014, Lu and Abeysekera 2014, Chiu and Wang 2014). From this perspective, Wiseman (1982), Cormier, Magnan and Velthoven (2005), Sulaiman, Abdullah and Fatima (2014) and Lee (2015) employed content analysis to score disclosures in obtaining quality of information provided. When undertaking content analysis in social disclosure studies, either manually or using computer, the documents of the disclosure should be identified.

2.6.1.1 Documents of Social Disclosure

There are varied mediums through which corporate organizations disclose their social and environmental impacts and commitments. These include annual reports and accounts, stand-alone sustainability reports, websites, brochures[32]. However, annual reports and accounts are considered important documents when trying to understand the social world of corporate organizations. Annual reports are "... a permanent expression of those social issues which top management regard as important and wish to communicate to shareholders and the public, and so are a record of the entity's historical social consciousness"

[32] The focus of this study is mainly on annual reports and accounts and sustainability reports.

(Macintosh 1990, p. 168). Similarly, corporate annual reports and accounts are the medium through which corporate organizations are communicating with the outside world as media for discharging accountability (Zeghal and Ahmed 1990, Gray, Kouhy and Lavers 1995b).

Furthermore, it is the foremost legal document produced regularly in which corporate organizations can present the political, social and economic systems within which they are operating (Gray, Kouhy and Lavers 1995b). It is a medium through which corporate organizations construct their social imagery (Hines 1989). It is also a mandatory requirement for all publically listed companies to publish them annually. Thus, corporate organizations that consider SEDs an important aspect of their operations, disclose such through this important medium of corporate communication. The advantage of annual report and accounts of listed companies is that it can be easily accessed in hard and electronic copies (Yusoff and Lehman 2005). It is under the editorial control of the company, thus, it is without any journalistic interpretation and distortions and it facilitate comparison over time (Lavers 1993).

However, corporate commitments to disclosing social and environmental impacts of their activities resulted in the emergence of stand-alone annual corporate social responsibility reports. These reports in addition to possessing some of the benefits of annual reports indicates corporate commitments to providing stakeholders with useful information for rational decision making on social and environmental issues (Jollands, Akroyd, and Sawabe 2012). Stand-alone reports are also considered as new forms of responsibility and accountability by corporate organisations on their social and environmental activities (Bebbington 2007). Similarly, stand-alone reports are contended as means of providing the society with information aimed at influencing their decision making for giving continued legitimacy to corporate operations (Jollands, Akroyd, and Sawabe 2012). Having identified the relevant documents to be analysed, the next step is to identify the location of SEDs most especially in the annual report and accounts.

2.6.1.2 Location of Social and Environmental Disclosures

Chairman's statement; a separate section for social disclosure; auditors' statutory section; directors' report and review of the year are preferred locations for social disclosure (Kirkman and Hope 1992). On the contrary, it is opined that there is no persuasive reason on why any location should be preferred (Gray, Kouhy and Lavers 1995b). Indeed, imposing 'location' for social data disclosure could lead to losing the richness of the data (Guthrie and Mathews 1985, Guthrie and Parker 1990). With location of disclosure identified, the measurement unit to be used should be well defined.

2.6.1.3 Measurement Unit

Unerman (2000) reported on the existence of various alternatives to measuring the amount of CSR reporting. The use of words (Zeghal and Ahmed 1990, Deegan and Gordon 1996, Deegan and Rankin 1996, Campbell, Craven and Shrives 2003, Suttipun and Stanton 2012, Lee 2005); sentences (Hackston and Milne 1996, Buhr 1998, Williams and Pei 1999, Tilt 2001, Ogden and Clarke 2005, Branco, Eugenio and Ribeiro 2008, Eugénio 2009); average number of lines (Patten 2002, García-Ayuso and Larrinaga 2003, Belal and Lubinin 2009) and proportion of pages (Gray, Kouhy and Lavers 1995b, Momin 2006, Lungu, Caraiani and Dascălu 2011) are evident in the literature. Number of words record disclosure levels in greater detail (Zeghal and Ahmed 1990, Deegan and Gordon 1996) is easier to be categorized (Weber

1990, Wolfe 1991). Thus, it is expected to reveal quantity of disclosure (Zeghal and Ahmed 1990). Similarly, word is the smallest unit of measurement and is expected to provide maximum robustness when assessing quantity of disclosure (Wilmshurst and Frost 2000). Word is perhaps the smallest meaningful unit of text that ensures agreement among different analysts in content analysis (Krippendorff 2004). However, it is noted that when analysing large volume of textual data, the use of word count may be tedious. In this regard, Hackston and Milne (1996) opined that, the researcher may be pondering which individual word is and not CSR disclosure when measuring amount by the number of words. Similarly, individual word alone without sentence or sentences has no meaning to provide sound basis of coding social disclosure (Hassan 2012).

Another unit of analysis is sentence which is conventional unit of speech and writing, and therefore, can be counted with more accuracy than words. Similarly, meaning can be discerned from sentences more easily than words. Sentence is a more natural unit of written English than word and overcome the problem of counting words and allocation of proportion of pages (Hackston and Milne 1996, Walden and Schwartz 1997). However, despite these apparent merits of using sentence as unit of analysis, it is criticized for possibility of ignoring differences in the use of grammar in that same message using similar words and space could be conveyed in different number of sentences (Unerman 2000). Some studies have also used proportion of page to measure the extent of disclosure. Using proportion of page is argued as the most preferred unit of measurement as it reflects the total amount of space devoted to a topic, thus, portraying the importance of the topic to the reporting entity (Gray, Kouhy and Lavers 1995b, Hassan 2012). It is considered an easier and more reliable measurement unit that could be employed by hand (Gray, Kouhy and Lavers 1995b, Hassan 2012). However, corporate annual documents may differ in terms of page, column and print sizes from one company to another and this is one of the criticisms of this unit of measurement. Information could also be lost from differences in margins in using transparent grids (Ng 1985). Thus far, different measurement units employed in social disclosure studies each with its merits and demerits have been outlined. The choice of which unit to use is dependent on the researcher as the literature does not provide any theoretical justification for choosing any one unit (Williams 1999). Having chosen unit of analysis to be used in content analysis, defining the content categories is the next step.

2.6.1.4 Defining Content Categories

Defining what constitutes social disclosure categories is an important process in conducting content analysis. By identifying the social disclosure categories, researchers are guided on what is and is not social disclosure and under which category should each disclosure be placed. The study by Ernst and Ernst (1978) is probably the first well-established survey on CSR that uses content analysis (Momin 2006). They employed 7 social disclosure categories of environment, energy, fair business practices, human resources, community involvement, products and other social responsibilities disclosed (Ernst and Ernst 1978). However, Gray, Kouhy and Laver (1995b) reported that main stream CSR literature identifies 4 disclosure categories of natural environment; employees; community and customers. However, they also added "other" as the fifth category to capture emerging meanings of CSR. Other studies employed more categories of disclosures, for instance, Bhattacharyya (2014) used 8 categories of employees; customers and communities; integrity and ethics; diversity, opportunity and human rights; environment general;

energy, water and materials; pollution and waste management and others. Sulaiman Abdullah and Fatima (2014) used 9 categories of pollution abatement or environmental pollution control including Key Performance Indicators (KPI); sustainable development reporting; environmental management; environmental awards, objectives and other achievement; environmental related financial information; stakeholder engagement; negative information and information relating to laws and regulation; land remediation and contamination; other environmental related disclosure; other environmental initiatives/improvements. Another important aspect of content analysis is ensuring the reliability of its results.

2.6.1.5 Reliability of Content Analysis

Reliability is the extent to which same results could be obtained on repeated trials of experiments, tests or any measurement procedures (Carmines and Zeller 1991). SED studies have adopted measures to achieve this. Milne and Addler (1991) argued that reliability in content analysis has two separate but related issues. Firstly, verifying the reliability of the data usually achieved by using multiple coders to report few discrepancies and or ensure that reported significant differences are resolved. Alternatively, if the coder is sufficiently trained on content analysis, the reliability could be achieved (Momin 2006). Secondly, reliability associated with the coding instruments themselves which is discussed as capable of reducing the need for using multiple coders (Milne and Adler 1999, Momin 2006). Three ways of testing for reliability are widely used in social disclosure studies. First, is the test-retest which measures the stability of results from a measurement instrument over time. Second is inter-coder reliability which is the extent of obtaining same results when content classifications are coded by different coders (Weber 1990) or the achievement of the same coding from various coders (Krippendorff 1980). Third is internal consistencies or accuracy which indicates how well different items purporting to measure the same issue reports the same results (Litwin 1995). This study adopts content analysis in order to assess the quantity and quality of SEDs by listed Nigerian and UK oil and gas companies. However, being a comparative study between Nigerian and UK oil and gas companies, it might be useful to review existing literature on comparative studies.

2.7 Comparative Studies

Comparative studies are conducted in SED studies from varied perspectives. The comparison could be cross industry (Gray, Kouhy and Lavers 1995a, Murray and Gray 2006, Reverte 2009, Tagesson et al. 2009, Sotorrío and Sánchez 2010, Suttipun and Stanton 2012, Rouf 2011, Walker and Jones 2012, Nandi and Ghosh 2013, Zhang 2013, Tauringana and Chithambo 2015). It could be between different countries in the same region (Adams, Hill and Roberts 1998, Wagner et al. 2002, Naeem and Welford 2009, Ionel-Alin 2012, Akrout and Othman 2013, Bonsón and Bednárová 2015); or between different countries across different regions (Hanafi 2006, Rizk 2006, Eljayash, James and Kong 2012, Chong 2014). Studies that focus on studying different countries across different regions could also take the form of comparing developed countries from different regions (Meek, Roberts and Gray 1995, Hussein 1996, Boesso and Kumar 2007, Michelon 2007, Michelon and Parbonetti 2012); developing countries from different regions (Uwalomwa 2011a) or comparing developed and developing countries (Hanafi 2006, Rizk 2006, Adnan, van Staden, and Hay 2010, Greccoa et al. 2013); this study takes the last form. However, there are SED studies that compared UK and other developed countries. Therefore, it might be interesting to review findings from such literature in order to see the performance of UK among its peer developed countries.

2.7.1 Comparative Studies Between UK and Other Developed Countries

Previous studies in the literature have studied the SED practices of sampled UK companies as compared with sampled companies from other developed countries. Relating social disclosure to legal and cultural contexts; companies from UK classified as having low uncertainty avoidance are found making less disclosure than companies from Italy, Spain and Greece ranked as high uncertainty avoidance countries (Adelopo, Moure and Obalola 2013). However, sampled UK companies are ranked among countries with highest level of environmental disclosure in studied companies drawn from European countries (Ionel-Alin 2012). In a study involving companies s from European countries and the US; sampled UK companies are found among companies with the highest extent of disclosure (Michelon 2011). UK firms emerged as pioneers of corporate social reporting among sampled companies from European countries (Apostolakou and Jackson 2009).

From a comparative study of social disclosure practices of six European countries of Netherlands, Sweden, Switzerland, France, Germany and UK; sampled UK companies are reported as second to Germany on ethical disclosure; and second to Swedish companies on environmental and employee disclosure (Adams, Hill and Roberts 1998). Companies from continental Europe are documented as making more voluntary disclosure than UK and US companies in a study that looked into voluntary non-financial disclosure between US, UK and continental Europe (Meek, Roberts and Gray 1995). However, companies from both continental Europe and UK make more disclosure than US companies (Meek, Roberts and Gray 1995). Thus, UK companies have performed well on their SED practices among peer developed countries. Therefore, UK companies in this study are expected to maintain such feat. Consequently, this study expects sampled UK oil and gas companies in this study to perform better on comparison with Nigerian oil and gas companies. There are also literature findings on comparative studies of SED practices of other developed and developing countries; so also UK and other developing countries as presented below.

2.7.2 Comparative Studies Between Developed and Developing Countries and UK and Developing Countries

In order to better understand disclosure practices between UK and other developing countries, some literature findings on studies between other developed and developing countries are presented first. Listed Spanish companies are reported as making more quantitative and qualitative disclosure than Brazilian companies attributing the findings to high social expectations and pressure faced by companies in developed countries like Spain (Greccoa et al. 2013). Disclosure by companies from both countries are argued as legitimacy tools employed due to the sizes of the companies (Greccoa et al. 2013). However, corporate social disclosure was not found statistically different between sampled Brazilian and French companies (Oliveira, Ponte Junior and Oliveira 2013). Sampled Australian companies were found making more corporate social disclosure than sampled companies from Singapore and South Korea except on training and empowering of employees in which Singapore has the highest levels of disclosure (Newson and Deegan 2002). There are also studies that specifically studied the SED practices of UK and developing countries.

UK companies are found presenting more precise information about employment social performance indicator through the provision of detailed descriptions, statistics and graphs to demonstrate the factuality of the disclosure (Chong 2014). UK companies are also documented as not only giving detailed disclosure on employee's health and safety; they also report number of injuries and accidents at work place (Chong 2014). Similarly, UK companies employ a mechanism of third party monitoring of their social disclosure by administrative auditing or by professional auditing firms (Chong 2014). Sampled UK companies are also found leading in the adoption of international standards and conventions such as International Labour Organizations (ILO) standards on human rights. Similarly, they are found leading in attaining international certifications such as ISO9001 and ISO14001 on product quality and safe manufacturing and OHSAS18001 on health and safety at work place (Chong 2014). Likewise, Chong, (2014) found UK companies leading in adopting international voluntary social disclosure guidelines such as the United Nations Global Compact (UNGC) and the GRI.

In a comparative analysis of corporate social disclosure between UK, China and India; UK companies are documented as the best reporters in terms of quantity and quality (Adnan, van Staden, and Hay 2010). Standalone sustainability reports common to UK companies is found contributing to the quanity and quality of disclosure by sampled UK companies. However, disclosure in the annual reports of UK companies are also better than in annual reports of companies from China and India. This is suggesting that corporate social and environmental information are less disclosed in the annual reports of sampled companies from these developing countries. Indeed, when UK companies are removed from the sample, there are no variations in the disclosure practices of Indian and Chinese companies (Adnan, van Staden, and Hay 2010).

Similarities in patterns of social disclosure were found between sampled UK and Egyptian companies; however, UK companies have high levels and incidences of disclosure (Hanafi 2006). Sampled UK companies are also found making more detailed disclosure and there are variations in most and least disclosed categories between sampled companies from the two countries. Likewise, UK companies are making more mandatory disclosure in their annual reports and accounts than Egyptian companies. The study concluded that, on the overall the quantity and quality of disclosure in Egypt are lower than in UK (Hanafi 2006). Similarly, increasing disclosure trend is found on environmental disclosure among sampled UK companies and is not found among Egyptian companies (Hanafi 2006). Sampled UK companies are found to have widely moved to the publication of stand-alone sustainability reports, web-disclosure, incorporating more social issues and are making better disclosure than sampled Indian and Egyptian companies (Rizk 2006). Therefore, comparative findings on SED practices of other developed and developing countries and UK and other developing countries reveal that developed countries are making more disclosure than developing countries. Thus, it is anticipated that UK companies are making more disclosure compared to Nigerian companies. The focus of this study is on SED practices of listed Nigerian oil and gas companies compared with UK oil and gas companies. Thus, it might be important to look into the global oil and gas industry in general here while the oil and gas industries of Nigeria and UK dealt with in chapter three.

2.8 The Global Oil and Gas Industry

Incorporation of coal and petroleum in to new steam engines played an important role in the industrial revolution that took place in the last part of the eighteenth century (Paul 2006). The revolution marked the beginning of new ways of life as these fossil fuels replaced the use of wind, water and wood in the textile and iron industries. This resulted in not only increasing industrial production capacity, but also, positively affected all human needs including food production, clothing, housing, medicine (McLamb 2011). Since then, fossil fuels have remained the primary source of global energy (Paul 2006, IEA 2015).

The International Energy Agency (IEA 2015) reports that global Total Primary Energy Supply (TPES) was 13,541 million tonnes of oil equivalent for the year 2013. It further reported the proportion of supply sources as oil 31.10%; natural gas 21.40%; coal/peat 28.90%; nuclear 4.80%; Biofuels and waste 10.20%; hydro 2.40%; and others 1.20% (includes geothermal, solar, wind, heat etc.). Thus, oil and gas contributed 52.50% of the total primary energy supply in 2013. Oil and gas is expected to maintain this important role as it is projected that global energy consumption would rise 60% of current levels of 4105Mtoe by 2020 and oil and gas will play a significant role in meeting this increment (IEA 2012, BP 2012). This might be consistent with global huge proved reserves of 239.40 trillion tons of oil and 6599.40 trillion cubic feet of gas as at end of December, 2015 (BP 2016). However, despite its significant role as primary source of energy supply, activities of the oil and gas industry have many negative social and environmental impacts.

2.8.1 Social and Environmental Impacts of the Oil and Gas Industry

The use of poisonous chemicals by oil and gas companies in onshore and offshore operations are reported to be causing asthma, tuberculosis, skin diseases, kidney infection and throat cancer in Indus Delta (Hadi 2015). Discharging of waste water by oil and gas companies is found as negatively affecting agricultural livelihood of local communities around Karo Goongro stream in Pakistan (Hadi 2015). Zabbey (2004) reported that oil and gas exploration leads to narcotic effects, mortality of fish and other organisms in Nigeria. Similarly, fall in hunting and fishing, social deprivations of indigenous people are some global social problems from oil and gas activities (SnethKamp and Macklin 2004). Shift or loss of local employment from traditional to non-traditional labour, destabilisation of local purchasing power, strain on local social services and possibility of bust after depletion of resources are social problems from oil and gas operations in United States of America (Robert 1998). Statistical correlation of oil rents and lack of gender representation in oil rich countries of Oman, Saudi Arabia, Qatar and the United Arab Emirates have been found (Ross 2008)[33].

The oil spill of Gulf of Mexico in 2010 amounting to 205.80 million gallons of oil that spread 580 square miles causing extensive damage to marine life, eroding income of people dependent on it, hypothermia and drowning of birds, interrupting breeding and breeding ground for different species is yet another major global oil spills (Garg and Gokavaparu 2012). Other major spills includes MT Haven tanker oil spill in the coast of Italy in 1991 that spilled 45 million gallons of oil; ABT oil spill in the coast of Angola in

[33] This is demonstrated by few women in their workforce and score the lowest on the Gender Development Index (GDI).

1991 that spilled 51 to 81 million gallons of oil; 40.70 million gallons of oil spilled in the Odyssey oil spill in the coast of Canada in 1988; Exxon Valdez oil spill of 1989 in the coast of Alaska which spilled 11 million gallons of oil; Ixtoc 1 oil spill in 1979 that spilled 140 million gallons of oil (Moss 2010). Increased deforestation, logging and hunting are reported as a result of opening access to otherwise inaccessible areas by constructing access roads for drilling platforms, and pipeline routes by oil and gas companies (Finer et al. 2008). Wildlife disturbance and loss of species; air pollution, water and soil contamination; deforestation and indiscriminate waste disposal are reported as some of the environmental problems of oil and gas exploration activities (Ugochukwu and Ertel 2012). IEA (2015) reported that the oil and gas industry accounted for 17,189.46 million tons (53.40%) of the globally emitted 32,190 million tons of carbon dioxide as at end of December, 2013.

The oil and gas industry is reported as flaring 140 billion cubic metres of gas annually (World Bank 2013) which has several negative health and environmental impacts (Alemagi 2007)[34]. Water produced from oil operations and drilling waste are reported as containing heavy quantity of metals and other naturally occurring materials that poses environmental, health and safety concerns (Epsteinand Selber 2002). Some oil and gas companies are found discharging these toxic drilling wastes into the sea instead of re-injecting them deep underground which is the best internationally accepted practice (Corporate Watch 2001). Similarly, oil and gas companies are reported as subverting efforts to fight climate change by denouncing the

[34] The United Kingdom Offshore Operators Association (UKOOA) documents that Gas flaring from oil is reported to be emitting such ozone damaging gases as Chlorofluorocarbons (CFCs, Hydro fluorocarbons); ozone forming snog gases like Volatile Organic Compounds (VOCs) and acidifying gases such as Nitrogen Oxides (NOx) and Sulphur Oxides (SOx; UKOOA, 1997).

science of climate change, denouncing Kyoto Protocol (KP), and playing down developed and developing countries who are principal parties to the protocol against each other. Some of the companies are reported as contributing millions of US dollars to campaign against the KP (Corporate Watch 2001). However, the oil and gas industry is recently reported as following good practices of disclosing the social and environmental impacts of its activities (Krishna et al. 2012). It is even reported as leading other industries in championing CSEDs Frynas (2005, 2009). Below are literature findings on SED practices of the oil and gas industry.

2.8.2 Corporate Social and Environmental Disclosure in the Oil and Gas Industry

Although the oil and gas industry is associated with lots of social and environmental problems as demonstrated in the preceding section; the industry is found leading other industries in championing CSR. Frynas (2005, 2009) argues that the industry now attaches more importance to its social and environmental impacts and community engagement than in the past. Indeed, evidence of increasing advancement in the growth of SED is reported in that largest mining companies now disclose information on the social and environmental impacts of their activities, although, variations abound in the maturity of reporting content and styles (Jenkins and Yakovleva 2006). This is consistent with Gallego (2006) who concludes that oil and gas firms report the most on social and environmental information. Similarly, Alazzani and Wan-Hussin (2013) reported that studied companies made reasonable environmental disclosure on habitats protected or restored; initiative to reduce greenhouse gas emissions and reduction achieved; and total number and volume of significant spills following the GRI guidelines. However, lack of environmental accountability by oil and gas companies in

Nigeria attributed to weak government regulations; non-recognition of host communities as powerful stakeholders; and non-recognition of Nigerian public as legitimate stakeholders is reported (Hassan and Kouhy 2015). Related to this finding, oil and gas companies in Nigeria are documented as using voluntary environmental reporting to under-report their environmental effects (Dibia and Onwuchekwa 2015).

Varfolomeev et al (2014) reported that sampled oil and gas companies made disclosure on greenhouse gas emissions, number of accidents leading to temporary disability and efficient use of energy. Sampled Australian oil and gas companies are found making disclosure on environmental policies and concerns, climate change, and information on environmental regulations (Eltaib 2012). Similarly, information relating to biodiversity and land use are significantly disclosed especially the sub-categories of location and size of land owned, leased and used and few disclosures on land reclamation and reforestation. The largest four companies are found making more disclosure which includes disclosure on greenhouse gas emissions and efforts to reduce air emissions; while material usage, products and services are the least reported by all sampled companies. However, all the companies are not making disclosure on sources, depletion and consumption of crude oil and natural gas (Eltaib 2012).

Strong commitment is reported among oil and gas companies either as IOCs; National Oil Companies (NOCs) or Service Companies (SC) to do their businesses in ways that reflects society’s expectation of how they should perform on social and environmental issues (Krishna et al. 2012). Sampled oil and gas companies are found providing information on health and safety of workforce, use of oil and gas natural resources and commitment to development of host communities (Krishna et al.

2012). Similarly, sampled companies in the supply chain of UK oil and gas industry are making disclosure on energy consumption, chemicals and waste management, staff working condition and use of water resources (Yusuf et al. 2012). All ten listed of oil and gas companies from Organization for Economic Cooperation and Development (OECD) countries made disclosure on greenhouse gas emissions; nine made disclosure on gas flaring and energy; while eight made disclosure on waste. Corresponding to these, six out of the sample from non-OECD countries made disclosure on greenhouse gas emissions; two made disclosure on gas flaring; and three each made disclosure on energy and waste (Frynas 2012). Dong and Burritt (2010) found listed Australian oil and gas companies to have perform well in reporting information on human resources, concluding that there is relatively poor disclosure and that environmental disclosure are declarative and positive.

Using GRI disclosure guideline, oil and gas companies are reported as providing 81.70% of the disclosure indicators of the guideline (Echave and Bhati 2010). 75% of surveyed oil and gas companies issue external reports pertaining environmental and safety performance with environment being the most reported, followed by health and safety and social/community investment (Depraz et al. 2004). Listed oil and gas companies are reported as making investments on employee training aimed at accident prevention and making employees more ethically responsible and this resulted in reduction in incidences of oil spill and fatalities (Fadul and Maurer 2004). Workforce in the sample is also becoming more diversified with women and minorities attaining management positions. Similarly, sample companies are now committed to solving social problems of their host communities in areas of health, education and local economic development (Fadul and Maurer 2004).

Sampled UK oil and gas companies used in inter and intra-sector analyses of environmental disclosure are found making more disclosure than chemical companies, retails and breweries (Campbell 2003). UK oil and gas companies are reported as making more financial disclosure followed by environmental and then social disclosure and that there are variations between disclosure in Colombia and Peru (Moser 2001). However, in a study of the environmental reports of 20 oil and gas companies there are no clear data on gas flaring/venting; drilling waste; accidental oil spills; operating and capital expenditures relating to the environment; relationship between environmental targets and amounts spent to achieve the targets (Molinari, Ratti, and Fondazione 1998). Conversely, it is said that oil and gas companies have realized the importance of measuring and reporting their sustainability performance to stakeholders not only as a means to contributing to global sustainability but a means to clarify the industry's' position to external stakeholders (Depraz et al. 2004).

Nonetheless, despite above reported improvement in social disclosure in the oil and gas industry, variant disclosure levels between countries of APEC and oil and gas companies from developed countries is reported concluding that on the overall, the latter makes better disclosure than the former (Spangler and Pompper 2011, Eljayash, James and Kong 2012). Studies on social disclosure are being guided by established disclosure guidelines. These could be based on disclosure indexes developed by individuals such as Ernst and Ernst (1978); Wiseman, (1982) or disclosure indexes developed by the researcher or adopted and modified indexes. Similarly, coalitions of international organisations have issued global guidelines to guide corporate organisations on making social disclosure which social researchers are using to develop indexes. This study focuses on the global guidelines as discussed below.

2.9 Global Social and Environmental Reporting Guidelines

The global guidelines meant to assist corporations in making SEDs are classified into: 1, principle-based initiatives such as the UNGC though Kimbro and Cao (2011) see it as a standard[35] and the Organisation for Economic Cooperation and Development Guidelines for Multinational Enterprise (OECDGME). 2, certification initiatives such as Accountability 8000; 3, reporting initiatives such as GRI also seen as a standard by Kimbro and Cao (2011) and the Oil and Gas Industry Guidance on Voluntary Sustainability Reporting (OGIGVSR) and 4, process-based initiatives such as the standards issued by AccountaAbility (Rasche, Gilbert and Waddock 2011, 2012). The reporting initiatives as classified by Rasche and Gilbert (2012) and Gilbert, et al (2011) are seen as frameworks that define and provide broad lists of indicators and guidelines for improving SEDs (Owen and O'Dwyer 2008). This study use a reporting guideline which is also argued as a standard (Kimbro and Cao 2011) to develop disclosure index. However, due to the apparent role of UNGC in the development of global corporate social responsibility, its discussion is presented below.

2.9.1 The United Nations Global Compact (UNGC)

The Global Compact (GC) is a United Nations (UN) initiative launched in July, 2000 asking companies to hold to universal

[35] Standard "provides templates as to how to report about a firm's commitment and performance in areas related to social and environmental goals" (Kimbro and Cao, 2011, p. 289).

principles and partner with the United Nations. The initiative has grown to become a platform that the UN is using in effectively engaging global enlightened business (United Nations 2013). It is designed to encourage companies to act as socially responsible members of the international community by committing to ten principles covering four broad areas of human rights, labour, the environment and anti-corruption (United Nations 2010). Thus, Kofi Anan (Former UN Secretary General) argues that the global compact is meant to lay solid foundations of shared values and principles, to give human faces to global businesses (United Nations 1999). The principles of the compact are drawn from the 1984 Universal Declaration of Human Rights (UDHR); 1992 Rio Declaration on Environment and Development (RDED), 1998 International Labour Organisation Fundamental Principles and Rights at Work (ILOFPRW), and the 2003 UN Convention against Corruption (United Nations 2007). The mission of the global compact is to work for the advancement of the ten universal principles of the UN (United Nations 2007). Implementation of these principles is expected to achieve the overall policy thrust of the compact which Williams (2004) opines is to articulate the moral resolution of business as summarised by Mr Kofi Anan.

> "Let us choose to unite the power of markets with the authority of universal ideals. Let us choose to reconcile the creative forces of private entrepreneurship with the needs of the disadvantaged and the requirements of future generations" (United Nations 2007).

Janney, et al (2009) point out that UNGC is a voluntary initiative to support the UN in four broad areas of human rights, labour, environment and anti-corruption. The compact is seen as a multi-stakeholder initiative composing of diverse participants, the UN, governments, companies, labour and civil society organisations

(Deva 2006). Thus, the UN global compact is seeking to promote global economic development in ways that are perceived to be more beneficial to the society by following its ten principles (Waddock 2004). Its main objective among others is to make the ten principles integral parts of business activities around the world so as to provide solutions to fundamental challenges facing business and society. This is achievable by utilising the moral authority and convening power of the UN and solutions finding strength of businesses to create platform of sharing expertise and capacities between participants in the compact (Clapp 2005). The compact is also expected to drive broader goals such as the millennium development goals (Kimbro and Cao 2011). Relevant literature has linked the compact to corporate social responsibility which is the focus of this study.

The UN global compact is claimed as an important milestone in the history of global corporate social responsibility (Post 2012). In fact, there was lack of strong influential body to promote corporate social responsibility prior to the compact (Scherer and Palazzo 2008). Thus, the compact is seen as the first step towards managing global corporate social responsibility (Bitanga and Bridwell 2010). Indeed, McKinsey (2004) reported that the compact has expanded international awareness on CSR principles, human rights, fair labour practices and environmental considerations especially among Multinational Corporations (MNCs). Similarly, membership and reporting based on the UNGC is found beneficial on corporate responsibility reporting (Chen and Bouvain 2009). For instance, 95 per cent of the 391 Chief Executive Officers (CEOs) interviewed admitted to adoption of corporate social responsibility through the GC (Bielak, Bonini and Oppenheim 2007). However, the global business community perceive the compact as a step towards global regulation that may hamper economic growth (Rasche and Gilbert 2012). The compact also lacks enforcement mechanisms or independent monitoring provisions, thus, it is regarded as inadequate (Rasche and Gilbert 2012, Kell 2005, Williams 2004).

Thus far, the compact has been reported useful on corporate social responsibility and has equally being criticised. On the overall, the four broad areas of human rights, labour, environment and corruption covered by the compact are essentially social and environmental issues. Therefore, it could be argue that disclosure made on the basis of the compact are contributions to CSEDs. The compact is seen by this study as an important milestone to the ever growing standards, guidelines, frameworks on SEDs. One of these is the GRI discussed in ensuing section.

2.9.2 The Global Reporting Initiative (GRI)

This is a non-profit organisation working to contribute to sustainable global economy through its sustainability reporting guidance (GRI 2013). It is a multi-stakeholder, international guideline whose mission is to develop and propagate globally appropriate and acceptable sustainability reporting guidelines for voluntary use by organizations reporting on the economic, environmental, and social dimensions of their activities, products and services. The guideline is designed for use by organisations of any size, sector, or location as a common framework for reporting economic, environmental and social performances (GRI 2002). Another mission of the guideline is to elevate the quality of sustainability reporting to a higher level of comparability, consistency and utility (GRI 2002)[36]. The vision of the guideline

[36] The guideline intends to achieve its mission and vision by adapting to its reporting principles which are fundamental to achieving transparency in

is summed up by Coalition of Environmentally Responsible Economies (CERES) one of the founding members:

> "The GRI vision is to improve corporate accountability by ensuring that all stakeholders - communities, environmentalists, labour, religious groups, shareholders, and investment managers – have access to standardized, comparable, and consistent environmental information akin to corporate financial reporting. Only in this fashion will we be able to (1) use the capital markets to promote and ensure sustainable business practices; (2) measure companies' adherence to standards set from CERES principles; and (3) empower non-governmental organizations around the globe with the information they need to hold corporations accountable" (CERES 1997, p. 3).

The guideline is aimed at promoting and developing standardized approach to sustainability reporting. The first version of the guideline was released in June 2000 (GRI 2002). The second version considered more comprehensive was released September, 2002 (GRI 2002, Hedberg and Malmborg 2003). The third version was released in 2006 and revised in 2011 (GRI 2011); while the fourth and most recent version, G4 was released on 22 May, 2013 (GRI 2013). The literature has documented the usefulness of GRI guidelines in social disclosure studies. Alonso-Almeida, et al (2014) opined that GRI is a framework of judging organisation's sustainability. Thus, Marimon, et al (2012) asserted that the objective of the guideline is to provide information strategy to present a clearer vision of the human and ecological impacts of an enterprise. Its main function as identified by Alonso-Almeida (2014) is enabling shareholders and other stakeholders to make well informed decision regarding

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sustainability reporting. The principles are one, for defining report content covering stakeholder inclusiveness, sustainability context, materiality and completeness; two, for defining report quality encompassing balance of the report, its comparability, accuracy, timeliness, clarity, and reliability.

investments and purchasing of goods and services from companies.

The GRI guideline provides the opportunity to compare information and benchmark different organisations (Ioannou and Serafeim 2012). This attribute is argued as elevating it to have the same rigor as financial reporting, allowing for comparability, enhancing audit and acceptability of corporate social responsibility (Willis 2003, Alonso-Almeida, Llach and Marimon 2014). Thus, the guideline has made sustainability measurement more systematic and allows for comparison of different companies (Asif et al. 2011). The guideline has decreased information asymmetry between firms, investors and other stakeholders by providing more precise valuation of companies as a result of incorporating sustainability attributes (Lozano and Huisingh 2011). Indeed, it is acknowledged as the most widely used sustainability reporting standard worldwide (Skouloudis, Evangelinos and Kourmousis 2009, Rasche 2009, Brown, de Jong and Levy 2009, Prado-Lorenzo et al. 2009, Levy, Brown and de Jong 2010, Marimon et al. 2012, Roca and Searcy 2012); although it has its criticisms.

The guideline is regarded as extremely general and contains many indicators that are not used by companies (Goel 2005). Likewise, the guideline has failed to attract small businesses and non-governmental organisations; has failed to attain the status of corporate financial reporting and failed in advancing Socially Responsible Investments (SRI). Another criticism is that reporting based on GRI guidelines do not clearly show an organisation’s progress on sustainability as there are no quality controls to the reports or the process of producing them (Levy, Brown and de Jong 2010). The guideline partially allows companies off the hook as companies could be GRI compliant although looking at the least impactful aspect of their business and this a limitation. For instance, McDonald's mention little on agricultural issues where its major impacts lie in its 2002 sustainability (Tiong and Anantharaman 2011). Thus far, it could be argue that GRI is playing important role in enhancing CSEDs being the most widely used reporting guideline. However, one of the criticisms of the guideline is it is extremely general (Goel 2005). Such criticism and calls for industry specific disclosure guidelines (Marrewijk 2003) could be reasons for the development of disclosure guidelines specifically for the oil and gas industry.

2.9.3 The Oil and Gas Industry Guidance on Voluntary Sustainability Reporting (OGIGVSR)

The guideline was developed and issued by the International Petroleum Industry Environmental Conservation Association (IPIECA)[37]; American Petroleum Institute (API) and Association of Oil and Gas Producers (AOGP) in 2005. It is a voluntary corporate social responsibility reporting guideline intended for oil and gas companies as national, regional or multinationals. The guideline covers the entire activities of the industry from exploration to production down to refining, transportation, marketing and petrochemicals (OGIGVSR 2010). Therefore, the aim of the guideline is to assist oil and gas companies develop and enhance the quality and consistency of their reports. Thus, assisting the oil and gas industry's realisation of the importance of reporting the effects of its activities – the impacts, benefits, risks and trade-offs to stakeholders in addition to financial reports. This is depicted by increasing reporting on social and environmental activities in the form of Sustainability Reporting

[37] Is the global oil and gas industry association for environmental and social issues

(SR), or Corporate Citizenship (CC), or Environmental, Social and Governance (ESG) or CSR by oil and gas companies (OGIGVSR 2010). These reports are important ways by which individual companies engage with their stakeholders in order to foster informed dialogue and understanding in the short run (OGIGVSR 2010). Indeed, in the long run, the business value of companies may be enhanced, achieve improvement in operations, strengthen relationship with local community and enhance trust and credibility for the companies. The guideline is assisting companies in two ways, one, helps companies to decide how to report by describing reporting process and two, what to report by providing options for developing the content of the report (OGIGVSR 2010).

The reporting process helps companies to set the context of the report; determine issues to include in the report; and select indicator data to be collected within company's reporting horizon. The guideline is equally assisting companies to identify what to report by providing broad advice on data management and normalisation and introduces guidance on issues and indicators to be reported upon. Indicators and categories of information important to the oil and gas industry are divided into social and economic 18 indicators, health and safety issues 5 indicators, and environmental issues 10 indicators (OGIGVSR 2010). There are literature findings on the usefulness of the guideline in social disclosure studies.

One of its usefulness is that the guideline is meant for use by oil and gas companies of any size, either operating as national or international company in the entire spectrum of the industry (Curlee, Buckley, and Romer 2010). It is intended to help oil and gas companies improve the quality, scope, completeness, and usefulness of reporting sustainability performance to internal and external stakeholders (Depraz et al. 2004). The guideline could help identify sustainability issues relevant to the industry, clarify important issues on which assessments can be made and could reveal how companies are fulfilling their responsibilities on the issues (Boyle and Depraz 2006). Having reviewed social disclosure guidelines, the study will choose the one considered most appropriate.

GRI guideline is acknowledged as the most widely used social disclosure guideline (Skouloudis, Evangelinos and Kourmousis 2009, Rasche 2009, Brown, de Jong and Levy 2009, Prado-Lorenzo et al. 2009, Levy, Brown and de Jong 2010, Marimon et al. 2012, Roca and Searcy 2012). It is also used in developing social disclosure indexes in corporate social disclosure studies (Clarkson et al. 2008, Echave and Bhati 2010, Alazzani and Wan-Hussin 2013, van de Burgwal and Vieira 2014, Lu and Abeysekera 2014). Similarly, it has clearly defined environment and social categories and performance indicators, thus, it is clear and easy to extract information on these. However, the guideline is criticised for having numerous disclosure performance indictors (Goel 2005). This study considers the numerous performance indicators in the guideline as opportunity for corporate organizations to report on wide issues. Likewise, GRI guideline first released in 2002 with subsequent revisions captures the commencement year of this study 2004. Therefore, this study adopts the GRI in developing its SED index. However, the guideline has five different versions (GRI 1, 2, 3, 3.1 and 4).

In order to keep up to date with modifications in the guidelines, this study adopts GRI versions 2, 3 and 3.1 in developing disclosure index. Thus, for the period 2004 to 2006, G2 is used; G3 is used for the period 2007 to 2011, while G3.1 is used for the period 2012 to 2013. Total social disclosure indicators in G2 are

49 while environmental indicators are 35. There are total of 40 social indicators in G3; 45 in G3.1 and 30 environmental indicators each in G3 and G3.1 as in appendix I. Corporate reporting including SEDs are meant to convey useful information to those who have interest in the reporting entity referred to as stakeholders (Zairi, Letza and Oakland 1994, Kerr 2009). However, firms report on their activities in order to address varying expectations of the stakeholders (Solomon 2013); thus, over the years, different theories of corporate reporting have emerged.

2.10 Theories of Corporate Reporting

Analyses of corporate reports have been undertaken from different standpoints over the years resulting into different theories of corporate reporting. The reporting could be to render accountability for responsibility given to undertake or desist from an action which is referred to as the accountability theory (Puxty 1986). The reporting could be a response to market demand referred to as the Free market theory (Macveand Carey 1992); or to render report to account to all the firms stakeholders referred to as stakeholder theory (Freeman 1984). Similarly, corporations could render report in such a way as to recognise the social, political and environmental interplay within which the firm is existing referred to as the political economy theory (Gray, Owen and Adams 1996); or to legitimize firms existence to the whole of the society known as legitimacy theory (Mathews 1993). However, stakeholder, political economy and legitimacy theories are reported as the most widely used in explaining CSEDs (Gray, Kouhy and Lavers 1995a, Deegan 2002, Campbell, Craven and Shrives 2003, Tilling 2004).

Equally, stakeholder, legitimacy and political economy are the most employed theories in the accounting literature (Gray, Owen and Adams 1996). The theories attempt to explain CSR practice within a more systems-oriented view of the organisation and society; further arguing that the three theories emanate from the same source (Gray, Owen and Adams 1996)[38]. The theories focus on the role of information and disclosure within the interwoven relationships between organisations, the state, individuals and groups (Gray, Owen and Adams 1996). However, each theory addresses this issue from differing resolutions; thus, they are not competing but alternative theories of explaining CSDs (Gray, Kouhy and Lavers 1995a). Despite wide usage of stakeholder, legitimacy and political economy in CSR studies (Gray, Kouhy and Lavers 1995a, Deegan 2002, Campbell, Craven and Shrives 2003, Tilling 2004); institutional (Deegan and Unerman 2006, Deegan 2009, Ali and Rizwan 2013) and accountability theories (Hassan 2012) are also found useful in explaining CSDs. Similarly, vulnerability and exploitability analytical framework is suitable in explaining social disclosure (Belal, Cooper and Roberts 2013, 2015, Hassan and Kouhy 2015). Therefore, these theories

[38] It is documented that Legitimacy theory is a subsidiary of stakeholder theory (Campbell, 2003; O'Donovan, 2002; Mitchell, Agle and Wood, 1997; Gray,Owen and Adams, 1996; Donaldson and Preston, 1995) that adds "conflicts and dissension" in its analysis (Gray, Owen and Adams, 1996, p. 45). This variant of legitimacy theory is also argued as being "close to the idea of political economy" theory (Gray,Owen and Adams, 1996, p. 47). Both stakeholder and legitimacy theories suggest that corporation strive to legitimise and sustain its relationship in the wider social and political environment in which it operates. "Stakeholders" or "relevant publics" advanced by stakeholder and legitimacy theorists may only impacts on corporation within the social, political and economic frameworks advanced by political economy theory. Thus, it is opined that "broad fundamental assumptions about political economy theory provided the foundation of convergence into complete definite divisions including legitimacy and stakeholder theories" (Gray,Owen and Adams, 1996, p. 47).

are outlined with a view to choosing the most appropriate for this study.

2.10.1 Political Economy Theory

Political economy is a subject matter consisting of the application of economic methodologies in the analysis of political behaviour and institutions (Weingast and Wittman 2006). In fact, society, economics and politics are inseparable and none can be considered without the others (Deegan 2002). It is also the social, political and economic frameworks in which human lives are taking place (Gray, Owen and Adams 1996). Thus, the focal point of political economy lies in the existence of power inequality, power conflict, and the role of the state in shaping the society (Cooper and Sherer 1984). Therefore, CSEDs from the perspective of this theory are reflections of the social, political, economic structures and power inequality and conflicts surrounding the environment in which business operates (Adams, Coutts and Harte 1995a, Tilt 1994). Consequently, corporate reporting is a tool at the disposal of corporate managers to give their conceptions of the social, political and economic dimensions surrounding their operations (Guthrie and Parker 1989a, 1990, Adams, Coutts and Harte 1995a). Hence, corporate social disclosure is seen as apparatus contributing to constructing, sustaining, and legitimising economic and political arrangements, institutions and ideological themes that enhances corporate private interests (Guthrie and Parker 1990). Thus, CSEDs are made to reflect the standards, ideals, principles and views of the organisation to further its interest not necessarily to reflect the interest of the society (Adams, Coutts and Harte 1995a, Guthrie and Parker 1990).

Studies have found political economy theory useful in explaining corporate SED in developed countries. Social disclosure on gender and employment in British banks and retail companies over the period 1935 to 1993 reflects the social, political and economic contexts of six distinct periods (Adams and Harte 1998). Some elements of CSR disclosures by UK corporations are better explained from the perspective of the bourgeois political economy (Gray, Kouhy and Lavers 1995a). Likewise, SED studies have found political economy theory useful in explaining disclosure practices in developing countries. In a cross-country study involving Australia, Singapore, Hong Kong, Philippines, Thailand, Indonesia and Malaysia, corporate organisations are found making voluntary environmental and social accounting disclosure to meet societal expectations and avoid government regulations consistent with political economy theory (Williams 1999). Social responsibility disclosure by corporate organisations in Indonesia is a decision reflecting the social, political and economic conflicts within the environment (Rosser and Edwin 2010). This is a clear influence of political economy theory in explaining SED in Indonesia. However, the theory is criticized for failing to consider organisations internal factors such as corporate characteristics and management attitude and perceptions found important in corporate social disclosure (Cowen, Ferreri and Parker 1987, Belkaoui and Karpik 1989, Patten 1991). Corporate social disclosure studies are also using accountability theory to understand social disclosure practices.

2.10.2 Accountability Theory

Accountability is a multi-faceted concept (Stewart 1984, Gray and Jenkins 1986, Sinclair 1995, Bovens 2005, Horton 2006) that is evolving (Ogden 1995, Degeling, Anderson and Guthrie 1996, Parker and Gould 1999, Taylor and Rosair 2000). Thus, an elusive concept meaning different things to different people, therefore, lacks precise definition (Bovens 2005). Broadly, accountability denotes the state of one party being held to account to another party (Jun Do, Davey and Coy 2014). This is consistent with Stapenhurst and O'Brien (2008) who argues that accountability exist in a relationship in which an individual or body, is to perform tasks or functions which are subject to another's oversight, direction or request that the individual or body saddled with the tasks or function have to provide justification for actions. The concept of accountability is also seen as being a state which is about 'giving and demanding of reasons' for conduct and this occurs at various social constructs such as within families and within and between organizations (Roberts and Scapens 1985).

Therefore, it could be argue that from the perspective of accountability theory, anyone obliged to undertake certain actions or to desist from undertaking an action should give an account. Corporate organizations are important social constructs and components of the larger society that interacts with and is being interacted with by the larger society. Therefore, there exist a moral social contract between corporations and the larger society (Mathews 1993, Deegan 2002). Thus, corporate organizations should be held responsible and accountable from moral point of view of the existence of a social contract for their actions. One way of discharging this accountability by corporate organizations is through preparing and publishing corporate annual reports (Gray, Owen and Maunders 1988, Zeghal and Ahmed 1990, Gray, Kouhy and Lavers 1995b, Parker and Gould 1999, Collier 2008, Hassan 2012) and this may encompass social report. Indeed, sections of the society interested in social information should be provided with that (Gray, Owen and Maunders 1987). Consequently, CSEDs in the annual reports and other mediums could be regarded as means of discharging corporate accountability to the larger society.

There are literature findings on the usefulness of the theory in explaining disclosure in developing countries. Lack of environmental accountability to stakeholders in the Nigerian petroleum industry is attributed to weak government regulations; non-recognition of host communities as powerful stakeholders; and non-recognition of Nigerian public as legitimate stakeholders (Hassan and Kouhy 2015). It is concluded that corporate environmental reporting was adopted as a voluntary means of environmental accountability by corporate organisations (Hassan 2012). Social disclosure studies are also finding institutional theory useful in explaining corporate social disclosure practices.

2.10.3 Institutional Theory

Institutional theory provides explanation for the adaptation of particular organizational practices within a specific organizational field (Deegan 2009). The theory has two dimensions' isomorphism and decoupling[39], which explains the adoption of voluntary type of SEDs (Deegan and Unerman 2006, Deegan 2009). DiMaggio and Walter (1983) defined isomorphism as a situation in which one unit of a population attempts to look like other units having similar environmental conditions. It is also seen as an organisation's adaptation of institutional practice (Dillard, John and Goodman 2004).

Thus, isomorphism refers to the process (DiMaggio and Walter 1983) by which the firms adapt institutional practices (e.g. CSED) of other organizations (Dillard, John and Goodman 2004). This isomorphism process is influenced by various stakeholder pressures, institutional pressures, and professionals' own

[39] This study focuses mainly on Isomorphism dimension.

willingness (Deegan 2009). Three types of Isomorphism are documented in the literature; coercive, mimetic, and normative isomorphism (DiMaggio and Walter 1983). Coercive isomorphism results from both formal and informal pressures exerted on organizations by other organizations upon which they are dependent and by cultural expectations in the society within which organizations function. Corporate stakeholders play significant role in forcing/persuading the firms to adopt certain institutional practices such as SEDs to look similar to other firms operating in the same institutional environment (DiMaggio and Walter 1983).

Mimetic isomorphism refers to the companies' willingness to copy or imitate the organizational practices of other organizations such as corporate social disclosure (DiMaggio and Walter 1983). It arises due to uncertain situation within the environment where an organization could not find any reference or guidelines to operate (DiMaggio and Walter 1983). Thus, it is a convenient source for the followers (companies) to follow the model organization (Amran and Devi 2008). However, sometimes companies voluntarily adopt best practices and set standards for other firms operating in the same industry (Deegan 2009). He argues that the firm's adoption of good practices like social disclosure in an industry will shape societal expectation. Thus, society will demand the same responsible behaviour like social disclosure from other companies operating in the same industry. Failure to adopt the desired standards and institutional practices may be harmful to such companies (Deegan 2009). Normative isomorphism comes from professionalism, which refers to the professionals' expectation to comply with some standards and to adopt institutional practices such as social disclosure (DiMaggio and Walter 1983). It is a situation in which professionals within the organization adopts certain practices such as social disclosure based on their conviction that it is something superior and worthy of undertaking (Scott 1987). Education and professional networks are identified as capable of creating normative pressure for the professionals (Amran and Devi 2008). Similarly, cultural and ethical values play significant roles in influencing the expectations of the professionals, who will ultimately adopt the institutional practices such as social disclosure (Deegan 2009).

The literature has found institutional theory useful in explaining social disclosure in developing countries. The theory is found most suitable in explaining corporate social disclosure by listed banks in Bangladesh (Das, Dixon and Michael 2015). Combination of normative, coercive and mimetic pressures lead to disclosure on labour related and other CSR disclosure by studied Bangladesh companies (Ali and Rizwan 2013)[40]. It is documented that government's institutionalisation of its aspirations and commitments to CSR better describe the CSR practices of Malaysian companies (Amran and Devi 2008). Stakeholder groups have interests in the activities of corporate organizations including social disclosure. Consistent to this, social disclosure studies have found that corporate organizations are making social disclosure to satisfy their various stakeholders explained by stakeholder theory.

2.10.4 The Stakeholder Theory

Stakeholders have been defined from different perspectives in the literature. Stakeholders are those individuals or groups that firms' decision to act or not to act have or will have significant impact

[40] Academics, standard setters, United Nations Children Emergency Fund (UNICEF), International Labour Organisation (ILO) and Non-Governmental Organisations (NGO's) exerted normative pressure; Buyers such as NIKE, Reebok, Wal-Mart exerted coercive pressure while big export oriented companies exerted mimetic pressure on companies (Ali and Rizwan, 2013).

on the level of their wellbeing or have some moral or legal claim on the firm which the firm's actions violet or respect (Langtry 1994). Pearce (1982) stated that the term stakeholder is referring to groups of constituents who have a legitimate claim on the firm. Stakeholder is also defined as "any group or individual that can affect or is affected by the achievement of an organisation's objectives'' (Freeman 1984, p. 46)[41].

Freeman's (1984) definition of stakeholders among the definitions is regarded as a landmark work on stakeholder theory (Key 1999, Jonker and Foster 2002, Belal 2002, Laine 2010). The theory is found useful in managing corporate relationship with the identified stakeholder groups. Preston and Sapienza (1990) maintained that the concept of stakeholder theory has provided an understanding of changes in corporate regulations and behaviours that recognises other claimants than the traditional stockholders. Therefore, it is regarded as a competing theory of the firm (Key 1999) that calls for equal treatment of all stakeholders irrespective of differences in levels of contribution (Jones and Wicks 1999b, Gioia 1999, Marcoux 2000, Sternberg 2000). This is to be achieved through balancing of stakeholder interests (Nadler and Tushman 1997). Harrison, and Freeman, (1999) contended that the idea behind stakeholder theory was simply an effort to integrate economic and social aspects of businesses. Thus, Phillips, Freeman and Wicks (2003) reasoned that the theory is about organisational management and ethics.

[41] Literatures have attempted clarifying whom and what constitutes stakeholders to include consumers; employees; stockholders, customers; suppliers, local community; managers of the firms' and the public including government (Smith, 1937; Barnard, 1938; Abrams, 1951; Eells, 1960; Key, 1999). These identified stakeholders are variously classified in the literature; direct and indirect (Smith and Love, 2004; Freeman, 1984); primary and secondary stakeholders (Adams and Buchholtz, 2006; Wood, 1993; Adams, 1989); internal and external (Sutterfield, Friday-Stroud, and Blackwell, 2006) etc.

However, despite the above apparent useful attributes of stakeholder theory, there are criticisms of the theory. Trevino and Weaver (1999) suggest that it should be regarded as a research tradition rather than a theory. The theory has failed to provide an account on how stakeholders influence firms' decisions and its behaviour (Frooman 1999). The theory could be used by opportunistic managers to act on their personal interest under the cover of being acting for the benefits of certain stakeholders (Jensen 2000, Marcoux 2000, Sternberg 2000). The literature documented three variants of the stakeholder theory; instrumental, normative and descriptive variants (Donaldson and Preston 1995, Berman et al. 1999, Hendry 2001). The instrumental is related to what happen *if* stakeholders are treated in certain manners by managers; how managers *should* deal with stakeholders constitute the normative; and how managers *actually deal* with stakeholders is the descriptive (Berman et al. 1999). The first two variants are further outline being the ones mostly used in empirical research on social disclosure (Gray, Owen and Adams 1996, Berman et al. 1999).

Freeman (1984) definition of stakeholders to include any group that can affect an organisation's achievement means firms have a stake in stakeholders' behaviour and are interested in the stakeholders because of perceived benefits; this is the instrumental (Donaldson and Preston 1995, Berman et al. 1999, Hendry 2001, Friedman and Miles 2006). The fundamental assumption of the instrumental stakeholder variant is that stakeholders are part of the business environment (Berman et al. 1999). Therefore, an organisation identifies its key stakeholders then make efforts to effectively manage them. Corporate reporting as an information medium is argued as one means by which corporations could manage their stakeholders (Gray, Owen and Adams 1996). Furthermore, the definition by Freeman's (1984) encompassing stakeholders as those that are affected by achievements of firms' objectives is referred to as the normative or intrinsic stakeholder variant (Gray, Owen and Adams 1996, Berman et al. 1999, Jones and Wicks 1999b). In this variant, managerial relationships with stakeholders are based on normative, moral commitments not for desiring profits (Berman et al. 1999); as it assumes that all stakeholders have intrinsic value (Jones and Wicks 1999b). In effect, the normative stakeholder variant is saying "do (don't do) this because it is the right (wrong) thing to do" (Donaldson and Preston 1995, p. 72).

The core of the normative theory is from the concept of social contract that provides rights for all stakeholders who can affect or are affected by the activities of organisations. These rights which are based on justice and fairness can be in terms of getting benefits and information about the impact of the organisation on them (Gray, Owen and Adams 1996). Indeed, based on moral and philosophical principles of normative stakeholder theory, companies should provide additional information to keep the society informed of their activities (Mellahi and Wood 2003). Therefore, those stakeholders interested in social disclosure should be provided with the relevant information (Gray, Owen and Maunders 1987). By doing this, firms are discharging accountability to all stakeholders which ought to be discharged (Gray, Owen and Maunders 1987, 1996). Stakeholder theory is found useful in explaining corporate social disclosure in developed countries.

The theory is reported as useful in explaining SEDs by listed Australian companies (Loh, Deegan and Inglis 2015). Instrumental stakeholder theory best explains the relationship between social disclosure and economic performance of listed companies. They further argue that, complete account of employee issues in employee social disclosure are disclosures reflecting normative stakeholder variant by sampled UK banks (Williams and Adams 2013). The importance attached to stakeholders and quest to satisfy their needs are found as reasons for social disclosure in France (Ayadi 2004). Analysis of corporate social disclosure reveals that stakeholder theory better explains the disclosure by US corporations (Roberts 1992). The theory is also employed by SED studies to explain disclosure in developing counties.

Stakeholder theory is documented as explaining the quality of corporate social disclosure by sampled companies in Taiwan (Chiu and Wang 2015). Organisational buyers in the global supply chain and listing and social rating agencies in the international capital market are identified as instrumental stakeholders that influence social disclosure by listed companies in Taiwan (Lu and Wang 2014). Customers are found as instrumental stakeholders that influences corporate social reporting by listed financial institutions in Malaysia (Darus, Mad and Yusoff 2014). Similarly, stakeholder theory is reported as better explaining the volume of corporate environmental reporting by Taiwanese companies (Huang and Kung 2010). Pressure from international buyers as stakeholder group is identified as the reason for SEDs in the clothing industry of Bangladesh since 1990 (Islam and Deegan 2008). Lee (2007) concluded that SEDs are made as a strategy to managing stakeholders by South Korean corporations. From the perspectives of stakeholder theory, corporate social disclosures are undertaken to satisfy corporate stakeholders. However, corporate organisations could be making social disclosure as a legitimacy strategy for their continued existence.

Emerging from this view is the legitimacy theory of corporate social disclosure.

2.10.5 Legitimacy Theory

Legitimacy has been defined from varied perspectives. For example, it is defined as general perceptions or assumptions that the actions of an entity are suitable, needed, or correct within the norms, values, definitions and beliefs of the society (Suchman 1995). It is also seen as a situation or status that exists when the value systems of an entity are in agreement with the value systems of the larger society in which the entity exists. Thus, in the event of actual or potential disagreement between the two value systems, there will be a threat to legitimacy (Lindblom 1994). Therefore, it is assumed that the society allows corporate organisations to continue operations when they are meeting the expectations of the society (Deegan 2007). In essence, the society is the source of organisations legitimacy arising from the existence of social contract[42] between the organisation and society (Donaldson 1982, Lindblom 1994, Suchman 1995, Campbell 2003, Branco and Rodrigues 2006, Magness 2006, Deegan 2007). It is from this level of legitimacy that most accounting research tends to draw understanding of legitimacy (Tilling and Tilt 2010). Organisational legitimacy is seen as a resource (Hearit 1995) that organisations most often extract competitively from their environment and use in achieving their goals (Suchman 1995). Consequently, good models of legitimacy must identify relevant stakeholders and how each influences flow of resources to the organisation (Hybels 1995).

[42] This social contract is defined as "the multitude of implicit and explicit expectations that society has about how an organisation should conduct its operations" (Deegan, 2007).

Based on the notion of social contract between organisations and society; where an organisation is perceived as failing in its social contract, a legitimacy gap is said to arise (Branco and Rodrigues 2006). In such instances the society can impose sanctions on it in form of restricting its operations, limiting its access to resources (financial, labour etc.) and reducing demand for its products through boycotts (Deegan and Rankin 1996). Low legitimacy may even result in the forfeiture of an organisation's right (or license) to operate (Gray, Owen and Adams 1996, Tilling and Tilt 2010). Consequently, it is important that organisations are able to ensure their continued legitimacy by identifying and managing its features (Lindblom 1994). Two approaches of establishing, maintaining, extending and depending legitimacy have been documented (Lindblom 1994, Tilling and Tilt 2010). First, ensuring that activities of the organisation are in congruence with societal expectations and perceptions; second, disclosing the activities of the organisation as being in congruence with societal expectations (Dowling and Pfeffer 1975, Gray, Kouhy and Lavers 1995a). Lindblom (1994) identified four strategies that organizations may employ in gaining or maintaining legitimacy.

First, the organization may make efforts to educate its 'relevant publics' about changes in its activities or performance. This could be by way of providing information to counteract or balance negative media news about the organization (Deegan 2002). An organization may adopt this strategy if it perceives 'legitimacy gap' as arising from failure in its performance (Gray, Kouhy and Lavers 1995a). Second, an organization may seek to change the perceptions of the relevant publics rather than change its actual performance. The organization could achieve this by making available information about its previously unknown attributes to interested parties (Deegan 2002). This strategy is chosen when an organization perceives that legitimacy gap arises from misperception of its activities by the relevant publics (Gray, Kouhy and Lavers 1995a);

Third, an organization may choose to contrive the perception of the relevant publics by swerving attention from the main issue of interest to related issues by way of appeal. The organization may for instance draw attention to implemented safety initiatives; or environmental award won downplaying its environmental pollution or workplace accidents (Deegan 2002). This strategy is adopted to manipulate perceptions (Gray, Kouhy and Lavers 1995a). Fourth, an organization may seek to change the perceptions of its performance by the relevant publics. This strategy is adopted when an organization opine that the perceptions of the relevant publics are unrealistic or incorrect (Gray, Kouhy and Lavers 1995a). Lindblom (1994) opined that organizations can employ social disclosure using each of the above strategies.

Legitimacy theory is found useful in explaining CSEDs in both developed and developing countries. Positive and statistical association was reported between tax aggressiveness and CSR disclosure, thereby confirming legitimacy theory in the context of tax aggressiveness in Australia (Lanis and Richardson 2013). Increased societal concerns about the effects of carbon footprints, global warming and climate change were perceived as potentials for creating legitimacy gap. In response, carbon footprint intensive companies in Australia were found to have increased their carbon reporting for legitimacy (Hrasky 2012). Similarly, climate change accounting disclosure were reported as legitimacy strategy by listed companies in the Australian mining industry (Pellegrino and Lodhia 2012). In a 34 years longitudinal analysis of a Finish company, it was found that disclosure contain major rhetoric transitions in order to respond to varying social and institutional pressure on the company to maintain its legitimacy (Laine 2010). In a longitudinal study over the period 1956 – 1999, it is found that voluntary social disclosure (or non-disclosure) by Rothmans Australia over the period of the study are efforts to achieve legitimacy (Tilling and Tilt 2010). Similarly, listed Spanish firm strategically used SEDs in alignment with the state to legitimise a new production process by manipulating societal perception (Archel et al. 2009).

Furthermore, in a study that size-matched listed companies from developed countries on industry membership and environmental performance, disclosure are found varying among the groups. It is concluded that environmental disclosure are legitimacy tools employed by the companies (Cho and Patten 2007). Branco and Rodrigues (2006) suggest that social disclosure by Portuguese banks are to legitimize their operations. Similarly, Campbell (2003) reported variability in intra and inter sectors environmental disclosure by listed companies in Financial Times Stock Exchange (FTSE 100), signifying differences in perceptions of companies to provide voluntary disclosure in order to gain or maintain legitimacy. Legitimacy theory also better explain pattern of SEDs in 22 years 1975 to 1997 longitudinal study of UK listed companies (Campbell, Craven and Shrives 2003). Gaining, maintaining and repairing legitimacy were found as reasons for increased environmental disclosure in annual reports of Australian corporations since 1980’s (O'Donovan 2002). Managing organisational reputation and legitimacy are the reasons for non-mandatory SEDs by UK companies (Clarke and Gibson-Sweet 1999). SEDs by 6 out of 9 studied Australian industries conform to legitimacy (Brown and Deegan 1998).

Patten, (1992) found significant increase in environmental disclosure from an intra – industry environmental disclosure analysis of 21 out of 23 petroleum companies in the 1989 Fortune 500 suggesting that such were efforts to gain or maintain legitimacy.

From developing countries, the theory is found most relevant in explaining social disclosure by listed Saudi Arabian companies (Abdull Razak 2015). Legitimacy theory explains social disclosure by listed banks in Bangladesh (Das, Dixon and Michael 2015). Significant positive association is documented between firm size and leverage and corporate environmental reporting by listed Malaysian companies thereby providing support for legitimacy theory (Sulaiman, Abdullah and Fatima 2014). Large firms and firms in high profile industries which are likely to face more public pressure are found making more SEDs by listed Chinese companies and this is consistent with legitimacy theory (Lu and Abeysekera 2014). SED practices of companies in Bahrain are found better explained by Legitimacy theory (Juhmani 2014). Significant increase in the extent and quality of CSR disclosure found in studied Malaysian companies after the financial downturn and policy changes were to bridge legitimacy gap with the public (Haji 2013). It is documented that corporate social disclosure practices are significant and positively related with influence of external stakeholders such as foreign ownership and export oriented companies. Thus, suggesting legitimacy efforts of corporate organisations in Bangladesh (Khan, Muttakin and Siddiqui 2013).

Progression in corporate social disclosure of studied companies in Mauritius is found to be strategically driven by efforts to assert legitimacy by the companies (Mahadeo and Oogarah-Hanuman 2011a). Similarly, it is concluded that changes in social and environmental reporting by studied listed companies in Mauritius reflects efforts of the companies to maintain legitimacy (Mahadeo, Oogarah-Hanuman and Soobaroyen 2011b). It is found that disclosure on conflict diamonds by one of the four sampled companies from South Africa is consistent with legitimacy theory (Watson 2011). Increase in safety disclosure by mining companies in South Africa after two major mining accidents are seen as response to increase stakeholders' scrutiny threatening the legitimacy of the companies (Coetzee and van Staden 2011). Thus far, it could be argued that legitimacy theory has been found useful by the literature in explaining SEDs. An evolving analytical framework useful in explaining corporate social disclosure is vulnerability and exploitability framework.

2.10.6 Vulnerability and Exploitability Theory

The International Monetary Fund (IMF) country classification 2015 divided the world into two major groups as advanced economies and emerging and developing economies (IMF 2015). First, countries in the advanced economies are classified as developed countries based on their Gross National Income (GNI) per capita (IMF 2015). Second, countries in the second group are considered as emerging or less developed countries (Belal, Cooper and Roberts 2013, IMF 2015). Developed countries are characterized by economic growth, high per capita income, high literacy level, low population growth and industrialization (IMF 2015). Emerging and less developed countries are associated with poverty, lower income per capita, less industrialization, low literacy, and high population growth (IMF 2015).

Features of low income and poverty within emerging and less developed countries are contended as making them vulnerable (Belal, Cooper and Roberts 2013). Indeed, the relationship between poverty and vulnerability has been established (Blaikie et al. 1994). This is confirmed using the measures of vulnerability to expected poverty and vulnerability as threat to future poverty (Montalbano 2011). Similarly, emerging and less developed countries are documented as having high environmental risks such as climate change and low ability to respond to such risks, thereby making them vulnerable (Belal et al. 2010, Belal, Cooper and Roberts 2013).

Conversely, a number of emerging and less developed countries are endowed with natural resources such as minerals, oil, gas and forests and large human population living in poverty (Belal, Cooper and Roberts 2013). Alongside these resources, legal and regulatory frameworks are documented as weak and less strictly enforced than in developed countries (Belal, Cooper and Roberts 2013). Indeed, governments drive to legislate and regulate in many developing countries is missing (Hilson 2012). The absence of or weak legal regulatory frameworks and enforcement is linked to financial incapacity and dearth of knowledge and skills to harness the abundant natural resources in emerging and developing countries (Sikka 2011). Therefore, governments in such countries end up providing concessions and assurances concerning future legislations and regulations (referred to as stabilisation clauses) to MNCs and indigenous corporate organisations with financial and technical capacities of harnessing the resources (Sikka 2011).

Thus, it could be contended that governments drive to earn revenues and other benefits are main drivers to stabilization clauses in contractual agreements with multinationals and indigenous corporations in emerging and less developed countries. Indeed, due to heavy dependence of governments on revenues from their natural resources, sometimes stabilisation clauses are found harmful even to future government tax and on social and environmental issues. Similarly, the clauses may restrict raising wages for employees in the future (Sikka 2011, Belal, Cooper and Roberts 2013). Therefore, it could be reasoned that governments in emerging and developing countries are tying themselves to corporate contractual agreements containing adverse financial and environmental clauses. On the part of the corporations, it could be said that they are seeking for such stabilisation clauses to ensure maximization of profit argued as the main motive of corporations (Friedman 1970). Related to this, citizens of these countries that provide labour force, are faced with low wages (Powell and Zwolinski 2012, Belal, Cooper and Roberts 2013). However, they have to endure the low wages despite the fact that it cannot be raised to increase their standard of living due to clauses restricting such (Belal, Cooper and Roberts 2013).

Therefore, combination of low income, low per capita income, available resources and weak legal structures make emerging and less developed countries vulnerable and exploitable including on social disclosure (Belal, Cooper and Roberts 2013). Corporate organisations in these countries are perhaps exploiting the vulnerability of government and citizens socially by paying little or no attention to their social and environmental impacts nonetheless of rendering accountability on that. This could be supported by reported widespread corporate social and environmental impacts in these countries, few researches on social and environmental accounting and little knowledge about corporate social and environmental accounting practices in these countries (Belal, Cooper and Roberts 2013).

Accordingly, from the perspective of vulnerability and exploitability framework, corporate organisations in developing countries are not rendering adequate accountability of their social impacts. This study consistent with Lipungu (2013) argues that where corporate organisations make social disclosure in these countries, it will be few and on few issues. The few disclosures may also be targeted for few and weak legitimacy conferring stakeholders such as employees, host communities and government. Similarly, the disclosure may possibly be attempts to swerve the attention of these few and weak legitimacy conferring stakeholders from the factual social issues. Although the attributes of developed countries are distinctly opposite of emerging and less developed countries, this analytical framework may also be useful in explaining social disclosure in developed countries.

Developed countries are characterised with sustained economic growth, high per capita income, high literacy level, strong legal and regulatory frameworks and enforcement mechanisms (Belal, Cooper and Roberts 2013, IMF 2015). However, majority of the MNC's operating in emerging and less developed countries are incorporated in developed countries. Thus, it is these same companies documented as exploiting the vulnerabilities of emerging and less developed countries that are operating in their developed countries of incorporation. Therefore, taking the profit motive of corporate organisations, corporate organisations may be tempted to exploit available vulnerabilities even in developed countries. Hence, this study argue that sustained economic growth, high per capita income, high literacy level, strong legal and regulatory frameworks and enforcement mechanisms do not translate to absence of corporate exploitability. Rather, these attributes ensure less vulnerability which in turn makes them less exploitable when compared with emerging and less developed countries.

Sustained economic growth and high per capita income in developed countries may mean economic prosperity of both government and citizens. Therefore, in contrast to poverty, economic prosperity may mean that governments will be considerate of social and environmental concerns when granting corporate concessions. In addition, economic prosperity of citizens in these countries enables them to voice out concerns on corporate social issues (Utting 2007). When this occurs, corporate organisations may be under pressure to oblige to raise concerns by rendering social accountability. Corporate failure to oblige may result in highly educated citizens taking further actions such as protests and boycotting products that might be detrimental to continued operations of corporate organisations.

Similarly, governments may use their strong legal and regulatory frameworks and enforcement mechanisms to sanction corporate organisations failing on social issues. Thus, as earlier stated, governments and citizens of developed countries are less vulnerable thereby making them less exploitable by corporate organisations. However, it is important to note that most corporate collapses in developed countries are consequent to corporate sharp practices by exploiting the vulnerability of other stakeholders. For instance, the Bush administration in USA is reported to have received political donations of £623,000 from collapsed Enron[43], its employees and directors (The Economist 2002). In return, the administration is accused of favouring oil exploration and drilling in spite of opposition from

[43] Enron is an interstate pipeline company formed through the merger of Houston natural gas and Inter-North Gas Company in 1985. It expanded its businesses to broadband services and commodities trading in 1999. The company ranked the seventh largest company in Fortune 500 and sixth largest in the World in 2000 and its stock priced peaked at $90. However, corporate scandals led to share price falling below $1 in 2001 and the company eventually collapsed (CBCnews, 2006 http://www.cbc.ca/news/business/the-rise-and-fall-of-enron-a-brief-history-1.591559)

environmentalist as compensation for received political donations from Enron. Indeed, no any other company gained from energy policies of the US under Bush administration than Enron (The Economist 2002). Similarly, Enron is reported to have made political donations of £25,000 to the UK Conservative Party and £38,000 to the Labour Party. Although the donations are not illegal, concerns are raised on the rules of the donation and what the donors stand to gain. Indeed, this may possibly be evidence of the influence of the company on UK government policies (The Guardian 2002).

Likewise, the UK government agreed to Shell's Best Practicable Environmental Option (BPEO) of disposing the Brent Spar[44] by dumping it under the sea (Watkinsand Passow 2002, Greenpeace 2011). However, environmental concerns raised by Greenpeace resulted in changing disposal option to dismantling and recycling it on land. Dumping the Spar under the sea would have cost Shell £19m (Shell 2008) an option considered detrimental to the environment by Greenpeace. When Shell dismantled and recycled the Spar on land, the cost rose to £41m (Shell 2008). However, this is the option considered having less environmental impacts by Greenpeace and other European citizens that supported it.

From above, it could be noted that corporate organisations in developed countries are also exploiting available vulnerabilities of other stakeholders in order to maximize their profits. The case of Enron and Shell portrays possible exploitation of the entire citizenry through government policies that favour corporate organizations profit maximization motives. Therefore, corporate

[44] The Brent Spar (BS) was a North Sea oil storage and tanker loading buoy in the Brent oil field operated by Shell UK. It was 147 m high and 29 m in diameter, weighing 66,000 tonnes and its decommissioning in 1991 was challenging (Shell, 2008)

organisations in developed countries are also exploiting the available vulnerabilities of governments and citizens. Despite these and other corporate attempts to exploit the vulnerability of governments and citizens, corporate organisations in developed countries may have to make more disclosure if they voluntarily undertake to do so or when under pressure from legitimacy conferring stakeholders. They have to give more explanations as to why they took certain actions or desist from taking certain actions in order to satisfy or swerve the attentions of strong legitimacy conferring stakeholders.

This analytical framework is found useful in explaining corporate social disclosure in developing countries. Prospects of losing business to other less regulated economies on regulating social disclosure is identified as a vulnerability being exploited by corporate organisations in Bangladesh (Belal, Cooper and Khan 2015). Exploitation of weak vulnerable government regulations, host communities and the general society is identified as reason for lack of environmental accountability by oil and gas companies in Nigeria (Hassan and Kouhy 2015). Significant positive association between gas flaring related carbon emission performance and volumetric gas disclosure is depicting the vulnerability of Nigeria on one hand. On the other hand, significant negative association between gas flaring related carbon emission performance and volumetric gas disclosure is depicting the exploitability of Nigeria as a developing country by IOCs (Hassan and Kouhy 2014). Having reviewed some theoretical frameworks used in underpinning SED studies; next section is theoretical framework for this study.

2.11 Theoretical Framework for this Study

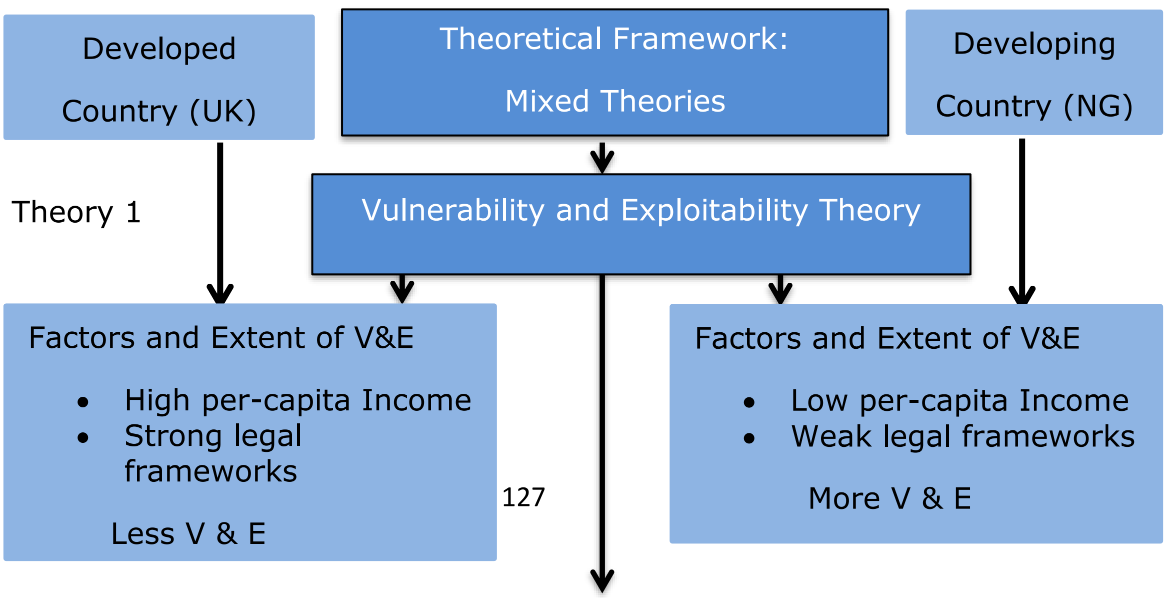
This study compares SED practices of Nigerian and UK oil and gas companies. In doing this, the effects of corporate internal characteristics found useful in explaining disclosure have been explored. Political economy theory has been criticized for failing to take into consideration the effects of these factors on social disclosure (Cowen, Ferreri and Parker 1987, Belkaoui and Karpik 1989, Patten 1991, Adams 2002). Therefore, political economy theory may not be useful in explaining disclosure by sampled companies. Legal and regulatory frameworks and enforcement mechanisms are weak in developing countries like Nigeria (Hassan and Kouhy 2013). Citizens have low literacy rate and are living in poverty, thus, their voices may not be heard (Utting 2007, Belal, Cooper and Roberts 2013, IMF 2015). Conversely, legal and regulatory frameworks and enforcement mechanisms are strong in developed countries like UK. Similarly, citizens have high literacy rate and have high per capita income, thus, their voices may be heard (Utting 2007, Belal, Cooper and Roberts 2013, IMF 2015). Therefore, accountability theory may not be directly suitable in explaining disclosure in this study especially from the perspective of Nigeria.

Isomorphism institutional theory from either of its variants is depicting corporate organisations attempts to copy from peers on social disclosure. However, this could be more likened to the context of developed countries where corporate organisations are under serious public scrutiny on social issues. Therefore, corporate organisations may be willing to copy from other organisations that have institutionalised social disclosure. Thus, the theory may be more appropriate in underpinning the disclosure practices of corporate organisations from developed countries. Conversely, in developing countries both governments and citizens are highly vulnerable to corporate exploitation of lack of concern for the society and the environment. Citizens living in abject poverty and illiteracy have no voice to be heard, thus, corporate organisations are mainly concerned with profits making. This situation may not be conducive for corporate leadership and followership on social disclosure. Therefore, institutional theory may not be suitable in explaining social disclosure in developing countries like Nigeria.

From the perspectives of stakeholder theory, corporate organisations are making social disclosure to satisfy their numerous stakeholders. However, social disclosure being mostly voluntary in nature could actually be attempts by corporate organisations to educate, change, or contrive stakeholders' perceptions about their social performance. Thus, the disclosure may not necessarily address the social concerns of stakeholders. In all these cases, corporate organizations are actually trying to legitimize their social actions and inactions with stakeholders. Therefore, this study argues that rather than satisfying stakeholders, corporate organizations are using social disclosure for legitimacy. Within legitimacy theory, corporate organization may use social disclosure as strategy to educate its relevant publics on social performance. Similarly, disclosure could be used to change perceptions of stakeholders about social performance. An organisation could also contrive the perceptions of stakeholders and even change its social performance in an attempt to change the perceptions of stakeholders. Using either of these ways; corporate organisations may continue legitimizing their operations. This study urge that much of social disclosure are coming from these perspectives, thus, better explained by legitimacy theory.

Although legitimacy theory may be useful in explaining SEDs in this study, vulnerability and exploitability analytical framework may in conjunction with legitimacy theory give better explanation. Where corporate organisations are faced with strong legitimacy conferring stakeholders such as in UK, they need to make more disclosure to achieve their legitimacy goals. However, where corporate organisations are faced with few and weak legitimacy conferring stakeholders they may be exploiting the vulnerabilities of their stakeholders by providing few information on few issues to achieve legitimacy goals. Consequently, legitimacy debate and vulnerability and exploitability argument are combined to develop a theoretical framework that underpin this study as depicted in Figure 2.3

Theoretical Framework



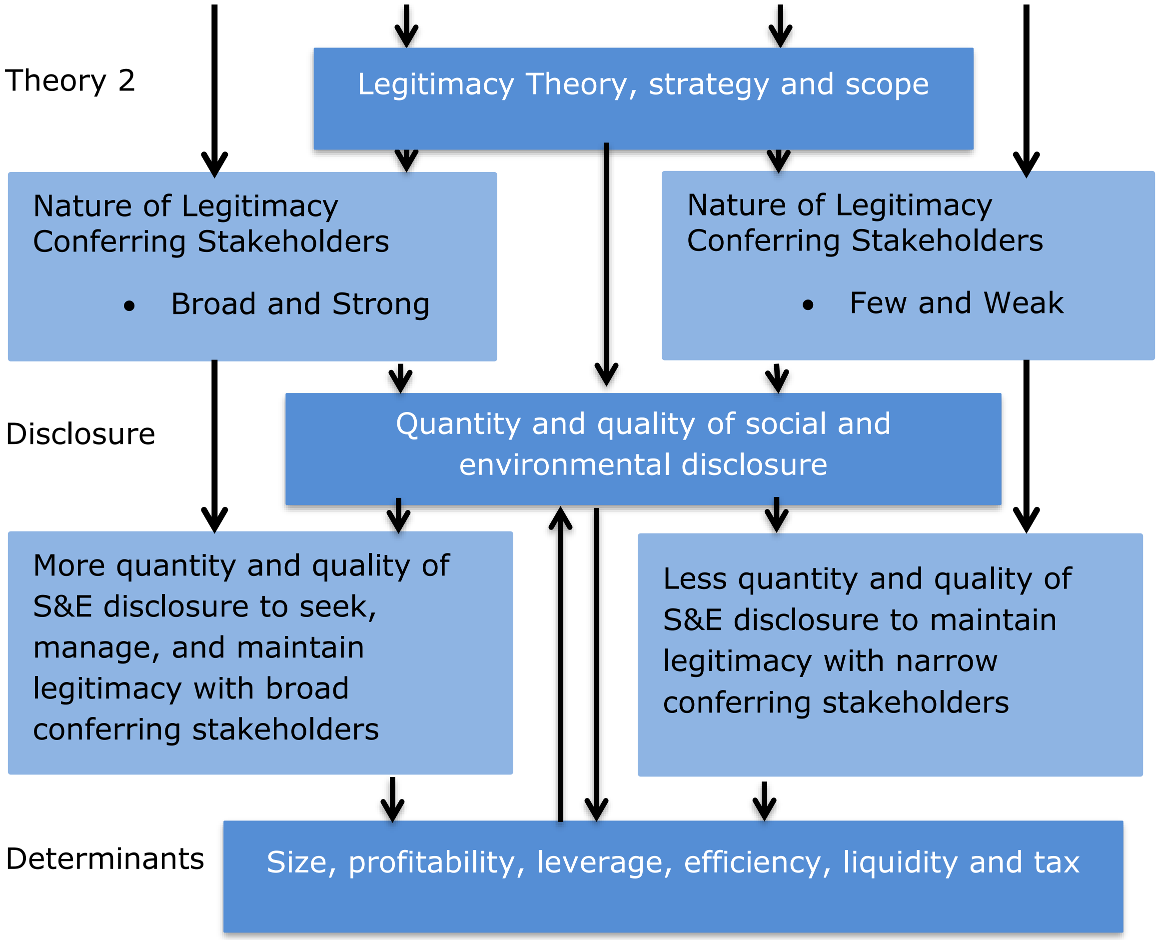


Figure 2.3 Theoretical Framework for this Study

From Figure 2.3, Nigeria, a developing country is in the right hand side of the framework. It is characterised with low per capita income, weak legal and regulatory frameworks while corporate legitimacy conferring stakeholders are few and weak. Government is in need of revenues accruing from natural resources extraction; while citizens are poor with low literacy. Thus, while government is concerned with revenues from corporations; citizens providing labour are concern with the low wages coming from the corporations. Therefore, corporate social and environmental impacts are not issues of attention to both government and citizens. Indeed, governments in developing countries like Nigeria are providing for stabilization clauses that exclude social issues and restriction of wage increase. Consequently, corporate organisations are perhaps exploiting these vulnerabilities by not taking responsibility and disclosing their social and environmental impacts. However, legitimacy theory posits that corporate organisations draw legitimacy of existence from the wider society. Thus, despite apparent weakness of governments and citizens in Nigeria, corporate organisations may pay attention to few and weak legitimacy conferring stakeholders. In such circumstances, corporate organizations may attempt to make few social disclosures with low quality on few issues of interest to the few and weak legitimacy conferring stakeholders.

On the left hand side of the theoretical framework is UK a developed country characterized with high per capita income, strong legal and regulatory frameworks. Due to its advanced economic development, UK government could be less vulnerable to corporate exploitation as it might not be in dire need of corporate revenues to compromise social issues. Strong legal and regulatory frameworks mean that corporate organisations will comply with corporate laws as failures will be sanctioned. Similarly, citizens as employees and customers with high per capita income and high literacy level have the economic prosperity of demanding corporate social accountability. Therefore, it could be articulated that governments and citizens in UK are less vulnerable and exploitable than government and citizens of Nigeria. Indeed, corporate social concerns are post materialist values of developed countries where there is economic security. In essence, corporate organisations in UK are faced with broad and strong legitimacy conferring stakeholders. Thus, corporate organizations in UK have to provide more quantitative and qualitative social disclosure in order to educate, change, and contrive the perceptions of their broad and strong legitimacy conferring stakeholders about their social performance. Next section is conclusion on this chapter and introduction of the subsequent chapter.

2.12 Conclusion

The chapter reviewed relevant literature on CSR, CSED and CSDT. In the course of this, the historical evolution of CSR, its goals, and objectives were discussed. Similarly, CSED, its types, drivers, nature, determinants, quantity and quality were outlined. Consequently, 12 research hypotheses are developed in the course of these discussions and 4 research questions raised. The chapter also reviewed literature on comparative SED studies to aid analysis of findings from this study. As Oil and gas industry is the focus of this study, the chapter looked into the global oil and gas industry focusing on its importance as energy source, its social and environmental impacts and SED practices in the industry as reported in the literature. Some of the commonly used theories in underpinning SED studies such as legitimacy, stakeholder, accountability were evaluated and a theoretical framework that underpin this study is developed and justified. Subsequent chapter is on SEDs in Nigeria and UK.

CHAPTER THREE
CORPORATE SOCIAL AND ENVIRONMENTAL DISCLOSURE IN NIGERIA AND UK

3.1 Introduction

The last chapter reviewed literature related to CSR; CSED and CSDT. This chapter will review relevant literature on CSED in the context of Nigeria and UK in general and their oil and gas industries in particular. The chapter is structured such that the current section 3.1 introduces the chapter. Section 3.2 deals with the historical background of Nigeria touching on its social, political, economic, and cultural contexts which are among the determinants of corporate social disclosure. Section 3.3 is on general aspects of corporate social disclosure in Nigeria. Section 3.4 focuses on the description of the Nigerian oil and gas industry. Section 3.5 is devoted to SED in UK; section 3.6 is on UK oil and gas industry; while section 3.7 concludes the chapter.

3.2 Historical Background of Nigeria

Nigeria is a country located on the western coast of Africa bordered to the North by Republic of Niger; to the East by Chad and Cameroon; to the South by the Gulf of Guinea of the Atlantic Ocean; and to the west by Republic of Benin. The country came into being in 1914 after the amalgamation of the then southern and northern protectorates (Falola and Heaton 2008). The southern protectorate was divided into and renamed eastern and western regions in 1939, while the northern protectorate was renamed northern region. These three regions of east, west and north became an independent Nigeria on 1st October, 1960. However, the regions were replaced with states in 1967; the country is now composed of 36 states and a federal capital in Abuja. The country covers a total area of 923,768 square kilometres (Falola and Heaton 2008). The population of the country is 167,912,561 as at October, 2011 (Oyedele 2011)[45]. With these briefs, the next section looks into the country's social and political contexts.

3.2.1 Nigerian Social and Political Contexts

Nigerian social system is looked at from the view point of organization of its individual citizens into groups or structures having different origin, characteristics, functions and status (Falola and Heaton 2008). Political system is viewed as mode of policy production, a way of formulating and implementing decisions that affects the society at large. It is the interaction of the system's components composing of *cultural values* that are aimed at shaping policy goals; the *structure* that wield power on government, parties, domestic social groups, foreign institutions; and the *behaviour* of policy makers and individuals less involved in decisions making (Andrain 1994).

In the course of its 56 years of independence, the country was ruled by the military for 29 years and by civilian democratic governments for 27 years (Falola and Heaton 2008). Democratic system of governance has been linked to corporate social disclosure (Simnett, Vanstraelen and Chua 2009, Dhaliwal et al. 2011). Similarly, the World Bank rule of law indexes that measures the confidence of a country's citizens on the ability of its laws, law enforcement agents and the judicial system to ensure fair outcome for all are more likely to occur in countries with democratic governments (Dhaliwal et al. 2011). Based on this index, it is argued that voice and accountability as measures of democracy and freedoms are likely to influence higher social disclosure. Indeed, firms are found making more social disclosure

[45] This is the last official Figure on Nigeria's population given Mr Sama'ila Danko Makama, the then chairman of the National Population Commission (NPC).

in countries with higher levels of democracy (de Villiers and Marques 2013)

On one hand, military rule is characterised by suspension of the constitution, ruling by decrees, restriction of citizen's freedom among others. On the other hand, democratic governance is characterised by principles of rule of law, supremacy of the constitution, and citizens' rights found enhancing corporate social disclosure (Bienen 1978). Thus, although the period of this study is within democratic rule 2004 to 2013, Nigeria's prolonged military rule could be a hindrance to the institutionalisation and development of corporate social disclosure. Conversely, decades of democratic governance in UK may have helped in institutionalizing and developing corporate social disclosure. From this perspective, quantity and quality of disclosure by sampled Nigerian oil and gas companies are likely to be low when compared with sample UK oil and gas companies. Another contextual factor that influences corporate social disclosure is a country's economic context (Adams 2002). Legal system as discussed in 2.4.2.1 influences corporate social disclosure. Nigeria's legal context is discussed in ensuing section for possible provisions of mandatory social disclosure.

3.2.2 Nigerian Legal Context

Legal system denotes interdependent or interacting components which collectively form the whole of rules and guidelines established and enforced through social institutions to govern behavior. The laws could be by act of legislature (known as the statutes); by judicial precedents (common law) and religious law. Nigeria's legal system is composed of common law, customary and Sharia laws. The common law is dominated by inherited English laws (usually revised as the need arise); customary laws are principally meant to settle such family disputes as divorce;

while the Sharia laws pertains to settlement of both family and private commercial disputes from Islamic laws (Cotterrell 2013).

However, common law is used in settlements of corporate disputes with reference to rules and regulations governing the incorporation and conduct of corporate organizations (Falola and Heaton 2008). In Nigeria, the Companies and Allied Matters Decree (CAMD) 1968 or Act 1990 (as amended); The Nigerian Stock Exchange Act (NSEA); The Tax Ordinance Act (TOA) 1968; Nigerian Securities and Exchange Commission (NSEC); and Nigerian Accounting Standard Board (NASB) are the main regulatory acts and agencies regulating corporate behaviors. It is from provisions in these documents that mandatory corporate social disclosure if any could be derived. However, this study focuses mainly on CAMA (1990)[46]; NSE; NSEC and NASB with a view to assessing their provisions on corporate social disclosure.

The Companies Ordinance of 1912 which is a replication of the ECCA 1908, was the first promulgated company law enacted to facilitate business activities in Nigeria. The companies' ordinance 1912 was revised to reflect Nigeria's commercial context after independence to become the Nigerian Companies Decree (NCD) 1968. In order to reflect and incorporate contemporary business issues, the decree was revised and amended to become the Companies and Allied Matters Act 1990 hereafter referred to as CAMA (Amao 2008). However, there is no any requirement for social or environmental disclosure in this important document regulating corporate behavior. To this end, Amao (2008) argues that despite potential significant role that corporate social

[46] The argument of being a decree or an act is centred on political view point that laws established under military regime are Decrees while laws established by the legislature in a democratic setting are called an Acts. The Nigerian Companies Ordinance 1968 and the Companies and Allied Matters 1990 were all established by military regimes. However, Companies and Allied Matters is revised in 2004 under a democratic government, thus, it is now an Act.

responsibility could play in Nigeria, little attention has been paid to social disclosure as means of promoting it. Another important statutory organ which requires corporate organizations to meet specified disclosure requirements in dealing with it which may include social disclosure is NSE.

NSE is a statutory body regulated by the NSEC. It was established in 1960 as the Lagos Stock Exchange (LSE) and commenced operations in 1961 and became NSE in December 1977 (NSE 2013, Onyema 2013). Corporate bodies are expected to in addition to satisfying the requirements of CAMA 1990 meets listing requirements in the market. The literature reported that the stock market as an institution of raising corporate capital react to corporate social disclosure (Nuzula and Kato 2011, Hejazi and Hesari 2012). Therefore, it is important to look into the provisions of NSE on SEDs. However, the only provision which this study could argue is close to demand for social disclosure is the provision in chapter 9 section seven sub section VI (a). Under this sub-section, all companies engaged in solid minerals and other natural resources extractions are required to disclose the number of holes drilled/mined and their distribution (NSE 2013). This disclosure may give an idea of potential area whose biodiversity and topography could be significantly distorted and could be used as a basis of making provisions for remediation. However, it is important to note that the Nigerian stock exchange appears to be sensitive to corporate social issues. For instance, the share price of Oando Oil Company fell by 21% in three days upon receiving the news of holding of substantial investment interest in the company by a convicted corrupt politician (Thisday 2013); closely linked to NSE is the NSEC.

The NSEC is a statutory body established by an Act to repeal the investments and securities act 1999 (SEC 2007). It is the apex regulatory body of the Nigerian capital market for the purpose of protecting investors; maintaining of fair, efficient and transparent transactions in the market and reduction of systematic risks. Corporate organisations are expected to comply with its relevant provisions in their operations and dealings with it. One of the statutory documents issued by this body is the Code of Corporate Governance (CCG) for public companies in Nigeria (SEC 2011)[47]. Provisions in part D of the code require companies to pay adequate attention to the interest of their stakeholders such as employees, host community, consumers and the general public and demonstrate their sensitivity to the social and cultural diversity of the country. Similarly, corporate organizations should recognize corruption as a key threat to business and development; thus, business should be conducted at the highest level of transparency (SEC 2011). The code provides that disclosure be made on the items in Table 3.1.

[47] The code was issued on 4th April, 2011; thus, it is assumed within this study that corporate organisation may have started implementing it provisions in 2011 since sampled companies' reporting period is 31st December, of every year. Therefore, mandatory disclosure are considered for the years 2011, 2012 and 2013.

Table3:1 Mandatory Social and Environmental Disclosure by SEC in Nigeria

S/N	Section of the act	Description of requirement	Nature of requirement	Relevant GRI indicator
1	28.3a	Description of work place accidents, fatalities and occupational and safety incidents against objectives and targets and a suitable explanations where appropriate	Social	**LA7**
2	28.3b	Disclose the company's policies, plans and strategies for addressing and managing the impacts of HIV/AIDS, malaria, and other serious diseases on the company's employees and their families	Social	**LA8**
3	28.3c	Adoption, in the company's operations, of options with the most benefit or least damage to minimize environmental impacts of the company's operations	Environment	**EN27**
4	28.3d	The nature and extent of employment equity and gender policies and practices especially as they relate to executive level opportunities	Social	**LA13**
5	28.3e	Information on number and diversity of staff, training initiatives, employee development and the associated financial investment	Social	**LA1 & LA11**
6	28.3f	Disclosure on the conditions and opportunities created for physically challenged person's or disadvantaged individuals	Social	**LA10**
7	28.3g	The nature and extent of the company's social investment policies	Social	**LA12 / 3**
8	28.3h	Disclose the company's policies on corruption and related issues and the extent of compliance with the policies and the company's code of ethics	Social	**SO2, 3 & 4**

Another important source of requirement for corporate mandatory disclosure is accounting standards setters (Wallace, Naser and Mora 1994, Owusu-Ansah 1998) referred to as NASB in Nigeria. NASB[48] came into being in September, 1982 and was recognized as a government public body in 1992. Its main functions are to develop and publish Statements of Accounting Standards (SAS) to be observed in the preparation of financial statements, promote general acceptance and usage of the standards by preparers and users of the financial statements, promote and enforce compliance with the standards, and review the standards from time to time to reflect prevailing social, economic and political circumstances. The Financial Reporting Council of Nigeria (FRCN) reported that the board has issued 31 standards, SAS 1 to 31 to date (FRCN 2013). SAS 23 which is consistent with International Accounting Standard (IAS) 37 on contingent liabilities provides for disclosure of contingent liabilities. This could be applicable to decommissioning[49] costs in the case of extractive and mining industries such as the oil and gas industry. Therefore, it could be debated that there are no clear social or environmental disclosure requirements in these standards. There are also established regulatory institutions in Nigeria meant to safeguard the environment and social system within which corporate organizations are operating.

The government established Federal Ministry of Environment (FME) in 1999 with the vision of ensuring that Nigeria's development is in harmony with the environment. Its mission is

[48] The Nigerian senate passes the Financial Reporting Council of Nigeria bill which repeals the Nigerian Accounting Standard Board Act [NASBA] replacing it with new set of rules and the bill was signed by the then president Chief Olusegun Obasanjo in August, 2011.

[49] Simply defined as the process of dismantling oil and gas installations (platforms, flow stations, pipelines, etc.) at the end of oil and gas production life cycle and returning the environment to its natural status (Lawal, 2009).

to ensure environmental protection and natural resources conservation for sustainable development. The ministry is an upshot of FEPA established under decree 58 of 1988. Thus, it took over the functions of FEPA which includes environmental protection, conservation of biodiversity, and undertaking of environmental technology research. To carry out these functions, standards were set on water and air quality, discharge of effluents, noise levels, atmospheric and ozone layer protection and controls on hazardous substances (FME 2013, Uwalomwa, Olubukunola and Ajayi 2011b, Uwalomwa 2011a). Another institution is the National Environmental Standards Regulatory and Enforcement Agency (NESREA).

NESREA is an institutional framework established under an Act in 2007. The objective of establishing the body is to be responsible for the protection and development of the environment, biodiversity conservation and sustainable development of Nigeria�even natural resources in general. It is also responsible for development of environmental technology. Similarly, it is saddled with coordination and liaison with relevant stakeholders within and outside Nigeria on matters of enforcement of environmental standards, regulations, rules, laws, policies and guidelines (NESREA 2007). Some of the functions of this agency include enforcing compliance with environmental laws; liaising with stakeholders in and outside Nigeria on matters relating to environment; enforce compliance with provisions of all ratified international treaties on environment; and enforce compliance with policies, legislations, guidelines and standards on the environment. With these outlines on Nigeria’s general contextual factors and its institutional and regulatory frameworks relating to social and environmental issues, the next section look at CSEDs in Nigeria in general.

3.3 Corporate Social and Environmental Disclosure Practices in Nigeria

Nigeria is classified among developing countries (IMF 2015) and corporate social disclosure practices are reported as being at infancy stage in developing countries (Tsang 1998, Dobers and Halme 2009b, John, Daniel and Angel 2012). Indeed, it is at embryonic stage in Nigeria (Uwalomwa 2011c). This is consistent with the argument that corporate organizations in developing countries are more concerned with how much profits are generated and how much dividends are paid, paying no attention to social and environmental issues and disclosure (Iyoha 2010). On SED studies, inaccessibility or absence of data relating to corporate actions on social and environmental issues is reported in Nigeria (Asechemie 1996, Uwalomwa 2011a).

However, the few available studies in the literature suggest that corporate social disclosure are of significance to corporations in Nigeria. For instance, corporate social disclosure by banks in Nigeria are found useful by the banks in satisfying their stakeholders' interest (Akano et al. 2013). Good corporate citizenship sequel to responsible corporate behavior encompassing social disclosure is reported as an important component to achieving corporate economic mission (Effiong, Akpan and Oti 2012). Similarly, corporate social disclosure is found helpful in eliminating or minimizing problems associated with relationships between corporate organizations and society (Ebimobowei 2011). Furthermore, the literature has also reported the most common locations of SEDs and nature of the disclosures. Chairman's statement and notes to accounts (Ebimobowei 2011) and directors reports (Mamman 2004) are reported as the most popular locations of social disclosure in corporate annual reports in Nigeria. It is reported that the most disclosed categories on corporate social disclosure by sampled commercial banks are human resources followed by community involvement with few disclosures on environment and product/service quality (Akano et al. 2013).

Information relating to products and consumers, employees and community involvement respectively, are reported as the most disclosed items of corporate social disclosure by manufacturing companies (Uwalomwa and Jafaru 2012b). Chemical and paints, construction and petroleum marketing companies were reported as making 100% disclosure on all six disclosure categories while the most disclosed categories are in the order of human resources, fair business practices, community development and products; while disclosures on environment are mainly on energy and environment (Ebimobowei 2011). Community involvement is found as the priority of CEOs interviewed on corporate social disclosure, less priority on employees and non on socially responsible products and services (Amaeshi et al. 2006). Using a disclosure index containing 85 environmental indicators, it is found that sampled Nigerian firms' disclosed on minimum 11 items and maximum 56 and mean disclosure of 31 items. Thus, concluding that sampled companies made one form of environmental disclosure or the other (Uwalomwa 2011a).

A comparative study of the building materials and brewing industries on social disclosure reveals that the brewing industry makes more disclosure than the building materials industry with minimum disclosure levels of 48.80 against 22.40; maximum disclosure levels of 56.40 against 40.60 and mean score of 49.32 against 33.84 respectively (Uwalomwa 2011c). It is found from a study that uses disclosure index comprising 24 disclosure items that sampled companies made an average of 44% of voluntary disclosure (Adelopo 2011). Corporate internal characteristics have also been found to have effects on corporate social disclosure in Nigeria.

From a study of commercial banks, firm size is found having positive relationship with corporate social disclosure levels (Akano et al. 2013). Profitability and industry type are found to have statistically positive relationship with corporate social disclosure. However, corporate size and ownership concentration are found to be statistically insignificant in explaining the level of corporate disclosure (Osazuwa, Okoye and Izedonmi 2013). Similarly, profitability is reported positive and significantly related to level of corporate environmental disclosure by sampled Nigerian companies (Uwalomwa 2011a). In a comparative study of listed companies, significant positive relationship between voluntary corporate social disclosure and firm size is reported (Adelopo 2011). Block and management ownerships are found having statistically strong inverse relationship with voluntary social disclosure (Adelopo 2011). Significant association is reported between environmental visibility and level of corporate social disclosure among sampled listed companies in Nigeria (Uwalomwa, Olubukunola and Ajayi 2011b).

Firms' financial performance is found to have positive and significant relationship with level of corporate social disclosure (Uwalomwa and Egbide 2012a). However, Dembo (2013) found no relationship between corporate financial performance and social performance, but reported positive and significant relationship between size and corporate social performance among listed Nigerian corporations. The methods of conducting corporate social disclosure studies and tools of analysis in Nigeria are also documented.

Content analysis is the most widely used method of data collection on corporate social disclosure studies in Nigeria (Uwalomwa, Olubukunola and Ajayi 2011b, Ebimobowei 2011, Uwalomwa and Egbide 2012a, Uwalomwa and Jafaru 2012b, Akano et al. 2013). Descriptive, regression, correlation analyses and analysis of variance are the most widely employed in data analysis (Uwalomwa, Olubukunola and Ajayi 2011b, Uwalomwa 2011c, Uwalomwa and Egbide 2012a, Uwalomwa and Jafaru 2012b, Akano et al. 2013, Hassan and Kouhy 2014, Hassan 2012). Thus far, it could be debated that there are social disclosure studies on Nigeria. However, these studies are carried out in sectors other than oil and gas industry which is the focus of this study. For instance, Akano, et al (2013); Effiong, Akpan and Oti (2012) focus on the banking industry for one year period each. Ebimobowei (2011) used companies from eight industrial sectors for a period of three years while Uwalomwa and Jafaru (2012b) studied cement companies for one year. Similarly, Amaeshi et al (2006) conducted interviews with sample CEOs drawn from oil and gas, telecommunications and manufacturing companies. Adelopo (2011) studied companies from multiple sectors for one year using univariate and multivariate analysis. Stakeholder theory is identified as the dominant theory in aforementioned studies. However, in order to bring out the literature gaps that justify this study, it is imperative to look at the Nigerian oil and gas industry and its social disclosure practices.

3.4 The Nigerian Oil and Gas Industry

The NNPC reported that commercial oil was first discovered in the country in Oloibiri in Bayelsa state of the Niger Delta area in 1956 after about half a century of exploration activities. The country joined the ranks of oil producers in 1958 when this first oil well came on stream by producing 5,100 barrels of oil per day. Since then production has been on the increase and as at end of 2013, the country produced on the average, 2 million barrels of oil per day (NNPC 2013). In a similar vein, the importance of oil to the economic, social and political spheres of the country kept rising. For instance, the contribution of oil to Nigeria's total foreign revenue was less than 10% in the early 1960's contributing 4.10% in 1963 and 5.90% in 1964 (Graf 1988, Robinson 1996) with bulk of the total revenue coming from agriculture (Iwaloye and Ibeanu 1997). However, from early 1970's, the contribution of oil to total foreign revenue and total national revenue began to increase to the extent that the CBN reported that oil revenue accounted for 93% of Nigeria's total foreign revenue earnings and 70% of its total national revenue in 2013 (CBN 2015). Table 3.2 indicates the contribution of oil and gas to foreign, total national revenue earnings[50] and Gross Domestic Product (GDP) for the period 2004 to 2013 (CBN 2015).

Table 3:2 Contribution of Oil and Gas to Foreign, Total National Revenue and GDP 2004 to 2013

Year	Total Foreign Earnings (Billion $)	Contribution of Oil to Foreign Earnings (%)	Contribution of Oil to Total Revenue (%)	Contribution of Oil to GDP (%)
2013	98b[51]	93	70	33
2012	119b	91	75	37
2011	105b	88	80	41

[50] Nigeria's total revenue is given in Naira (N) denomination comprising oil and non-oil sources. The essence of the below Table is to portray the contribution of oil revenue to foreign exchange and total national revenue earnings, therefore, depicting oil contribution to national revenue in percentage is argued as enough for this purpose.

[51] Values of Foreign earnings are given in Nigerian Naira denomination; thus, central exchange rates of Naira to dollar for as at the end of each year are used to arrive at reported dollar values in the Table.

2010	89b	94	74	43
2009	67b	70	69	30
2008	109b	91	83	38
2007	74b	40	78	37
2006	59b	56	87	38
2005	52b	98	85	39
2004	35b	98	84	37

From Table 3.2, it is clear that Nigerian oil and gas industry is playing significant role in contributing to the country's foreign exchange earnings and its total revenue generation. The industry is projected to continue playing this significant role based on the country's enormous oil and gas reserves. The country is reported as having 37.10 billion barrels of proved oil and 180.50 trillion cubic feet of gas reserves respectively placing it in the tenth and ninth positions in global ranking of countries with oil and gas reserves as at end of December, 2015 (BP 2016). Therefore, based on these enormous oil and gas reserves and consistent with Ugochukwu and Ertel (2008) and Ebegbulem, Ekpe and Adejumo (2013); this study also argues that the industry is playing and will continue to play crucial roles in Nigeria's economic, social, and political development. However, exploration and production of oil and gas natural resources vital to Nigeria are associated with social and environmental impacts. Such social and environmental impacts although more prominent in the oil and gas producing region of the Niger Delta; affects the entire country and is contributing to global impacts of the oil and gas industry (Ugochukwu and Ertel 2008, Benedict 2011, Hassan 2012, Hassan and Kouhy 2013, Allen 2012). Frynas (2009) argues that although key social and environmental concerns peculiar to an industry such as the oil and gas industry are typically common in most countries, a country may have its peculiar social and environmental impacts. Therefore, Nigerian oil and gas industry may have its peculiar social and environmental impacts. However, before looking into the social and environmental impacts of the Nigerian oil and gas industry, it might be interesting to look into the environment of Niger Delta oil and gas producing region as presented in the next section.

3.4.1 The Environment of Niger Delta

The Niger Delta region has been described as a fan shaped third largest wetland area in the world after Mississippi and Pantanal (Benedict 2011). The region is documented as comprising nine states of Bayelsa, Delta, Rivers, Abia, Akwa Ibom, Cross River, Edo, Imo and Ondo covering an area of 70,000 km^2 (Ugochukwu and Ertel 2008, Okereke and Orjiafor 2011, Ebegbulem, Ekpe and Adejumo 2013). However, it is debated that the region comprises Bayelsa, Delta and Rivers states only and covers an area of 25,640 km^2 opined as the actual geographical coverage of the region (Benedict 2011). The region consists of four different ecological zones; one, Freshwater swamp forests that covers 11,700 km2 of the region and is typically characterised by seasonal flooding with the floodwaters collecting in countless ponds and swamps saturating the soil for at least the rainy season. Two, the mangroves which covers an area of 10,240 km2; three, lowland rainforests with an area of 7,400 km2; and four, barrier island forest also called 'beach ridge island forest' which is the smallest in the Delta (Singh, Moffat and Linden 1995)[52]. However, it is also reported that the region is consisting of only two distinct ecological zones: tropical rain forest in the

[52] The fourth zone is documented as containing group of rainforest species growing in the inland side of the beach ridges and freshwater swamp forest from the freshwater Table (Ugochukwu and Ertel 2008).

north and mangrove vegetation transverse by rivers, tributaries and creeks in the southern part (Hutchful 1985).

In addition to the different ecological zones described above, the entire landscape of the region is reported as traversed by rivers, streams, canals, and creeks (Okereke and Orjiafor 2011). Looking at the biodiversity[53] of the region, it is estimated that the region has more than 4,600 different plant; 274 mammals; 330 birds; and 114 reptile species (World Resources Institute 1992). It also has 197 different species of freshwater fish which is the highest concentration in the West African region (Powell 1993). Similarly, it is home to unique and diverse flora and fauna holding 60 – 80% of all Nigerian plant and animal species (Ebeku 2005). Traversing these rich environment and biodiversity's of the region are oil and gas assets and infrastructures. There are total of 218 producing fields and 97 non-producing fields; 130 flow stations; 27 terminals; and 15,000 and 5,000 kilometres of oil and gas pipelines respectively (Opara 2012). Similarly, there are 5,284 oil wells in the region (Okereke and Orjiafor 2011). These oil and gas assets and infrastructures are cohabiting with the human population of the region. The Nigerian National Population Commission (NNPC) reported that the region has a total population of 31,224,577 based on the 2006 national population census Figures. United Nations Development Program (UNDP 2006) reported that more than 70% of the people living in this area depend on the natural environment for their livelihood. However, exploration and production of oil and gas resources, oil and gas assets and infrastructures in this region are reported as having negative impacts on the society and environment.

[53] Biodiversity is defined as the variations among living organisms encompassing their species, genetic and ecosystem diversities (Okiwelu and Anyanwu 2003) cited in Zabbey (2004).

3.4.2 Social and Environmental Impacts of the Nigerian Oil and Gas Industry

The process of exploring and producing oil and gas in Nigeria is associated with lots of social and environmental problems. Although, these problems are mainly prevalent in the Niger Delta region where these activities are taking place, they nevertheless affects the entire country and the global community in general (Ugochukwu and Ertel 2008, Benedict 2011, Hassan 2012, Hassan and Kouhy 2013, Allen 2012, Hassan and Kouhy 2014, Hassan and Kouhy 2015). NNPC reported that onshore oil production accounted for approximately 75 % of total production in 2014 (NNPC 2014)[54]. Thus, it could be said that majority of oil and gas production in Nigeria is from onshore oil fields. Onshore oil and gas exploration and production activities in the Niger Delta entails converting scarce farming and fishing areas for this purpose with attendant negative consequences.

Converting scarce farming and fishing lands reduces food and cash crops production (Jike 2004, Allen 2012); as these scarce lands are rendered useless for these purposes due to pollution, thereby making people in the region poorer than other regions (Ebegbulem, Ekpe and Adejumo 2013). With less or no farming lands, parents are finding it difficult to feed their families and have rendered them so poor that they are unable to pay school fees for their children. Thus, girl children are forced to offer themselves for commercial sex to pay their fees resulting in high frequency of teenage pregnancy in the region (Okereke and Orjiafor 2011). Similarly, high prevalence of poverty is reported to have negatively affected matrimonial homes as women abandon their poor husbands for rich oil workers (Jike 2004). This poverty is also the reason for massive rural–urban youth

[54] Annual Statistical Bulletin 2014 is the most recent publication

migration leading to over-population in cities, increase in crime rates and pressure on scarce social amenities in the urban areas (Mabogunje 1968). In communities where the youth remain, such social disorders as proliferation of arms, increasing illiteracy rate, crimes, lawlessness and destruction of local governance by emerging youth groups competing for scarce resources are reported (Tuodolo 2009). Health problems are also reported as some of the social problems attributed to oil and gas activities in Niger Delta.

Such sexually transmitted diseases as Acquired Immune Deficiency Syndrome (AIDS), Gonorrhoea, Syphilis, etc. are on the increase in the region (Okereke and Orjiafor 2011). Similarly, child mortality, maternal morbidity and mortality, malaria and typhoid fever are on the increase in the region. The reason being people cannot afford treatments due to abject poverty as a result of destruction of their means of livelihood by oil and gas exploration activities (Okereke and Orjiafor 2011). Such health problems as convulsions, chromosomal damage and birth defects caused by benzene, are also related to blazing fire of gas flaring (Osuokaand Roderick 2005). Indeed, long term gas flaring is found responsible for bronchial and respiratory diseases among people in the region (Akoroda 2000, Ebegbulem, Ekpe and Adejumo 2013). This is consistent with findings which indicated that residents around oil rich zones are predisposed to respiratory problems, skin disorders, health risks and child deformities (Mynepalli and Bamgboye 2009). Similarly, most of the oil producing communities have lost their rich mangrove forests hitherto useful to them in getting timber for their housing, bamboo for staking yam, fuel woods, medicinal plants, fruits and vegetables to oil and gas exploration and production. Likewise, drinking water in most communities of this region is found contaminated (UNEP 2011).

Above are some of the social problems related to oil and gas exploration and production, environmental problems are also documented. Excessive exploration and seismic activities are found as having negative impacts on soil fertility and quality of crops (Jike 2004, Benedict 2011). Indeed, the quality, size, and shape of traditional staple such as cassava, yam, plantain etc. are reported as adversely affected due to oil exploration activities (Akoroda 2000). Migration of wide range of wildlife hitherto highly visible before oil exploration in the region is documented (Jike 2004). Explosion of dynamites during oil exploration leads to narcotic effects and mortality of fish and other faunal organisms (Zabbey 2004). Dynamiting also causes increase in turbidity; reduces plant photosynthesis and blockage of the filter feeding fauna which collectively have negative effects on the environment. Construction of oil and gas pipelines fragments on natural ecosystem such as rainforest and mangroves leads to segregation of natural population and negative effects on breeding behaviour of animals and birds species (Ugochukwu and Ertel 2008).

Oil spillage[55] is another major environmental impact of the oil and gas industry in Nigeria (Benedict 2011, Allen 2012, Ebegbulem, Ekpe and Adejumo 2013). In effect, the problem of oil spillage in Nigeria is among the worst globally (Ifeadi, Ekaluo, and Orubuma 1985). Although exact Figures for volume or number of incidences of oil spillage are difficult to be accessed, the Department of Petroleum Resources (DPR) reported that on the

[55] Oil spill is simply defined as the accidental release of oil in the environment due to human activities which could be in water or on land. It is an aspect of environmental pollution with enormous environmental consequences (Odogwu, 2013).

approximate, 1.89 million barrels of oil were spilled in Nigeria from 1976 to 1996 in 4,647 recorded incidences. Conversely, UNDP documented 6,817 incidences of oil spill from 1976 to 2001 in which 3 million barrels of oil were spilled (UNDP 2006). However, between 10 to 15 million barrels of oil are reported as actual spilled oil in Nigeria from 1958 to 2013 (Thisday 2013). Below Table 3.3 are some major oil spill incidences in Nigeria to give an idea of the spills as over 300 large and small incidences of oil spills are reported occurring in Nigeria annually (Duffield 2010).

Table 3:3 Reported Major Oil Spill Incidences in Nigeria 1978 to 2012

Year	Incidence of Spill	Quantity of Oil Spilled
1978	SPDC Farcados Tank Failure	500,000 barells
1978	Escravos Oil Spill	300,000 barells
1980	Texaco Funiwa Well 5 incidence	400,000 barells
2007	Chevron Nigeria Limited Ilaje Oil Spill	300,000 barells
2012	Bodo Shell Oil Spill	103,000–311,000 barells

Oil spill is documented as responsible for killing of plants and animals, and crabs in the estuarine zone. It poisons algae and disrupts food chains and reduces the yield of such edibles as crustaceans; endangers fish hatcheries in the coastal area and contaminate commercially viable fish flesh (Ngoran 2011). It is also responsible for low farm produce which results in food shortage, loss of livelihood (fishing and farming), water pollution and diseases (Tuodolo 2009). Lower volatile molecular components of spilled oil evaporate into the air while the less volatile molecular components dissolve in water both of which are harmful to aerial and aquatic life. Similarly, mangrove areas that are serving as source of fuel for inhabitants and as biodiversity are reported lost to oil spill (Akpofure, Efere and Ayawei 2000). Oil spillage is also having degrading impacts on the flora and fauna of the ecosystem, affects farmlands, navigational and fishing activities (Fagade 1990).

Another major environmental impact of the Nigerian oil and gas industry is gas flaring[56]. There are over 100 continuously burning gas flare points in the Niger Delta some of which have been burning since 1960's (Allen 2012). The country leads the top 20 global flaring countries in 2004 (World Bank 2004, Gervet 2007), then falling to second position following Russia in subsequent years to 2013 (World Bank 2015). The World Bank/UNDP reported that Nigeria's gas flare is contributing 70 million metric tons of carbon dioxide emission annually (World Bank 2004). The report further state that Nigeria's flare volume is a substantial proportion of global greenhouse emissions and its elimination will impact on reducing global carbon emissions. Table 3.4 indicates the annual gas flare volumes and global ranking among top 20 global most flaring countries for the period covered by this study 2004 to 2013 (NNPC 2013, World Bank 2015).

Table 3:4 Nigeria's Gas Flare Volumes and Ranking among Top 20 global Flaring Countries 2004 to 2013

Year	Volume of gas flared (Million Standard Cubic Feet)	Nigeria's Ranking among 20 most Flaring Countries

[56] The International Association of Oil and Gas Producers (IAOGP) defined Flaring as the controlled burning of natural gas in the course of routine oil and gas production operations (IAOGP, 2008).

2004	886,070,556.00	1st
2005	812,332,777.00	2nd
2006	799,998,368.20	2nd
2007	789,546,171.84	2nd
2008	631,188,574.46	2nd
2009	509,351,905.35	2nd
2010	581,568,353.85	2nd
2011	619,032,858.01	2nd
2012	588,666,724.18	2nd
2013	409,311,430.00	2nd

From Table 3.4, it could be articulated that Nigeria is making significant contribution to global gas flaring which is a human anthropogenic activity contributing to global carbon dioxide emission (Gervet 2007). Human induced carbon emissions are reported responsible for such environmental consequences as global warming, destruction of the ozone layer, and loss of biodiversity (Rubbelke 2002). In Nigeria, gas flaring is reported as having adverse effects on plant growth (Orubu, Odusola and Ehwarieme 2004) and that the nearer are such plants as palm oil and plantain to gas flare points, the poorer their being green (Isiche and Sanford 1976, Kalio-Danial and Braide 2006). This is consistent with the findings that there is 100% loss in yield of cultivated crops 200 meters away from gas flare point, 45% yield loss 600 meters away, and around 10% loss one kilometer away (Okezie and Okeke 1987).

Similarly, Bose and Sharma (2005) found that the yields of all studied rice varieties are significantly affected by gas flaring. Deforestation due to gas flaring is contributing greatly to excess carbon causing overheating of the atmosphere and increase in temperature, heavy rainfall and flooding which lead to serious soil erosion, leaching, and poor soil fertility and agricultural productivity (Etim, Ituen and Folarin 2008). Similarly, gas flaring from 17 onshore flow stations in Bayelsa state are likely to cause 49 premature deaths, respiratory illness in 5,000 children, 120,000 asthma attacks and 8 additional cases of cancer each year (ERA 2005). Another effect of gas flaring is tendency for acid rain which affects vegetation, pollution of rivers, lakes and creeks and destruction of housing roofs. It also causes such serious health problems as blood disorder, cancer, asthma or chronic bronchitis (ERA 2005).

Another significant social and environmental impact of the industry is adulterated petroleum products most especially PMS (petrol); AGO; and Kerosene. Indeed, NNPC gave a warning of circulation of adulterated kerosene susceptible to explosions in certain parts of the country (NNPC 2014). Adulteration of petrol with kerosene or kerosene with petrol and diesel depending on price are reported and this is causing lots of problems (Osueke and Ofondu 2011). Engine malfunctioning, components failure and safety problems which become magnified with high performance modern engines are reported (Kamil, Sardar and Ansari 2008). Similarly, increased emission of carbon monoxide, oxides of nitrogen and other toxic substances are also reported as consequences of petroleum products adulteration (Muralikrisha, Kishor and Venkata 2006).

Furthermore, significant loss in tax revenue that negatively affects the GDP is associated with petroleum products adulteration (Osueke and Ofondu 2011). Likewise, adulteration of kerosene is the cause of loss of many human lives in Nigeria (Emenyonu 2012, Agbo 2013, Amaize 2013, Omafuaire 2014). Thus, it could be contended that activities of Nigerian oil and gas companies have lots of environmental impacts which in turn are causing social problems. Therefore, studying the SED practices of the sampled companies may reveal the pattern of their practices and consistency or otherwise with existing literature findings. Reported social and environmental impacts are occurring despite the existence of statutory regulations and institutional frameworks meant to safeguard society and the environment. Therefore, a look at these provisions in the industry could be useful here.

3.4.3 Statutory Regulations on Society and Environment in the Oil and Gas Industry

The Nigerian government has been putting in place regulatory and institutional frameworks in the oil and gas industry to safeguard the environment and society from the adverse impacts of activities of the industry. These statutory regulations and institutional frameworks are promulgated and instituted to reflect the changing dynamism of operations in the industry in particular and to reflect global standards in general. Below are some of these statutory regulations and institutional frameworks.

3.4.3.1 Oil in Navigable Waters Act 1968

This is an act enacted for the purpose of implementing the terms and conditions of the International Convention for the Pollution of the Sea by Oil (ICPSO) 1954 to 1962; and to make provisions for such preventions in the navigable waters of Nigeria. The act state in section 1(a - c) that if any oil or mixture containing oil is discharged into waters to which this section applies from any vessel, or from any place on land, or from any apparatus used for transferring oil from or to any vessel (whether to or from a place on land or to or from another vessel) such should be reported. The act further required the disclosure of any oil spill from a harbor in paragraphs' a – c of section 10 sub-section 1. However, these requirements are meant to be disclosed to relevant regulatory agencies; thus, are not mandated to be published in annual report and accounts. Another statutory regulation is the Petroleum Drilling and Production Act (PDPA) 1969.

3.4.3.2 Petroleum Drilling and Production Act (PDPA) 1969

This act was enacted to legislate on oil and gas exploration and production activities in the industry. Regulation 42 of the act requires oil and gas companies to submit plans for the utilization of natural gas whether associated with oil or not discovered in any area no later than 5 years after commencement of operations. Although this provision may be indicating commitment to gas flaring reduction; there are no evidences of compliance by oil and gas companies or enforcement by government of this provision (Malumfashi 2008). This provision is also not a requirement for disclosure in the annual reports and accounts. Another provision is the Associated Gas Reinjection Act (AGRA).

3.4.3.3 Associated Gas Re-Injection Act 1979

This is an act meant to compel every company producing oil and gas in Nigeria to submit a comprehensive preliminary program of gas re-injection and detailed plans for the implementation of the re-injection program. Section 1 of the act requires every company producing oil and gas in Nigeria, to, no later than 1 April, 1980, submit to the Minister of petroleum a preliminary program for: (a) schemes for the viable utilization of all associated gas produced from a field or groups of fields; and (b) project or projects to re-inject all gas produced in association with oil but not utilized in an industrial project. The act also provided that no company engaged in the production of oil or gas shall after 1

January, 1984 flare gas produced in association with oil without the permission in writing of the Minister of petroleum. However, the government promulgated the AGRA, 1984 (Continued Flaring) to allow flaring exemptions in certain circumstances. Other amendments were made in 1985; then followed by the AGRA (Amendment) Act 2004 and the Gas Flare Phase-out 2008 all with the aim of stopping gas flaring in the industry (Malumfashi 2008). However, based on the data in Table 3.4, Nigeria is still the second among the top 20 global most flaring countries.

It is reasoned that those statutory regulations made in 1960's and 1970's were not implemented by oil and gas companies and are not enforced by the government (Uwalomwa 2011c). Similarly, it is further argued that penalties thereon which are very low, rather than deter the oil and gas companies from gas flaring are actually incentives to the flaring. This is based on the fact that it is economically expedient for oil and gas companies to flare and pay penalties than to conserve the gas. In essesnce, poor or none enforcement of the provisions of the laws in the 1960's and 1970's is largely responsible for existing social and environmental degradations in the Niger Delta oil and gas producing region (Uwalomwa 2011c). The government as stated earlier has also put in place institutional frameworks as outlined below.

3.4.4 Institutional Frameworks on Society and Environment in the Oil and Gas Industry

These are government establishments saddled with the responsibility of ensuring socially and environmentally responsible operations in the oil and gas industry. Some of these institutions are established to regulate activities in the industry including corporate social and environmental issues. Some are established to address particular environmental issues such as oil spill or gas flaring; yet, others are established to address social and environmental problems of the Niger Delta oil and gas producing region; below are the institutions.

3.4.4.1 Nigerian National Petroleum Corporation (NNPC)

This is a government corporation engaged in petroleum activities created under decree 33 of 1971 as the Nigerian National Oil Company (NNOC). A Petroleum Inspectorate Unit (PIU) is also provided for under the decree, thus, the main functions of the company are to handle the commercial operations and inspection of petroleum activities. However, the government merged NNOC and Federal Ministry of Petroleum Resources (FMPR) to become the present day NNPC (Malumfashi 2008, NNPC 2013). A subsidiary known as Nigerian Gas Company (NGC) was created in 1988 under NNPC charged with the responsibility of establishing an efficient gas industry for the country. This initiative is seen as not only capable of stopping gas flaring, but assist in harnessing the country's gas resources for its development (Malumfashi 2008). However, World Bank report that Nigeria is losing on annual basis an estimated $2.5 million to gas flaring and the volume of flared gas is capable of generating 6,000 megawatts of electricity (World Bank 2004). Gas flaring in the Nigerian oil and gas industry is aggravated by lack of necessary technology for gathering and conserving the flared gas on one hand and lack of domestic market for the gas (Malumfashi 2008). These and data on annual gas flare volumes in Table 3.4 could be argued as indications of inefficient performance of this institutional framework. Another institution with mandate to act on responsible social and environmental practices in the industry is the DPR.

3.4.4.2 The Department of Petroleum Resources (DPR)

This was established in 1970 but underwent various transformations until 1988 when it was re-established as an inspectorate arm of the FMPR. The body has the statutory responsibility of ensuring compliance with petroleum laws, regulations, and guidelines in the Nigerian oil and gas industry. Discharging these responsibilities entails monitoring of operations at drilling sites, producing wells, production platforms and flow stations, pipelines carrying crude oil and gas, crude oil export terminals and any location where petroleum is stored or sold. The department is saddled with among others (i) monitoring operations in the petroleum industry to ensure that they are in line with national goals and aspirations including those relating to flare down and Domestic Gas Supply Obligations (DGSO) and (ii) ensuring that Health, Safety and Environment (HSE) regulations conform to national and international best oil field practice (DPR 2015). Thus, the functions of the department could be said as that of enforcing established rules and regulations. Government has also established the National Oil Spill Detection and Response Agency (NOSDRA) to specifically address oil spill in the industry.

3.4.4.3 National Oil Spill Detection and Response Agency (NOSDRA)

This is an institutional framework established to implement the National Oil Spill Contingency Plan (NOSCP)[57] initiated in 2006. These are its key functions: one, responsible for surveillance and

[57] "The National Oil Spill Contingency Plan (NOSCP) is a blueprint/manual for checking oil spill through, containment, recovery, and remediation/restoration. It is a proactive strategy for preventing loss of lives, assets and natural resources. The National Oil Spill Contingency Plan is mandatory for all parties to the International Convention on Oil Pollution Preparedness and Response Co-operation (OPRC 90) which Nigeria has ratified" (NOSDRA, 2013).

ensuring compliance with all existing environmental legislation and the detection of oil spills in the petroleum sector. Two, receive reports of oil spillages and coordinate oil spill response activities throughout Nigeria. Three, co-ordinate the implementation of the NOSCP as may be formulated, from time to time, by the Federal Government. Four, co-ordinate the implementation of the NOSCP for the removal of hazardous substance as may be issued by the Federal Government; and five, encourage regional co-operation among member states of West African Sub-region and Gulf of Guinea for combating oil spillage and pollution in our contiguous waters (NOSDRA 2013). In nutshell, the function of NOSDRA is to ensure that it compels oil and gas companies operating in Nigeria consider the effects of their activities on host communities and the environment (Vanguard 2011). However, oil spill is still a major environmental problem with its attendant social problems bedeviling the oil and gas producing Niger Delta region. Therefore, in an attempt to address myriads of social and environmental problems in the region, government established the Niger Delta Development Commission (NDDC).

3.4.4.4 The Niger Delta Development Commission (NDDC)

The commission was established by an Act in 2000 with the mission of facilitating the rapid, even and sustainable development of the Niger Delta oil and gas producing region[58]. The aim is to transform it into an economically prosperous, socially stable, ecologically regenerative and politically stable region. The Act saddled the commission among others with the functions of one, tackling ecological and environmental problems that arise from the exploration of oil mineral in the Niger-Delta

[58] The commission is an upshot of the Oil Mineral Producing Areas Development Commission (OMPADEC) established under decree 23 of 1988

area and advise the Federal Government and the member states on the prevention and control of oil spillages, gas flaring and environmental pollution (NNDC 2014).

Two, liaise with the various oil mineral and gas prospecting and producing companies on all matters of pollution prevention and control; and three execute such other works and perform such other functions which in the opinion of the commission are required for the sustainable development of the Niger-Delta area and its people (NNDC 2014). Thus far, requirements in section 28.3 of part D by SEC corporate governance are the only clear statutory and or institutional requirements for CSED in Nigeria despite the prevalence of such impacts in the country. This might be consistent with the findings of Disu and Gray (1998) that social disclosure in Nigeria are voluntary activities. The next section review literature on CSED by oil and gas companies in the Nigerian oil and gas industry.

3.4.5 Corporate Social and Environmental Disclosure Practices in the Nigerian Oil and Gas Industry

Corporate social disclosure is discussed as voluntary corporate response to addressing the social concerns of stakeholders and the society at large (Frynas 2009) and is documented as an emerging issue in Nigeria (Waziri and Masud 2012). However, there is apparent progress on corporate disclosure studies in Nigeria as reviewed in section 3.3. Despite this apparent progress; there is dearth of studies in the oil and gas industry in particular. However, there are few literature findings on SED practices in the industry. Lack of environmental accountability to stakeholders in the Nigerian petroleum industry is reported. This lack of accountability is attributed to weak government regulations; non-recognition of host communities as powerful stakeholders; and non-recognition of Nigerian public as legitimate stakeholders (Hassan and Kouhy 2015).

Shell Oil Company rather than undertaking activities that addresses social and environmental concerns of stakeholders is mainly engaged in undertaking activities supposed to be executed by government to achieve political gains (Hennchen 2015). Gas Flaring Related (GFR) environmental performance and gas flaring related volumetric disclosure by dominant oil and gas companies in Nigeria are found statistically and positively related. Similarly, the companies are found making disclosure of hard GFR information in order to legitimise the production and flaring of Associated Natural Gas (ANG) in their operations (Hassan and Kouhy 2014). Hassan and Kouhy (2013) analysed changes in gas flaring and reporting in Nigeria 1965 to 2009 and found that corporate size and industry environmental philosophy are having strong positive impact on gas flaring related carbon emissions. Similarly, the study found that NNPC do not consider changes in carbon emissions due to gas flaring in deciding how much gas flaring information to disclose. Sample dominant oil and gas companies in the upstream sector of Nigerian oil and gas industry are reported making significant disclosure of gas flaring (Hassan 2012).

Likewise, IOCs operating in Nigeria are making significant disclosure of their sustainability performance in accordance with the GRI sustainability requirement, although the disclosure are disputed as not reflecting actual performance (Waziri and Masud 2012). However, IOCs in Nigeria do not prepare annual reports and accounts or sustainability reports on Nigerian operations, rather, on global basis. Oil and gas companies are found making disclosure on gas flaring, although the reporting basis differs from one company to another and it is on global basis (Ayoola 2011).

Oil and gas companies are found to have made extensive reports on their economic performance, although, they have failed to report on policies and programs of promoting transparency in making payments to the government. The companies also failed to make any report on local environmental performance, nor disclose oil spills and discharges in to the water. Similarly, the study found that employees are not involved in health and safety programs, and there are no disclosure on their training, incidents of discrimination and violation of human rights, and no policy to gauge employee satisfaction (Asaolu et al. 2011).

Thus far, it is important to highlight literature gaps in previous studies that justify the conduct of this study. Relevant studies reviewed in section 3.3 pertain to social disclosure practices in Nigeria with the exception of the oil and gas industry. Therefore, all the studies are conducted in industries other than the oil and gas industry although sampled oil and gas companies are included in multi-industry studies (Amaeshi et al. 2006, Adelopo 2011). Consequently, these previous studies are not focused on social disclosure in the most vital industry that Nigerian economy depends on, which is also associated with numerous social and environmental issues. Therefore, this study fills this literature gap by specifically looking into SED practices of listed Nigerian oil and gas companies.

Studies reviewed in section 3.4.5 specifically relates to SEDs in the Nigerian oil and gas industry. The study by Hassan and kouhy (2015) focus on environmental accountability by Foreign Multinational Oil Companies (FMOCs) in the Nigerian oil and gas industry using the theory of stakeholder identification and salience. Similarly, Hassan and Kouhy (2014) look into environmental performance and disclosure by FMOCs in Nigeria using vulnerability and exploitability argument to obtain new insights on legitimacy and voluntary environmental disclosure.

The study by Hassan and Kouhy (2013) examine factors responsible for changes in gas flaring and reporting in the Nigerian oil and gas industry 1965 – 2009. Hassan (2012) focus on gas flaring environmental accountability by FMOCs in Nigeria for the period 1997 – 2009 using accountability theory to obtain insights on other theories. The study by Waziri and Masud (2012) focuses on social disclosure by MOCs operating in Nigeria for one year although multinationals are not making social disclosure specific to Nigeria. Therefore, it could be contended that all existing reviewed studies on social disclosure in Nigerian oil and gas industry focuses mainly on FMOCs. This study fills this literature gap and make theoretical contribution by attempting to explain social disclosure by sampled companies using the lenses of vulnerability and exploitability analytical framework and legitimacy debate. Similarly, all reviewed social disclosure practices in Nigeria are dwelling on quantity of disclosure. This study gives further insight on the disclosure practices of sampled companies by looking into the quality of the disclosures.

Although content analysis is identified as the most widely used in reviewed studies in Nigeria, this study will make further contribution by using modified word count content analysis in determining quantity of disclosure. Similarly, apart from Hassan (2012, 2013, 2014); majority of the studies are carried out for periods of 1 to 5 years. This study covers 10 years, perhaps, reasonable enough to give policy makers some insight into disclosure practices of sampled listed Nigerian oil and gas companies for policy and decision making. Having reviewed SED practices in Nigeria in general and in its oil and gas industry in particular, it is worthy to also review SED practices in UK.

3.5 Social and Environmental Disclosure in the UK

CSEDs in the UK are reported as being at advanced stage as discussed in sections 2.1 and 2.6. Therefore, this section looks into mandatory disclosure in UK as efforts to make some SEDs mandatory has being on going in the last 30 years (Rizk 2006). These requirements are presented in Table 3.5

Table 3:5 Types of Mandatory Social and Environmental Disclosure in UK

S/n	Legal Framework	Description of requirement	Nature of Requirement	GRI indicator relevant to the requirement
1	Directors Remuneration Report Regulations 2002 (Part 3)	Directors Remuneration; options, incentives, pensions and compensations	Social	**LA3**
2	UK Companies Act 2006 (s 417)	Disclosure on Employees, social and community issues	Social	**LA1&SO1**
3	Companies Act 2006; and LSE Listing Rules	Corporate Governance	Social	**LA13**
4	Working Time (Amendment) Regulation 2001	Give workers the right to take one-twelfth of each	Social	**LA3**

		month work as annual leave.		
5	Maternity and Parental Leave (Amendment) Regulations, 2001	It provided that all parents with children under the age of five (5) as at December, 1999 are entitled to take parental leave.	Social	**LA3**
6	UK Companies Act 2006 (s 417)	Environmental matters (including impacts on the environment)	Environment	**Not Specific**

Table 3.5 provided an insight into mandatory disclosure in UK; impliedly, all other disclosure could be regarded as voluntary. The focus of this study is UK's oil and gas industry; thus, it is important to have a background of the UK oil and gas industry as presented below.

3.6 The UK Oil and Gas Industry

The British Geological Survey (BGS) document that the search for commercial oil in UK began in 1918 following concerns on overseas supply disruptions experienced during the First World War (FWW)[59]. The first oil discovered was in Hardstoft in east Derbyshire in 1919, although there was oil shale industry existing in Midland valley of Scotland since 1851. However, the discovery of significant reserves of oil and gas in the North Sea in 1960's launched the country into the rank of oil and gas resource rich countries. This discovery enabled UK to become energy self-

[59] Many oil and gas seepages were also discovered in East Sussex in 1836; oil was discovered in Kelham (East Midlands Province) in 1920's (British Geological Survey, 2011).

sufficient for some decades before becoming net importer again in 2004 (BGS 2011).

BP (2016) reported that the country has 2.8 billion barrels of proved oil reserves representing 0.2 per cent of global reserves as at December, 2015. Similarly, the country has 7.3 trillion cubic feet of gas representing 0.1 per cent of global reserves also as at December, 2015. Her Majesty Revenue and Custom (HMRC) reported that receipts from hydrocarbon oils for the UK in 2013/2014 totalled £27.85b or 2.2% of total collected revenues in the UK (HMRC 2015). The UK oil and gas industry is also providing employments to over 450,000 people (Oil and Gas 2014). Thus, the UK oil and gas industry in addition to helping the country meets its energy demand is also contributing to its revenue generation and employment. Majority of UK oil and gas exploration and production activities are offshore in the North Sea. Therefore, it is important to have an idea of the North Sea as the centre of UK oil and gas exploration and production activities.

3.6.1 The North Sea

This is a relatively shallow sea area located in the European Continental Shelf (ECS) bordering UK, Norway, Denmark, Germany, The Netherlands, Belgium and France (EU 2009, OSPAR 2014, OSPAR 2009a). Its water depth is as low as 30 meters in the south to about 200 meters in the North and is more than 700 metres in the Norwegian Skaggerak. It is measuring more than 970 kilometres from North to South and 580 kilometres from East to West (EU 2009). Inflows of water into the sea are mainly from the Atlantic Ocean, Baltic Sea and from rivers and land run-off from the eastern UK and continental coasts (OSPAR 2009a, OSPAR 2009b). The shallower areas of the North Sea are composed of sand and gravel deposits and is characterized by sediment movements and associated frequent sediment transportation due to currents, tides, and wave action. Tidal flats, estuaries, and wetlands in this area are habitats to many marine organisms, feeding grounds and nursery areas for birds, fish and seals (OSPAR 2009a, OSPAR 2009b). The North Sea habitat contains diverse and highly productive biological species of marine bristle worms (polychaetes), burrowing clams (bivalve molluscs), sand shrimps (amphipods), sea urchins and brittlestars. It also has mobile scavengers, such as crabs, starfish and fish (EU 2009).

Similarly, over ten species of Whales and Dolphins are being spotted in the North Sea, although, only four are considered to be resident in the North Sea. The area is also home to several species of seabirds all year round which are of national and international conservation importance. In fact, 2.5m pairs of seabirds from 28 different species breed on the North Sea Coast (EU 2009). Over 184 million people live within the catchment area of the North Sea (OSPAR 2009b). Human activities from the densely populated and industrialized European countries bordering the North Sea are putting great pressure on the North Sea. These activities include major fishing activities, extraction of sand and gravels, dumping of dredged materials, laying of pipelines and cables and oil and gas exploration activities which is the main concern of this study (OSPAR 2009b). The North Sea is divided into five different regions, however the focus of this study is on region II[60]. Region II of the North Sea is having more oil and gas installation than any other OSPAR regions which is again more specifically concentrated in the UK and Norwegian sectors of the North Sea (OSPAR 2009b). UK Energy

[60] The North Sea is divided into five different regions; Region I, II, III, IV and V. Majority of exploration and production activities are located in Region II (OSPAR, 2009).

Development Unit (EDU) reported that the country is producing an average of 759,849 barrels of crude oil monthly (EDU 2015). These are produced from its 212 producing units located in around 120 oil fields in the North Sea. It is also producing 20,819 barrels of oil from 43 onshore oil and gas units (OSPAR 2009b). Likewise, the country is producing 2,107 million standard cubic feet of gas from 180 reporting units in the North Sea. It also produces almost 7.5m standard cubic feet of gas from 11 onshore reporting units (OSPAR 2009b). Therefore, the North Sea is the major source of oil and gas production in the UK. In order to facilitate the transportation of oil and gas from its offshore production facilities, over 34,000 km of pipelines have being laid in the UK area of the North Sea (OSPAR 2009c). From the total, 7,718km are major pipelines carrying oil or gas while the remaining are used in transporting oil and gas from one field to another (OSPAR 2009c). The exploration of oil and gas in UK is also fraught with social and environmental impacts, although the country is technologically advanced.

3.6.2 Social and Environmental Impacts in the UK Oil and Gas Industry

Sequel to data indicating availability of offshore oil and gas deposits in the UK North Sea area in 1960's, intense infrastructural developments began in 1970 (OSPAR 2009b). The first commercial extraction of oil in the UK North Sea area occurred in 1975, however, the UK parliament passed the Zetland County Council Act (ZCCA) in 1974 among other proactive measures. The act is meant to ensure maximum benefits to immediate local communities around exploration areas; and minimize social and environmental impacts of the exploration activities (OSPAR 2009a). Proactive measures of this nature could be one of the reasons for insignificant social and environmental impacts of the UK oil and gas industry as reported in the literature.

The impacts include among others, effects on fisheries and operational and accidental discharge of oil which may cause coating of birds feathers and marine animals fur leading to increased mortality. It also has effects on marine mammals, turtles and fish when ingested (OSPAR 2009b, OSPAR 2009c). Flaring and lighting of offshore oil and gas structures have negative impacts on migrating flocks of birds. Similarly, construction works, drilling, ships traffic and seismic surveys are sources of noise from offshore oil and gas operations (Ronconi, Allard and Taylor 2015). Chemicals are also discharged during drilling activities and in maintaining pipelines. These discharged chemicals have mutagenic and repro-toxic effects on marine animals, fish and consumers of seafood. Concentration of heavy metals (Cadmium, Lead and Mercury) and organic pollutants in sediments, fish and shellfish are occurring in the greater North Sea area of UK (OSPAR 2009c). 42 species of birds are declared as either decreasing or threatened. Likewise, discharge of chemicals, accidental spills, discharge of water based fluids and drill cuttings, atmospheric emissions, noise, and to some extent disturbance of the sea bed on placement of installations and pipelines are reported (OSPAR 2014). Operations in the UK oil and gas industry are regulated by established regulatory bodies; thus, it is important to review these bodies.

3.6.3 Regulatory Frameworks in the UK Oil and Gas Industry

Operations within the UK oil and gas industry are subject to certain regulations administered by established regulatory bodies which are Department of Energy and Climate Change (DECC), the Health and Safety Executive (HSE) and the Maritime and Coastguard Agency (MCA). Below are outlines of the roles and responsibilities of these regulatory bodies in general and in the UK oil and gas industry in particular.

3.6.3.1 The Department of Energy and Climate Change (DECC)

This regulatory body was created in 2008 following the merger of the energy policy responsibility of Department for Business, Enterprise and Regulatory Reforms (DBEER) and climate change responsibility of the Department for Environment, Food and Rural Affairs (DEFRA)[61]. The body was established to achieve the strategic objectives of securing global commitments to climate change; reduce greenhouse gas emissions in the UK; ensure secured energy supply in the UK; promote fairness through energy policies and climate change at home and abroad; ensure business and employment benefits to the UK on low carbon future; manage energy liabilities and develop the department's capabilities to serve the public effectively (DECC 2009). Relating the activities of this body to the oil and gas industry, it is responsible for licensing and regulating of oil and gas activities in the UK including environmental regulations. The body is responsible for administering and enforcing its established rules and regulations which encompasses decommissioning of oil and gas installations and approval of facility specific Oil Pollution Emergency Plans (OPEP)[62] in the UK oil and gas industry (House of Commons 2011). Another regulatory body in the UK oil and gas industry is the HSE.

3.6.3.2 Health and Safety Executive (HSE)

This body was established by the Health and Safety at Work Act (HSWA) of 1974 and is responsible for encouraging, regulating

[61] BEER was established in 2007 while DEFRA was created in 2001 (Civil Service Capability Review, 2008 and 2007).
[62] OPEP is an emergency plan that set out how to respond to oil spill that have the potential to cause marine pollution (House of Commons, 2011).

and enforcing workplace health, safety and welfare issues. The body is regulating offshore health, safety and welfare issues through its Offshore Division (OSD). The body has the power to through appropriate mechanisms prosecute industry operators in violation of health and safety issues (House of Commons 2008). MCA is another body that regulate operations in the UK oil and gas industry.

3.6.3.3 The Maritime and Coastguard Agency (MCA)

This body came into being as a result of merger of the Maritime Agency (MA) and the Coastguards Agency (CA) in 1998. The body is responsible for preventing loss of life on the coast and sea; ensuring the safety of everyone in a vessel in UK waters; the safety of all seafarers in UK flagged vessels; making sure that all equipment's within UK vessels is fit for purpose; ensuring the environmental safety of UK coasts and waters; overseeing coastal rescue volunteers; hydrographic, and seafarer certification. The body is responsible for discharging above mentioned responsibilities as they relate to the offshore UK oil and gas exploration and production activities (Butcher 2013). It is also responsible for countering pollution when it occurs; carrying out of cleaning operations and minimizing its effects on UK interests. Likewise, it is responsible for carrying out rescue operations in UK waters. Thus, considering that UK oil and gas operations are dominantly offshore, the body is vital to the UK oil and gas industry. Having had an idea of the regulatory bodies operating in the UK oil and gas industry, the next section is on SED practices in the UK oil and gas industry.

3.6.4 Social and Environmental Disclosure Practices in the UK Oil and Gas Industry

UK is one of the developed countries in which SED practices is reported to have reached advanced stage (Tsang 1998, Dobers and Halme 2009b, John, Daniel and Angel 2012). Conversely, in the course of literature review for this study, lack of literature on SED studies of the UK oil and gas industry is apparent. However, there is literature on cross sectional studies on disclosure practices involving the UK oil and gas industry. In a study of the supply chain of the UK oil and gas industry, sampled companies are found making disclosure on energy consumption, chemicals, waste management, staff working condition and use of water resources (Yusuf et al. 2012). In a cross sectional study by Murray and Gray (2006) involving 14 industries, sampled UK oil and gas companies are found among companies making more SEDs among the sample (Murray and Gray 2006). In a cross-industry questionnaire administered study, participants from the UK oil and gas industry responded well to administered questionnaires. The responses indicate that oil and gas companies have environmental management systems. These systems are reported as taking into consideration their stakeholders need on environmental issues including disclosure (Lorraine, Collison and Power 2004). Thus far, preceding sections have outlined SED practices in Nigeria and UK in general and in their oil and gas industries in specific. Consequently, the study will test following research hypotheses:

Hypothesis Thirteen

$H_{13.0}$: There is no significant difference in the quantity of SEDs between Nigerian and UK oil and gas companies.

$H_{13.a}$: There is significant difference in the quantity of SEDs between Nigerian and UK oil and gas companies.

Hypothesis 14

$H_{14.0}$: There is no significant difference in the quality of SEDs between Nigerian and UK oil and gas companies.

$H_{14.a}$: There is significant difference in the quality of SEDs between Nigerian and UK oil and gas companies.

3.7 Conclusion

The chapter discussed the historical background of Nigeria its social, political, economic, and cultural contexts as factors that influence CSEDs. CSED practices in Nigeria in general is discussed within the chapter. It then elucidates the Nigerian oil and gas industry, the environment of Niger Delta oil and gas producing region, social and environmental impacts of the Nigerian oil and gas industry, statutory regulations on society and environment in Nigeria, existing institutional frameworks on society and environment, and CSED in the Nigerian oil and gas industry. SED practice in the context of UK is highlighted. This is followed by discussion on the UK oil and gas industry, its social and environmental impacts, regulatory frameworks in the industry and SED practices in the UK oil and gas industry. Therefore, the chapter has brought to light and discussed issues of common importance in understanding SEDs in the two countries in general and their oil and gas industries in particular. Two research hypotheses are developed in an attempt to find out differences in quantity and quality of SEDs between sampled Nigerian and UK oil and gas companies. This is of significance in analysing the disclosure practices of sample companies from Nigeria and UK.

CHAPTER FOUR
RESEARCH METHODOLOGY AND METHODS

4.1 Introduction

Research has been defined as a process of inquiry and investigation which is carried out systematically and methodologically with a view to increasing knowledge (Collis and Hussey 2014). In order to undertake research, the methodology and methods of carrying out the research need to be clearly defined in an attempt to answer research questions raised. Methodology is seen as the approach utilized in the process of conducting research which involves body of methods while techniques used in collecting and/or analysing data for the research constitute methods (Collis and Hussey 2014). An important step to choosing an appropriate methodology and methods for a research is identifying and choosing philosophical assumptions that will guide the research. Indeed, all social science researchers explicitly or implicitly conduct research via certain philosophical assumptions about the nature of the social world and how it may be investigated (Collis and Hussey 2014).

These assumptions have impact on how the social world is investigated or methodology to obtain knowledge about it (Burrell and Morgan 1979, Collis and Hussey 2014).

Assumptions about conducting social science research are: Firstly, ontological (the nature of reality/world); secondly, epistemological (what constitute valid knowledge); thirdly, axiological (role of values); fourthly, rhetorical (language of research); and fifthly, methodological assumptions (process of research or nature and role of the researcher (Laughlin 1995, Collis and Hussey 2014). Ontological, epistemological and methodological assumptions are further discussed in section 4.2. Section 4.3 focuses on the chosen philosophical assumptions that underpin this study. Having chosen the appropriate ontological and epistemological assumptions that will underpin a research, identifying research approach (Johnson and Christensen 2011, Bature 2014) or paradigm (Collis and Hussey 2014) consistent with the chosen assumptions is the next step. Thus, section 4.4 discusses research methodology in general and within this study in particular. Section 4.5 is a conclusion of the chapter and introduction of the next chapter. Below section 4.2 discusses philosophical assumptions about social science research.

4.2 Philosophical Assumptions About Social Science Research

The Economic and Social Science Research Council (ESRC) defines social science in its broadest sense as a study which look into the society and ways in which people behave and influence the world (ESRC 2014). Arguably, studies in the field of social science will be fundamentally different from studies in the natural sciences which focus on inanimate objects in the physical world and other investigations that are conducted in controlled laboratory environment. In natural science, methods of research are systematic and involve observation and experiments applying inductive logic to discover theories that could be used to make predictions from statistically analysed quantitative data (Collis and Hussey 2014). Thus, in a scientific context, beliefs about knowledge and nature of the world are deep rooted in positivism paradigm which has its roots in a philosophy known as realism. Methods used in natural science researches are applied in social science researches for decades. However, the suitability of applying methods of natural sciences to investigate social phenomena were challenged resulting in the emergence of other beliefs about nature of knowledge and the world. These beliefs which are based on interpretivism paradigm and deeply rooted in idealism are argued as more suitable to studying social phenomena (Collis and Hussey 2014).

From the proceedings, social science researchers at this level, are availed with two different perspectives on how to approach research based on their beliefs on nature of the social world and knowledge. If a social science researcher chooses to approach a study based on positivism which is rooted in the philosophy of realism, such study may be approached with objective beliefs fundamentally different from approaching the study based on interpretivism which is subjective and rooted in philosophy of idealism (Collis and Hussey 2014)[63]. These differences explain the possibility of adopting different philosophical assumptions when conducting social science research such as in accounting, like this current study. Therefore, it is important to identify the philosophical assumptions and corresponding paradigms to

[63] Positivism and Interpretivism are two ends of the continuum of research paradigms; thus, there are several paradigms along the continuum (Morgan and Smircich, 1980).

support and guide this accounting research study. Philosophically, this study is concerned with the following research questions:

1. What are the philosophical assumptions about the nature of reality that inform the research to describe and explain SEDs by Nigerian listed oil and gas companies as compared with UK oil and gas companies?
2. How can this study obtain the knowledge believed to exist on SEDs by listed Nigerian and UK oil and gas companies?
3. How can the study ascertain what is believed is there to be known about SEDs by Nigerian and UK oil and gas companies?
4. What are the most relevant specific methods and techniques to be employed in order to discover knowledge on SEDs by listed Nigerian and UK oil and gas companies?

In essence question one will guide the study in choosing the appropriate ontological assumption that underpins this study. Question two will guide the choice of epistemological assumption for this study. Questions three and four will guide the study in choosing the methodology and methods most appropriate to the study. Ontological, epistemological and methodological assumptions are further discussed below.

4.2.1 Ontological Assumptions

Ontology is essentially dealing with the nature of reality (Creswell 1998) which is consistent with Burrell and Morgan (1979) who argued that it concerns assumptions on the very essence of the phenomena under investigation. Social scientists are facing basic questions of whether on one hand, reality to be investigated is external to the individual thus, reality is an 'objective' nature. On the other hand, whether reality is from within the consciousness, cognition or mind of the individual; thus, subjective (Burrell and Morgan 1979). However, Blaikie (2007) states that ontology entails ways of answering the question of what is reality? Thus, ontological assumption is concerned with what exist, what are the units that make it up and how does these units interact with each other? Shading more light on this, Collis and Hussey (2014) argued that if reality is seen as objective and external to the researcher, then the research is ontologically objective following positivism research paradigm. However, if reality is seen as subjective and multiple; then the research is ontologically subjective following interpretivism paradigm.

Therefore, on ontological assumption, the main concern of this study is to find an answer to the question: What is 'reality' in relation to SEDs by listed Nigerian and UK oil and gas companies? This study posits that SEDs by listed Nigerian and UK oil and gas companies are objective and external to the researcher on which valid knowledge could be obtained. Closely associated with ontological assumptions are epistemological assumptions.

4.2.2 Epistemological Assumptions

Epistemology is a branch of philosophy concerned with the theory of knowledge and use of knowledge to understand the world around us (Jary and Jary 2005)[64]. It is about 'what constitute valid knowledge' (Hassard 1991, Collis and Hussey 2014). Similarly, epistemological assumptions are about the validity of knowledge and what constitutes an acceptable knowledge in a particular field (Bryman and Bell 2007). Positivism approach to research is laid on believing that only observable and measurable phenomena could be validly regarded as knowledge. Therefore, the researcher is independent of that being researched (Collis and Hussey 2014). Thus, the social world can be studied and understood by applying similar principles and procedures as in

[64] Jary, D. and Jary, J. 2000, Dictionary of sociology (3rd.ed.) Harper Collins Publishers, Glasgow.

the natural sciences (Bryman and Bell 2007). Interpretivistism approach to research is centred on minimizing the distance between the researcher and what is being researched by arguing for participation of the researcher in the inquiry (Collis and Hussey 2014). Further arguing on participation of the researcher, Burrell and Morgan (1979) states that circumstances in social world are changing hence can only be understood through participating in what is being studied rather than being an outside observer as postulated in the natural science. Therefore, within the context of this study chosen epistemological assumption will reveal what constitute valid knowledge on SEDs by listed Nigerian and UK oil and gas companies. Thus far, ontological and epistemological assumptions have been discussed; therefore, the next section brings to light the philosophical assumptions underpinning this study.

4.3 Philosophical Assumptions Underpinning this Study

The nature of the social phenomenon being explored determines the appropriate research approach including philosophical assumptions to be adopted (Morgan and Smircich 1980) and methodological choice (Gill and Johnson 2010). Similarly, the purpose of a study specifies its philosophical assumptions which in turn determine its methodology (Hussey and Hussey 1997). Thus, it is of significance to state the purpose of this study which is to describe and explain SEDs by listed Nigerian oil and gas companies as compared to listed UK oil and gas companies. Ontologically, this study believes that knowledge about SEDs by sampled listed Nigerian and UK companies is an objective reality. Thus, the ontological assumption of the study is following the objective philosophical assumption of positivism paradigm. Similarly, in an attempt to describe and explain SEDs by the sampled companies, their SED practices reported in annual published documents are quantitatively measured through content analysis. Thus, reality about their SEDs is separate from the researcher.

Epistemological assumption originates from the chosen ontological assumption of a research (Collis and Hussey 2009). Content analysis is documented as a research method associated with positivism that believes in objective reality (Collis and Hussey 2014). Therefore, what is being researched about SEDs by listed Nigerian and UK oil and gas companies is a measurable phenomenon. Thus, knowledge about SEDs by the sampled companies obtained in this way could be regarded as valid knowledge. Similarly, the researcher is independent of what is researched on SEDs by listed Nigerian and UK oil and gas companies. Therefore, in an effort to find out valid knowledge on SEDs by sampled companies, the epistemological assumption underpinning this study is consistent with positivism research paradigm. Having chosen the philosophical assumptions of this study, the next section discusses research methodology in general and chooses the one most appropriate for this study.

4.4 Research Methodology

Methodology is "an approach to the process of the research encompassing a body of methods" (Collis and Hussey 2014). Similarly, it is simply referred to as the actual processes involved in conducting research (Burns 2000). Therefore, Blaikie (2007) argues that designing how to answer research questions constitute the major task of a social research work. He further contended that this designing involves much more than methods of collecting and analysing data. Rather a procedure and logic for generating new knowledge is required and he termed this procedure or logic as research strategy. It is the research strategy that provides the starting point and set of steps by which what and why questions are answered. This study consider research study as synonymous with research methodology as argued by Blaikie (2007).

Consequently, this section deals with specific methods and procedures to facilitate the conduct of this research on SEDs by listed Nigerian and UK oil and gas companies. These includes identification of the population of the study, definition of the sample size of the study, description of variables and how they are measured, and description of sources of data and data analysis techniques employed. Therefore, ensuing section discusses the research strategy adopted for this study.

4.4.1 Research Strategy for this Study

Four types of research strategies are identified by Blaikie (2007) which are inductive, deductive, retroductive and abductive; while Morgan (2007) documents inductive, deductive and abductive research strategies. Consistent with Morgan (2007); this study chooses inductive, deductive and abductive as research strategies for further discussions within its context. Inductive research strategy relates to a process in which through observations of empirical reality theories are developed; thus general inferences are induced from particular instances (Collis and Hussey 2014). Therefore, Blaikie (2007) states that it is a research strategy in which data are collected and analysed to observe patterns. Generalisations are then derived on the patterns using inductive logic; while confirmation of observed generalised patterns over time leads to the development of theory.

Deductive research strategy entails the use of empirical observations to test theories (Collis and Hussey 2014). Thus, the task is for a researcher to find out possible explanation or a theoretical argument for regularity of the social phenomenon under study (Blaikie 2007). Therefore, the researcher tests a particular theory by deducing one or more hypotheses from it and then collects appropriate data to test the theory. If the data led credence to the theory, then some support is provided for using it; otherwise, it must be rejected or modified (Blaikie 2007). Abduction research strategy is described as moving back and forth between induction and deduction. It is described as a research strategy in which the researcher has to enter into the social world in order to understand the motives and reasons of social activities. Thus, the researcher understands the social reality based on what the social actors use in the production, reproduction and interpretation of the social phenomenon being investigated. Therefore, it is through interaction with the social actors' language, meaning and account of everyday activities that theories are developed (Morgan 2007).

The type of research strategy adopted in this research study is dependent on chosen ontological and epistemological assumptions. Collis and Hussey (2014) argues that if a research assumes reality as being objective and the researcher is independent of that being researched; then, such a research follows positivism research paradigm and deductive strategy. Therefore, based on the earlier discussions on the ontological and epistemological assumptions of this study, its research strategy is deductive. This is consistent with the chosen theoretical framework for this study as explained in 2.11. The 14 hypotheses stated in 2.4.2.2 and 3.6.4 are meant to be used in testing vulnerability and exploitability as well as legitimacy theories within the context of this study. Specifically, hypotheses 1 to 12 in 2.4.2.2 dwell on determining the effect of corporate characteristics of size, profitability, leverage, efficiency, liquidity and tax on quantity and quality of SEDs by Nigerian and UK oil and gas companies. Hypotheses 13 and 14 in 3.6.4 are meant to test differences in quantity and quality of disclosure between listed Nigerian and UK oil and gas companies. Results from testing all the 14 hypotheses are expected to be explained within the lens of vulnerability and exploitability and legitimacy theories. Next section discusses the population of the study, sample size, and sample selection.

4.4.2 Population of the Study, Sample Size, and Sample Selection

The focus of this study is on listed Nigerian oil and gas companies as compared with listed UK oil and gas companies. The initial population of the study was 10 companies that are publishing their annual reports and accounts, thus, there is accessible data in public domain. However, two of the companies are listed post 2004 which is the commencement year of this study[65]. Therefore, there is no relevant data for this study from these two companies; thus, removed from the population. This brings the companies to 8 which are sufficient for the conduct of this study. Consequently, these eight companies are both the population and sample size of this study. However, this study is a comparative study between listed Nigerian and UK oil and gas companies; therefore, samples have to be drawn from listed UK oil and gas companies too.

There are 78 listed oil and gas companies in the London Stock Exchange (LSE) as at 31st December, 2013. However, 63 companies are listed from mid-2004 upward; thus, have no

[65] One company was listed in 2009 while the other was listed in 2014

annual report and account or sustainability report for 2004, the commencement year of the study. This brings the remaining companies to 15 out of which 5 have no complete annual report and account or combination of annual report and sustainability report 2004 to 2013. Therefore, this 5 companies are out, bringing the remaining companies to 10 that have complete reports from which 8 are conveniently selected. Having identified the population of the study, its sample size and how the sample are selected, sources and nature of data for the study are discussed next.

4.4.3 Sources and Nature of Data for the Study

Relevant research data could be obtained from various sources such as through conducting interviews, making observations, questionnaire surveys, content analysis of documents, among others (Morgan and Smircich 1980, Remenyi et al. 1999, de Vaus 2002, Collis and Hussey 2003, Parahoo 2006, Jonker and Pennink 2010, Smith 2011, Sekaran and Bougie 2013, Creswell 2013). However, choosing a data collection method is highly dependent on which method the researcher considered most appropriate and suitable to answering research questions raised (Spencer et al. 2003). The main sources of data for this research study are the annual reports and accounts and sustainability reports of the sampled companies. Quantitative words count content analysis of SEDs by the sampled companies in their annual reports and accounts and sustainability reports is carried out. Therefore, the nature of data for this study is quantitative. Compliance score as a proxy for quality of disclosure is another quantitative measure linked to SEDs of the sampled companies. This is obtained by scoring compliance of disclosure by companies with GRI disclosure guideline used as a benchmark in the study. The next section explains content analysis and its application within the context of this study.

4.4.4 Content Analysis in this Study

Having had an idea of processes and procedures of conducting content analysis in general in section 2.6 and in social disclosure studies in particular in section 2.6.1; this section discusses how content analysis is carried out in this study. In order to achieve the main aim and objectives of this study; annual report and accounts and sustainability reports of 8 companies are collected each from Nigeria and UK giving total of 16 companies. However, sampled Nigerian oil and gas companies are currently publishing only annual report and accounts with no stand-alone sustainability reports. On the other hand, some of the sampled UK companies publish both. Thus, a total of 80 annual report and accounts are expected from Nigerian companies out of which 38 are collected online while the remaining 42 could not be found on the internet. Therefore, the researcher travels to Nigeria to collect copies not accessed online. After spending 3 weeks in Nigeria, all the relevant copies were collected in print formats. On coming back to UK, these printed annual reports and accounts were converted to Portable Document Format (PDF). As earlier stated some of the sampled UK oil and gas companies publish both annual reports and accounts and sustainability reports. Therefore, 125 annual reports and accounts and sustainability reports were collected from the UK companies online.

Annual reports and accounts and sustainability reports of Nigerian and UK companies were then converted from PDF into word documents for subsequent words count content analysis. Thus, the annual reports and accounts and sustainability reports of the sampled companies are the documents of disclosure (2.6.1.1) used within the context of this study in assessing SEDs of sampled companies. On location of social disclosure as discussed in section 2.6.1.2; this study considers the entire reports as locations of social disclosure by sampled companies. Having identified documents and location of disclosure; next is an outline of the unit of measurement employed in this study. As discussed under section 2.6.1.3; various units of measuring SEDs are employed in social disclosure studies of this nature. As no one method is considered the most appropriate (Williams 1999); this study adopts words count as its unit of measuring SEDs. Modified word count content analysis overcome the criticism of difficulty of identifying social or environmental words postulated by Hackston and Milne, 1996. Similarly, it solves the problem of differences of grammar in conveying same message. These are in addition to the advantages of word as discussed in 2.6.1.3. However, social or environmental words within the context of this study are not considered on their own. The study adopts modified words counts in which number of words conveying meaningful social or environmental information either in phrases, sentences, paragraphs or pages are considered and counted. Modified word count content analysis solve the problem of identifying social or environmental word associated with word counts content analysis. Similarly, it overcome the issue of conveying same message using different sentences in sentence count content analysis.

For instance, it is disclosed in the annual report and accounts of sampled Nigerian company 1 (NG1) that:

> "the company operates subsidised canteen facilities in all its major operational centres. Recreational and sporting facilities provided at the Bull Club, Lagos. The Company operates a contributory provident fund and a non-contributory pension fund for the benefit of its employees. Employees are paid specified amounts annually as grants

> to assist in the financing of their children's education". (NG1 2004, p. 13).

Above is a social disclosure falling under the performance indicator of 'employee benefits beyond those legally mandated' which is LA12. Therefore, above disclosure is highlighted in red and the words count recorded in sheets designed by the researcher as in appendix II. Subsequent disclosure either on the same page or on other succeeding pages falling under this performance indicator are also recorded. Obtained words counts on this indicator are added up on completion of reading the entire annual report and account to get total disclosure on this indicator for 2004. This procedure is applied on all other disclosures considered as social or environmental in all the annual report and accounts and sustainability reports of sampled companies. As earlier stated, in order to conduct content analysis in SED studies, it is important to define what is and is not social or environmental disclosure.

Defining content category is the next step in conducting content analysis in social disclosure studies. This study adopts GRI disclosure guidelines; therefore, SED categories are social and environmental. However, there are four sub-categories under the social category and aspects of disclosure under both social and environmental categories. These are outlined in section 2.9.2 and as presented in appendix I. Reliability as discussed in 2.6.1.5 is another important aspect of conducting content analysis to ensure that the method used and results obtained would be consistent if another person is to follow the same procedures. This study adopts the test re-test measure by collecting the words counts three times. In most cases first and second count were found consistent, the third counts are carried out for further confirmation. In addition to obtaining words counts of SED to assess quantity of disclosure; quality of disclosure is also employed as a variable. Similarly, corporate specific characteristics of size, profitability, leverage, efficiency, liquidity, and tax are used as variables to determine their effects on quantity and quality of disclosures by sampled companies. Therefore, next section outlines these variables within the context of this study.

4.4.5 Variables Description and Measurement within this Study

This study intends to test developed research hypotheses in order to achieve its main aim and objectives. To do this, it is of significance that the variables to be subjected to the test are identified and their measurement criteria explained. There are two main dependent variables of quantity and quality of disclosure within the context of this study. Quantity of disclosure are obtained through words count content analysis while quality of disclosure is determined by scoring compliance of disclosures with GRI guideline disclosure requirements. In testing the hypothesis of no significant differences in quantity and quality of disclosure between listed Nigerian and UK oil and gas companies; two samples t-tests was conducted. Similarly, the study tested hypotheses on the effects of corporate attributes of size, profitability, leverage, efficiency, liquidity, and tax on quantity and quality of disclosure by sampled Nigerian and UK oil and gas companies. Obtaining quantity of disclosure has already been explained in the preceding discussions; therefore, quality of disclosure is presented next.

There are studies in the literature that assessed quality of SEDs from the perspective of disclosure compliance in both developed and developing countries. Wiseman (1982) assessed the quality of environmental disclosure by 26 largest US companies by scoring developed disclosure index. Zero (0) is assigned to items not disclosed; 1 for items mentioned in general terms; 2 is assigned to specific but non-quantitative information provided; and 3 for information disclosed and described in monetary or quantitative terms. In assessing the quality of environmental disclosures by large German companies Comier, Magnan and Velthoven (2005) scored their developed disclosure index. They assigned 1 for information provided in general terms; 2 for information provided with specific description and 3 for disclosure in monetary or quantitative terms. van Staden and Hooks (2007) assessed quality of environmental disclosure by listed companies in New Zealand by scoring compliance of disclosure with disclosure index. They assigned 0 for information not provided; 1 for information provided in general terms; 2 for descriptive disclosure; 3 for quantitative information or clearly defined in monetary terms or actual physical quantities; and 4 for information ranked as meeting best practices. Clarkston et al (2008) use GRI to measure quality of environmental disclosure in compliance with develop index. They scored the quality using a dichotomous of 0 and 1. A score of 0 is assigned if information provided lack credibility and substantiation; thus could be mimic. An information is scored 1 if it appears truthful; thus hard to mimic. Lee (2015) evaluate the quality of environmental disclosure by listed companies in Australian mining industry by obtaining compliance of disclosure with developed disclosure index. 0 is assigned for information not provided; 1 for disclosure in general terms; 2 for descriptive information; 3 for information in quantitative or clearly defined monetary terms or actual physical quantities; and 4 for information assessed as meeting best practices.

In the context of developing countries; in measuring the quality of CSR disclosure by listed Malaysian companies; Haji (2013), scored 0 for items not disclosed; 1 for items disclosed qualitatively or in general term; 2 if the information provided is quantitative or in monetary terms and 3 where information is provided in quantitative and qualitative terms. Similarly, in assessing quality of environmental disclosure by listed companies in Malaysia, Sulaiman, Abdullah and Fatima (2014) scored the compliance of disclosure with developed disclosure index. Four (4) is assigned to a disclosure in monetary terms; 3 is assigned if the provided information is quantitative but non-monetary; 2 is for disclosure in specific details but non-quantitative; 1 for items disclosed in general terms and 0 for items not disclosed. In evaluating the quality of SEDs in China, Lu and Abeysekera (2014) scored compliance with disclosure index developed from GRI. They scored 1 for performance information provided in general terms; 2 for specific non-quantitative performance disclosure; 3 for quantitatively provided performance information; 4 for quantified performance information that meets benchmark; and 5 for quantified performance data at disaggregate level.

Based on GRI guidelines, 229 performance indicators make up aspects, sub-categories and categories of SEDs as presented in appendix I. This study in consistent with Wiseman (1982); Cormier, Magnan and Velthoven (2005), van Staden and Hooks (2007), Haji (2013), Sulaiman, Abdullah and Fatima (2014) and Lee (2015) employed a weighted measurement scale of 0 – 3 to score compliance with GRI guideline on each disclosure performance indicator as in Table 4.1. Therefore, on adding up quality scores on social and environment performance indicators Combined Quality Score (CQS) ranges 0 – 6. Scores from 0 – 2 are rated as unsatisfactory; 2.1 – 4, satisfactory; 4.1 – 6 better disclosure quality scores (Chiu and Wang 2015).

Table 4:1 Disclosure Quality Scoring and Rating Criteria

Rating Criteria	Score	Disclosure Type	Score by disclosure type	Combined Quality Score	Rating Ranges	
Nondisclosure	0	Social Environmental	0 0	0	0 - 2	Un-satisfactory
Disclosure with noncompliance	1	Social Environmental	1 1	2		
Disclosure with partial compliance	2	Social Environmental	2 2	4	2.1 - 4	Satisfactory
Disclosure with full compliance	3	Social Environmental	3 3	6	4.1 - 6	Better

From Table 4.1, assume a Nigerian or UK company did not provide information on any of the social or environmental performance indicators for 2004, it is scored 0. Thus, its combined score on social and environment indicators is also 0 resulting into an unsatisfactory disclosure quality rating. However, if a Nigerian or UK company provides social or environmental information with noncompliance on the entire performance indicators for 2004, it is scored 1 on each indicator resulting to a combined score of 2. In this case, the company is similarly rated as providing unsatisfactory quality information. If the company achieve this feat for all the ten years of the study its sum of average quality score is still 2[66]. If a Nigerian or UK

[66] This is obtained by multiplying the combined score which is 2 by 229 performance indicators by 10 years (2 X 229 X 10 = 4,580). To get the average 4,580 is divided by 229 then by 10 years 4,580/229 = 20/10 = 2). This procedure applies to Disclosure with partial compliance and Disclosure with full compliance, however, combined scores ranges from 2 to 4 and 6 respectively.

company provide information in partial compliance with the GRI on the entire social and environmental performance indicators for 2004, its combined score is 4. At this level, the company's quality performance rating is satisfactory. If the company accomplish this for all the ten years of the study its sum of average score is 4. Conversely, if a Nigerian or UK company makes disclosure in full compliance with the GRI on all performance indicators for 2004, its combined score is 6. At this level, the company achieve a better quality disclosure rating. If the company attain this for all the 10 years of the study its average score is 6. Other variables used in this study are corporate internal characteristics of size, profitability, leverage, efficiency ratio, liquidity, and tax.

Although these variables have been discussed in detail in section 2.4.2.2; their measurements have not been specified. Corporate size could be measured by sales volume, asset value and number of employees; data on all these three variables were obtained for all sampled companies. However, due to the large size of figures of sales volume and asset value their natural logarithm were obtained. After subjecting these three variables to tests of fitness in the specified model for this study; sales volume was found most fitted than the other two and it is adopted. Profitability in SED studies is widely measured by return on assets, net profit and return on equity although it could also be assessed by dividend per share and earnings per share. In the context of this study, data on all the five measures of profitability were obtained for sampled companies. Returns on asset is obtained as ratio of Earnings Before Interest and Taxes (EBIT) by asset value (EBIT/Asset value). Return on equity is measured as ratio of EBIT and number of equity shares (EBIT/Number of equity shares). After subjecting the variables to econometric tests, earnings per share is the most fitted in the model and is adopted. Leverage is measured by the ratio of total debts to total assets (Total debt/Total assets). Efficiency is measured by the ratio of sales revenue to total assets (Sales revenue/Total assets). Liquidity is measured by the ratio of current assets to current liabilities (Current assets/Current liabilities). Tax is measured by corporate tax paid in each year[67]. Having described data collection for this research, scoring procedure, and variables in the research, next section outlines how the data is analysed.

4.4.6 Analysis of Data

This is another important component of a research implemented in order to test hypotheses and answer questions raised. It involves the process of evaluating collected data using analytical and logical reasoning to draw meaning from the collected data in order to get findings and draw conclusions on the research (Schoenbach 2014). However, a prerequisite to data analysis is identifying the type of data that a researcher is faced with and choosing the most suitable tool to be employed in analysing such data. This study describes and explains SEDs of Nigerian and UK oil and gas companies for the period 2004 to 2013. Thus, the study involves different companies observed over defined period of time. Therefore, it is important to discuss types of data sets and chose the one that data for this study fits into as follows.

(a) Time Series Data Set – These are data obtained from successive observations of a unit or group of units (taken as one unit; for instance, African countries taken as a continent) being studied (Biorn 2013). It is seen as consisting of time series

[67] Asset value and number of employees were also tested as proxies for size but have to be eliminated to develop model for the study. Similarly, return on assets, return on equity and dividend per share were tested and eliminated when found not suitable in the model as proxies for profitability. Natural logarithms of sales and tax are used as the Figures run into billions and hundreds of millions.

observations of a single, fixed unit at regular intervals (Beck and Katz 2006). It is also defined as a set of observed values of a variable or variables taken at different times for a single unit of analysis (Gujarati and Porter 2009). This type of data is characterized by repeated observations on single unit observed for a relatively long time 20 – 50 years (Beck and Katz 1995). Time series data are most common to macro-economic variables, but micro economic data may also occur such as time series data on a particular household or a firm (Biorn 2013). Time series data show temporal variations (variations with time periods) which could be years, months, weeks, days, seconds etc. Thus, it exhibits time serial variation (Biorn 2013). Another type of data is cross-sectional data sets.

(b) Cross-Section Data Set – This is a dataset from units observed in the same time or over the same time period (Biorn 2013). It is data collected on one or more variables from units at the same point in time such as population census every 10 years, firms' annual reports and account (Gujarati and Porter 2009). Most cross section data are from micro units such as individuals, households, companies, firms. This type of data shows spatial variations that go across units (Biorn 2013). Another type of data is the one that exhibit the attributes of both time series and cross section data sets referred to as panel data.

(c) Panel Data – These data sets combine the elements of both time series and cross section (Gujarati and Porter 2009). They are characterized by having repeated observations (most often years) on fixed units such as states and nations (Podestà 2002), but could also be on particular household or firm (Biorn 2013). Thus, panel data produces arrays of data that combine cross section data on N spatial unit and T time period to produce N X T observations. When the N is dominant (N>T), the data is termed as cross section dominant and when the T is dominant it is referred to as Temporal dominant (Stimson 1985, Podestà 2002). Time-Series Cross-Section (TS-CS) data sets are mostly associated with fixed units such as member countries of OPEC, OECD, thus, members of the sample are also the population (Beck 2001). This type of data is documented as posing some challenges to researchers when estimating a suitable model for analysing the data (Podestà 2002).

First, there is the tendency that errors in one unit (*i*) at a particular period of time (*t*) might be correlated with errors in unit *i* at time *t+i*. This is attributed to the interdependence of traits and characters of the observations across time referred to as serial correlation (Podestà 2002). Second, the errors might be correlated across the observations such that errors in unit *i* at time t are correlated with errors in unit *j* at time *t*. In other words, there might be contemporaneous correlation. Third, there might be differing variance of errors in the observations such that units with higher values on variables may have higher variance on them; thus, errors tend to be heteroskedastic (heteroskedasticity). Fourth, errors may contain both cross sectional and temporal effects, thus concealing unit and period effects. Therefore, there is the possibility that although data might be homoscedastic and not auto-correlated, but could result in producing regression that is heteroskedastic and auto correlated across panels (Stimson 1985, Podestà 2002). Fifth, errors may reflect some causal heterogeneity across space, time, or both since the process linking the dependent and independent variable tend to vary across sub sets of units (panels) or/and period (Hicks 1994, Podestà 2002).

Above problems associated with time-series cross-section data have ramifications in coming up with suitable estimable model for these kinds of data. In particular, the temporal and spatial attributes of time series and cross section data, are major problems in estimating a model for TSCS using Ordinary Least Square (OLS). To overcome these problems when modelling a TS-CS dataset using OLS, Parks (1967) developed the Generalised Least Square (GLS). However, it is argued that it should be referred to as Feasible Generalised Least Square (FGLS) rather than being GLS (Beck and Katz 1995, Podestà 2002). The model is documented as suitable for TS-CS data that show panel heteroscedasticity, contemporaneous correlation and unit fixed effect.

Park's (1967) GLS eliminates serial correlation and contemporaneous correlations while panel heteroscedasticity is automatically corrected by overcoming contemporaneous errors through transforming the data which allows for the use of OLS. This method by Parks (1967) has been widely used in prior studies in various social-science-related fields (Pampel and Williamson 1988, Alvarez, Garrett and Lange 1991, Swank 1992, Huber et al. 1993) until recently when it was discovered to possess some problems. Beck et al (1993) and Beck and Katz (1995) argue that Park's FGLS method can only correct for contemporaneous correlation when T is at least as big as N, even at this, estimation of standard errors is a problem unless T is larger than N considerably. Similarly, Park's (1967) correction for serial correlation is on the assumptions that the errors follow a unit specific first order autoregressive process (Beck and Katz 1995). However, with this assumption, FGLS may even be inferior to OLS thereby leading to underestimation of variability of parameters in common research situations (Beck and Katz 1995).

Consequently, Beck and Katz (1995) developed a method which retains the OLS parameters, but replaces its standard errors with what they termed as Panel Corrected Standard Error Regression (PCSER). They argued that in the case of homoscedasticity and contemporaneous independent errors, Panel Corrected Standard Errors (PCSEs) performed as well as OLS where OLS errors are accurate. When the performance of OLS declines due to less spherical errors, PCSEs still perform well, concluding that PCSE's errors should replace OLS standard errors for TS-CS data (Beck and Katz 1995). PSCE's method of estimating a model for TS-CS data-sets is increasingly being used (Barako, Hancock and Izan 2006, Hassan 2012, Hassan and Kouhy 2014). This study also adopts the PCSEs method in estimating a suitable model towards testing/-answering research hypotheses and questions raised as further explained in ensuing section.

4.4.6.1 Panel Corrected Standard Errors Regression Analysis

PCSEs as explained in the preceding section was developed by Beck and Katz (1995) to overcome problem of underestimating parameter variability in common research situations. It is the suitable method of estimating a model when dealing with time-series cross-section data (Beck and Katz 1995, 2004, 2006). The data set for this study combines the attributes of cross-section (companies) and time (years), Therefore, the data is TS-CS data-set. Similarly, the data set could be argued as satisfying the definition of finite (small) sample time-series cross-section data set (Beck 2001, Beck and Katz 2007). Therefore, PCSEs are used to estimate models that may explain the effects of corporate characteristics of size, profitability, leverage, liquidity and tax on the quantity and quality of SEDs by the sample companies. Thus, the regression is Panel Corrected Standard Error Regression Analysis (PCSERA).

However, to estimate a panel corrected standard error model for time-series cross-section data, certain procedures have to be followed. When analysing time-series cross-section data, data should be subjected to examination of skewness, presence of extreme outliers, whether the various cross-sections of the data show similarity; whether substantial variation exists in each unit over time and whether data shows interesting time series properties (Beck 2006). Relevant tests should be conducted to determine presence or absence of unit roots (stationary) of variables in the model (Im, Pesaran and Shin 2003, Beck 2006). Testing for unit roots in the variables is important as estimating variables with unit root can lead to misleading results (Beck 2006). Another important test to be conducted on TS-CS data sets is test for multicollinearity among the independent variables (Hassan 2012). Similarly, tests for panel heteroscedasticity, contemporaneous correlation and panel serial correlation (autocorrelation) must be conducted and corrected for if they exist before estimating a consistent model (Beck 2006). However, PSCE estimation automatically correct contemporaneous correlation and panel heteroscedasticity (Parks 1967)[68]. All variables in the model are subjected to unit roots tests, multicollinearity tests and tests for panel non-constant variances, contemporaneous correlation and serial correlation as attached in appendix III. After conducting these tests, the model is developed as:

$$\boldsymbol{Y_{it} = \beta_0 + \beta_1 LOG\_SIZE_{it} + \beta_2 PROF_{it} + \beta_3 LEV_{it} + \beta_4 EFFI_{it} + \beta_5 LIQ_{it} + \beta_6 LOG\_TAX_{it} + \epsilon_{it} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots .. 1}$$

[68] Panel serial correlation is corrected in two alternative ways: First, By lagging the dependent variable in the modelling referred to as dynamic which is however criticised (Beck and Kartz, 1995). Second, include AR (1) in the model which invokes Praise-Winsten that correct the serial correlation and is refered to as static approach and is the most widely used in the literature (Beck and Kartz, 1995).

To explore the effects of corporate size, profitability, leverage, efficiency, liquidity and tax on quantity of corporate SED by the sampled companies, the following model is estimated.

$$\boldsymbol{LOG\_QNCSED_{it} = \beta_0 + \beta_1 LOG\_SIZE_{it} + \beta_2 PROF_{it} + \beta_3 LEV_{it} + \beta_4 EFFI_{it} + \beta_5 LIQ_{it} + \beta_6 LOG\_TAX_{it} + \epsilon_{it} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots.2}$$

Where:

LOG_QNCSED = Quantity of SEDs

β_0 = the intercept

LOG_SIZE = Corporate size measured by sales (turnover)

PROF = Corporate profitability measured by earnings per share

LEV = Corporate leverage measured by total leverage

EFFI = Corporate efficiency measured by efficiency ratio

LIQ = Corporate liquidity measured by liquidity ratio

LOG_TAX = Corporate tax

Ɛ = the error term

i = Cross-section (8 companies) and

t = Time-dimension (10 years)

Similarly, to explore for the effects of corporate size, profitability, leverage, efficiency, liquidity and tax on quality (compliance) of CSEDs by the sample companies, the following model is estimated.

$$\boldsymbol{LOG\_QLCSED_{it} = \beta_0 + \beta_1 LOG\_SIZE_{it} + \beta_2 PROF_{it} + \beta_3 LEV_{it} + \beta_4 EFFI_{it} + \beta_5 LIQ_{it} + \beta_6 LOG\_TAX_{it} + \epsilon_{it} \dots\dots\dots\dots\dots\dots\dots\dots\dots 3}$$

Where:

LOG_QLCSED = Measures the quality of SEDs

$\beta_0 =$ Slope of the intercept

LOG_SIZE = Corporate size measured by sales (turnover)
PROF = Corporate profitability measured by earnings per share
LEV = Corporate leverage measured by total leverage
EFFI = Corporate efficiency measured by efficiency ratio
LIQ = Corporate liquidity measured by liquidity ratio
LOG_TAX = Corporate tax and
ε = the error term

From equation 2 and 3; 12 research hypotheses are tested after estimating the models, and collectively, result in achieving objective 5 of this research. The study also tests the hypothesis of no significant differences in quantity and quality of disclosure between Nigerian and UK oil and gas companies as two different groups. Two samples comparison t-tests and Wilcoxon rank-sum (Mann Whitney) test are employed in testing this hypothesis as further explained below.

4.4.6.2 Two Sample Comparison t-tests for Means

Sometimes researchers are interested in looking at differences between two groups of samples. A two samples t-test is an inferential statistic that helps in analysing differences in the means of two samples drawn from two groups by comparing the means of the groups (Field 2009, Field, Miles and Field 2012, Healey). Therefore, the test is conducted to determine if there is statistically significant difference between the two groups based on their sample statistical means or the difference are by chance (Bowerman and O'Connell 2003, DeMuth 2006, Ha and Ha 2012). There are two types of this test one is paired or correlated t-test or dependent; two is unpaired or uncorrelated t-test also referred to as independent t-test (DeCoster 2006, DeMuth 2006, Park 2009, Ha and Ha 2012). However, prior to conducting t-test, data set has to satisfy certain assumptions and tests in order to determine the appropriateness and type of t-test to conduct (Field 2009); the assumptions are as follow.

1) data sets normally distributed;
2) data sets are measured at least at interval level;
3) there is homogeneity of variance; and
4) Independence of samples.

Based on Central Limit Theorem (CLT); once sample size exceeds 30, it is generally assumed that the mean of the data sets is normally distributed (Field 2009, Pagano 2004). Conversely, as a rule of the thumb, large sample means sample size of 100 or more, if otherwise, good evidence must be provided that the sample size is normally distributed (Healey 2015). Similarly, it is also important that data sets to be subjected to t-tests are measurable at least at interval level. For instance, in measuring temperature, the intervals $40^0C - 50^0C$ and $50^0C - 60^0C$ are the same (DeCoster 2006, Field 2009). There is also the assumption of homogeneity of variance which is indicating that the variance of independent variables should be the same for each group in case of group data. The independence of the samples also needs to be ascertained when conducting t-test in order to determine the most appropriate type of t-test to conduct (Field 2009). Conducting correlation test will determine the level of correlation between samples from the two groups (Hassan and Kouhy 2014, Healey 2015). When the results of correlation test indicate high correlation between sample from one group with the other group, then, it is likely that the samples from the two groups are drawn from within the same group (Hinkle, Wiersma and Jurs 2003, Filed 2009, Hassan and Kouhy 2014, Healey 2015). In this instance, the samples are referred to as paired or correlated or dependent samples and dependent two samples t-test should be conducted. However, when the results of correlation test indicate significant differences between the samples, then, it means the two sample are drawn from two distinct groups. This is referred to as unpaired, uncorrelated or independent samples and the type of t-test to be conducted is independent two samples t-test (Hinkle, Wiersma and Jurs 2003, Filed 2009, Hassan and Kouhy 2014, Healey 2015).

Other issues to consider before deciding to carry out two samples t-test on a data are the nature of the variables and size of the data (Tabachnick and Fidell 2007). If the nature of the variables is quantitative and have satisfied above assumptions, then, two samples t-test should be conducted. However, if the data is not quantitative, then, Mann-Whitney test should be carried out (Tabachnick and Fidell 2007, Healey 2015). Similarly, if the size of the data is small and not normally distributed Mann-Whitney test should be carried out (Hassan and Kouhy 2014, Healey 2015). However, if the data set is small and normally distributed, then, t-test should be conducted. Where the data set is large in size whether normally or not normally distributed, t-test should be conducted (Hassan and Kouhy 2014, Healey 2015. The relevant formula for independent two samples t-test is stated below.

$$\mathbf{t} = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\left(\frac{S_1^2(n_1-1)+S_2^2(n_2-1)}{n_1+n_2-2}\right)\left(\frac{1}{n_1}+\frac{1}{n_2}\right)}}$$

Whereby:

n= sample size

$\bar{x}$ = means of the sample

S^2 = Variance

Subscript_1 = Sample 1 or Group 1

Subscript$_2$ = Sample 2 or Group 2

Data set in this study is subjected to above assumptions and tests before deciding on the type of test conducted which is further elaborated in 5.8.4. Next section is discussion on how two samples t-test is conducted in the context of this study.

4.4.6.3 Two samples t-test in the Context of this Study

Having discussed the procedures of conducting two samples t-test in general, this section describe how two samples t-test is conducted within the context of this study. The first assumption prior to conducting t-test on data set is that the data is normally distributed. Based on CLT, once sample size exceeds 30, it is generally assumed that the mean of the data set is normally distributed (Field 2009). There are 80 observations each for Nigerian and UK companies; thus, total observations in this study is 160. Consequently, based on Field (2009) the means of these data sets are normally distributed and two samples t-test could be conducted on data set for this study. However, it is argued that as a rule of the thumb, large sample means sample size of 100 or more, if otherwise, good evidence must be provided that the sample size is normally distributed (Healey 2015). Considering this argument of Healey (2015), data set for this study are not normally distributed as the sample size of each of the two groups should be 100 giving total of 200. Conversely, the sample size is 160, thus, sufficient evidence of the normality of the data set must be provided.

Using Stata software, normality of distribution of data sets could be checked by Kolmogorov-Smirnov (K-S); D test (Lilliefors test); Shapiro-Wilk' W test; Anderson-Darling test, and Cramer-von Mises test (SAS Institute Incorporated 1995, Ghasemi and

Zahediasl 2012). However, the most commonly used are K-S; D test and Shapiro-Wilk tests (Park 2003). This study adopted the Shapiro-Wilk W test which has a null hypothesis that data are probably normally distributed (Turner 2014). Results from Shapiro-Wilk W test presented in Appendix V indicates that quantity (QNCSED) and quality (QLCSED) of disclosure by UK and Nigerian oil and gas companies are all significant at 0.05 percent. The guidance to rejecting or accepting the null hypothesis in Shapiro-Wilk test is that if p-value is less than the conventional 0.05 percent then rejects the null hypothesis. However, if the p-value is approaching 1, then, do not reject the null hypothesis (Verrill and Johnson 1987). The p-values on normality of data on quantity of disclosures by UK and Nigerian companies are 0.0000 and 0.0000 respectively. The p-values on quality of disclosures for UK and Nigeria are 0.0000 and 0.0126 respectively. Therefore, p-values on quantity and quality of disclosures by UK and Nigerian oil and gas companies are not approaching 1. Indeed, they are all less than the conventional 0.05 percent p-value. Thus, means of the data sets are not normally distributed. Therefore, the null hypothesis that data in the two groups are normally distributed is rejected. Hence, there are contradicting assumptions on normality of data set for this study. On one hand, the data is normally distributed based on Field (2009); on the other hand, the data set is not normally distributed based on the argument of Healey (2015).

Accordingly, this study chose to adopt the two opposing stands by following Field (2009) on the normality of the data set, thus, two samples t-test is conducted. However, as a robustness test, the argument of Healey (2015) is also upheld, thus, Wilcoxon-rank sum (Mann-Whitney) test is conducted. Consistency of the two results is an affirmation of the appropriateness of conducting two samples t-test. Next assumption is measurement of variables at least at intervals. Data on quantity and quality of disclosure by UK and Nigerian oil and gas companies are the dependent variables while the countries of study are the independent variables. UK is denoted as 1 while Nigeria is denoted as 2; thus, satisfying the second assumption of data sets being measured at interval. Subsequent act is to test for homogeneity of variance, which gives a direction on the type of t-test to be conducted either independent t-test with equal variance or independent t-test with unequal variance. In order to satisfy this assumption, Barttlet's equality of variance tests sensitive to non-normality are conducted on quantity and quality of disclosure by UK and Nigeria companies (Bartlett 1937). The null hypothesis in this type of test is variances between the two groups are equal or variances between the two groups are not significantly different while the alternative hypothesis is variances are not equal (Acock 2008). Results from this test indicated that the means of the two sampled groups in this study are not equal. The result confirms the suitability of conducting independent two samples t-tests with unequal variance on both the quantity and quality of disclosure by UK and Nigerian oil and gas companies (Field 2009).

However, prior to conducting the t-tests, Levene's test of variance is conducted as test for robustness (REED 2015). Consistent with Bartlett's test, the null hypothesis here is also variances between the two groups are equal. If the p-value of (W0) from this test is still significant, it confirms the suitability of conducting independent two samples t-tests with unequal variance. Results of Levene's equality of variance robustness test on quantity and quality of disclosure by Nigerian and UK companies are significant. This confirms the unequal variances of the means of UK and Nigerian samples on quantity and quality of disclosure.

The results further confirm the suitability of conducting two samples independent t-tests with unequal variance. Therefore, independent two samples t-test with unequal variance is conducted in order to statistically determine differences in the means of quantity and quality of SEDs by sampled listed UK and Nigerian oil and gas companies. Results of these tests are subsequently presented and described in 5.8.4. Subsequent section is conclusion of the chapter and introduction of subsequent chapter.

4.5 Conclusion

This chapter discusses research methodology and methods in research and how they are employed in the context of this study. Specifically, the chapter discussed philosophical assumptions in research and choose the philosophical assumptions that underpin this study. The research is following objective realism in its ontological assumption. Being a quantitative research with clear observable and measurable phenomenon, the study adopts the positivism epistemological assumption. Research methodology as an approach to research process covering body of methods was also discussed. In this regard, the chapter discusses the research strategy of this study, which is deductive. Similarly, the population of the study, sources and nature of data for the study, method of data collection and analysis of the data were discussed.

CHAPTER FIVE
DESCRIPTIVE AND ANALYTICAL RESULTS

5.1 Introduction

In order to achieve the aim and objectives of any research project like this, relevant data must be collected, organised, summarized, analysed and interpreted. It is after completing these processes that a researcher is in a position to answer raised research questions and test developed hypotheses. Similarly, it is on concluding these, that a researcher is able to make possible contributions to body of knowledge. This chapter is mainly concerned with organising, summarizing and presenting descriptive and analytical results of empirical data on SED practices of listed Nigerian and UK oil and gas companies. The chapter is divided into 12 sections; section 5.1 is the introduction of the chapter; 5.2 is a brief on descriptive statistics in general and how it is utilized in this study. Section 5.3 is descriptive statistics on quantity of SED by Nigerian oil and gas companies; section 5.4 is on quantity of words disclosure on aspects and sub-categories of SED by Nigerian companies over the period of 2004 to 2013. Section 5.5 deals with quality of SED by Nigerian oil and gas companies. Section 5.6 is descriptive statistics of quantity of SED by UK oil and gas companies over the period 2004 to 2013. Section 5.7 is quantity of words disclosure on aspects and sub-categories of SED by UK oil and gas companies. Quality of SED by UK companies is presented in section 5.8. Section 5.9 is devoted to the results of regression analyses on quantity and quality of disclosure by both Nigerian and UK oil and gas companies. Section 5.10 is comparative analyses of quantity and quality of disclosure between Nigerian and UK oil and gas companies. Section 5.11 provides comparison of results of regression analyses of determinants of quantity and quality of disclosure by UK and Nigerian companies. Finally, section 5.12 is conclusion on the chapter and brief introduction of the succeeding chapter.

5.2 Descriptive Statistics

The process of gathering, measuring, classifying, computing, describing, synthesizing, analysing and interpreting acquired quantitative data is referred to as statistics (Jaggi 2012). Descriptive statistics presents collected data in summarized, clear and understandable ways through numeric and graphic means. In other words, it is a means by which large volumes of research data could be numerically or graphically presented in a more sensible way. The numeric means of descriptive statistics enable researchers to present data by measures of central tendencies (mean, median, and mode) and measures of dispersion such as standard deviations, minimum and maximum. Graphical data presentations enable identification of patterns in the data (Jaggi 2012).

Although, the numerical approach to descriptive statistics is more precise and objective; the graphical approach is better situated in trying to identify patterns in the data. Therefore, the two should be combined when presenting research results to enhance understanding (Jaggi 2012). The aim of this study is to describe and explain the SED practices of listed Nigerian oil and gas companies in comparison with UK oil and gas companies. In order to achieve the descriptive component of the aim, descriptive statistics is employed to present collected data on the quantity and quality of SED by sampled listed Nigerian and UK oil and gas companies. This enables the study to present large volume of data on these aspects in compressed and understandable formats. Consistent with Jaggi (2012) both numerical and graphical presentations are used. Below are results of SEDs by Nigerian and UK companies starting with Nigerian companies.

5.3 Quantity of Words Disclosure on Aspects and Sub-categories of SEDs by Nigerian Companies 2004 to 2013

GRI used as guideline in assessing the quantity and quality of SEDs by sampled companies is composed of different aspects of disclosure. In the social category, these aspects are again grouped into sub-categories of disclosure. Therefore, disclosure on aspects and sub-categories constitute disclosure on social and environment categories. Thus, it might be interesting to first look into disclosure on these aspects and sub-categories before presenting total SEDs.

5.3.1 Quantity of Social Disclosure 2004 to 2013

There are 25 aspects of disclosure in the broad social disclosure category and each aspect is composed of a number of performance indicators. These aspects are grouped into 4 sub-categories of labour practices and decent work; human rights; society and product responsibility[69]. Thus, disclosure on the 25 aspects constitutes disclosure on these four sub-categories. Aggregate disclosure on the sub-categories gives overall disclosure on social category. Nigerian companies made disclosure on social aspects of (1) employment; (2) labour/management relations; (3) occupational health and safety; (4) training and education; and (5) diversity and equal opportunity for women and men. All these 5 aspects are under labour practices and decent work sub-category of social disclosure. Similarly, the companies made disclosure on (1) local

[69] There are 21 performance indicators in the GRI2 which were increased to 22 in GRI3 and to 25 in GRI3.1; however, there are no differences in actual disclosure requirements.

community, and (2) corruption aspects of society sub-category. However, the companies did not make disclosure on aspects of human rights and product responsibility sub-categories. Therefore, the companies made disclosure on 7 out of the 25 social disclosure aspects drawn from 2 out of 4 sub-categories of social disclosure over the period of the study. Below Table 5.1 presents quantity of words disclosure on the aspects and sub-categories.

Table 5:1 Quantity of Words on Aspects and Sub-categories of Social Disclosure by Nigerian Companies

Quantity of words disclosure on Aspects of Labour practices and decent work (A)												
Aspects	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**Total**	**Ranking**
Employment	1,264	1,763	1,689	1,247	1,163	1,242	2,109	1,902	3,543	4,246	20,168	2
Labour/Mgt Relations	322	316	446	0	53	0	0	0	0	0	1,137	6
Health and Safety	21	0	74	0	75	0	45	450	203	307	1,175	5
Training & Education	411	435	564	576	696	707	792	759	420	525	5,885	4
Diversity & Equal Opportunity	731	2,204	1,797	3,296	4,057	8,068	8,715	8,530	7,966	9,467	54,831	1
Sub-total	2,749	4,718	4,570	5,119	6,044	10,017	11,661	11,641	12,132	14,545	83,196	
Total										**A**	**83,196**	
Quantity of words disclosure on Aspects of Society (B)												
Aspects	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**		
Local Communities	672	725	1,040	1,152	2,172	2,397	2,551	2,168	2,081	2,526	17,484	3
Corruption	0	0	0	0	0	0	99	0	268	324	691	7
Sub-total	672	725	1,040	1,152	2,172	2,397	2,650	2,168	2,349	2,850	18,175	
Total										**B**	**18,175**	
Quantity of words disclosure on sub-categories of social category of disclosure												
Sub-categories	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**		
Labour practices and Decent Work	2,749	4,718	4,570	5,119	6,044	10,017	11,661	11,641	12,132	14,545	83,196	1
Society	672	725	1,040	1,152	2,172	2,397	2,650	2,168	2,349	2,850	18,175	2
Sub-total	3,421	5,443	5,610	6,271	8,216	12,414	14,311	13,809	14,481	17,395	101,371	
Total										**C = A + B**	**101,371**	

Results in Table 5.1 indicate that diversity and equal opportunity is the first most disclosed aspect. The second is employment; third is disclosure on dealings with local community. Fourth is employee training and education; fifth is disclosure on employee health and safety. Sixth is labour/management relations, while the seventh and least disclosed aspect is corruption. Result indicating listed Nigerian companies making more disclosure on diversity and equal opportunity suggest that the companies are paying attention to gender issues. However, concerns for gender are predominantly found in developed countries like UK. Therefore, this may be a demonstration of the colonial influence of UK on corporate social behaviour of listed Nigerian oil and gas companies. Ranking sub-categories of disclosure, labour practice and decent work sub-category is the first most disclosed category while disclosure on society sub-category is second. The dominance of disclosure on aspects and sub-category of employee is suggesting the significance of employees in Nigerian oil and gas companies. Similarly, disclosure on communities as the second most disclosed aspect shows that the companies consider their host communities as important stakeholders. Disclosure on corruption is the least disclosed aspect; this is perhaps indicating opacity in the operations of listed Nigerian oil and gas companies. Therefore, it could be argue that these results are indicating that listed Nigerian oil and gas companies are only rendering accountability for legitimacy with employees and host communities. However, few quantities of words disclosure on these legitimacy conferring stakeholders suggest exploitation of these vulnerable stakeholders. Subsequent section is on quantity of words disclosure on aspects of environment by Nigerian companies.

5.3.2 Quantity of Environmental Disclosure 2004 to 2013

There are 9 aspects of disclosure on environment, Nigerian companies made disclosure on only biodiversity aspect over the period of this study as shown in Table 5.2

Table 5:2 Quantity of Words Disclosure on Aspects of Environment by Nigerian Companies

Aspect & Category	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Total
Biodiversity	0	0	187	280	241	190	162	165	569	821	2615
Total Words On ED	0	0	187	280	241	190	162	165	569	821	2615

From Table 5.2, environmental disclosure by sampled Nigerian companies over the period of the study is only on biodiversity aspect and the total disclosed words are 2,615. Thus, listed Nigerian oil and gas companies are paying attention to only biodiversity aspect among the various environmental impacts of their operations as identified in 3.4.2. In addition, the quantity of disclosure on this aspect is also few and pertains to only decommissioning among numerous biodiversity issues. Disclosure on this could be for legitimacy, as it is required by law to be disclosed under contingent liabilities and provisions. Therefore, listed Nigerian oil and gas companies are apparently exploiting their stakeholders on environmental accountability. Thus far, aspects and sub-categories of SEDs by Nigerian companies have been described. The next section presents total quantity of words disclosure on SED categories.

5.3.3 Quantity of Words Disclosure on Social and Environmental Disclosure Categories by Nigerian Companies 2004 to 2013

This section presents total words disclosure on social and environment categories over the period of the study separately. However, these are presented along with total SEDs to portray the extent of each relative to the total as in Figure 5.1. Similarly, some social disclosures were made mandatory by NSEC corporate governance act, which came into force in 2011. These mandatory components are highlighted from total social disclosure for the years 2011, 2012 and 2013.

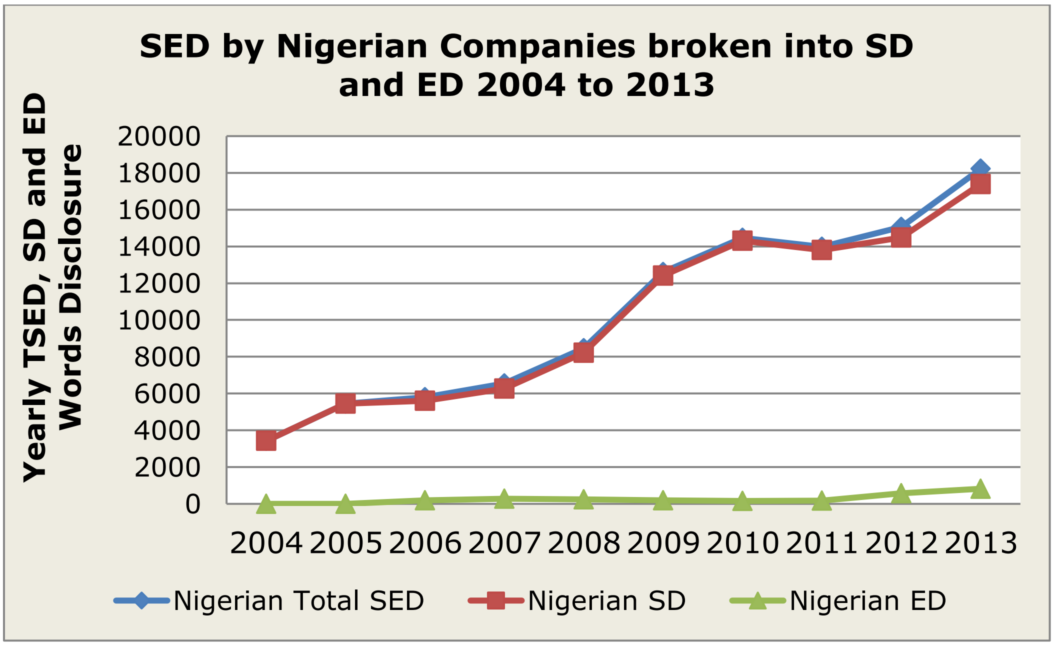


Figure 5.1 Social and Environmental Disclosure by Nigerian Companies

Figure 5.1 show graphical trends of quantity of words disclosure on social and environmental categories by Nigerian companies. These are presented with total SEDs to determine the pattern of each, these are further illustrated numerically in below Table 5.4 to enhance understanding. Trends of social disclosure compared to total SEDs by listed Nigerian oil and gas companies shows that disclosures are mainly on social information. Thus, sampled companies are rendering social accountability more than environmental accountability. Indeed, it could be debated that environmental accountability by sampled companies is lacking.

Table 5:3 Quantity of Words on Social and Environmental Disclosure Sub-categories by Nigerian Companies

Years	Total words	Social words	% of total	Env words	% of total	Social		Env	
						Vol[70]	Man[71]	Vol	Man
2004	3,421	3,421	100	0	0	3,421	0	0	0
2005	5,443	5,443	100	0	0	5,443	0	0	0
2006	5,797	5,610	97	187	3	5,610	0	187	0
2007	6,551	6,271	96	280	4	6,271	0	280	0
2008	8,457	8,216	97	241	3	8,216	0	241	0
2009	12,604	12,414	98	190	2	12,414	0	190	0
2010	14,473	14,311	99	162	1	14,311	0	162	0
2011	13,974	13,809	99	165	1	4,031	9,778	165	0
2012	15,050	14,481	96	569	4	5,347	9,134	569	0
2013	18,216	17,395	96	821	4	6,832	10,563	821	0
Total	**103,986**	**101,371**		**2,615**		**71,896**	**29,475**	**2,615**	

Results in Figure 5.1 as numerically presented in table 5.3 indicate that social information constitutes majority of disclosure by Nigerian oil and gas companies. There are few environmental disclosures over the period of the study with the highest disclosure of 4% of total SEDs in 2012 and 2013 respectively. Thus, despite numerous environmental effects associated with oil and gas operations in Nigeria as stated in 3.4.2, listed Nigerian oil and gas companies are not rendering accountability on such. Another component of SED practices by Nigerian companies as presented in table 5.3 is mandatory social disclosure for the years 2011, 2012 and 2013. In these years, social disclosure words are majorly on mandatory information. This indicates that regulating

[70] Vol = voluntary
[71] Man = mandatory

disclosure in the Nigerian oil and gas industry may perhaps enhance social accountability by oil and gas companies. Having present disclosure words on social and environment sub-categories, below Figure 5.2 presents cumulative SEDs by the companies 2004 to 2013.

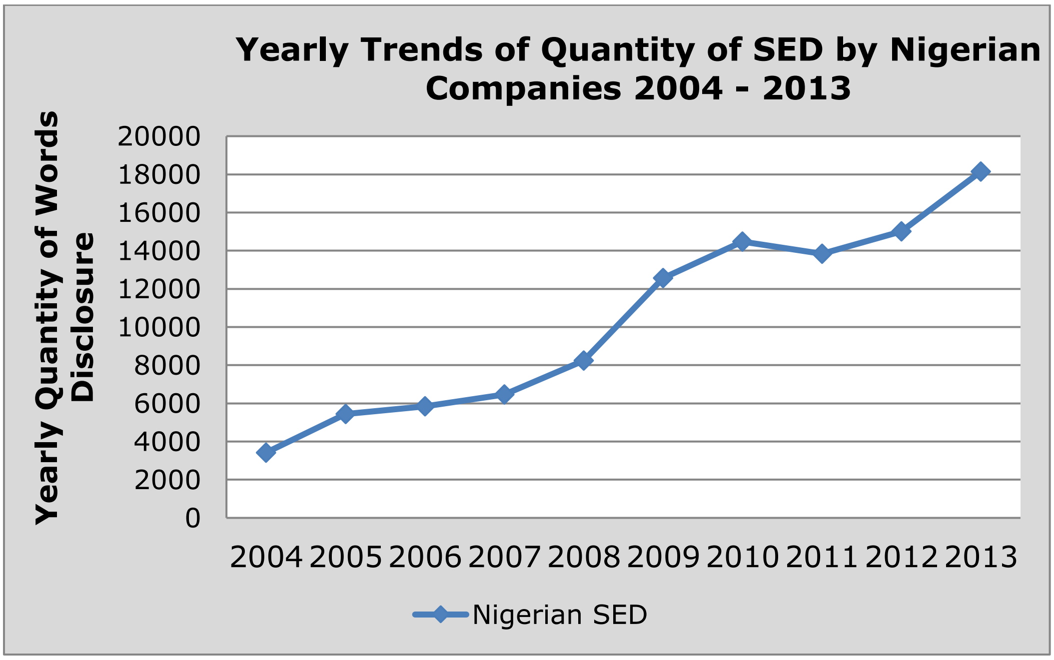


Figure 5.2 Yearly Trends of Quantity of SED by Nigerian Companies 2004 to 2013

Figure 5.2 depicts trends of SEDs by Nigerian oil and gas companies 2004 to 2013. On the overall, the trends of the disclosure could be argued as increasing over these years. This may suggest increasing social accountability by listed Nigerian oil and gas companies over the period, though the increasing variations are low. Subsequent Table 5.4 presents the numeric quantity of SEDs words and variations in quantity of the disclosure over the years in figures and percentages.

Table 5:4 Quantity of SED Words by Nigerian Companies

Years	Total	Variations in Figures	Variations in Percentages
2004	3,421	-	-
2005	5,443	2,022	59%
2006	5,797	354	8%
2007	6,551	754	11%
2008	8,457	1,906	28%
2009	12,604	4,147	52%
2010	14,473	1,869	15%
2011	13,974	-499	-5%
2012	15,050	1,076	9%
2013	18,216	3,166	21%
Total	**103,986**		

SEDs by Nigerian companies are also scored for compliance with GRI disclosure guidelines in order to determine the quality of the disclosure.

5.4 Quality of SEDs by Nigerian Companies 2004 to 2013

This section looks into the quality of SEDs by sampled listed Nigerian oil and gas companies 2004 to 2013. The criteria adopted in obtaining the quality of SED by sampled companies have been outlined in section 4.4.5. Therefore, the next section presents the quality of the disclosures

5.4.1 Quality of Disclosure on Aspects and Sub-Categories of Social Disclosure by Nigerian Companies 2004 to 2013

This section present disclosure quality scores on aspects and sub-categories of social disclosure by listed Nigerian oil and gas companies for the period 2004 to 2013 as shown in Table 5.5.

Table 5:5 Quality of Disclosure on Aspects and sub-categories of Social Disclosure by Nigerian Companies

Disclosure Quality Scores on Aspects of Labour Practices and Decent Work												
Aspects	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	Total	Ranking
Employment	0.21	0.21	0.23	0.24	0.30	0.40	0.41	0.38	0.30	0.41	3.09	1
Labour/Management relations	0.18	0.16	0.22	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.59	6
Health and Safety	0.18	0.14	0.18	0.00	0.10	0.05	0.05	0.10	0.09	0.07	0.96	5
Training and Education	0.30	0.24	0.27	0.15	0.18	0.18	0.15	0.10	0.10	0.10	1.77	2
Diversity & Equal Opportunity	0.06	0.10	0.12	0.15	0.15	0.18	0.20	0.20	0.11	0.10	1.37	4
Sub-total	0.93	0.85	1.02	0.54	0.76	0.81	0.81	0.78	0.60	0.68	7.78	
Total										**(A)**	**7.78**	
Disclosure Quality Scores on Aspects of Society												
Aspects	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	Total	
Local Communities	0.08	0.08	0.12	0.13	0.15	0.18	0.18	0.2	0.26	0.34	1.72	3
Corruption	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.05	0.11	7
Sub-total	0.08	0.08	0.12	0.13	0.15	0.18	0.18	0.20	0.32	0.40	1.83	
Total										**(B)**	**1.83**	
Disclosure Quality Scores on Sub-categories of Social disclosure												
Sub-categories	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	Total	
Labour Practices & Decent Work	0.94	0.86	1.03	0.54	0.75	0.80	0.81	0.78	0.60	0.67	7.78	1
Society	0.08	0.08	0.12	0.16	0.20	0.23	0.27	0.27	0.22	0.20	1.83	2
Total										**C= A + B**	**9.61**	

Table 5.5 shows the quality of SEDs by listed Nigerian oil and gas companies. Employment aspect is the first most qualitatively disclosed. The second is training and education; third is disclosure on local communities; fourth is diversity and equal opportunity. Fifth is employee health and safety; sixth are labour/management relations and seventh is corruption. Looking into sub-categories, labour practices and decent work sub-category is the first most qualitatively disclosed while disclosure on society sub-category is second. Consistent with quantity of disclosure, quality of disclosure by listed Nigerian oil and gas companies is predominantly on employees and host communities. This could be meant for gaining or maintaining legitimacy with these weak but important stakeholders. However, overall low quality of the disclosure is possibly depicting exploitation of these vulnerable stakeholders by listed Nigerian oil and gas companies. Having had an insight into the disclosure quality scores of sampled companies on social category, next section looks into the disclosure quality scores on environment.

5.4.2 Quality of Disclosure on Aspects of Environment by Nigerian Companies 2004 to 2013

This section looks into the disclosure quality scores on environment by Nigerian oil and gas companies. Nigerian companies made disclosure on only biodiversity aspect as presented in below Table 5.6

Table 5:6 Environment Disclosure Quality Score by Nigerian Companies

Years	Quality Scores on Biodiversity Aspect

2004	0.00
2005	0.00
2006	0.03
2007	0.03
2008	0.03
2009	0.07
2010	0.03
2011	0.03
2012	0.13
2013	0.11
Total	**0.46**

From Table 5.6, total disclosure quality scores on environment by Nigerian companies over the period of the study is 0.46 points. These low quality scores are consistent with low quantity of words disclosure on this sub-category by listed Nigerian oil and gas companies. Below Figure 5.3 presents quality of SEDs as two separate categories against total SED quality scores. The quality of social disclosure is explained such that the mandatory and voluntary quality scores are demarcated for the years 2011, 2012 and 2013.

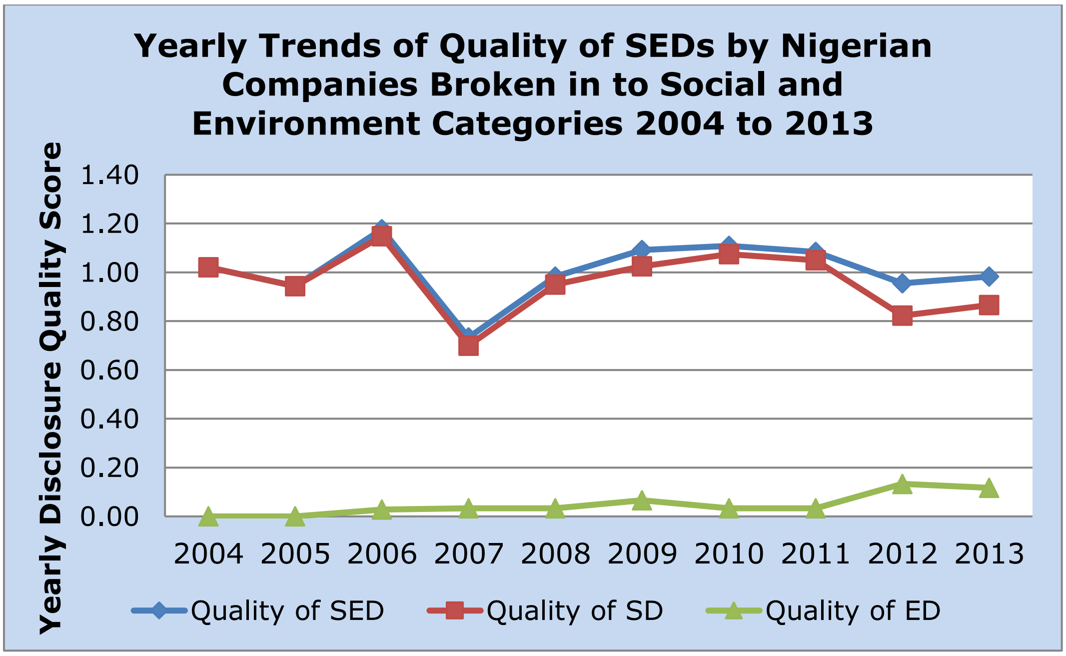


Figure 5.3 Quality of SEDs by Nigerian Companies Broken into S & E

Figure 5.3 shows the trends of quality of disclosure scores by listed Nigerian oil and gas companies on social and environmental categories along with total SED quality score to show the pattern of each while succeeding Table 5.7 gives further insight of the scores numerically.

Table 5:7 Disclosure Quality Scores on Social and Environmental Sub-categories by Nigerian Companies

Years	Total quality score points	Ave	Social quality scores	% of total	Env quality score points	% of total	Social		Environment	
							Vol	Man	Vol	Man
2004	1.02	-	1.02	100	0	0	1.02	0	0	0
2005	0.94	-	0.94	100	0	0	0.94	0	0	0
2006	1.18	-	1.15	97	0.03	3	1.15	0	0.03	0
2007	0.73	-	0.70	96	0.03	4	0.70	0	0.03	0
2008	0.98	-	0.95	97	0.03	3	0.95	0	0.03	0
2009	1.09	-	1.03	94	0.06	6	1.03	0	0.06	0
2010	1.11	-	1.08	97	0.03	3	1.08	0	0.03	0
2011	1.08	-	1.05	97	0.03	3	0.43	0.62	0.03	0
2012	0.95	-	0.82	86	0.13	14	0.44	0.38	0.13	0
2013	0.99	-	0.87	96	0.12	4	0.49	0.38	0.12	0
Total	**10.07**	**1.007**	**9.61**		**0.46**		**8.23**	**1.38**	**0.46**	

From Figure 5.3 and Table 5.7 quality of disclosure by listed Nigerian oil and gas companies are dominated by social disclosure. This is consistent with the dominance of social category on quantity of disclosures. Overall, the sum of average quality of SEDs by listed Nigerian oil and gas companies over the 10 years' period of this study is approximately 1.01 points. This score is within the range of 0 – 2 in the rating criteria in Table 4.1. Thus, the average quality score of SEDs by listed Nigerian oil and gas companies is unsatisfactory. Therefore, it could be argue that listed Nigerian oil and gas companies are not making specific and substantial disclosure that are normally associated with quality. Consequently, the disclosure could be mere explanations without quality for legitimacy and the low quality is depicting exploitation of vulnerable stakeholders. Having had an idea on disclosure quality score of the sub-categories, below Figure 5.4 presents yearly trends of total SEDs quality score by Nigerian companies.

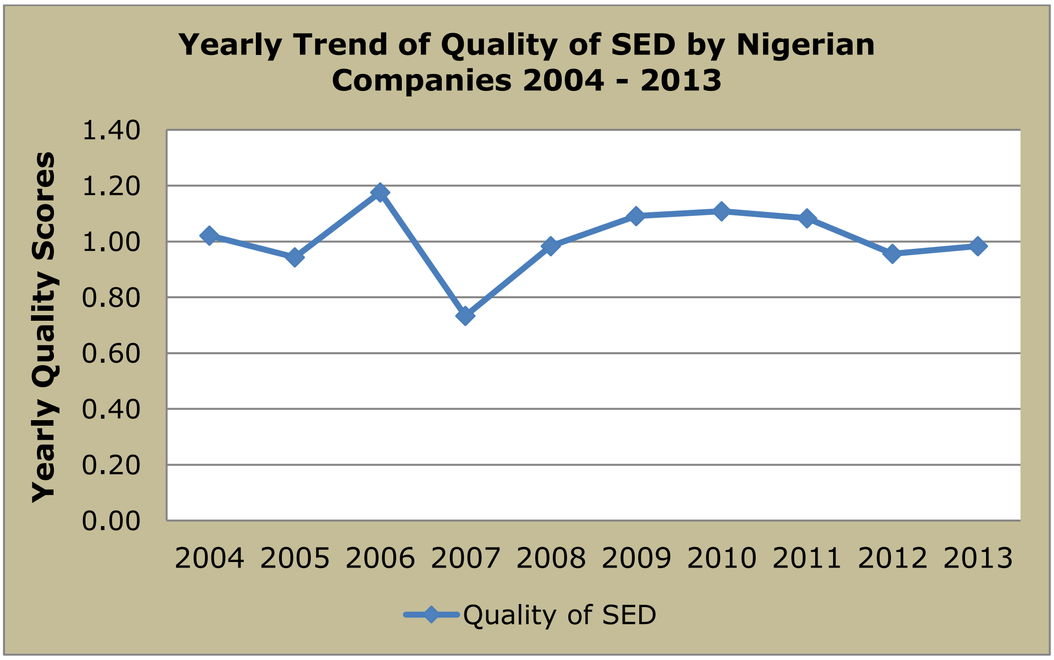


Figure 5.4 Yearly Trends of SED Quality by Nigerian Companies

From Figure 5.4, quality of SED scores by sampled listed Nigerian oil and gas companies showed fluctuating trends over the period of the study. In addition to depicting fluctuating trend, year in year out the quality is within the minimum quality score threshold in this study. This results in overall unsatisfactory quality rating over the period of the study. The yearly scores and variations are presented numerically in below Table 5.8 to enhance understanding of the scores.

Table 5:8 SED Quality Scores by Nigerian Companies

Years	Total	Variations in figures	Variations in Percentages
2004	1.02	-	-
2005	0.94	-0.08	-8%
2006	1.18	0.24	26%
2007	0.73	-0.45	-38%
2008	0.98	0.25	34%
2009	1.09	0.11	11%
2010	1.11	0.02	2%
2011	1.08	-0.03	3%
2012	0.95	-0.13	12%
2013	0.99	0.04	4%
Total	**10.07**		

Thus far, the quantity and quality of SEDs by listed Nigerian oil and gas companies have been presented. Subsequent section is on the quantity and quality of SEDs by listed UK oil and gas companies.

5.5 Quantity of Words Disclosure on Aspects and Sub-categories of SEDs by UK Companies 2004 to 2013

This section presents the quantity of words disclosure on aspects and sub-categories of SED practices by listed UK companies. Consistent with the description of disclosure by Nigerian oil and gas companies, description of disclosure by UK also begins with quantity of social words disclosure followed by environment.

5.5.1 Quantity of Social Disclosure 2004 to 2013

Sampled listed UK oil and gas companies made disclosure on (1) employment; (2) labour/management relations; (3) occupational health and safety; (4) training and education; and (5) diversity and equal opportunity aspects of labour practices and decent work sub-category. The companies also made disclosure on (1) local communities; (2) corruption; (3) public policy and (4) compliance aspects of society sub-category of disclosure. Similarly, the companies provided information on (1) customer health and safety; (2) product and service labelling; and (3) marketing communications aspects of product responsibility sub-category category. UK companies also made disclosure on aspects of human rights in (1) investment and procurement services; (2) non-discrimination; (3) freedom of association and collective bargaining; (4) security practices, and (5) indigenous people. Thus, UK companies made disclosure on 17 out of 25 aspects of social disclosure drawn from the four sub-categories of social disclosure. Tables 5.9, 5.10 and 5.11 are on quantity of words disclosure on aspects and sub-categories of the social disclosure category.

Table 5:9 Quantity of Words Disclosure on Social Aspects by UK Companies

Quantity of words disclosure on aspects of Labour practices and Decent work												
Aspects	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**Total**	**R[72]**
Employment	22,963	38,408	49,775	48,398	60,252	63,502	70,150	69,415	64,756	72,680	560,299	1
Labour/Mgt Relations	298	647	720	380	149	374	0	249	221	540	3,578	7
Employee H & S	673	2,338	2,256	4,440	3,063	5,487	4,485	5,471	2,524	3,814	34,551	4
Employee T & Education	103	736	547	322	717	1,281	1,646	1,310	1,283	1,603	9,548	6
Diversity & Equal Opp.	8,060	9,120	10,169	10,347	9,266	10,318	12,987	12,953	14,524	14,996	112,740	3
Total	**32,097**	**51,249**	**63,467**	**63,887**	**73,447**	**80,962**	**89,268**	**89,398**	**83,308**	**93,633**	**720,716**	
Quantity of words disclosure on aspects of Society												
Aspects	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**		
Local Communities	3,457	13,519	9,747	7,590	10,901	14,474	16,250	17,536	24,479	27,830	145,783	2
Corruption	497	371	1,290	0	50	26	172	7,970	0	0	10,376	5
Public policy	194	0	187	0	0	0	0	0	0	0	381	11
Compliance	0	0	0	0	0	0	0	20	0	0	20	17
Total	**4,148**	**13,890**	**11,224**	**7,590**	**10,951**	**14,500**	**16,422**	**25,526**	**24,479**	**27,830**	**156,560**	

[72] R = Ranking

Table 5:10 Quantity of Words Disclosure on Social Aspects by UK Companies

Quantity of Words Disclosure on Aspects of Product Responsibility												
Aspects	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**Total**	**Ranking**
Customer H & S	0	0	0	0	0	0	249	0	554	0	803	10
Product & Service Lab	0	0	0	0	39	0	0	0	0	0	39	16
Marketing Comm.	0	0	0	872	39	0	249	0	554	0	1,714	8
Total	**0**	**0**	**0**	**872**	**78**	**0**	**498**		**1,108**	**0**	**2,556**	
Quantity of Words Disclosure on Aspects of Human Rights												
Aspects	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**		
HR in Investment and procurement practices	445	301	28	0	0	0	0	0	0	98	872	9
Non-Discrimination	0	0	90	234	0	0	0	0	0	0	324	13
HR in Freedom of Ass. & CB	0	87	0	0	0	0	0	0	0	0	87	7
Security Practices	34	0	43	106	0	0	0	0	49	0	232	6
Indigenous people	31	16	82	0	0	0	249	0	0	0	378	4
Total	**510**	**404**	**243**	**340**	**0**	**0**	**249**	**0**	**49**	**98**	**1,893**	

Table 5:11 Quantity of Words Disclosure on Sub-categories of Disclosure

Quantity of words disclosure on sub-categories of social disclosure by Nigerian Companies												
Sub-categories	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**Total**	**R**
Labour practice & decent work	32,097	51,249	63,467	63,887	73,477	80,962	89,296	89,398	83,308	93,575	720,716	1
Society	4,148	14,398	10,744	7,590	10,951	14,500	16,394	25,526	24,479	27,830	156,560	2
Human Rights	510	431	243	340	0	0	249	0	22	98	1,893	4
Product Resp.	0	0	0	872	78	0	498	0	1108	0	2,556	3
Total											**881,725**	

Disclosure on social aspects by listed UK oil and gas companies presented in Tables 5.9, and 5.10, shows the first most disclosed aspect is employment; second is local communities; third is diversity and opportunity. The fourth is employee health and safety; fifth is corruption; sixth is employee training and education; seventh is labour/management relations. The eighth is marketing communications; ninth is human rights in investment and procurements; tenth is customer health and safety; eleventh is disclosure on public policy. Twelfth is human rights in dealings with local communities; thirteenth is disclosure on non-discrimination; fourteenth is human right in security practices. Fifteenth is human right in freedom of association and collective bargaining; sixteenth is product and service labelling; and seventeenth is compliance on society.

Information on employees dominates disclosure by sampled UK oil and gas companies. Thus, it could be argue that employees are important stakeholders whom UK companies are devoting much of their disclosures on, probably for legitimacy. Furthermore, disclosure on communities as the second most disclosed aspect may possibly be depicting effort to maintain or gain legitimacy with host communities. Likewise, third, fourth, fifth, sixth and seventh most disclosed aspects are all on employee issues. This is further revealing the importance of employees in the UK oil and gas industry, although, the disclosures could be for maintaining legitimacy. Listed UK oil and gas companies are also providing information on aspects of products responsibility and human rights. Providing information on aspects of these sub-categories may be indicating the advancement of social disclosure in UK. It may also be efforts to maintain legitimacy with highly educated and economically wealthy customers. Similarly, it could be for maintaining legitimacy with strong government corporate regulatory agencies that are capable of enforcing rules and regulations effectively. Looking into disclosure on sub-categories as presented in Table 5.11, the first most disclosed sub-category is labour practices and decent work; second, is disclosure on society; third is product responsibility and fourth is human rights. The next section is on quantity of disclosure on aspects of environment by UK companies.

5.5.2 Quantity of Disclosure on Aspects of Environment 2004 to 2013

Unlike social disclosure category that is composed of aspects and sub-categories of disclosure, environment category is mainly composed of aspects of disclosure. Therefore, this section presents the aspects of disclosure under the environment category in below Table 5.12.

Table 5:12 Aspects of Environmental Disclosure Category by UK Companies

Aspects	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Total	R
Materials	0	114	222	0	0	0	0	0	0	0	336	7
Energy	245	3,792	1,498	789	819	3,062	3,444	3,094	2,069	2,173	20,985	3
Water	121	894	317	468	196	1,071	2,331	2,492	420	4,244	12,554	4
Biodiversity	1,154	3,794	4,239	4,391	3,619	4,699	6,520	9,328	8,727	8,536	55,007	1
Emissions, Effluents and Waste	2,889	7,717	6,830	9,176	11,209	13,975	9,820	16,123	10,900	13,902	10,2541	5
Environmental Compliance	0	85	873	0	7	7	0	7	369	0	1,348	6
Overall	18	114	0	0	5	254	4,297	215	11,045	7,715	23,663	2
Total Words	**4,427**	**16,510**	**13,979**	**14,824**	**15,855**	**23,068**	**26,412**	**31,259**	**33,530**	**36,570**	**216,434**	

Quantity of words disclosed on aspects of environment by UK companies from Table 5.12, indicate that the first most disclosed is emissions, effluents and waste. The second is biodiversity; third, disclosure on overall environmental issues; fourth is disclosure on energy aspect. The fifth is water; the sixth is environmental compliance; the seventh and least most disclosed aspect is materials. This result may be reflecting the commitment of listed UK oil and gas companies to environmental accountability. Similarly, it could be effort by the companies to maintain legitimacy with broad and strong stakeholder groups in UK. Environmental information is also reflecting environmental impacts of the UK oil and gas industry as discussed in 3.6.2. Thus far, aspects and sub-categories of SED by UK companies have being presented. The next section present disclosure on social and environment categories separately along with total SED to depict disclosure trends of the two against the total.

5.5.3 Quantity of Disclosure on Social and Environmental Categories by UK Companies 2004 to 2013

Below Figure 5.5 indicates the patterns of SED by listed UK oil and gas companies broken down into social and environmental categories and compared with total SED.

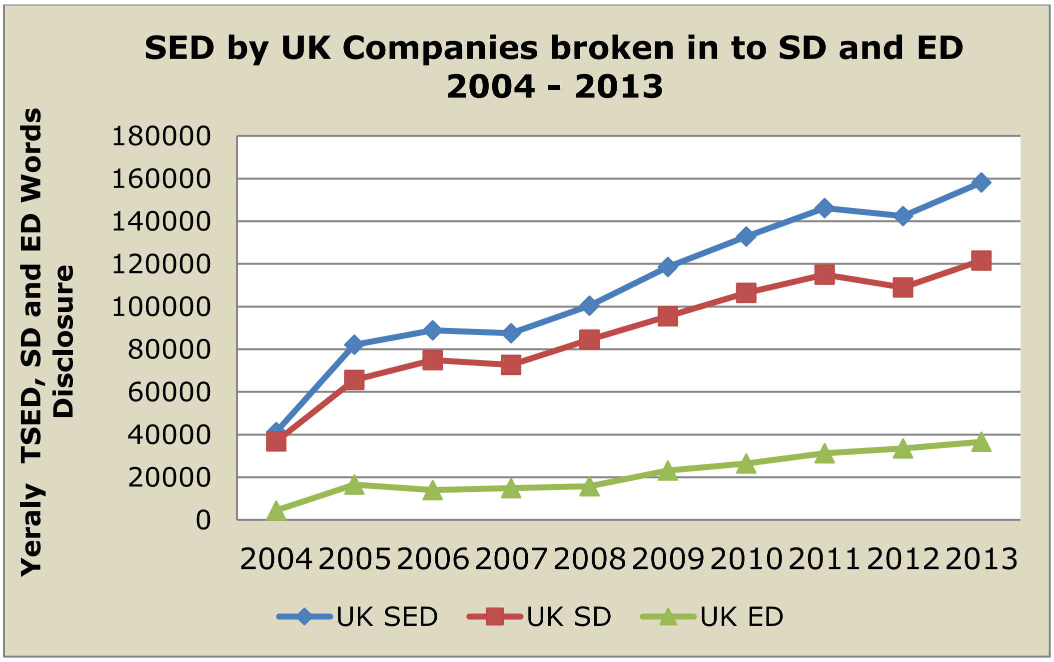


Figure 5.5 Quantity of SED Words Broken into S & E

On the overall, quantity of SEDs by UK companies in above Figure 5.5 is showing increasing trends, although there are decreases in the years 2007 and 2012. The quantity of disclosure on social and environment sub-categories in each year, their relevant percentages of the total SEDs and composition into voluntary and mandatory disclosure are presented in below Table 5.13.

Table 5:13 Quantity of Words on Social and Environmental Disclosure Sub-categories by UK Companies

Years	Total words	Social words	% of total	Env quality score points	% of total	Social		Environment	
						Vol[73]	Man[74]	Vol	Man
2004	41,182	36,755	89	4,427	11	13,967	22,788	4,427	0
2005	82,053	65,543	80	16,510	20	27,415	38,128	16,510	0
2006	88,913	74,934	84	13,979	16	26,118	48,816	13,979	0
2007	87,513	72,689	83	14,824	17	24,288	48,401	14,824	0
2008	100,331	84,476	84	15,855	16	15,855	68,621	15,855	0
2009	118,530	95,462	81	23,068	19	9,963	85,499	23,068	0
2010	132,849	106,437	80	26,412	20	9,747	96,690	26,412	0
2011	146,183	114,924	79	31,259	21	18,957	95,967	31,259	0
2012	142,474	108,944	76	33,530	24	8,129	100,815	33,530	0
2013	158,131	121,561	77	36,570	23	8,918	112,643	36,570	0
Total	**1,098,159**	**881,725**		**216,434**		**163,357**	**718,368**	**216,434**	

Trends of disclosure presented in Figure 5.5 and numeric quantity of the disclosure for each year in Table 5.13 indicate the dominance of social disclosure compared to environment by UK companies. The least social disclosure is 76% of total SED in 2012. Further break down of the social disclosure into mandatory and voluntary components reveal that social disclosure is dominated by mandatory disclosure. Having presented social and environment categories separately, below Figure 5.6 is trends of total SEDs.

73 Vol = Voluntary
74 Man = mandatory

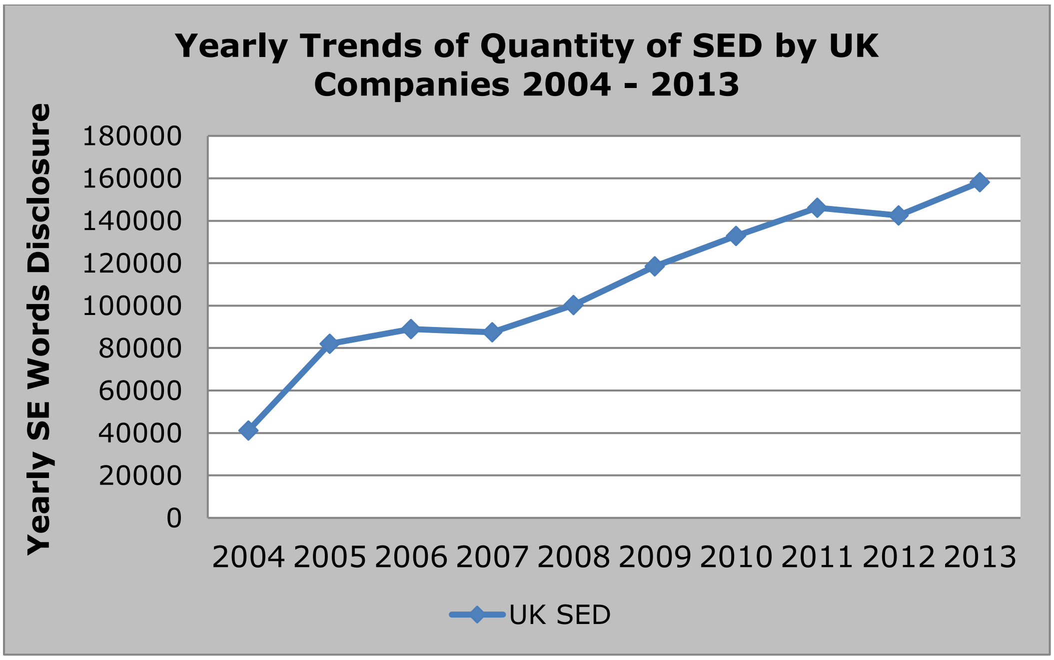


Figure 5.6 Yearly Trends of Quantity of SED by UK Companies 2004 to 2013

The pattern of SEDs by UK companies in above Figure 5.6 indicates increasing trends with slight decreases in the years 2007 and 2012 respectively. The decreases are associated with number of disclosed performance indicators. The trends are presented numerically in below Table 5.14 indicating quantity of words for each year, quantity and percentages of yearly variations.

Table 5:14 Quantity of SED Words by UK Companies

Quantity of SED words by UK companies			
Years	**Total words**	**Variations in Figures**	**Variations in percentages**
2004	41,182	-	-
2005	82,053	40,871	99%
2006	88,913	6,860	8%
2007	87,513	-1,400	-2%
2008	100,331	12,818	15%
2009	118,530	18,199	18%
2010	132,849	14,319	12%
2011	146,183	13,334	10%
2012	142,474	-3,709	-3%
2013	158,131	15,657	11%
Total	**1,098,159**		

SEDs by UK companies are also scored for consistency of disclosure with adopted GRI disclosure guidelines in order to determine quality of the disclosure.

5.6 Quality of SEDs by UK Companies 2004 to 2013

This section looks into the quality of disclosure by sampled listed UK oil and gas companies over the period of the study. Consistent with the presentation of quantity of disclosure, quality of disclosure on social disclosure is presented first followed by quality of environmental disclosure.

5.6.1 Quality of Disclosure on Aspects and Sub-categories of Social Disclosure by UK Companies 2004 to 2013

Below Tables 5.15 and 5.16 are on quality of disclosure on aspects and sub-categories of social disclosure while Table 5.17 is total disclosure quality on social aspects.

Table 5:15 Disclosure Quality Scores on Aspects of Social Disclosure by UK Companies

Disclosure Quality Scores on Aspects of Labour Practices and Decent Work												
Aspects	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**Total**	**Ranking**
Employment	0.35	0.41	0.42	0.30	0.37	0.35	0.30	0.22	0.18	0.20	3.10	1
Labour/Mgt relations	0.08	0.14	0.08	0.35	0.33	0.33	0.00	0.37	0.37	0.40	2.45	2
Employee H & S	0.06	0.20	0.18	0.20	0.20	0.23	0.15	0.20	0.13	0.15	1.70	5
Training and Education	0.02	0.12	0.04	0.05	0.10	0.10	0.13	0.10	0.11	0.11	0.89	8
Diversity and Opp.	0.20	0.20	0.20	0.23	0.18	0.18	0.18	0.18	0.13	0.18	1.85	4
Total	**0.71**	**1.07**	**0.92**	**1.13**	**1.18**	**1.19**	**0.76**	**1.07**	**0.92**	**1.04**	**9.99**	
Disclosure Quality Scores on Aspects of Society												
Aspects	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Total	
Local Communities	0.10	0.14	0.16	0.20	0.23	0.25	0.23	0.25	0.26	0.30	2.12	3
Corruption	0.16	0.22	0.31	0.00	0.02	0.02	0.03	0.04	0.10	0.00	0.9	7
Public Policy	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	9
Compliance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.02	10
Total	**0.28**	**0.36**	**0.49**	**0.2**	**0.25**	**0.27**	**0.26**	**0.31**	**0.36**	**0.3**	**3.08**	

Table 5:16 Disclosure Quality Scores on Aspects of Social Disclosure by UK Companies

Quality of disclosure on Aspects of Products Responsibility												
Aspects	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**Total**	**R**
Customer H & S	0	0	0	0	0	0	0.01	0	0.03	0	0.04	9
Product and Service Labelling	0	0	0	0	0.01	0	0	0	0	0	0.01	11
Marketing & Com.	0	0	0	0.03	0.02	0	0.02	0	0.03	0	0.10	6
Total	**0**	**0**	**0**	**0.03**	**0.03**	**0**	**0.03**	**0**	**0.06**	**0**	**0.15**	
Quality of disclosure on Aspects of Human Rights												
Aspects												
HR in Investment & procurement	0.01	0.01	0.01	0	0	0	0	0	0	0.01	0.04	9
Non- Discrimination	0	0	0.01	0.01	0	0	0	0	0	0	0.02	10
Freedom of ass. & collective bargaining	0	0.01	0	0	0	0	0	0	0	0	0.01	11
Security Practices	0.01	0	0.01	0.01	0	0	0	0	0.01	0	0.04	9
Rights of Indigenes	0.01	0.01	0.01	0	0	0	0.01	0	0	0	0.04	9
Total	**0.03**	**0.03**	**0.04**	**0.02**	**0**	**0**	**0.01**	**0**	**0.01**	**0.01**	**0.15**	

Table 5:17 Total Disclosure Quality Scores on Sub-categories of Social Disclosure by UK Oil and Gas Companies

Quality of Disclosure on Aspects of Labour Practices and Decent Work												
Aspects	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**Total**	**R**
Labour Practices and Decent Work	0.71	1.07	0.92	1.13	1.18	1.19	0.76	1.07	0.92	1.04	9.99	1
Aspects of Society	0.28	0.36	0.49	0.2	0.25	0.27	0.26	0.31	0.36	0.3	3.08	2
Aspects of Products Resp.	0	0	0	0.03	0.03	0	0.03	0	0.06	0	0.15	3
Aspects of Human Rights	0.03	0.03	0.04	0.02	0	0	0.01	0	0.01	0.01	0.15	3
Total	**0.77**	**1.13**	**1.00**	**1.2**	**1.21**	**1.19**	**0.81**	**1.07**	**1.00**	**1.06**	**13.37**	

Tables 5.15 and 5.16 highlight disclosure quality scores and ranking of all aspects of social disclosure by UK oil and gas companies. Table 5.17 show the total disclosure quality scores and ranking of the four sub-categories of social disclosure. Ensuing section is on disclosure quality scores on aspects of environment.

5.6.2 Quality of Disclosure on Aspects of Environment Category by UK Companies 2004 to 2013

This section presents the quality of disclosure on the nine environment aspects of materials; energy; water; biodiversity; emissions, effluents and waste; products and services compliance; transport and overall presented in below Table 5.18.

Table 5:18 Disclosure Quality Scores on Aspects of Environment by UK Companies

Aspects	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Total	Ranking
Energy	0.06	0.23	0.20	0.13	0.20	0.20	0.13	0.13	0.13	0.13	1.54	3
Water	0.06	0.20	0.11	0.10	0.10	0.13	0.10	0.17	0.17	0.13	1.27	4
Biodiversity	0.11	0.11	0.20	0.37	0.30	0.40	0.53	0.53	0.60	0.57	3.72	2
Emissions & effluents	0.57	1.03	0.89	0.97	0.87	0.88	0.90	0.93	0.93	0.87	8.84	1
Materials	0.00	0.11	0.11	0.00	0.07	0.05	0.00	0.00	0.00	0.00	0.34	5
Compliance	0.00	0.11	0.11	0.00	0.07	0.03	0.00	0.00	0.00	0.00	0.32	6
Overall	0.03	0.03	0.00	0.00	0.00	0.03	0.03	0.03	0.07	0.07	0.29	7
Total	**0.83**	**1.82**	**1.62**	**1.57**	**1.61**	**1.72**	**1.69**	**1.79**	**1.9**	**1.77**	**16.32**	

Numeric results and rankings of disclosure quality scores on all aspects of social and environment categories are presented in preceding Tables 5.15; 5.16; 5.17 and 5.18. Below Figure 5.8 present quality of disclosure on social and environment categories separately along with total SED quality scores to highlight the patterns of the two in comparison with the total.

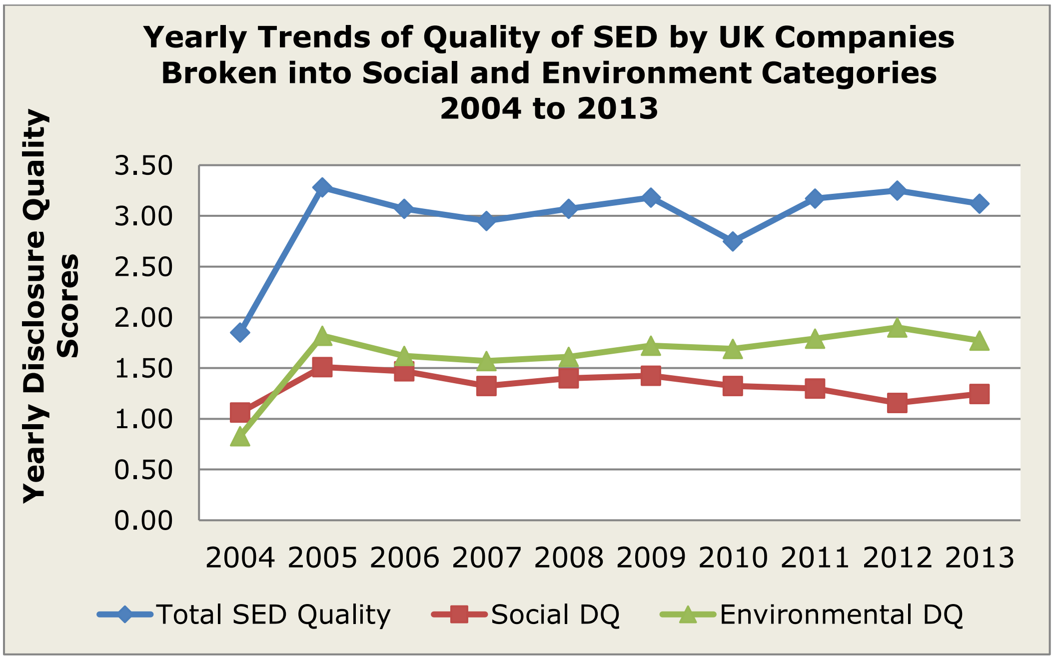


Figure 5.7 Yearly Trends of Quality of SED by UK Companies Broken into S & E 2004 to 2013

The trend of disclosure quality scores by listed UK oil and gas companies in above Figure 5.7 is fluctuating over the period 2004 to 2013. There is sharp increase in disclosure quality in 2005, which could be attributed to disclosure on numerous performance indicators. Conversely, there is significant decrease in quality score in 2010 and this is related to decrease in number of performance indicators. Below Table 5.19, numerically highlight the scores, percentages from the total and delineation into voluntary and mandatory disclosure scores.

Table 5:19 Disclosure Quality Scores on Social and Environmental Sub-categories by UK Companies

Years	Total quality score points	Ave	Social quality scores	% of total	Env quality score points	% of total	Social		Environment	
							Vol[75]	Man[76]	Vol	Man
2004	1.85	-	1.02	55	0.83	45	0.32	0.70	0.83	0
2005	3.28	-	1.46	45	1.82	55	0.50	0.96	1.82	0
2006	3.07	-	1.45	47	1.62	53	0.45	1.00	1.62	0
2007	2.95	-	1.38	47	1.57	53	0.36	1.02	1.57	0
2008	3.07	-	1.46	48	1.61	52	0.38	1.08	1.61	0
2009	3.18	-	1.46	46	1.72	54	0.36	1.10	1.72	0
2010	2.75	-	1.06	39	1.69	61	0.16	0.90	1.69	0
2011	3.17	-	1.38	44	1.79	56	0.36	1.02	1.79	0
2012	3.25	-	1.35	42	1.9	58	0.37	0.98	1.9	0
2013	3.12	-	1.35	43	1.77	57	0.34	1.01	1.77	0
Total	**29.69**	**2.97**	**13.37**		**16.32**		**3.60**	**9.77**	**16.32**	

From Table 5.19, the overall average disclosure quality score by sampled listed UK oil and gas companies over the period of the study is 2.97 which is approximately 3. Therefore, disclosure quality rating of UK companies falls within 2.1 – 4 points in the rating criteria specified in Table 4.1. Thus, the quality of disclosure is satisfactory and this might be consistent with advancement in SEDs practices and concerns of the society, government and corporate commitments to the society and the environment in UK. Disclosure quality scores on social and environment sub-categories as in Figure 5.7 and numeric scores in Table 5.19 are presented as total SEDs 2004 to 2013 in below Figure 5.8

[75] Vol = Voluntary
[76] Man = Mandatory

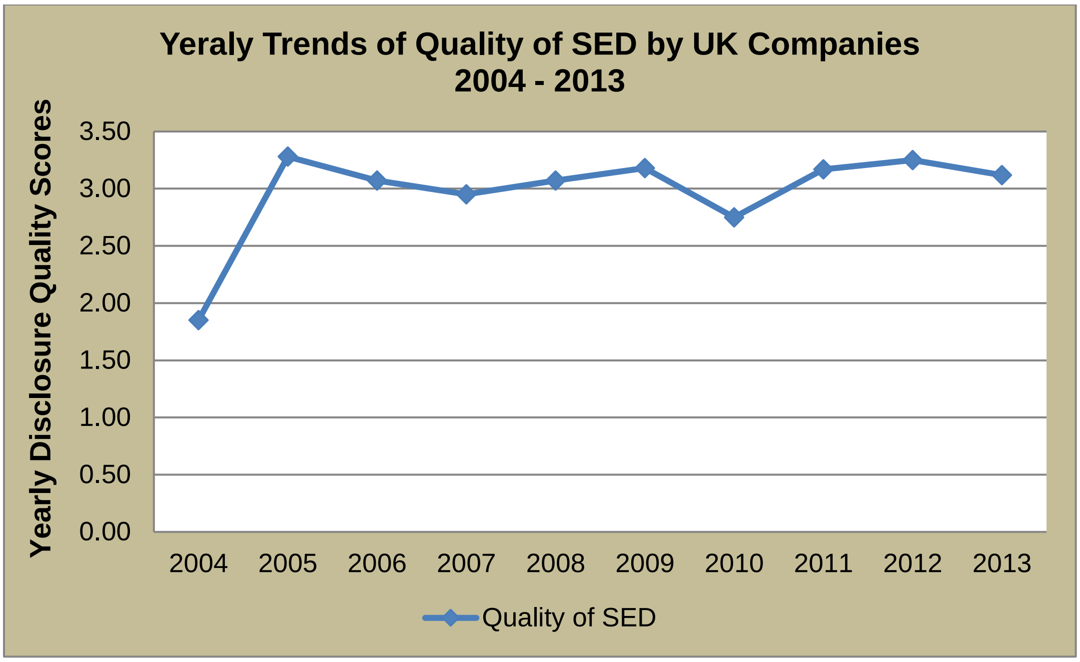


Figure 5.8 Yearly Trends of Quality of SED by UK Companies 2004 to 2013

Overall, quality of SEDs by UK companies is showing fluctuating trends with significant increase in 2005, slightly decreasing in 2007 and in 2013. Below Table 5.20 present numeric yearly disclosure quality and variations in figures and percentages.

Table 5:20 SED Quality Scores by UK Companies 2004 to 2013

Years	Total	Variations in figures	Variations in Percentages
2004	1.85	-	-
2005	3.28	1.43	77
2006	3.07	-0.21	-6
2007	2.95	-0.12	-4
2008	3.07	0.12	4
2009	3.18	0.11	4
2010	2.75	-0.43	-14
2011	3.17	0.42	13
2012	3.25	0.08	3
2013	3.12	-0.13	-4
Total	**29.69**		

Thus far, the quantity and quality of SED practices of sampled listed Nigerian and UK oil and gas companies have been highlighted. One of the objectives of this study is to determine the effect of corporate characteristics of size, profitability, leverage, efficiency, liquidity, and tax on quantity and quality of disclosure by sampled listed Nigerian and UK companies. In order to achieve this, regression analyses are conducted and the results presented next.

5.7 Results of Regression Analyses of Quantity and Quality of Disclosure by Nigerian and UK Oil and Gas Companies 2004 to 2013

The structure of the data sets of sampled listed Nigerian and UK oil and gas companies in this study are TS-CS. Models for estimating these types of data sets are susceptible to panel heteroscedasticity, contemporaneous correlation, panel autocorrelation and unit specific correlation. Therefore, certain tests have to be conducted to ensure the non-existence of these problems in the model. However, testing variables for unit roots to ensure their stationarity[77] in the model precedes conducting the aforementioned tests. There are various ways of conducting unit root test such as Harris and Tzavalis (1999); Breitung (2000); Fisher-type (Choi 2001), Im, Pesaran and Shin (2003) and Breitung and Das (2005) tests which have as the null hypothesis that all the panels contain a unit root. This study adopts the Fisher-type unit root test. The null hypothesis in this test is all the panels do not contain a unit root[78]. Therefore, once

[77] If the variables in the regression model are not stationary, then it can be proved that the standard assumptions for asymptotic analysis will not be valid. In other words, the usual "t-ratios" will not follow a t-distribution, so we cannot validly undertake hypothesis tests about the regression parameters.

[78] The actual null hypothesis in this test is all the panels contain a unit root. Therefore, once it is established that the p-value of z (t)[78] is significant at

it is established that the p-value of z (t)[79] is insignificant at chosen level, then it could be concluded that the series is stationary (Masterov 2013). Below Table 5.21 is summary of results of the unit root test indicating that none of the variables has unit root. Appendix III presents the full results of the tests.

Table 5:21 Summary of Result of Fisher-type Unit Roots Tests on Variables that Determines Quantity and Quality of Disclosure by Nigerian Companies

Variables	P-value of (t) Statistics	
	Quantity	***Quality***
LOG_CSED	0.0465	0.0004
LOG_SIZE	0.0059	0.0059
PROF	0.0134	0.0134
LEV	0.0101	0.0101
EFFI	0.0333	0.0333
LIQ	0.0000	0.0000
LOG_TAX	0.0073	0.0073

The next test is correlation tests to determine pairwise correlation between the independent variables in the model with a view to eliminating independent variables with multi-collinearity. This is done by increasing the sample size, transforming the variables and or removing some variables. This study adopts the last method of dealing with multi-collinearity

chosen level, then it could be concluded that the series is stationary (Masterov 2013)

[79] Decision could also be arrived thus: If z>0.05 where 0.05 is the critical value of the test, then we "accept" H0, i.e., that the series has a unit root. If there are unit roots, the series is not stationary. Accordingly, if the p-value of z(t) is not significant, the series is not stationary. If z≤z0.05 then we reject the null hypothesis H0 that the series has a unit root (Masterov, 2013)

problem. Thus, the variables in the model used in this study are those without multicollinearity as in appendix III.

Standard errors in data sets for this study may show a pattern such that errors in one unit (*i*) at a particular period of time (*t*) might be correlated with errors in unit *i* at time *t+i*. This is attributed to the interdependence of traits and characters of the observations across time referred to as panel serial correlation. Therefore, it is important to test for first order serial correlation (Baltagi and Li. 1991) or unit specific serial correlation (Beck and Katz 1995) to ensure that the model does not have serial correlation. Typically, researchers are interested in the hypothesis of no serial correlation (Baltagi and Li. 1991). Similarly, errors in this type of data sets might be correlated across the observations such that errors in unit *i* at time t are correlated with errors in unit *j* at time *t*. In other words, there might be contemporaneous correlation (Podestà 2002). This is corrected by employing OLS regression analysis using PCSE (Beck and Katz 1995, Worrall and Pratt 2004).

Again, there might be differing variance of errors in the observations such that units with higher values on variables may have higher variance on them. Thus, errors tend to be heteroscedastic or in other words, there is heteroscedasticity in the model (Beck and Katz 1995, Podestà 2002). However, correcting for contemporaneous correlation of the errors automatically corrects for panel heteroscedasticity (Beck and Katz 1995). This study adopts and corrected for serial and contemporaneous correlation using the PCSE as in appendix III. Thus far, data sets in this study are suitable for conducting regression analyses. Therefore, the next section present results of regression analyses on the effect of corporate size, profitability, leverage, efficiency ratio, liquidity, and tax on the quantity and quality of SEDs by Nigerian and UK oil and gas companies.

5.7.1 Results of Regression Analysis of Determinants of Quantity and Quality of SEDs by Nigerian Oil and Gas Companies 2004 to 2013

In order to determine the effects of corporate size, profitability, leverage, efficiency ratio, liquidity, and tax on the quantity and quality of SED by Nigerian oil and gas companies; PCSERA is conducted. The model used has been specified in 4.4.6.1; however, preceding the regression result is descriptive statistics in Table 5.21 to acquaint the reader with the variables employed in the study while Table 5.22 is the regression analysis result.

Table 5:21 Descriptive Statistics of Quantity and Quality of SEDs by Nigerian Oil and Gas Companies

Determinants of QNCSED	Obs	Mean	Std. Dev	Min	Max
LOG_QNCSED	80	6.329	0.855	3.140	8
LOG_QLCSED	80	.127	.046	000	.250
LOG_SIZE	80	24.687	1.739	17.750	27.350
PROF	80	390.118	562.747	-199	160
LEV	80	0.749	0.268	0.080	1.670
EFFI	80	2.846	2.121	0.110	10.350
LIQ	80	5.661	18.653	0.250	132.050
LOG_TAX	80	20.044	1.919	12.590	23.160

Table 5:22 Regression Analysis Results of Determinants of Quantity of SEDs by Nigerian Oil and Gas Companies

		Number of Obs	**= 80**
		Number of groups	= 8
		R-squared	= 0.3235
		Wald chi2 (6)	= 156.09
		Prob > chi2	= 0.0000
Determinants LOG_QNCSED	COEF	Panel-corrected Standard Error	P-value
LOG_SIZE	.2435	.0474	0.0000***
PROF	-.0000	.0001	0.9270
LEV	.4087	.0740	0.1840
EFFI	-.1266	.0038	0.0870
LIQ	.0005	.0464	0.9840
LOG_TAX	.0561	.0031	0.2270
_CONS	-.7498	.0626	0.2310

Alpha = 0.05; 0.05*, 0.01**, 0.001***

Table 5.22 indicate that there are total of eight companies observed over a period of 10 years; thus, giving 80 observations. The R-squared has a value of 32, meaning that the independent variables included in the model are capable of explaining 32% variation in the dependent variable. Skrinjar, Bosilj-Vuksic and Indihar-Stemberger (2008) reported R-squared of 26% and 33% as high and indicating strong relationship between the dependent and independent variables. Indeed, Itaoka (2012) argued that in many social science research, an R-squared of 9% is considered respectable. Therefore, the variable of size significantly explain variations in quantity of social disclosure by listed Nigerian oil and gas companies. The significance of the Wald chi square of 0.0000 indicates that the model is fit and consistent. Out of the six variables tested to determine their effects on quantity of SEDs by sampled listed Nigerian oil and gas companies, size showed significant positive relationship with quantity of disclosure having p-value of 0.0000 and coefficient of 0.2435. Therefore, there is statistical evidence to reject the null hypothesis that there is no relationship between corporate size and quantity of SEDs. Thus, the alternative hypothesis stating that there is relationship between corporate size and SEDs by sampled companies is accepted. This result suggest that large listed Nigerian oil and gas companies are making more disclosures perhaps for legitimacy due to political visibility, media visibility and public pressure. Indeed, the result is indicating strong influence of corporate size in determining quantity of SEDs by listed Nigerian oil and gas companies as it is the only variable that is explaining the entire 32% variation in the dependent variable. Similarly, size is significant even at 0.01 level of significance, thus, further depicting its strength in explaining quantity of disclosure. Profitability, leverage, efficiency, liquidity, and corporate tax showed no relationship with quantity of disclosure. Therefore, there are no statistical evidences to reject the null hypotheses that there is no relationship between these variables and quantity of SEDs by sampled listed Nigerian oil and gas companies. The same variables, corporate size, profitability, leverage, efficiency ratio, liquidity and tax are employed for further explanation on quality of social disclosure by sampled listed Nigerian oil and gas companies. The regression model used in determining the effects of these corporate characteristics on quality of disclosure is as specified in 4.4.6.1. Table 5.23 is result of regression analysis on the effects of the variables on quality of the disclosure.

Table 5:23 Regression Analysis Results of Determinants of Quality of SEDs by Nigerian Oil and Gas Companies

		Number of Obs	**= 80**
		Number of groups	= 8
		R-squared	= 0.2342
		Wald chi2 (6)	= 34.18
		Prob > chi2	= 0.0000
QLCSED Determinants	COEF	Panel-corrected Standard Error	P-value
LOG_SIZE	.0116	.0036	0.0010***
PROF	4.24e-	8.25e0	0.6070
LEV	.0339	.0159	0.0330*
EFFI	-.0079	.0030	0.0100**
LIQ	.0001	.0002	0.5870
LOG_TAX	.0006	.0031	0.8240
_CONS	-.1787	.0626	0.0040

Alpha = 0.05; 0.05*, 0.01**, 0.001***

Regression analysis results in Table 5.23, indicates that the value of R-squared is 23 implying that the independent variables in the model explain 23% variations in the dependent variable. Following Skrinjar, Bosilj-Vuksic and Indihar-Stemberger (2008), this R squared may perhaps be considered low indicating the low ability of the independent variables in explaining the quality of disclosure by listed Nigerian oil and gas companies. However, consistent with Itaoka (2012), the R squared is depicting a respectable result of the abiliyty of the independent variables to explain the dependent variable. The significance of Wald chi square of 0.0000 means that the model is well fitted and consistent. Corporate size has a p-value of 0.001 and coefficient of 0.0116. Thus, there is statistically significant positive relationship between size and quality of SEDs. Therefore, large listed Nigerian oil and gas companies in the sample are the ones making the little reported quality of disclosure. This is consistent with result on quantity of disclosure that indicates size as a significant determinant. This may conceivably be for legitimacy due to their political and public visibility and pressure. Similarly, leverage (lev) has a p-value of 0.0330 and coefficient of 0.0339. This shows statistical evidence of significant positive relationship between leverage and quality of SEDs. This result may be suggesting that creditors are interested in getting specific and substantial social disclosures that depicts quality. Apparently, even the low disclosure quality score by listed Nigerian oil and gas companies may be due to the influence of creditors.

However, efficiency (eff) has p-value of 0.0100 and a coefficient of -0.0079. This signifies significant but negative relationship between efficiency and quality of SEDs. This result is implying that when management is efficient to generate enough revenues they are reluctant to provide quality information. In this way, they might be interested in retaining such generated revenues or distribute it as dividends to shareholders rather than undertaking social commitments including quality disclosure. Therefore, non-provision of quality social disclosure in this case is to maintain legitimacy with stockholders by satisfying their wealth maximization goal. Thus, there are statistical evidences to reject the null hypotheses of no relationship between size, leverage and efficiency and quality of SEDs and accept the alternative hypotheses of relationship between the variables and quality of SEDs. Profitability, liquidity, and corporate tax showed no relationship with quality of disclosure. Thus, there are no statistical evidences to reject the null hypotheses of no relationship between these variables and quality of SEDs. Next section presents regression results on the effects of corporate characteristics on quantity and quality of disclosures by UK companies.

5.7.2 Regression Analysis Results of Determinant of Quantity and Quality of Disclosure by UK Oil and Gas Companies 2004 to 2013

Before presenting regression analysis results, a summary of result of unit root tests conducted on variables in the model to ensure that they are stationary is presented below.

Table 5:24 Summary of Result of Fisher-type Unit Roots Tests on Determinants of Quantity and Quality of Disclosure by UK Companies

Variables	P-value of z (t) Statistics	
	Quantity	***Quality***
LOG_QNCSED	0.0000	0.0006
LOG_SIZE	0.0000	0.0000
PROF	0.0000	0.0000
LEV	0.0000	0.0000
EFFI	0.0000	0.0000
LIQ	0.0000	0.0000
LOG_TAX	0.0000	0.0000

UK data set like data set for Nigeria was tested for multicollinearity, serial correlation, contemporaneous correlation and panel heteroscedasticity. The model is found well fitted to test the effects of corporate size, profitability, leverage, efficiency, liquidity and tax on quantity and quality of disclosure by UK companies. The results from the regression are presented in Table 5.26, which is however preceded by result of descriptive analysis in Table 5.25 showing the variables.

Table 5:25 Descriptive Statistics of Quantity of SEDs by UK Oil and Gas Companies

Determinants of QNCSED	Obs	Mean	Std. Dev	Min	Max
LOG_QNCSED	80	8.9104	1.3452	4.8000	10.7600
LOG_QLCSED	80	.3700	.2716	.0400	1.1000
LOG_SIZE	80	19.8878	3.5439	11.9900	26.6600
PROF	80	45.4599	135.5322	-93.2400	1120.3800
LEV	80	0.3746	0.2094	0000	0.6600
EFFI	80	0.4269	0.3729	0.0100	1.5600
LIQ	80	4.4853	8.9934	0.1700	66.0900
LOG_TAX	80	16.9666	4.0159	8.3500	23.2600

Table 5:26 Regression Analysis Results of Determinants of Quantity of Social and Environmental Disclosure by UK Companies (Alpha = 0.05; 0.05*, 0.01, 0.001***)**

		Number of Obs =	**80**
		Number of groups =	8
		Obs per group =	10
		R-squared =	0.4234
		Wald chi2 (6) =	57.04
		Prob > chi2 =	0.0000
Determinants LOG_QNCSED	COEF	Panel-corrected Standard Error	P-value
LOG_SIZE	.4310	.0677	0.0000***
PROF	.0002	.0003	0.5460
LEV	.0036	.3260	0.9910
EFFI	-1.6335	.3316	0.0000***
LIQ	-.0105	.0046	0.0240**
LOG_TAX	.0058	.0319	0.8540
_CONS	-.0026	.0615	0.9660

From regression results in Table 5.26, total of 8 companies were observed over a period of 10 years giving 80 observations. The

R-squared for the model is 42 signifying that the independent variables in the model are capable of explaining 42% variations in the dependent variable. Drawing from Skrinjar, Bosilj-Vuksic and Indihar-Stemberger (2008) and Itaoka (2012), this value of R-squared of 42% is high indicating strong relationship between the dependent and independent variables in the model. Thus, the independent variables strongly explain variations in quantity of disclosure by listed UK oil and gas companies. The significance of Wald chi square portrayed by p-value of 0.0000 means that the model is fit and consistent. Corporate size having a p-value of 0.0000 and a coefficient of 0.4310 is significantly positively related with quantity of SEDs by sample UK oil and gas companies. It could be noted that size is still significant at 0.01 level of significance. UK is a developed country in which citizens are highly educated and have economic prosperity. Therefore, citizens as corporate employees, customers and the general public have voice to demand for corporate accountability. Such demands are expected to be met or it may lead to negative consequences on corporation including corporate collapse. This could be argued as strong public pressure on corporate organisations to render social accountability. Similarly, there are strong enforceable laws and regulations including corporate behaviour on social issues. Thus, this is yet another pressure coming from government on corporations to render corporate social accountability. Likewise, the media in UK are strong and vibrant; therefore, the media is another source of pressure on corporate organisations to discharge social accountability. Therefore, due to their public, political and media visibilities and pressures consequent to their size, large UK companies in this study are making more disclosures for legitimacy to wade off these pressures.

However, efficiency has p-value of 0.0000 and a coefficient of -1.6335; thus, it is significant but negatively related with quantity of SEDs. Discharging social accountability by corporate organisations entails committing financial and human resources to social commitments. Financial resources spent on social endeavours by corporate organisations are coming from generated revenues. Therefore, this result could mean that when management of sampled listed UK oil and gas companies are generating enough revenues they provide less social information. In this way, they conserve revenues for wealth maximization of stockholders; thereby maintaining legitimacy with these important legitimacy stakeholders. However, if management is inefficient in generating enough revenues, they provide more quantities of social information. In this way, on one hand, more volume of social disclosures may be meant to cover their inefficiencies in the sight of shareholders. On the other hand, it may send positive message to all stakeholders of commitment to social accountability. This study argue that this scenario could be better explained by agency theory[80] and is an area that could be further explored.

Similarly, liquidity has a p-value of 0.0240 and coefficient of -.0105; therefore, the variable is significant but negatively related with SEDs. This result may be indicating that when listed UK oil and gas companies have sufficient liquidity to meet current

[80] Agency theory depicts a situation in which one party referred to as the agent is engaged by another party called the principal to act on behalf of the principal for an agreed fee. However, in an attempt of the agent to maximize his/her utility, motivated by pecuniary and non-pecuniary items, incentive problems may arise especially under the condition of uncertainty and information asymmetry. In this case, conflict will arise in the objectives of the agent and the principal and the agent may take certain actions that will endanger the interest of the principal (Namazi, 2013).

obligations without resorting to borrowing, they provide less social information; non-provision of social accountability is also a legitimacy tool. However, if they are illiquid and are likely to approach the financial market for financing, they provide more volume of social disclosure. This may be for gaining or maintaining legitimacy with the financial market. Overall, there are statistical evidences to reject the null hypotheses of no relationship between size, efficiency and liquidity and volume of SEDs by UK listed oil and gas companies. This result into accepting the alternative hypotheses that there is relationship between these variables and volume of SEDs by listed UK oil and gas companies. Other tested variables of profitability (eps), leverage and tax show no relationship with quantity of SEDs by UK oil and gas companies. Thus, there are no statistical evidences to reject the null hypotheses of no relationship between these variables and SEDs. Below Table 5.27 is regression results on effects of the variables on quality of disclosure by UK oil and gas companies.

Table 5:27 Regression Analysis Results of the Determinants of Quality of Social and Environmental Disclosure by UK Oil and Gas Companies

		Number of Obs =	**80**
		Number of groups =	8
		Obs per group =	10
		R-squared =	0.0897
		Wald chi2 (6) =	17.01
		Prob > chi2 =	0.0000
Determinants LOG_QLCSED	COEF	Panel-corrected Standard Error	P-value
LOG_SIZE	.0442	.0118	0.0000***
PROF	.0001	.0001	0.2290
LEV	.0174	.0634	0.7830
EFFI	-1735	.0854	0.0420*
LIQ	.0002	.0011	0.8870
LOG_TAX	-.0124	.0068	0.0700
_CONS	.0023	.0207	0.9120

Alpha = 0.05; 0.05*, 0.01**, 0.001***

Regression results in Table 5.27 indicate an R-square of 0.0897. Therefore, about 9% of variations in the dependent variable are explained by the independent variables. Consequently, the R squared in this result could be regarded as low considering the findings of Skrinjar, Bosilj-Vuksic and Indihar-Stemberger (2008). This implies the low ability of the independent variables in explaining variations in quality of disclosure by listed UK oil and gas companies. The significance of Wald chi square represented by p-value of 0.0000 shows that the model is fit and consistent. Corporate size appears significantly positively related with quality of disclosure by UK companies having a p-value of 0.0000 and coefficient of 0.0442. If the significant level is varied to 0.01, corporate size is still significant. Therefore, the result is indicating that large listed UK oil and gas companies are providing qualitative social information. Large companies are exposed to political, public and media pressure especially in an advanced country like UK. Therefore, providing qualitative social accountability could be for legitimacy to push away these pressures from strong legitimacy conferring stakeholders. Results in the table also show that, efficiency has significant but negative effect on the quality of disclosure by UK companies having a p-value of 0.0420 and coefficient of -.1735. This result is signifying that when managements of sampled listed UK oil and gas companies are generating sufficient revenues they pay less attention to quality of social disclosure. This means that for the fact that they have generated enough revenues, which may translate to maximizing economic goals of owners, quality of social information is neglected. In this regard, focus of management is to satisfy the interest of owners as important stakeholders.

Consequently, there are statistical evidences to reject the null hypotheses of no relationship and accept the alternative hypotheses of relationship between these variables and quality of SEDs. Other tested variables of profitability, leverage, liquidity, and tax show no relationship with quality of SEDs by UK oil and gas companies. Thus, there are no statistical evidences to reject the null hypotheses of no relationship between these variables and quality of SEDs. The study has the specific objective of determining differences if any in the quantity and quality of SEDs between listed Nigerian and UK oil and gas companies. Therefore, subsequent section compare results from Nigerian and UK companies as two different groups.

5.8 Comparative Analysis of Quantity and Quality of SEDs by Nigerian and UK Oil and Gas Companies 2004 to 2013

This section compares the quantity and quality of SED practices by Nigerian and UK oil and gas companies in order to reveal differences or otherwise between the two. Two approaches are employed in achieving this objective (1) comparative descriptive statistics and (2) comparative regression analysis. On the first perspective, graphical and numeric presentations are employed to enhance understanding.

5.8.1 Comparison of the Quantity of Words Disclosure by UK and Nigerian Companies 2004 to 2013

Below Figure 5.9 presents the graphical trends of quantity of words disclosures by listed UK and Nigerian companies in order to show differences in the trends.

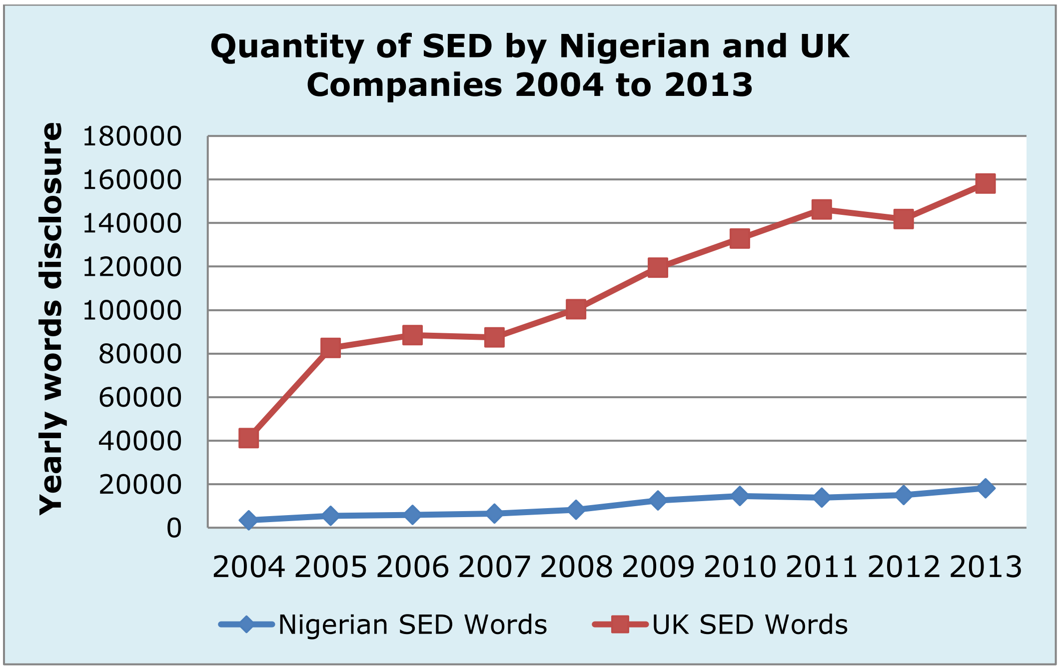


Figure 5.9 Yearly Quantity of SED Words by Nigerian and UK Companies 2004 to 2013

The trends of quantity of SEDs presented in Figure 5.9 indicate that UK companies provided more SEDs words than Nigerian companies did. The quantity of the words disclosed is presented numerically in Table 5.28 as follows.

Table 5:28 Quantity of SED Words by Nigerian and UK Companies

Years	NIGERIA	UK
2004	3,421	41,182
2005	5,443	82,053
2006	5,797	88,913
2007	6,551	87,513
2008	8,457	100,331
2009	12,604	118,530
2010	14,473	132,849
2011	13,974	146,183
2012	15,050	142,474
2013	18,216	158,131
Total	**103,986**	**1,098,159**

UK companies disclosed 1,098,159 words while Nigerian companies disclosed 103,986 words for the period 2004 to 2013. Therefore, quantity of SEDs by Nigerian companies is approximately 9.50% of quantity of disclosure by UK companies. Thus, the quantity of SED words disclosed by UK companies is over 10 times the quantity of SED words provided by Nigerian companies. Although, the study expects UK to perform better than Nigerian companies, disclosure by Nigerian companies is not anticipated to be as low as this. However, differences in national cultural dimensions between UK and Nigeria as discussed in 3.2.3 could be among reasons for the significant differences in quantity of disclosure between sampled listed Nigerian and UK oil and gas companies. Nigeria is having a score of 77 on power distance signify high secrecy which reduces disclosure. Conversely, UK is having a score of 33 depicting low level of secrecy which is accompanied by more disclosure. Similarly, Nigeria has a score of 22 on collectivism, while UK has 88 on individualism which is associated with low secrecy and high disclosure. Likewise, secrecy which limits disclosure decresases with masculinity, UK is scored 66 on masculinity while Nigeria has 46. Secrecy which reduces disclosure is reported as increasing with high uncertainty avoidance, Nigeria is having a score of 53 on uncertainty avoidance while UK is having 35. These country contextual differences could be possible reasons for more disclosure by UK companies than Nigerian companies.

Nonetheless, this study argues that considering severe social and environmental degradation in the Niger Delta oil producing region, listed Nigerian oil and gas companies should have shown a better social accountability than revealed in this study. Their commitment to discharging social accountability better than revealed in this study could be a panacea to numerous, environmental and economic problems in the region. Similarly, with large deposit of oil and gas in Nigeria and its status as leading producer in Africa, listed Nigerian oil and companies should be making more social disclosures. In this way, their SED practices could drive the practice in other oil and gas producing African countries. In addition, the international media is giving keen attention to happenings in the Nigerian oil and gas industry consequent to its numerous social and environmental problems. Therefore, listed Nigerian oil and gas companies supposed to demonstrate good citizenship by showing commitment to social accountability. As they are gradually becoming significant players in the industry, their commitment to social accountability will also show that they are taking a new course different from the IOCs. However, listed Nigerian oil and gas companies appear to be following the footsteps of IOCs in not discharging adequate social accountability. Indeed, the trends of the quantity of SEDs in Figure 5.9 and numeric results in Table 5.29 clearly shows that listed Nigerian oil and gas companies are not emulating listed UK oil and gas companies on overall quantity of SEDs. Subsequent section compares most disclosed aspects and sub-categories of SEDs by Nigerian and UK companies over the period of the study.

5.8.2 Comparison of Quantity of SED Aspects and Sub-categories by UK and Nigerian Companies 2004 to 2013

This section present comparative results of disclosure on aspects Tables 5.29 and sub-categories Tables 5.30 and 5.31 of SEDs by UK and Nigerian companies.

Table 5:29 Ranking of Aspects of SD on Quantity of Disclosure by Nigerian and UK Companies

S/N	Aspects of Social Disclosure UK	Ranking	Aspects of Social Disclosure NIGERIA	Ranking
1	Employment	1	Diversity and equal opportunity	1
2	Dealings with local communities	2	Employment	2
3	Diversity and equal opportunity	3	Dealings with local communities	3
4	Employees health and safety	4	Employee training and education	4
5	Corruption	5	Employee health and safety	5
6	Employee training and education	6	Labour/management relation	6
7	Labour/management relation	7	Corruption	7
8	Marketing communications	8	-	-
9	Human rights in Investment & Procurement	9	-	-
10	Customer health and safety	10	-	-
11	Public policy	11	-	-
12	Human rights in remediation	12	-	-
13	Non-discrimination	13	-	-
14	Human right in security practices	14	-	-
15	Human right in Freedom of Association	15	-	-
16	Product and service labelling	16	-	-
17	Compliance on society aspect	17	-	-

Table 5.29 present social aspects on which Nigerian and UK companies made disclosure and ranking of the aspects, which may enhance comparison. Below Table 5.30 is on sub-categories of social disclosure, while Table 5.31 is on aspects of environment.

Table 5:30 Ranking of Sub-categories of Social Disclosure by UK and Nigerian Companies

UK		Nigeria	
Sub-categories	**Ranking**	**Sub-categories**	**Ranking**
Labour practices and decent work	1	Labour practice and decent work	1
Society	2	Society	2
Product responsibility	3		
Human rights	4		

Table 5:31 Ranking of Aspects of Environmental Disclosure by UK and Nigerian Companies

UK		Nigeria	
Aspects	**Ranking**	**Aspects**	**Ranking**
Emissions, effluents and waste	1	Biodiversity	1
Biodiversity	2	-	-
Overall	3	-	-
Energy	4	-	-
Water	5	-	-
Environmental Compliance	6	-	-
Materials	7	-	-

It could be noted that 5 aspects of labour practice and decent work on which UK companies made disclosures are the same aspects that Nigerian companies made disclosures. This result in the sub-category emerging as the first most disclosed in the social category. The result may be indicating the influence of employees in both listed UK and Nigerian oil and gas companies such that sampled companies are paying attention to providing information about them. Similarly, the result is depicting the colonial relationship between the oil and gas industries of the two countries in particular and the countries in general. Therefore, listed Nigerian oil and gas companies are in this instance trying to copy social disclosure practices of listed UK oil and gas companies. However, provision of significant quantity of disclosure on employees by both listed UK and Nigerian companies could be for gaining or maintaining legitimacy. Similarly, both listed UK and Nigerian companies are providing information about their dealings with host local communities. Again, this may be for maintaining or gaining legitimacy with these important stakeholders. The result could also be revealing the colonial influence of UK oil and gas industry on Nigerian oil and gas industry in particular and the country in general.

UK companies are paying attention to providing information on corruption, as it is the fourth among the first seven most disclosed aspects. Conversely, corruption is the last aspect among the seven aspects that listed Nigerian oil and gas made disclosures. The result may be illustrating advancement in corporate transparency and accountability by listed UK companies. It could also be portraying the consciousness of listed UK companies about demand for accountability and transparency from highly educated and economically prosperous UK society. Likewise, it could be consequent to strong legal and regulatory frameworks existing in UK. Therefore, providing reasonable information on this aspect by UK companies may perhaps be for obtaining, maintaining or gaining legitimacy with strong legitimacy conferring stakeholders. Provision of least quantity of disclosures on corruption by listed Nigerian oil and gas companies may be depicting corporate opacity. It may also be depicting exploitation of less educated and economically vulnerable Nigerian society. Furthermore, it could be an indication of corporate exploitation of weak legal and regulatory institutions in Nigeria. Overall, disclosures on dealings with local communities and corruption aspects of society resulted in this sub-category becoming the second most disclosed.

Listed UK oil and gas companies have provided information on aspects of product responsibility leading to this category emerging as the third most disclosed. This could simply mean sampled UK companies have attached importance to quality and customer safety in consuming their products. It could also be efforts to comply with product safety rules and regulations and consumer awareness on information about product quality and usage information. Thus, disclosure on this category by UK companies is apparently for legitimacy. Nigerian companies are not providing information on product responsibility. This may be indicating exploitation of vulnerable Nigerian public that may not be keen on information about products from listed Nigerian oil and gas companies. Similarly, it is giving a picture of lack of strong legal and institutional regulations for ensuring corporate responsibility on their products.

Furthermore, listed UK oil and gas companies are also making disclosures on aspects of human rights, which is the fourth most disclosed sub-category of social disclosures. Thus, the companies consider human rights issues significant in their operations. Disclosure on human rights again could be for legitimacy within the context of educated and economically prosperous UK society in which legal and regulatory frameworks are strong and enforceable. However, listed Nigerian oil and gas companies are not making disclosures on aspects of human rights. The absence of disclosure on aspects of this social sub-category is illustrating exploitation of stakeholders on human rights. Listed UK oil and gas companies have provided information on 7 out of 9 environmental disclosure aspects. Conversely, Nigerian companies provided information on 1 aspect of environment. Therefore, listed UK oil and gas companies are demonstrating commitment to environmental accountability more than Nigerian companies. This is consistent with societal and government concerns of corporate impacts on environment in developed countries like UK. This effort to discharge environmental accountability by UK companies is occurring despite few environmental impacts of the industry in the literature. However, UK companies could be providing information on their environmental impacts for legitimacy with the society and government that are conscious of corporate impacts on the environment. Conversely, lack of provision of substantial environmental information by listed Nigerian companies is depicting exploitation of vulnerable stakeholders as the literature has reported numerous environmental impacts of oil and gas companies in Nigeria. Having comparatively presented quantity of disclosure by UK and Nigerian companies, next section is on comparison of quality of the disclosure by UK and Nigerian companies.

5.8.3 Comparison of Quality of SEDs by UK and Nigerian Companies 2004 to 2013

Consistent with comparison of quantity of disclosure, below Figure 5.10 presents the graphical trends of disclosure quality scores by UK and Nigerian companies in order to show differences in quality of the disclosure trends.

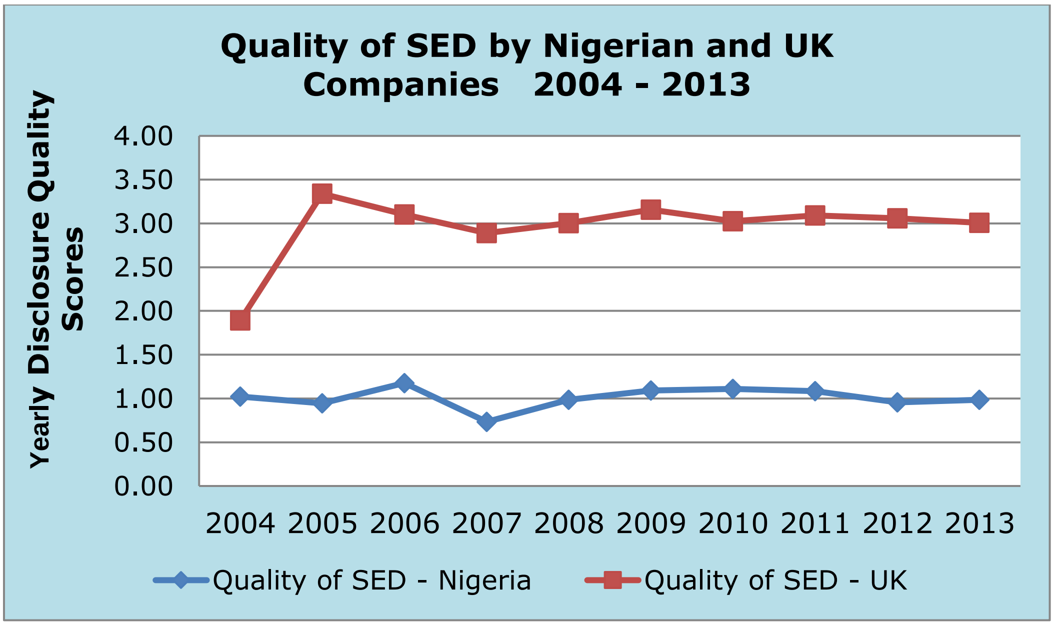


Figure 5.10 Yearly Trends of Quality of SED Scores by Nigerian and UK Companies 2004 to 2013

From Figure 5.10, trends of quality of disclosure scores by UK and Nigerian companies are showing fluctuating patterns 2004 to 2013. There is significant increase in disclosure quality by UK companies in 2005 and noticeable decrease in disclosure quality by Nigerian companies in 2007. Number of disclosed performance indicators accounts for these noticeable fluctuations. On aggregate, similarity in patterns of trends of quality of disclosures between UK and Nigerian companies are perhaps reflecting colonial influence of disclosure practices of UK companies on Nigerian companies. Below Table 5.32 numerically presents the disclosure quality scores by Nigerian and UK companies 2004 to 2013.

Table 5:32 Quality of SED Scores by Nigerian and UK Companies

Years	NIGERIA	UK
2004	1.02	1.85
2005	0.94	3.28
2006	1.18	3.07
2007	0.73	2.95
2008	0.98	3.07
2009	1.09	3.18
2010	1.11	2.75
2011	1.08	3.17
2012	0.98	3.25
2013	0.96	3.12
Total	**10.07**	**29.69**
Average	**1.01**	**2.97**

Looking at total disclosure quality scores 2004 to 2013, UK companies have 2.97 as sum of average disclosure quality score points while Nigerian companies have 1.01 points. Thus, the sum of average disclosure quality score of sampled listed UK oil and gas companies is approximately 3 points, which is satisfactory in the rating criteria in Table 4.1. Sampled listed Nigerian oil and gas companies have sum of average disclosure quality score of 1.01 which is unsatisfactory within the context of used criteria in this study. Therefore, over the years of the study, disclosure by UK companies is more qualitative than disclosure by Nigerian companies. Indeed, quality of disclosures by UK companies is over 190% of quality of disclosures by Nigerian companies. Below Table 5.33 rank the quality of disclosure on social aspects by UK and Nigerian oil and gas companies. Social disclosure category has sub-categories; therefore, their disclosure quality scores are presented in below Table 5.33 while Table 5.34 is on quality of disclosures on sub-categories.

Table 5:33 Ranking of Disclosure Quality of Social Aspects by Nigerian and UK Companies

S/N	Aspects of Social Disclosure	Ranking	Aspects of Social Disclosure	Ranking
	UK		NIGERIA	
1	Employment	1	Employment	1
2	Labour/management relation	2	Employee training and education	2
3	Dealings with local communities'	3	Dealings with local community	3
4	Diversity and equal opportunity	4	Diversity and equal opportunity	4
5	Employees health and safety	5	Employee health and safety	5
6	Marketing communications	6	Labour/management relation	6
7	Corruption	7	Corruption	7
8	Employee training and education	8	-	-
9	Public policy	9	-	-
10	Customer health and safety	9	-	-
11	Human rights in Investment & Procurement	9	-	-
12	Human right in security practices	9	-	-
13	Human rights in Indigenous people	9	-	-
14	Compliance on society aspect	10	-	-
15	Non-discrimination	10	-	-
16	Product and service labelling	11	-	-
17	Human right in Freedom of Association	11	-	-

Table 5:34 Ranking of Quality of Disclosure of Sub-categories of Social Category by Nigerian and UK Companies

UK		Nigeria	
Sub-categories	**Ranking**	**Sub-categories**	**Ranking**
Labour practices and decent work	1	Labour practice and decent work	1
Society	2	Society	2
Product responsibility	3		
Human rights	4		

Results in Figure 5.10 Tables 5.32, 5.33 and 5.34 present quality of disclosure on aspects and sub-categories of social disclosure and their ranking by Nigerian and UK companies. Subsequent Table 5.35 is on quality of disclosure on aspects of environment and their rankings.

Table 5:35 Ranking of Quality of Aspects of Environment Disclosure by Nigerian and UK Companies

UK		NIGERIA	
Aspects	**Ranking**	**Aspect**	**Ranking**
Emissions, effluents and wastes	1	Biodiversity	1
Biodiversity	2		
Energy	3		
Water	4		
Materials	5		
Compliance	6		
Overall	7		

Overall, comparative results in Figure 5.10, Tables 5.32, 5.33, 5.34 and 5.35 indicated that UK companies provided more qualitative social information on aspects and sub-categories of social disclosures than Nigerian companies did. Similarly, disclosures on aspects of environment by UK companies are more qualitative than disclosures by Nigerian companies. These results are in general confirming the advancement of social disclosure practices in UK. In particular, it is demonstrating quality of social accountability by listed UK oil and gas companies. The result could also mean that listed UK oil and gas companies are providing quality social disclosure apparently to maintain or gain legitimacy with strong and broad stakeholders in UK. Low quality of SEDs by listed Nigerian oil and gas companies could be signifying the evolving process of social disclosure practices in the country. It is also demonstrating the exploitation of weak and few stakeholders in Nigeria. Thus far, results of graphical and numeric descriptive statistics indicated that UK companies have disclosed more than Nigerian companies in terms of both quantity and quality of disclosure. It might however be interesting and useful to determine and or confirm the existence of these differences by means of statistical regression analysis. This is achieved by comparing the means of the two samples using the most appropriate type of two samples t-test comparison as presented in the next section.

5.8.4 Two Samples t-test Comparison of Quantity and Quality of Disclosure by UK and Nigerian Companies 2004 to 2013

In this section, the means of quantity and quality of disclosure by sampled Nigerian companies as a group are compared with the means of listed UK companies as another group. Thus, it is a test of the means of two independent groups. Conducting this test will reveal whether the mean of the two groups are the same or different. Thus, results from this test may confirm or dispute results obtained from descriptive statistics. As discussed in 4.4.6.3, means of data set for this study are normally distributed following the argument of Field (2009) and they are not normally distributed following the argument of Healey (2015). Therefore, both two samples t-test and Wilcoxon-rank sum (Mann-Whitney) tests are conducted. Data sets in this study are measurable, thus, have satisfied this assumption. In order to satisfy the assumption of homogeneity of variance, Bartlett's equality of variance tests sensitive to non-normality are conducted on quantity and quality of disclosure by UK and Nigerian companies (Bartlett 1937). Below Table 5.36 a & b are summary results of the variances tests.

Table 5:36 a & b Bartlett's Equality of Variance Test on Quantity and Quality of Social Disclosure between UK and Nigerian Companies

Variance ratio test on quantity of disclosure (a)			**Hypothesis and result**
Variable **QNCSED**	Obs	Mean	H0: variances between samples are homogeneous (H0: ratio = 1)
UK	80	13732.05	
NG	80	1293.225	**f = 102.4322;** **p-value = 0.0000*****

Alpha = 0.05; 0.05*, 0.01**, 0.001***

Variance ratio test on quality of disclosure (b)			**Hypothesis and result**
Variable **QLCSED**	Obs	Mean	H0: variances between samples are homogeneous (H0: ratio = 1)
UK	80	.3693941	
NG	80	.1262108	**f = 34.6613;** **p-value = 0.0000*****

Alpha = 0.05; 0.05*, 0.01**, 0.001***

From results in Tables 5.36 a & b, the p-value of 0.0000 in both the quantity and quality of disclosure is significant at 0.05. Therefore, the null hypothesis that the variance of the means of the two samples is equal is rejected. Therefore, two samples independent t-tests with unequal variance are conducted on both the quantity and quality of disclosure by UK and Nigerian oil and gas companies (Field 2009). However, prior to conducting the t-test, Levene's test of variance is conducted as a test for robustness (REED 2015). If the p-value of (W0) from this test is still significant, it confirms the suitability of conducting independent two samples t-tests with unequal variance. Below are the summary results of the Levene's tests, while the full results are in appendix IV

Table 5:37 a & b Results of Levene's Equality of Variances Robustness Tests on Quantity and Quality of Disclosure by UK and Nigerian Companies.

Summary of Levene's equality of variance robustness test on Quantity of disclosure (a)			
Group_qn	Frequency	Mean	Results
1 (UK)	80	13732.05	W0 = 136.48 Pr >F = 0.00000*
2 (NG)	80	1293.225	

Summary of Levene's equality of variance robustness test on Quality of disclosure (b)			
	Frequency	Mean	Results
1	80	.3693941	W0 = 216.75 Pr >F = 0.00000***
2	80	.1262107	

Alpha = 0.05; 0.05*, 0.01**, 0.001***

Results of Levene's equality of variance robustness test in Tables 5.37 a & b above indicates that the p-values 0.0000 of (W0) on quantity and quality of disclosure by Nigerian and UK companies are significant. This confirms the unequal variances of the means of UK and Nigerian companies on quantity and quality of disclosure. The results further confirm the suitability of conducting two samples independent t-tests with unequal variance. Results of the two samples t-tests are presented in below Table 5.40a on quantity and 5.40b on quality of disclosure. The null hypotheses in these tests are mean differences between the two samples equals to zero. The alternative hypotheses are the mean differences between the two samples are not equal to zero.

Table 5:38 a & b Two Samples t-tests with Unequal Variances on Quantity and Quality of Disclosure by Nigerian and UK oil and Gas Companies

Two sample t-test with unequal variances on quantity of disclosure (a)			
Group	Obs	Mean	Hypothesis and statistic result
1 (UK)	80	13732.050	Ho: mean difference between the samples equals to zero (Ho: diff = 0)
2 (NG)	80	1293.225	**t = 9.1668** **p-value = 0.0000*****

Two sample t-test with unequal variances on quality of disclosure (b)			
Group	Obs	Mean	Hypothesis and statistic result
1 (UK)	80	.3693941	Ho: mean difference between the samples equals to zero (Ho: diff = 0)
2 (NG)	80	.1262108	**t = 7.8821** **p-value = 0.0000*****

Alpha = 0.05; 0.05*, 0.01**, 0.001***

From Table 5.38a on quantity of disclosure by UK (Group 1) and Nigerian (Group 2) companies, the p-value of 0.0000 indicates significant differences in the value of means between the two samples. This reveals that the means of quantity of disclosure by UK companies is greater than the mean of disclosure by Nigerian companies; therefore, the null hypothesis is rejected. From Table 5.38b on quality of disclosure by UK (Group 1) and Nigerian (Group 2) companies, p- value of 0.0000 is signifying significant differences between the means of the two samples. Thus, the null hypothesis that mean differences between the two samples are equal is rejected. Statistical significant differences between quantity and quality of disclosures by listed UK and Nigerian oil and gas companies has confirmed descriptive results. The p-values on both quantity and quality of disclosures are 0.0000, which is strongly significant at chosen 0.05 level of significance. Likewise, if the level of significance is varied to 0.01, the result is still significant. This might be attributed to advancement in social disclosure practices in UK; societal concerns on the impacts of corporate activities on the society and environment; strong and enforceable corporate rules and regulations and commitments of government and corporate organisations to the society and environment. The result could also be depicting the use of social disclosure by sampled listed UK companies for legitimacy. From Nigerian perspective, the result is indicating developing stage of social disclosure; lack of societal concerns on corporate impacts on society and the environment; weak and unenforceable corporate rules and regulations and lack of government and corporate commitment to the society and environment. It may also be depicting exploitation by sampled Nigerian companies of vulnerable Nigerian government and society. Furthermore, it is perhaps indicating low and slow commitment of listed Nigerian oil and gas companies to imbibe good corporate culture of listed UK oil and gas companies on social accountability.

However, the study also follows the argument of Healey (2015); thus, subjected the data to normality test. Results from Shapiro-Wilk test on normality of data indicated that the means of the data set are not normally distributed. Therefore, Wilcoxon rank-sum (Mann-Whitney) test is conducted on quantity and quality of disclosure by listed UK and Nigerian companies. The results are presented in Table 5.39 a and b.

Table 5:39 a & b Results Two of Sample Wilcoxon Rank-Sum (Mann-Whitney) Tests on Quantity and Quality of Disclosures by UK and Nigerian Samples

Two-sample Wilcoxon rank-sum (Mann-Whitney) test (a)			
Group/QNCSED	Obs	Rank-sum	Hypothesis and result H0: median of the two samples are equal (H0: mean1 = mean2)
1 (UK)	80	8951	
2 (NG)	80	3929	
			P = 0.0000***

Two-sample Wilcoxon rank-sum (Mann-Whitney) test (b)			
Group/QLCSED	Obs	Rank-sum	Hypothesis and result H0: median of the two samples are equal (H0: mean1 = mean2)
1 (UK)	80	7614.5	
2 (NG)	80	5265.5	
			P = 0.0001***

Alpha = 0.05; 0.05*, 0.01**, 0.001***

Results from Wilcoxon rank-sum (Mann-Whitney) indicates significant differences between the means of quantity and quality of disclosures by listed UK and Nigerian oil and gas companies. The p-value on quantity of disclosures is 0.0000 which is consistent with p-value of 0.0000 obtained in results of the two-samples t-tests. Similarly, the p-value of quality of disclosures is 0.0001, which is again similar with 0.0000 obtained in the two samples t-test results. Overall, this robustness test has confirmed results obtained from the two samples t-tests with unequal variances. In other words, there is consistency in results obtained from the two samples t-tests with unequal variance and Wilcoxon rank-sum tests. This similarity in the two results indicates the suitability and appropriateness of conducting two samples t-tests with unequal variance. Regression analysis are also conducted to determine the effect of corporate internal characteristics of size, profitability, leverage, efficiency, liquidity and tax on quantity and quality of disclosure by sampled companies. Consequently, subsequent section is results of comparative regression analysis on determinants of quantity and quality of disclosure.

5.9 Comparison of Regression Analyses Results of Determinants of Quantity and Quality of Disclosure by UK and Nigerian Companies 2004 to 2013

Below Table 5.40 presents summary results of the effects of corporate characteristics of size, profitability, leverage, efficiency, liquidity and tax on quantity of disclosure by UK and Nigerian sample companies.

Table 5:40 Comparing Regression Analyses Results of Determinants of Quantity of Disclosure by UK and Nigerian Companies

S/N	Variables	UK	NIGERIA
1	Size (Sales)	(p-value = 0.000)*** (Coef = 0.431) Positive & Significant	(p-value = 0.000)*** (Coef = 0.244) Positive & Significant
2	Profitability (eps)	(p-value = 0.546) (Coef = 0.000) No Relationship	(p-value = 0.927) (Coef = -0.000) No Relationship
3	Leverage	(p-value = 0.991) (Coef = .0036) No Relationship	(p-value = 0.187) (Coef = 0.409) No Relationship
4	Efficiency	(p-value = 0.000)*** (Coef = -1.63) Negative & Significant	(p-value = 0.087) (Coef = -0.127) No Relationship
5	Liquidity	(p-value = 0.024)* (Coef = -0.010)	(p-value = 0.984) (Coef = 0.000)

6	Tax	Negative & Significant (p-value = 0.854) (Coef = -0.005) No Relationship	No Relationship (p-value = 0.227) (Coef = 0.561) No Relationship

Alpha = 0.05; 0.05*, 0.01**, 0.001***

Results in Table 5.40, indicate that corporate size is having positive and significant relationship with quantity of disclosure by UK and Nigerian companies. Thus, listed UK and Nigerian oil and gas companies are responding to possible public and political visibility and pressure on SED practices. The result is also indicating the influence of colonialism as large listed Nigerian oil and gas companies are copying the good social accountability of large UK oil and gas companies. Management's efficiency and liquidity showed significant, but negative relationship with quantity of disclosure by UK companies. This result may possibly be indicating that sampled listed UK oil and gas companies are exploiting their stakeholders on SEDs. Corporate social disclosure practice is advanced UK; the society is well educated, economically prosperous and has strong concerns for the society and environment. Similarly, there are strong and enforceable government regulations. Therefore, it could be argue that social disclosure should not be negatively affected by these variables. Consequently, these results means that efficiency and liquidity of sampled listed UK oil and gas companies are factors that affects their social accountability. Therefore, there are statistical evidences to reject the null hypotheses of no relationships between size and quantity of SEDs by UK and Nigerian companies. Similarly, there are statistical evidences to reject the null hypotheses of no relationships between efficiency and liquidity and quantity of disclosure by UK companies. The variables of profitability, efficiency and tax are found to have no statistical relationship with quantity of disclosure by both Nigerian and UK companies. Observed variables as determinants of quantity of disclosure are also employed to determine their effects on quality of disclosure. Below Table 5.41 presents the results of conducted regression analysis.

Table 5:41 Comparing Regression Analyses Results of Determinants of Quality of Disclosure by UK and Nigerian Companies 2004 - 2013

S/N	Variable	UK	NIGERIA
1	Size (Sales)	(p-value = 0.000)*** (Coef = 0.044) Positive & Significant	(p-value = 0.001)*** (Coef = 0.0112) Positive & Significant
2	Profitability (EPS)	(p-value = 0.299) (Coef = 0.000) No Relationship	(p-value = 0.607) (Coef = 4.240) No Relationship
3	Leverage	(p-value = 0.783) (Coef = .017) No Relationship	(p-value = 0.033)* (Coef = 0.034) Positive & Significant
4	Efficiency	(p-value = 0.042)* (Coef = -.173) Negative & Significant	(p-value = 0.010)** (Coef = -0.008) Negative & Significant
5	Liquidity	(p-value = 0.887) (Coef = 0.000) No Relationship	(p-value = 0.587) (Coef = 0.001) No Relationship
6	Tax	(p-value = 0.070) (Coef = -0.012) No Relationship	(p-value = 0.824) (Coef = 0.000) No Relationship

Alpha = 0.05; 0.05*, 0.01**, 0.001***

Results from above Table 5.41 indicate that corporate size is having positive significant relationship with quality of disclosure by UK and Nigerian companies. Again, this result is suggesting that large companies in the sampled listed UK and Nigerian oil and gas companies are making efforts to provide quality social information. Similarly, leverage is having significant positive relationship with quality of disclosure by Nigerian companies. Thus, it could be argue that the little semblance of quality of social disclosure by sampled listed Nigerian oil and gas companies is consequent of influence of creditors. Efficiency is found significant but negatively related with quality of disclosure by UK and

Nigerian companies. Thus, both sampled listed UK and Nigerian oil and gas companies pay less attention to quality of social information when they are efficient. The result further reveals the impacts of colonialism on corporate social disclosure practices of listed Nigerian oil and gas companies given the strong linkage between the two. Therefore, there are statistical evidences to reject the null hypotheses of no relationships between quality of SEDs by UK and Nigerian companies and size and efficiency. Similarly, the null hypothesis of no relationship between leverage and quality of SEDs by Nigerian companies is statistically rejected. Other variables of profitability, liquidity and tax are found to have no relationship with quality of disclosure by both UK and Nigerian companies. Thus, there are no statistical evidences to reject the null hypotheses of no relationships between these variables and quality of disclosure. The next section is conclusion of the chapter and introduction of chapter six on discussions of results.

5.10 Conclusion

Descriptive and analytical regression results of this study are presented in this chapter using graphical, numeric and statistical means. In this way, the chapter has achieved an aspect of the main aim of the research, which is to describe the SED practices by sampled Nigerian and UK oil and gas companies. Similarly, the nature of SEDs, their quantity and quality and their trends over the period 2004 to 2013 by both Nigerian and UK companies are highlighted thereby achieving the first, second and third objectives of this study. In addition, the chapter presents comparison of SEDs by Nigerian and UK companies descriptively and by means of regression analysis. This enables the study to achieve its fourth objective of determining differences in the disclosure practices of sampled companies. Likewise, results of the influence of corporate characteristics of size, profitability, liquidity, leverage, efficiency and tax are presented in the chapter. Consequently, this allows achieving the fifth objective of determining the effect of these corporate internal factors as determinants of SEDs by sampled companies. The next chapter is discussions of these results in light of existing literature, theory and practice. This results in achieving the second aspect of the main aim of this study, which is to explain the SED practices of sampled companies.

CHAPTER SIX
DISCUSSIONS OF RESULTS

6.1 Introduction

Results obtained by this study were presented in the last chapter using appropriate descriptive and statistical tools. Thus, the essence of this chapter is to interpret and discuss findings from this study in light of what is already known on social and environmental disclosure and explain new understanding or insights about investigated problems within the context of findings from the study (Kretchmer, 2008, Labaree 2013). This is achieved by linking findings from the study with its main aim and objectives, the literature, theory and practice (Kretchmer, 2008, Labaree 2013). Therefore, the chapter is moving from its specific to general context, thus, going back to its starting point of moving from general to specific being a deductive research.

However, to aid understanding of subsequent discussions, the main aim of the study is to describe and explain social and environmental disclosure practices of listed Nigerian oil and gas companies compared to UK oil and gas companies. The specific objectives are: (1) to determine the nature of SEDs by sampled companies; (2) to measure and analyse the quantity and quality of SEDs by the sampled companies; (3) to analyse trends of quantity and quality of SEDs by sampled companies over the period of the study 2004 to 2013; (4) to find out differences in the quantity and quality of SEDs by sampled companies; and (5) to explore the effect of corporate size, profitability, leverage, liquidity, efficiency and tax on the quantity and quality of disclosure by the sampled companies.

Objectives 1 to 3 are achieved from results of words counts content analysis and disclosure quality scoring for objective 2. Objective 4 is achieved by words counts content analysis, disclosure quality scoring and by means of conducting two samples t-tests with unequal variance. Objective 5 is achieved by means of conducting PCSERA. By achieving these objectives, the study has answered raised research questions in section 1.3 and tested hypotheses developed in sections 2.2.2.2 and 3.6.4. The disclosure is then explained within the context of reviewed literature, the theoretical framework underpinning the study and relevant practices. Consequently, these results in achieving the other aspect of the main aim of this study which is to explain SEDs of sampled companies.

6.2 Objective 1: To Find out the Nature of SEDs by Listed Nigerian and UK Oil and Gas Companies

This section present finding on the nature of SED by Nigerian and UK companies. Within this study, nature of disclosure depicts the type of social or environmental information sampled companies disclose. GRI guidelines are used in determining social or environmental disclosure.

6.2.1 Disclosure by Listed Nigerian Oil and Gas Companies

Nigerian oil and gas companies made disclosure on social aspects as presented in section 5.3.1 and environmental aspects presented in section 5.3.2. Disclosure on employment is consistent with studies by Trotman (1979), Gray, Kouhy and Lavers, (1995a), Elmogla (2009), Dong and Burrit (2010), Uwalomwa and Jafaru (2012b) and Chong (2014) who found sampled companies making disclosure on employment. Sampled companies in this study are making disclosure on labour/management relations. However, there are no findings on this aspect in literature reviewed for this study. This could be due the use of GRI disclosure guideline that provides this specific disclosure requirement, which is not considered by previous studies. Similarly, it could be corporate efforts to strengthening relationship with their valuable human assets considering the importance of the industry. Thus, sampled companies could be portraying commitment to industrial harmony and could also be disclosing for gaining or maintaining legitimacy with employees. In general, it could be argued as an important evolving disclosure in corporate social disclosure practices by sampled companies and probably the oil and gas industry in Nigeria.

Nigerian companies are making disclosure on employee health and safety, which is consistent with previous results obtained by Sotorio and Sanchez (2010), Yusuf et al (2012), and Chong (2014) that reported studied samples emphasizing disclosure on employee health and safety. Disclosure on employee training and education by sampled Nigerian companies is consistent with findings by Fadul, et al (2004), Sotorio and Sanchez (2010), and Eljayash, James and Kong (2012) that establish disclosure on this aspect. However, the finding contradicts Asaolu et al (2011) who concluded that sampled companies are not providing information on employee training and education. Results indicating Nigerian companies making disclosure on diversity and equal opportunity for women and men is consistent with findings of disclosure on this aspect by Adams and Kuasirikun, (2000) and Fadul et al (2004). Provision of information on community by Nigerian companies is consistent with results of studies conducted by Gray, Kouhy and Lavers (1995a), Fadul et al (2004), Sotorio and Sanchez (2010) and Krishna et al (2012) that reported companies making disclosure on this aspect. Sampled Nigerian companies are making disclosure on corruption aspect which prior literature have not discussed. Disclosure on this aspect could be due to its provision in used GRI guideline, which previous studies might not have considered. Similarly, it could be an evolving disclosure practice by sampled Nigerian companies to enhance transparency and accountability in their operations.

Sampled Nigerian oil and gas companies are also providing information on biodiversity aspect of environment. This finding is consistent with prior studies such as Gallego, (2006), Eltaib (2012) and Alazzani and Wan-Hussin (2013) that reported companies making disclosure on this aspect. This is the only environmental information that sampled Nigerian companies are providing. This could be argued as consistent with reported few environmental disclosures in developing countries (Elmogla, 2009). Similarly, it is perhaps consistent with the conclusion that sampled companies make at least one form of environmental disclosure (Uwalomwa, 2011a). Likewise, it seems consistent with reported lack of environmental accountability to stakeholders in the Nigerian oil and gas industry (Hassan and Kouhy, 2015)[81]. The disclosure findings by sampled Nigerian oil and gas companies could be explained and understood within the lens of the theoretical framework underpinning this study.

Vulnerability and exploitability framework posits that corporate organizations in developing countries are not rendering social accountability. This is linked to low per capita income, high illiteracy rate and weak regulatory and legal frameworks in developing countries like Nigeria. Thus, social disclosure is not considered important by corporate organization; thereby making few or no disclosure. However, despite the apparent weakness of citizens and governments, corporate organizations may identify few and weak legitimacy conferring stakeholders and make

[81] Their study looked into the activities of companies operated by Foreign Multinational Oil and Gas Companies (FMOGC).

disclosure on information of interest to them apparently to swerve their attention from the real prevailing social and environmental issues. Findings indicate that out of 7 disclosed social aspects by sampled Nigerian companies, five are on employees who are important legitimacy conferring stakeholders. The labor unions in Nigerian oil and gas industry are well coordinated and powerful to disrupt corporate activities that may results in numerous negative consequences. Therefore, disclosure on issues relating to them could be a tool employed by sampled companies to possibly change employees' perception and or swerve their attention from the factual social and environmental issues in the companies.

Disclosure on the remaining two aspects relate to corporate host communities, which are also important legitimacy conferring stakeholders. Communities are capable of disrupting corporate operations through vandalizing corporate assets, kidnapping of oil workers and physical protests. Therefore, disclosure on community projects such as provision of drinking water, construction or renovation of schools and health centers could be argued as legitimacy tool. Thus, disclosure could be regarded as attempt by the companies to contrive and or swerve the perceptions of these legitimacy conferring stakeholders on the actual social and environmental issues bedeviling them. The nature of disclosure by Nigerian sampled companies indicates that most serious environmental issues such as gas flaring; oil spills; and emissions and waste and effluents are not disclosed. This may be indicating exploitation of vulnerable stakeholders in Nigeria by sampled companies. Consequently, disclosure by sampled Nigerian oil and gas companies are explainable by vulnerability and exploitability theory and legitimacy theory. The nature of disclosure by listed Nigerian oil and gas companies have some practical and policy implications.

Corporate accountability requires taking responsibility for actions, inactions and consequences from such and disclosure is an avenue of demonstrating the accountability. Sampled Nigerian companies are not making disclosure on such severe environmental issues as gas flaring; oil spills; and emissions and waste and effluents. These environmental issues are the triggers to the social issues of health, food shortages, poverty, and other reported social vices in the oil and gas producing region. Therefore, it could be contended that there is lack of adequate social and environmental accountability by sampled listed Nigerian oil and gas companies. This apparent lack of social and environmental accountability could be a hindrance to government commitment to the sustainable development of the oil and gas producing region. Next section is on disclosure by UK oil and gas companies.

6.2.2 Disclosure by Listed UK Oil and Gas Companies

Findings from this study indicates that UK oil and gas companies are making disclosure on social and environmental aspects as presented in section 5.5.1 and 5.5.2 respectively. Disclosure finding on employment is consistent with the work of Trotman, (1979), Gray, Kouhy and Lavers, (1995a), Elmogla (2009), Dong and Burritt (2010), Uwalomwa and Jafaru (2012b) and Chong (2014) who found sampled companies providing information on employment. Sampled UK companies are making disclosure on labour/management relations on which there are no findings in the literature reviewed for this study. This could be attributed to the use of GRI guideline that provides for disclosure on this aspect. It could also be effort by sampled companies to gain or maintain legitimacy with their employees. On the overall, it could be seen as an evolving useful social disclosure practice by the companies and likely the UK oil and gas industry. Finding on disclosure on employee health and safety in this study is consistent with previous studies that reported the provision of information on this aspect (Sotorio and Sanchez 2010, Yusuf et al., 2012, Chong, 2014). Finding indicating UK companies making disclosure on employee training and education is consistent with reported disclosure on this aspect by Fadul et al (2004), Sotorio and Sanchez (2010) and Eljayash, James and Kong (2012). Conversely, the finding contradicts Asaolu et al (2011) that do not find information on this aspect in their study. However, their study was conducted in Nigeria, thus country contextual factors of economic development, education, legal and regulatory frameworks could be explanations for the variation.

Similarly, disclosure finding on diversity and equal opportunity for women and men is consistent with studies by Adams and Kuasirikun (2000) and Fadul et al (2004). This study also finds sampled UK companies providing information on human rights in investment and procurement on which there is no previous finding. Therefore, disclosure on this could be a demonstration of commitment of sampled companies to protection of human rights wherever they are investing. Similarly, it could be due to the use of GRI that required its disclosure, which other previously used indexes might not have provided. Disclosure finding on employees' rights of non-discrimination and employees' rights of freedom of association and collective bargaining are consistent with the result of the work by Gallego (2006). He found companies providing information on these aspects.

UK companies are also making disclosure on human rights in security practices and rights of indigenous people, on which there are no findings in reviewed literature. Disclosure on these aspects may perhaps be indications of commitment of sampled UK companies to upholding human rights in all aspects of their operations. Similarly, it could be attributed to the use of GRI guidelines that enable capturing of disclosure on these aspects. Disclosure finding on community information is consistent with studies carried out by Gray, Kouhy and Lavers (1995a), Fadul et al (2004), Sotorio and Sanchez (2010) and Krishna et al (2012) who found companies providing information on community issues. Sampled UK companies are also making disclosure on corruption an aspect not reported in previous literature. This may be an indication that sampled UK companies are steadfast in ensuring transparent transactions as an act of good corporate behaviour. It could also be an evolving disclosure or it is the use of GRI guidelines that enables the study to capture this information. Similarly, it is likely resulting from public pressure for more corporate accountability.

Finding indicating that sampled UK companies are making disclosure on public policy is consistent with the study by Adams and Kuasirikun (2000) that reported disclosure on this aspect. Sampled UK companies are also providing information on compliance for fines and sanctions. This form of disclosure is not reported in reviewed literature. Disclosure on this aspect could be an indication of strong regulatory and legal frameworks existing in the UK. Finding on disclosure on customer health and safety by sampled UK companies is consistent with result obtained by Adams and Kuasirikun (2000) in which sampled companies provide this information. Sampled UK companies are also making disclosure on product and service labelling which is however not reported in reviewed literature. Disclosure on this could be portraying commitment of sampled companies to ensuring customers comfort, health and safety in using their products. It could also be an act of complying with legal requirements for disclosing such information. Similarly, it could also be an evolving disclosure, thus, not previously reported. Likewise, it might have been captured by this study due to its provision in GRI guidelines, which other indexes might not have provided. Sampled UK companies are also making disclosure on marketing communications, which is also not reported, in reviewed literature. This disclosure finding could be argue as indicating compliance with marketing rules and standards by sampled companies. Likewise, previous studies might not have reported this disclosure due to its non-provision in the indexes they employed which GRI guidelines provide. Findings from this study also indicate sampled UK companies making disclosure on aspects of the environment as further elaborated in ensuing paragraph.

Disclosure finding on materials by UK companies are consistent with studies that also found sampled companies providing this information (Sotorrìo and Sánchez 2010, Eltaib 2012, Yusuf et al., 2012). Disclosure on energy by sampled UK companies is consistent with Frynas (2009), Yusuf et al (2012), and Varfolomeev (2014) that established companies providing this information. Sampled UK companies are also making disclosure on water in consistence with prior studies that found companies making disclosure on this environmental aspect (Gallego 2006, Yusuf et al., 2012). However, the finding contradicts Alazzani and Wan-Hussin (2013) who did not find companies providing information on this aspect. This study is also conducted on UK companies; therefore, inconsistencies in the results could be attributed to variations in time scope. Finding also indicates UK companies making disclosure on biodiversity which is consistent with results obtained by Gallego (2006), Eltaib (2012) and

Alazzani and Wan-Hussin (2013) indicating disclosure on this aspect. Finding indicating disclosure on emissions, effluents and waste by UK companies is consistent with studies that reported emphasis in the provision of this information by studied companies (Alemagi 2007, Frynas 2012, Eltaib, 2012, and Varolomeev et al., 2014)[82].

Disclosure on environmental compliance is another finding by this study which is however not reported in the previous literature. Disclosure on this aspect by UK companies could be argued as indication of advancement in social disclosure and existence of strong legal enforcement mechanisms. Sampled UK companies are also making disclosure on overall aspect of environment. Sampled UK companies may be providing information on this aspect as means of portraying environmental commitment to legitimacy conferring stakeholders. The use of GRI guideline that provided for disclosure on environmental compliance and overall aspect of environment could be another reason for findings on these aspects.

Results obtained by this study on SEDs by UK companies can be further explained and understood within the context of chosen theoretical framework for this study. Citizens in UK have the economic and educational power to seek for and obtain social information from corporate organization. Similarly, strong government regulatory and legal frameworks are additional pressure on corporate organizations to be more socially accountable through disclosure. Thus, citizens and government of UK could be debated as less vulnerable and exploitable by

[82] All previous findings on biodiversity and emissions, effluents and waste are from studies conducted in developed European countries and Multinational oil and gas companies.

corporate organisations on social disclosure. Consequently, corporate organisations may have to contend with making more social disclosure to maintain or gain legitimacy from broad and strong legitimacy conferring stakeholders.

Coming from above perspectives, out of 17 aspects of social disclosure on which sampled UK oil and gas companies make disclosure, 5 aspects are on employees; 3 on society; 4 on product responsibility; the remaining 5 are on human rights. Corporate employees and the society as customers and members of human and environmental rights groups are important legitimacy conferring stakeholders in the UK. Thus, disclosure on aspects that pertain to these legitimacy conferring groups may perhaps be attempts to maintain legitimacy with them. In addition to this, all the social disclosures by UK companies are required by one form of regulation/law or another. Hence, satisfying government disclosure requirements as an important legitimacy conferring stakeholder in addition to employees and the general public is another possible explanation for the disclosure.

Environmental disclosure by sampled UK companies could be argue as reflecting the environmental issues in UK oil and gas industry reported in the literature. Although UK Companies Act 2006 requires that quoted companies should disclose information on environmental matters; the requirement could be contended as too broad and vague[83]. Similarly, this section of the Act came into effect in 2007 and sampled companies are making environmental disclosure prior to the act. Therefore, disclosure on aspects of environment by sampled companies could be

[83] UK companies act 2006 requires that quoted companies should disclose information on environmental matters (including the impact of the company's business on the environment).

argued as voluntary and a legitimacy strategy to align with citizens and government commitments to society and environment. Therefore, with less vulnerability and exploitability of citizens and government in UK, nature of SEDs by sampled UK companies is better explained by legitimacy theory more than vulnerability and exploitability framework. Disclosure by sampled UK oil and gas companies may have some practical implications.

It could be argue that sampled UK companies are rendering accountability on their social and environmental activities depicted by disclosure on numerous social and environmental issues. This apparent social accountability by sampled UK companies could be argue as contributing to government commitments and citizens' quest of living in equitable society in a bearable environment. This in turn could mean that UK as a country is positively contributing to global sustainability of ensuring equitable society built on bearable environment. This study is a comparative study between Nigerian and UK oil and gas companies; thus, it may be useful to compare the nature of social disclosure by the two.

6.2.3 Comparison of Nature of SEDs by Listed Nigerian and UK Oil and Gas Companies

Nigerian oil and gas companies are providing information on 7 aspects of social disclosure while UK companies are making disclosure on 17 aspects out of 25 disclosure aspects. Nigerian companies made disclosure on few aspects concerning employees' and local communities. Similarly, disclosure by UK companies are also mainly on employees', society and customers as legitimacy conferring groups. While social disclosure by Nigerian oil and gas companies do not reflect the social concerns reported in reviewed literature; social disclosure by UK companies mainly reflect compliance with requirements of law.

Disclosure on few social aspects by listed Nigerian oil and gas companies may be depicting corporate exploitation of vulnerable Nigerian public and the government. However, even the few disclosures could be argue as attempt to maintain legitimacy. For instance, social disclosure increase by 39% and environmental disclosure by 232% three years after introducing code of corporate governance in 2011 compared to three years before the code. Sampled UK companies made disclosure on broad social aspects pertaining to employees and host communities, which are required by law; therefore, it could be argue that disclosure is meant to gain or maintain legitimacy.

Nigerian oil and gas companies are making disclosure on biodiversity aspect of environment, which dwells on making provisions for decommissioning of oil and gas asset at the end of their life cycle. This is a requirement under financial liabilities and obligations; hence could be argued as act of maintaining legitimacy with groups interested in financial performance. UK companies made disclosure on 7 out of 9 aspects of environment. Therefore, it could be argued that UK companies are making disclosure on much of the aspects of environmental disclosure provided in GRI guidelines. These disclosures reflect the environmental issues reported in reviewed literature on UK oil and gas industry. Despite these, the disclosure possibly reflects efforts by the companies to align with UK government, employees', customers and the general public concerns and commitment to the environment. Overall, differences in country contextual factors of country of origin, economic development, education and national cultural dimensions may perhaps contributed to differences in nature of SEDs between sampled listed UK and Nigerian oil and gas companies. Listed UK companies provided information on 17 aspects of social disclosure while Nigerian companies made disclosure on 7 aspects. Similarly, UK companies made disclosure on 7 aspects of environment while Nigerian companies provided information on 1. Therefore, it could be debated that although listed Nigerian oil and gas companies started coming up in early 1990's, which is over two decades, colonial influence of UK corporate social disclosure on listed Nigerian companies is low. In other words, sampled listed Nigerian oil and gas companies are expected to provide information on more aspects than revealed in this study. This study has the objective of assessing the quantity and quality of SED by Nigerian and UK oil and gas companies.

6.3 Objective 2: To Assess the Quantity and Quality of SEDs by Listed Nigerian and UK Oil and Gas Companies

Quantity of social disclosure is obtained by means of words count content analysis. Quality of disclosure is obtained by scoring consistency of disclosure with GRI disclosure guidelines. The quantity and quality of disclosure by sampled Nigerian oil and gas companies are presented next.

6.3.1 Quantity and Quality of Disclosure by Listed Nigerian Oil and Gas Companies

Results in Table 5.28 indicates that Nigerian oil and gas companies disclosed 103,986 words on social and environmental information in their annual reports and accounts for the period 2004 to 2013. However, during the period, total words disclosure in the annual reports and accounts of the companies are 1,235,925. Hence, percentage of words devoted to social information is 8.41% while economic information has 91.59%. Thus, it could be argue that the quantity of social disclosure by listed Nigerian oil and gas companies is low.

The above low quantity of disclosure by listed Nigerian companies is consistent with results of studies that reported low quantity of SED (Lipunga, 2013, Eljayash, James and Kong, 2012, Abu Sufian, 2012, Othman and Ameer, 2010, Hossain, Islam and Andrew, 2006) which are all studies on developing countries. However, findings by Hajj (2013) a study conducted in Malaysia, another developing country contradict these findings by reporting significant increase in quantity of disclosure. This notwithstanding, reported low quantity of disclosure in developing countries by numerous literature may perhaps be portraying it as the dominant practice in these countries. Findings of low quantity of disclosure in this study also contradict reported findings of increasing quantity of disclosure by Monteiro and Aibar-Guzman (2010), Mia and Al-Mamun (2011) and Eljayash, James and Kong (2012). However, these studies are conducted in developed countries or the samples are from developed countries. Therefore, in addition to depicting this as the normal practice in developed countries, country contextual factors outlined in section 2.4.2.1 could also be contributing to differences in quantity of disclosure.

In addition to quantity of disclosure, this study looks into quality of the disclosure as discussed in section 4.4.5 in chapter 4. However, in order to enhance understanding of subsequent discussions on quality of the disclosure, measurement of quality is highlighted again. Sampled companies are expected to have minimum sum of average quality score of 2 points over the ten years' period of the study if all GRI performance indicators are disclosed without complying with the disclosure guideline. Companies are expected to have median sum of average score of 4 points if all indicators are disclosed with partial compliance with GRI guidelines. They should score maximum sum of average of 6 points if all indicators are disclosed in accordance with the GRI guidelines. However, the scores could fluctuate between these three and even fall below the minimum depending on the disclosure.

For the period of the study, listed Nigerian oil and gas companies scored 9.61 points on social disclosure as presented in Table 5.5 and 0.46 points on environmental disclosure as shown in Table 5.6. Therefore, the companies scored total of 10.07 points and this gives sum of averages for all the companies for the ten years as 1.01 points. This score is between the ranges of 0 - 2 as in Table 4.1; thus, the quality of the disclosure is unsatisfactory. This finding of unsatisfactory quality scores is consistent with results from previous studies that also reported unsatisfactory quality of disclosure (Kent, Chan 2003, Elijido-Ten 2004, Hanafi 2006, Eljayash, James and Kong 2012, Khan and Hassan 2014, Chiu, and Wang 2015). Unsatisfactory quality of disclosure might be pointing to corporate exploitation of vulnerable and weak legitimacy conferring stakeholders in Nigeria. It may also be suggesting that due to weak and unenforceable corporate rules and regulations, sampled listed Nigerian oil and gas companies are exploiting vulnerable stakeholders by providing unsatisfactory quality social information. However, the finding contradicts Iatridis (2013), Eljayash, James and Kong (2012) that reported high quality of disclosure, although these studies are conducted in developed countries. Therefore, country contextual factors discussed in section 2.4.2.1 may have contributed to unsatisfactory disclosure by sampled listed Nigerian companies. These may also have accounted for the variations in quality of disclosure between developing and developed countries. Low quantity and unsatisfactory quality of disclosure by listed Nigerian oil and gas companies can be explained and understood within the lens of the theoretical framework underpinning this study.

Despite reported numerous social and environmental impacts of oil and gas operations in Nigeria, quantity of disclosure by sampled companies are found to be low. Appropriate social accountability entails the companies taking responsibilities for their impacts and reporting on such. Doing this could have resulted in the companies reporting on broad range of documented social issues in the industry which could have translated to higher quantity of disclosure. Hence, it could be argue that low quantity of disclosure depicts social exploitation of vulnerable citizens and government of Nigeria. However, even the low quantity of disclosure could be argued as attempts to maintain legitimacy with few and weak legitimacy conferring stakeholders encompassing employees and host communities. This is premised on the fact that 97.48% of the disclosure is mainly on employees and host communities while the remaining 2.52% is on the environment.

Consistent with reported low quantity of disclosure, Nigerian sampled companies are making the disclosure possibly without emphasis to quality in view of the unsatisfactory quality of provided information. Therefore, unsatisfactory quality of disclosure could also be depicting exploitation of vulnerable Nigerian society by sampled companies. Consequently, quantity of disclosure could be explained by both vulnerability and exploitability and legitimacy theories. However, quality of the disclosure is better explained by vulnerability and exploitability theory. Quantity and quality of disclosure by sampled companies may have implication in practice. Low quantity and unsatisfactory quality of disclosure may be depicting little contribution of sampled companies to social and environmental disclosure in the industry. Low quantity and quality of disclosure could also be depicting low social accountability by sampled companies. This in turn, may have negative effects on Nigerian government policies and programs towards ensuring sustainable development of the Niger Delta oil producing region.

6.3.2 Quantity and Quality SEDs by Listed UK Oil and Gas Companies

Total words disclosure on social issues as presented in Table 5.11 by UK oil and gas companies are 881,725. The companies disclosed 216,434 words on environmental information as in Table 5.12. Therefore, total SED words are 1,098,159 words for the period 2004 to 2013. Over the same time, sampled companies' total disclosed words are 6,019,223. Therefore, the companies have devoted 18.24% of their disclosure to social information. It could therefore be argue that social disclosure by sampled UK companies is considerably high considering the dominance of economic motive as the pivot of corporations. This finding is consistent with previous literature that reported considerable or high quantity of social disclosure (Hossain and Reaz, 2007, Eljayash, James and Kong (2012), and Aldosari and Atkins (2015). The finding however, contradicts results from studies by Alkababji (2014), Hajj (2013), Lipunga (2013), Abu Sufian (2012), Othman and Ameer (2010), Azim, Ahmed and Islam (2009) that reported low or insignificant quantity of disclosure. However, apart from Bhattacharyya (2014), all the other studies are conducted in emerging and developing countries. Therefore, country contextual factors discussed in section 2.4.2.1 may be the relevant explanations for variations in the disclosure practices. The result of the study by Bhattacharyya (2014) shows reducing disclosure practices in the developed economies. This may perhaps be consistent with KPMG (2015) that documented much of the increase in social responsibility reporting to have occurred in emerging and developing countries. The study also looks into the quality of disclosure by sampled companies based on earlier outlined criteria.

Total social disclosure quality scores by UK companies over the period of the study as presented in Table 5.17 are 13.37 points, while environmental disclosure quality points as shown in Table 5.18 are 16.32 points. Therefore, total SED points scored by UK companies are 29.69 points. This means that the sum of averages for the companies over the period of ten years is 2.90 points, which is approximately 3 points. Consequently, the quality of disclosure by UK companies is satisfactory based on the scoring criteria in Table 4.1. However, this study argue that, considering the advancement of SED practices in UK, disclosure quality should be approaching better rating. Obtained results of quantity and quality of social disclosure by UK companies could be explained by applying the theoretical framework underpinning this study.

From 1,098,159 SED words, 881,725 words or 80% are on social issues. From these social words, 877,276 words or 99% are disclosure on employees and society who are strong legitimacy conferring stakeholders. Similarly, the law requires disclosure on these groups; thus, disclosure is perhaps meant to comply with the laws. Indeed, 718,368 words or 81% of social disclosure are on mandatory disclosure while the remaining 163,357 words or 19% are on voluntary disclosure. Therefore, quantity of disclosure by UK companies could be seen as efforts to seeking, maintaining or repairing legitimacy with employees, host communities and government as legitimacy conferring stakeholders. Quantity of environmental disclosure is measured at 216,434 words or 20% of total SED words. Thus, environmental disclosure words by UK companies could be argue as low. UK is a developed country in which social disclosure practices are reported as advanced and there is general awareness and concerns of the society for the environment. Expectedly, this should have resulted in more environmental disclosure than obtained. This notwithstanding, effort to providing quantity of environmental disclosure are voluntarily undertaken and could be said to be corporate strategy to align with government and general public's commitment to environment consistent with legitimacy theory.

Quality of disclosure by UK companies is satisfactory within the context of adopted scoring criteria in this study. This satisfactory quality of disclosure may be implying that sampled companies are providing social and environmental information considering quality. Satisfactory quality of disclosure by sampled UK companies could be signifying efforts to maintain legitimacy with broad and strong legitimacy conferring stakeholders in the UK. However, considering the broad and strong stakeholders that UK companies are interacting with, the quality of the disclosure should have been more than this. Perhaps broad and strong legitimacy conferring groups in UK may not be privy to factual social issues and have to contend with what the companies provide. In this regard, they are vulnerable and UK companies may be exploiting this vulnerability; thus, providing quality social and environmental information just satisfactorily. Therefore, while quality of disclosure by UK companies could be debated as reflecting legitimacy, it could also be depicting exploitation of stakeholders. Findings on quantity and quality of social disclosure by UK oil and gas companies may have some policy implications.

Although, the quantity of social disclosure by UK listed oil and gas companies are considerable, much of the disclosure is on social information while environmental disclosure is low. This may have implications on UK's commitment to having bearable environment in particular and implementing other international environmental initiatives. Regulating social disclosure is perhaps useful considering reported high disclosure on mandatory social issues in this study. On environmental disclosure, the UK companies act 2006 made requirement for environmental disclosure, which may be contended as useful. Section 417 (5) b of the Act states that quoted companies should disclose in their business review information about "environmental matters (including the impact of the company's business on the environment)". However, this requirement appears to be vague and too general; thus, may not be helpful in enhancing environmental disclosure. Satisfactory quality of disclosure by UK sample appears not consistent with social and environmental concerns of the UK society as better quality score should have been the practice. Similarly, it perhaps may not be reflecting government commitment to ensuring a just and equitable society living in a bearable environment. Being a comparative study, quantity and quality of SEDs by sampled listed Nigerian and UK oil and gas companies are compared within the next section.

6.3.3 Comparison of Quantity and Quality of SED by Listed Nigerian and UK Oil and Gas Companies

The quantity of social disclosure by listed Nigerian oil and gas companies are found to be low while UK companies are making considerable social disclosure. This result is consistent with Ionel-Alin (2012), Michelon (2011), Apostolakou and Jackson (2009) from developed countries and is consistent with Adnan et al (2010), Hanafi (2006), Rizk (2006) from developing countries who reported low SEDs. Low quantity of disclosure by sampled listed Nigerian companies is consequent to few words disclosure on few social aspects targeting few, weak and vulnerable and exploitable legitimacy conferring groups. Thus, quantity of disclosure by Nigerian companies is better explained by vulnerability and exploitability theory and legitimacy theory. Considerable quantity of disclosure by UK companies could be argue as attempts by the companies to offer detailed explanations on their social impacts to broad and strong legitimacy conferring groups to maintain legitimacy. Therefore, disclosure by sampled UK companies could be better understood from the lens of legitimacy theory.

Furthermore, sum of quality of disclosure by listed Nigerian companies for the ten years is 1.01 which is within 0 to 2 points in the rating criteria; thus, unsatisfactory. UK oil and gas companies have 3 points as sum of average for the ten years of the study; thus, have satisfactory quality score points. Therefore, disclosure quality points scored by UK companies are higher than the disclosure quality points scored by Nigerian companies. This result is consistent with Adnan, van Staden, and Hay (2010) that found UK companies having higher quality of SEDs. Unsatisfactory quality of SED by Nigerian companies depicts exploitation of few and weak legitimacy conferring stakeholders in Nigeria. Satisfactory quality score by UK companies could be argue as legitimacy effort by sampled companies to conform to the needs of broad and strong legitimacy conferring stakeholders. However, it could also be indicating exploitation of these strong and broad stakeholders as the quality should be better than obtained considering the advancement of social disclosure practice in UK. Another objective of this study is to assess the trends of SED by sampled companies over the period of the study 2004 to 2013.

6.4 Objective 3: To Assess the Trends of Quantity and Quality of SED by Listed Nigerian and UK Oil and Gas Companies 2004 to 2013

The trends of SEDs by sampled listed Nigerian and UK oil and gas companies depict the yearly quantity and quality of the disclosure over the period 2004 to 2013. In this way, the study not only reveals cumulative quantity and quality of the disclosure, but also presents such on yearly basis. This enables the researcher to relate and understand the trends within the context of the oil and gas industries of the two countries in particular and global happenings in general. Similarly, portraying the trends may enhance better understanding of the SED practices of listed Nigerian and UK oil and gas companies over the period of this study. The trends of disclosure by listed Nigerian oil and gas companies are presented next.

6.4.1 Trends of SEDs by Listed Nigeria Oil and Gas Companies 2004 to 2013

The trends of quantity of social disclosure by listed Nigerian oil and gas companies as shown in Figure 5.2 and Table 5.4 showed increasing disclosure from 2004 to 2013 with the exception of 2011 when disclosure is lower than 2010. Ranking the variations in disclosure over the period of the study as shown in Table 5.4, the highest increasing variation in disclosure is in 2009 against 2008 and the only decreasing disclosure trend is in 2011 against 2010. Disclosure on composition of senior management positions (LA11/13) social performance indicator account for 99.59% increase, which is almost 100% of disclosure increment in 2009. The Nigerian NSEC constituted and inaugurated a committee in 2008 to review the 2003 CCG for public companies in Nigeria. Thus, increase in disclosure on this indicator may be a reaction by sampled companies to portraying well composed boards and senior management. Similarly, over 46% of increase in disclosure in 2013 is accounted for by increased disclosure on composition of senior management. Seventy four (74) percent of this increase is accounted by increased disclosure by one of the companies sequel to bringing new directors on its boards.

Likewise, 59% of increasing variation in disclosure that occurred in 2005 is accounted for by disclosure on composition of senior management by one of the companies. Therefore, disclosure on this particular social performance indicator could be argue as an avenue utilized by sampled companies to portray their governance boards and senior management as being capable of running the companies. Consequently, it could be argue that this disclosure is better explained by legitimacy theory. Other increasing and decreasing variations in quantity of disclosure could be considered as normal trends. Finding of increasing disclosure trends in this study is consistent with Hannafi (2006) that reported increasing disclosure trends by UK companies. However, the finding contradicts Hannafi (2006) that found lack of increasing disclosure trends by Egyptian companies. Therefore, increasing trends of quantity of disclosure by listed Nigerian oil and gas companies could be argue as a positive contribution to social disclosure practices of the sampled companies. It may perhaps also be a positive development in the industry in particular and Nigeria in general; trends of quality of disclosure are also looked into by the study.

Quality of disclosure by Nigerian oil and gas companies as presented in Figure 5.4 and Table 5.8 are depicting fluctuating trends. The highest variation in quality of disclosure is 2007 against 2006. The possible explanation being that in 2006 there are disclosures on 54 performance indicators by sampled companies and this reduces to 22 indicators in 2007. Therefore, since disclosure with non-compliance results in earning 1 disclosure quality point, few disclosures in 2007 results in low quality of the disclosure. The second variation in quality of disclosure occurred in 2012 against 2011, which is also attributable to number of indicators disclosed. In 2011, sampled companies made disclosure on 42 performance indicators, which fell to 37 indicators in 2012, thus, the decrease in quality of disclosure. Other fluctuations in quality of disclosure are also mainly due to differences in number of disclosed performance indicators. The theoretical framework underpinning this study can explain results on trends of quantity and quality of disclosure by Nigerian companies.

Although trends of quantity of disclosure over the period of the study are increasing, yearly quantity of the disclosure could be reasoned as insignificant resulting in overall low quantity of disclosure as reported under objective 2. These few increases in yearly quantity of disclosure may be consistent with vulnerability and exploitability framework depicting the reluctance of sampled companies to take adequate social accountability. Even the few disclosures by sampled companies are on social issues relating to employees and host communities as some of the few and weak legitimacy conferring stakeholders. Similarly, disclosure on composition of senior management significantly increased in 2009 when the NSEC inaugurated a committee to review the CCG for public companies at the end of 2008. Inauguration of the committee may perhaps had signaling effect that made companies to attempt to legitimize their operations by increasing disclosure on corporate governance information.

Quality of disclosure showed fluctuating trends implying that sampled Nigerian companies do not consider quality of the few disclosures. Indeed, only 8 out of total 381 disclosed performance indicators fully complied with GRI disclosure guideline, thus, scoring 3 points each. Another 7 disclosed indicators partially complied with GRI disclosure guidelines thereby scoring 2 points each. 366 disclosed performance indicators are disclosure with non-compliance, thus, scoring 1 point each. This clearly depicts that sampled companies are not paying attention to quality of disclosure on the few performance indicators they are disclosing resulting to unsatisfactory quality of disclosure on the overall. Reported unsatisfactory quality of disclosure by listed Nigerian oil and gas companies is depicting exploitation of vulnerable Nigerian society consistent with vulnerability and exploitability theory. The trends of social disclosure by sampled listed Nigerian oil and gas companies could have some policy implications.

Although social disclosure by sampled Nigerian oil and gas companies is on the increase in most of the years covered in this study, the increases are few. These few increasing disclosures could be claimed as positive development in social disclosure in the industry. This notwithstanding, the few increasing disclosures are perhaps indication of lack of accountability on most of the prevalent social issues in the industry. If listed Nigerian oil and gas companies are to provide information on major social and environmental impacts of their operations, quantity of disclosure will be more than obtained in this study. This is compounded by unsatisfactory quality of the few disclosures. This in turn, may be implying that sampled companies are making little efforts to compliment government social policies and programs in the oil and gas producing region of Nigeria. The study also looks into trends of social disclosure by UK oil and gas companies.

6.4.2 Trends of SEDs by Listed UK Oil and Gas Companies 2004 to 2013

Figure 5.6 and Table 5.14 present trends of quantity of disclosure by UK oil and gas companies over the period of the study 2004 to 2013. Quantity of disclosure by UK companies showed increasing trends over the years with the exception of 2007 and 2012, that showed decreasing trends. Similarly, there was significant increase in disclosure in 2005. Specifically, 38% of increase in quantity of disclosure in 2005 is accounted for by increase in disclosure on employees. Another 20% of the increased quantity of disclosure is accounted for by increased disclosure on policies on managing environmental impacts. The former could be explained by general increase in disclosure on directors' remuneration; options, incentives, pensions and compensations in 2005, which is required by law in the UK. The latter could be attributed to the signalling effect of the release in 2005 of OGIVGSR. Thus, the sudden increase in quantity of disclosure in 2005 could well be regarded as legitimacy strategy adopted by sampled UK companies.

Decreasing disclosure trends in 2007, which might be argue as normal, is 100% accounted for by decrease in disclosure on employee benefits performance indicator. Similarly, decrease in quantity of disclosure in 2012 are 100% due to decrease in quantity of disclosure on this performance indicator. Although disclosure on this performance indicator is required by law in the UK, sampled companies appears to be making more or less disclosure on this indicator at their conveniences consistent with legitimacy theory. The trends of quality of disclosure by sampled companies showed fluctuating trends as presented in Figure 5.8 and Table 5.20. There is significant increase in quality of disclosure in 2005 while disclosure quality significantly decreases in 2010. Disclosure on 138 performance indicators against 81 in 2004, accounts for increase in quality of disclosure in 2005. Similarly, disclosure quality scores increased by 86% in 2005 against 2004 most of which are due to increased quality in environmental disclosure. Again, this could be attributed to the release of OGIVGSR in 2005 as a legitimacy strategy.

Above reported increasing trends of quantity and fluctuating quality of disclosure by sampled UK companies could be explain by chosen theoretical framework for this study. Increasing trends in quantity of disclosure could be argue as a strategy to gaining or maintaining legitimacy with broad and strong legitimacy conferring stakeholders in the UK. Likewise, decreases in quantity of disclosure in some of the years are perhaps aim at making the disclosure consistent with the legitimacy strategies and goals of sampled listed UK oil and gas companies. However, quality of disclosure is fluctuating, but satisfactory on the rating criteria. Apparently, sampled companies are leveraging on quantity of disclosure while paying little attention to quality of provided information. Similarly, it may be that little attention is paid to the quality of disclosure due to the possibility that broad and strong legitimacy conferring groups are unaware of factual social issues. Thus, legitimacy conferring groups are mainly depending on detail explanations on quantity of disclosure and are not possibly curious about quality of the disclosure. Therefore, it could be argue that sampled companies may be exploiting their stakeholders by paying little attention to quality of disclosure consistent with vulnerability and exploitability analytical framework.

Above patterns of quantity and quality of disclosure by sampled UK companies may have some practical policy implications. It is expected that quantity of social information provided by sampled companies are qualitative. However, it is apparent that quantity of the disclosure is not accompanied with quality, thus, it is probable that the disclosure is mere rhetoric. This may mean that sampled companies although making elaborate explanations on what they are disclosing; disclosure is not depicting extent of social impacts. If extents of social impacts are not disclosed by sampled companies, government may find it difficult to achieve its social policies and programs. The desire of the citizens to have equitable society built on bearable environment may also not be accomplished. The trends of quantity and quality of disclosure by listed Nigerian and UK oil and gas companies are compared within the next section.

6.4.3 Comparing trends of Quantity and Quality of SED by Listed Nigerian and UK Oil and Gas Companies 2004 to 2013

Quantity of disclosure by listed Nigerian oil and gas companies showed increasing trends over the period of the study. However, increasing trends of disclosure by sampled Nigerian companies are characterised with few quantity of words. The few increasing quantity could be argue as on information of interest to few and weak legitimacy conferring stakeholders. Therefore, while the few increasing disclosures are consistent with vulnerability and exploitability theory, the motive of the disclosure may be to gain or maintain legitimacy with the few and weak legitimacy conferring stakeholders. However, despite increasing quantity of disclosure by Nigerian companies, provided information is not reflecting reported major social and environmental issues in the industry. Consistent with increasing trends of disclosure by listed Nigerian companies, disclosure by sampled UK companies also showed increasing trends. The trends showed significant increasing disclosure, which are on information of interest to broad and strong legitimacy conferring groups who can affect the companies. Therefore, conceivable explanation for providing information on issues of interest to these legitimacy conferring stakeholders is for gaining or maintaining legitimacy. Thus, the quantity of the disclosure and the possible motives of the disclosure are for legitimacy. Quantity of disclosure by sampled UK companies could be said to be adequate and contain information on most of the social issues in the UK oil and gas industry. Quality of disclosure by both Nigerian and the UK companies showed fluctuating trends over the period of the study. Specifically, unsatisfactory quality of disclosure by Nigerian companies leaves much to be desired on their social disclosure practices. For UK companies, satisfactory and fluctuating quality of disclosure may not be reflecting magnitude of social issues in the industry. This may in turn hinder government and citizens' quest of having equitable society built on bearable environment. Another objective of this study is to find out differences in the quantity and quality of SEDs by the sample companies.

6.5 Objective 4: To find out Differences in the Quantity and Quality of SEDs by Listed Nigerian and UK Oil and Gas Companies 2004 to 2013

This objective is meant to find out differences in the quantity and quality of SEDs by listed Nigerian and UK oil and gas companies over the period of the study. Although, aspects dealing with numeric quantity and quality of disclosure are presented under objective 2, they are briefly restated here. Quantity of disclosure by sampled listed Nigerian oil and gas companies over the period of the study is 103,986 words. Quantity of disclosure by the UK companies is 1,098,159 words. Thus, quantity of disclosure by Nigerian companies is 9% of quantity of disclosure by UK companies. Sum of average quality of disclosure by Nigerian companies is 1.01 points, which is rated unsatisfactory. The sum of average of disclosure quality by sampled listed UK companies is approximately 3 points, which is rated satisfactory. Thus, both quantity and quality of SEDs by UK companies are more than those by Nigerian companies. These numeric results are confirmed by results of two samples t-test with unequal variances as presented in 5.36a and 5.36b. On both quantity and quality of the disclosure, statistical means of UK companies are greater than the statistical means of Nigerian companies. This leads to the conclusion that statistically, the quantity and quality of disclosure by the UK sa companies mples are greater than those by Nigerian companies.

Descriptive and statistical result indicating sampled listed UK oil and gas companies providing more quantity of social information is consistent with reported dominance of better social disclosure practices of developed countries compared to developing countries (Greccoa et al. 2013, Oliveira, Ponte Junior and Oliveira 2013, Newson and Deegan 2002). Specifically, to the UK, the result is consistent with previous studies that compared UK and other developing countries and reported UK as providing better social information (Hanafi 2006, Rizk 2006, Adnan, van Staden, and Hay 2010, Chong 2014). Therefore, this result is confirming the advancement of social disclosure practices of listed UK oil and gas companies in particular and perhaps UK in general. However, UK companies may be providing more quantity and quality of social information in order to satisfy demands of broad and strong legitimacy conferring stakeholders in UK. These include among others, employees, host communities, and the general public who are well educated and economically affluent to demand and be provided with social information. Similarly, listed UK oil and gas companies have to contend with strong government regulations, thus, have to provide more social accountability. Overall, sampled listed UK oil and gas companies may be providing more quantity and quality social information for legitimacy. Thus, these country contextual attributes may be responsible for better disclosure practices by UK sample.

Sampled listed Nigerian oil and gas companies are found providing low quantity of social information compared to UK. The result is consistent with previous studies that reported social disclosure as an emerging practice in developing countries (John, Daniel and Angel 2012, Dobers and Halme 2009b, Tsang 1998). It is also consistent with studies that reported social disclosure practices as evolving in Nigeria (Uwalomwa and Jafaru 2012b, Waziri and Masud 2012). Although, this study anticipates listed Nigerian oil and gas companies to have lower disclosure practices than UK companies, it is not expected to be as low as it is found. The results on quantity and quality may be indicating that listed Nigerian oil and gas companies are exploiting their vulnerable stakeholders in Nigeria. Thus, few and weak employees, host communities, government in need of revenues from its natural resources and general populace living in abject poverty and illiteracy are not provided adequate social accountability. Therefore, low quantity of disclosure and unsatisfactory quality of provided information by listed Nigerian oil companies are depicting low social accountability, which is consistent with vulnerability and exploitability argument.

Consequently, the corporate culture of providing high volume of SEDs by UK companies is not passed on to listed Nigerian oil and gas companies despite the strong colonial linkages between the oil and gas industries of the two countries. However, it could be argue that based on comparative trends of quality of disclosure in Figure 5.10, listed Nigerian oil and gas companies are following the disclosure practices of listed UK companies. Overall unsatisfactory quality score is actualy due to low variations in quality of the disclosure year in year out. Therefore, it could be concluded that listed Nigerian oil and gas companies are following UK companies on quality of disclosure at a slow pace. This notwithstanding, the result is perhaps indicating that listed Nigerian oil and gas companies are aware of their impacts on the society and environment and are willing to render social accountability, but not adequately. Thus, significant differences in quantity and quality of disclosure may be explained by the fact that listed UK oil and gas companies are responding to pressure from UK society that is conscious of corporate social and environmental impacts and are demanding for accountability. Likewise, it may be indicating that the companies are rendering social accountability in compliance with strong rules and regulations. Overall, the practical implication of disclosure practices by listed UK oil and gas companies is that they are possibly satisfying the interest of their stakeholders. This in turn, may be depicting their contribution to having equitable society in UK living in a bearable environment. Result of social disclosure practices of listed Nigerian oil and gas companies may be indicating that the companies though may be aware of their impacts; they are not willing to render adequate social accountability. Similarly, the companies may be taking advantage of lack of concern for their social and environmental impacts by the society and government that are not demanding social accountability. Therefore, it could be argue that listed Nigerian oil and gas companies are not making the desired contribution to achieving Nigerian government policies and programs of sustainable development. This study has the objective of exploring the effect of certain corporate characteristics on the quantity and quality of disclosure by sampled listed Nigerian and UK oil and gas companies.

6.6 Objective 5: To Explore the Effect of Corporate Size, Profitability, Leverage, Liquidity, Efficiency and Tax on the Quantity and Quality of SEDs by Sampled Companies

This section is aim at exploring the effect of corporate internal characteristics of size, profitability, leverage, liquidity, efficiency and tax on the quantity and quality of disclosure by sampled companies. In order to achieve this, PCSERA is carried out; below are discussions on the results from Nigerian companies.

6.6.1 The Effect of Corporate Size, Profitability, Leverage, Liquidity, Efficiency and Tax on the Quantity and Quality of SEDs by Listed Nigerian Oil and Gas Companies

Results from PCSERA on quantity of disclosure by listed Nigerian oil and gas companies presented in Table 5.22 showed that only corporate size is statistically significant in explaining the disclosure. This is consistent with results from studies that found size as significant in explaining quantity of SEDs (Tan, Benni and Liani 2016, Giannarakis 2015, Alkababji 2014, Haji 2013, Akano et al 2013, Suttipun and Stanton 2012, Galani, 2011; Dong and Burrit 2010, Tagesson et al 2009, Boesso and Kumar 2007, Jenkins and Yakovleva 2006, Hackston and Milne 1996). However, the findings are inconsistent with studies that reported the insignificance of size in explaining quantity of SED (Samaha and Dahaway 2011, Prado-Lorenzo et al 2008, McNally, Eng. And Hasseldine 1982). Corporate size also has significant and positive relationship with quality of disclosure by Nigerian companies as presented in Table 5.23. The result is consistent with Iatridis (2013) that establish positive relationship between corporate size and quality of disclosure. Corporate leverage also showed significant and positive relationship with quality of disclosure by Nigerian companies. This result is consistent with findings from studies that also found significant relationship between corporate leverage and SEDs (Gallego-Álvarez and Quina-Custodio 2015, Juhmani 2014, Sulaiman, Abdullah and Fatima 2014, Iatridis 2013, Branco and Rodrigues 2008, Naser et al. 2006). Management efficiency showed significant but negative relationship with quality of disclosure. There are no prior findings on this in reviewed literature. The result is indicating that as management efficiency increases, quality of social disclosure decreases. This is likely implying that social disclosure quality is employed to cover weaknesses of management.

Public and political pressures are argued as pushing large corporations to be making social disclosure for legitimacy purposes. Therefore, finding indicating the significance of corporate size on quantity and quality of disclosure by Nigerian sample means that disclosure is influenced by larger companies among the sample. Result indicating positive significance of leverage on quality of disclosure may perhaps be an indication of the influence of creditors interested in social information. Thus, even the unsatisfactory quality score by Nigerian oil and gas companies may perhaps be attempt to satisfy creditors. Arguably, legitimacy theory better explains these results on the effect of corporate size and leverage. Effect of size could be consistent with gaining or maintaining legitimacy with the general public and regulatory agencies. Significant effect of leverage could be for gaining or maintaining legitimacy with creditors interested in quality of social disclosure. Finding indicating that efficiency ratio is negatively significant on quality of disclosure may perhaps be better explained by agency theory. The result is suggesting that when management is efficient in generating enough revenues for the companies this satisfy the interest of shareholders and other financial stakeholders. In this instance, managers as prepares of financial information ignore other stakeholders interested in quality of social disclosure. However, when managers are inefficient in generating enough revenues for the companies, they provide quality social disclosure. In this case, managers portray achievements of social accountability to all stakeholders. Therefore, in this situation managers as agents are using social disclosure as a tool to exploit corporate stakeholders. Consequently, this result may be better explained by agency theory and is an area that should be further explored.

Corporate profitability is having no relationship with quantity and quality of disclosure by sampled Nigerian companies. The result is consistent with previous studies that reported no significance between profitability and quantity of SED (Suttipun and Stanton 2012, Monteiro and Aibar-Guzmán 2010, Alsaeed, 2006). It however contradicts other studies that found profitability as significant in explaining SED (Menassa 2010, Tagesson et al 2009, Chu 2007, Davey 1982). Liquidity is also having no effect on quantity and quality of disclosure by Nigerian companies which is consistent with earlier literature that establish non-significance of liquidity on SED (Hussainey, Elsayed and Razik, 2011, Aly, Simon and Hussainey 2010). However, the finding contradicts previous literature that reported significant influence of liquidity on SED (Subramaniam, Samuel and Mahenthiran 2016, Nandi and Gosh 2012, 2013; Coebergh 2011, Ezat, Em-Masry 2008). Similarly, corporate tax has no effect on quantity and quality of SED by sampled listed Nigerian companies. There is no reference on this issue within the literature reviewed for this study. The result may be implying that sampled companies do not tend to vary quantity and quality of their social disclosure on paying more taxes. Above findings on the influence of corporate characteristics on SED could be related to theory and practice.

Results indicating the significance of size on quantity and quality of disclosure by listed Nigerian oil and gas companies could be argue as expected. This could be linked to environmental visibility of the Nigerian oil and gas industry attracting global attention from the media and environmental activist. Thus, the result is suggesting that large companies in the sample are sensitive to their public and political visibilities and are using social disclosure to manage these. This finding could be argue as significant improvement in ascertaining determinants of social disclosure practices by sampled companies, which may also be applicable to social disclosure practices in other sectors. The finding indicating that leverage has effect on quality of social disclosure is an unexpected finding, as previous studies in Nigeria have not found either capital or money market being sensitive to social disclosure. However, the sensitivity of the capital market to information on shareholding of a convicted public officer in one of the listed oil and gas companies in 2013 may be a positive development. This finding may mean that these markets are now becoming sensitive to quality of social disclosure.

Finding indicating that efficiency has negative relationship with quality of social disclosure could be regarded as exploitation of stakeholders by corporate managers on social disclosure. The finding is indicating that when management is efficient to generate enough revenues, social disclosures are relegated as the interest of stockholders are satisfied which managers tends to consider more important. However, when managers are not efficient in generating revenues, attention is paid to social disclosures. In this instance, shareholders and other stakeholders are exploited through portraying that the company did well in social disclosure while hiding financial inefficiencies of managers. Therefore, managers as agents are using social disclosure to exploit corporate stakeholders. This is a finding on which no previous reference has been made to it in the literature. Therefore, the result could be a contribution to studies on social disclosure practices. Thus, more studies on this corporate characteristic could further highlight its effect on social disclosure practices. Reported non-significance of corporate tax on quantity and quality of social disclosure by sample companies is an unexpected result. Sampled companies are expected to make more disclosure when they pay more taxes to portray their good corporate behavior. This is another corporate characteristic not tested in previous studies; thus, this finding could be a contribution to studies on social disclosure practices and be a perspective on which future studies could focus. The study also explores the effects of corporate characteristics of UK sample on their disclosure practices.

6.6.2 The Effect of Corporate Size, Profitability, Leverage, Liquidity, Efficiency and Tax on the Quantity and Quality of SEDs by Listed UK Oil and Gas Companies

Results from Table 5.26 indicate that corporate size has significant positive effect on quantity of social disclosure by UK companies. This is consistent with previous studies that reported size as influencing disclosure (Giannarakis 2015, Alkababji 2014, Akano et al 2013, Suttipun and Stanton 2012, Galani et al 2011, Dong and Burrit 2010, Tagesson et al 2009, Boesso and Kumar 2007, Hackston and Milne 1996). However, the finding contradicts Samaha and Dahaway (2011), Prado-Lorenzo et al (2008), McNally, Eng. and Hasseldine (1982) that found size insignificant in explaining social disclosure. Similarly, size has significant positive relationship with quality of disclosure by UK companies. This result is consistent with previous literature that also found size as significant in determining quality of disclosure (Iatridis, 2013). Efficiency ratio has significant but negative effect on quantity and quality of social disclosure by UK companies. This implies that quantity and quality of disclosure decrease with increasing efficiency. Although there has been no reference to this issue in the literature, the result is unexpected within the context of the UK. It implies that achieving financial efficiency results in reducing social accountability.

Liquidity ratio is also having significant negative effect on quantity of social disclosure by UK companies. The result is inconsistent with prior literature that found positive relationship between liquidity and SED (Subramaniam, Samuel and Mahenthiran 2016, Nandi and Ghosh 2013, Samaha and Dahaway 2011, Ezat and Em-Masry 2008). It is also inconsistent with earlier studies that found liquidity not having influence on SED (Poznanski, Sadownik and Gannitsos 2013, Hussainey, Elsayed and Razik 2011, Aly, Simon and Hussainey 2010, Ezat and Em-Masry 2008). The result is indicating that sampled companies reduce social disclosure in times of liquidity. However, they could be making more social disclosure when less liquid and are likely to approach the money or capital markets for financing. However, liquidity has no relationship with quality of disclosure by sampled UK companies. There is no reference in literature on the effects of this corporate characteristic on quality of disclosure. Therefore, this result could be adding a new perspective for social disclosure studies to explore, as previous studies are concentrated on quantity of disclosure. Similarly, available studies that tested for quality of disclosure do not incorporate this corporate attribute.

Corporate profitability is having no statistical effect on quantity and quality of SED by sampled UK companies. The finding is consistent with findings by Suttipun and Stanton (2012), Monteiro and Aibar-Guzmán (2010) and Alsaeed (2006) that established no relationship between profitability and SED.

However, the result is inconsistent with previous literature that found profitability as significant in explaining SEDs (Luo and Wu 2010, Tagesson et al 2009, Chu 2007, and Gray and Bebbington, 2001). Corporate leverage is also having no relationship with disclosure practices by UK companies. The result is consistent with existing literature that reported the variable having no effect on SEDs (Akrout and Othman 2013, Echave and Bhati 2010, Purushothaman et al 2000). It is however, inconsistent with other studies that found the variable as having significant positive effect on SEDs (Gallego-Álvarez and Quina-Custodio 2015, Juhmani 2014, Sulaiman, Abdullah Fatima 2014, Branco and Rodrigues 2008, Naser et al. 2006). Similarly, corporate tax is having no effect on disclosure by UK companies. However, there are no previous literature findings on the effect of this variable on SED. The result is implying that paying more or less tax does not affect quantity and quality of SED by sampled UK companies. Further studies on this corporate characteristic may give more insight on its effects SED practices.

Above results could be explained and understood using the lens of the theoretical framework underpinning this study. Reported significant and positive relationship of corporate size on quantity and quality of disclosure may be indicating that due to their public and political visibility, large companies are using social disclosure to reduce pressure from the public and government; which is consistent with legitimacy theory. Finding indicating that efficiency ratio is significant but negatively related with quantity and quality of disclosure could better be explained by agency theory. This could be interpreted that when management feel they have done well in generating revenues they pay less attention to social accountability by reducing quantity and quality of social disclosure. However, it is likely that when managements of sampled companies are inefficient in generating revenues they resort to making more social disclosure. Thus, they are employing social disclosure to cover their inefficiencies in generating revenues at the same time portraying commitment to social accountability. This action of corporate managers although is depicting semblance of exploitation, it may be better explained by agency theory. There is no previous finding on this; therefore, further studies on the influence of this variable on CSEDs may be useful. Significant negative relationship between liquidity ratio and quantity of disclosure could also be explained by legitimacy theory. This may perhaps be indicating that when companies are liquid, thus, unlikely to approach the capital or money markets, they make less social disclosure. However, when they are illiquid, and are likely to approach the capital or money market for capital, they make more social disclosure. Therefore, social disclosure is legitimacy tool used by the companies targeting creditors interested in social disclosure for corporate benefit. Thus far, it could be argued that objective 5 of the study is achieved. Table 6.1 shows a summary of findings from this study, then, followed by conclusion in 6.3.3

Table 6:1 Summary of Findings

Social Disclosure							
UK				Nigeria			
Disclosure Indicators	Consistent with:	Inconsistent with:	New disclosure	Disclosure Indicators	Consistent with	Inconsistent with:	New disclosure
Employment	Trotman (1979), Gray, Kouhy and Lavers (1995a), Elmogla (2009), Dong and Burrit (2010), Uwalomwa and Jafaru (2012b) Chong (2014)	-	-	Employment	Trotman (1979), Gray, Kouhy and Lavers (1995a), Elmogla (2009), Dong and Burrit (2010), Uwalomwa and Jafaru (2012b) Chong (2014)	-	-
Labour/ management relations	-	-	√	Labour/ management relations	-	-	√
Employee health and safety	Sotorio and Sanchez (2010); Yusuf et al (2012); Chong (2014)	-	-	Employee health and safety	Sotorio and Sanchez (2010); Yusuf et al (2012); Chong (2014)	-	-

UK				Nigeria			
Disclosure Indicators	Consistent with:	Inconsistent with:	New disclosure	Disclosure Indicators	Consistent with	Inconsistent with:	New disclosure
Employee training and education	Fadul, et al (2004); Sotorio and Sanchez (2010) Eljayash, James and Kong (2012)	Asaolu et al (2011)	-	Employee training and education	Fadul, et al (2004); Sotorio and Sanchez (2010) Eljayash, James and Kong (2012)	Asaolu et al (2011)	-
Diversity and equal opportunity for women & men	Adams and Kuasirikun, (2000), Fadul et al (2004).	-	-	Diversity and equal opportunity for women & men	Adams and Kuasirikun, (2000), Fadul et al (2004).	-	-
Community	Gray, Kouhy and Lavers (1995a), Fadul et al (2004), Sotorio and Sanchez (2010), Krishna et al (2012)	-	-	Community	Gray, Kouhy and Lavers (1995a), Fadul et al (2004), Sotorio and Sanchez (2010), Krishna et al (2012)	-	-
Corruption	-	-	√	Corruption	-	-	√

UK				Nigeria			
Disclosure Indicators	Consistent with:	Inconsistent with:	New disclosure	Disclosure Indicators	Consistent with	Inconsistent with:	New disclosure
Human rights in investment and procurement	-	-	√	-	-	-	-
Employees' rights of non-discrimination	Gallego (2006)	-	-	-	-	-	-
Employees' rights of freedom of association and collective bargaining	Gallego (2006)	-	-	-	-	-	-
Human rights in security practices	-	-	√	-	-	-	-
Human rights of indigenous people	-	-	√	-	-	-	-
Public policy	Adams and Kuasirikun (2000)	-	-	-	-	-	-
Compliance for fines and sanctions.	-	-	√	-	-	-	-
Customer health and safety	-	-	√	-	-	-	-

UK				Nigeria			
Disclosure Indicators	Consistent with:	Inconsistent with:	New disclosure	Disclosure Indicators	Consistent with	Inconsistent with:	New disclosure
Product and service labelling	-	-	√	-	-	-	-
Marketing communications	-	-	√	-	-	-	-

Environmental Disclosure							
UK				Nigeria			
Disclosure Indicators	Consistent with:	Inconsistent with:	New disclosure	Disclosure Indicators	Consistent with	Inconsistent with:	New disclosure
Biodiversity	Gallego, (2006), Eltaib (2012), and Alazzani and Wan-Hussaini (2013)	-	-	Biodiversity	Gallego, (2006), Eltaib (2012), and Alazzani and Wan-Hussaini (2013)	-	-
Materials	Sotorrìo and Sánchez (2010), Eltaib, (2012) and Yusuf et al (2012)	-	-	-	-	-	-
Energy	Frynas (2009), Yusuf et al (2012) and Varfolomeev, (2014)	-	-	-	-	-	-
Water	Gallego (2006) and Yusuf et al (2012)	Alazzani and Wan-Hussin (2013)		-	-	-	-
Emissions effluents and waste	Alemagi (2007), Frynas (2012), Eltaib, (2012), and Varolomeev et al (2014)	-	-	-	-	-	-

Environmental Disclosure							
UK				Nigeria			
Disclosure Indicators	Consistent with:	Inconsistent with:	New disclosure	Disclosure Indicators	Consistent with	Inconsistent with:	New disclosure
Environmental compliance	-	-	√	-	-	-	-
Overall environment	-	-	√	-	-	-	-

Table 6:2 Summary of Practical Social Problems, Disclosure Findings, and Gaps Between the Two: Nigeria

S/N	Nature of Practical Social Problems	Disclosure in Reports	Gaps	Remarks
1	Reduced food and cash crops production resulting in high prevalence of poverty	None	These social issues which are consequent to converting of scarce farming lands and fishing ponds are not reported in annual reports and accounts of listed Nigerian oil and gas companies.	These social impacts are supposed to be provided as information on potential impacts of oil and gas operations and actions to manage the impacts. These are provided by GRI 3 and 3.1 in the context of this study but could not be captured as sampled companies are not disclosing these issues.
2	Social disorders such as proliferation of arms, increasing illiteracy rate, crimes, lawlessness and destruction of local governance by emerging youth groups competing for scarce resources.	None	,,	
3	Prevalence of sexually transmitted diseases as Acquired Immune Deficiency Syndrome (AIDS), Gonorrhoea, Syphilis, etc. in the oil and gas producing region	None	,,	
4	Child mortality, maternal morbidity and mortality, malaria and typhoid fever are on the increase in the region	None	,,	
5	Health problems such as convulsions, chromosomal damage, birth defects, bronchial and respiratory diseases, and skin disorders	None	,,	

Table 6:3 Summary of Practical Environmental Problems, Disclosure Findings, and Gaps Between the Two: Nigeria

S/N	Nature of Practical Environmental Problems	Disclosure in Reports	Gaps	Remarks
1	Excessive exploration and seismic activities are found as having negative impacts on soil fertility. This affecting the quality, size and shape of traditional staple such as cassava, yam, plantain etc. These results in social problem 1 in table 6.2	None	Listed Nigerian oil and gas companies are not providing information on these environmental impacts.	These environmental impacts are provided for disclosure in GRI 2, 3 and 3.1 have.
2	Oil spillage is another major environmental impact of listed Nigerian oil and gas companies. In effect, the problem of oil spillage in Nigerian oil and gas industry is among the worst globally.	None	Listed Nigerian oil and gas companies are not providing information on this environmental impact.	This environmental impact has contaminating and degrading effects resulting in lots of social impacts. GRI 2, 3 and 3.1 provided for disclosure on this impact
3	Another major environmental impact of listed Nigerian oil and gas industry is gas flaring	None	,,	Gas flaring is responsible for CO2 emmissions with global environmental consequences. Despite its negative effects, there is disclosure on it. It is provided for disclosure in GRI 2, 3 and 3.1

6.6.3 Conclusion

The chapter discusses results obtained in this PhD research project. Consequently, results pertaining to objectives 1 to 5 of the study are presented one after the other. Results on objective 1 indicated that both sampled listed Nigerian and UK oil and gas companies provided information on social and environmental performance indicators. Disclosures by both are dominated by disclosure on social indicators and sampled listed UK oil and gas companies provided information on 17 out of 25 social aspects while Nigerian companies made disclosure on 7. Sampled UK companies provided information on 7 out of nine aspects of environment, while Nigerian companies made disclosure on 1. On objective 2, quantity of words disclosure by UK companies over the ten years period of the study are 1,098,159 words while Nigerian companies total words are 103,986. The sum of average of quality of disclosure score by UK companies is approximately 3 based on the criteria employed in this study and is rated satisfactory. Nigerian companies have 1.01 as sum of average of quality score and is rated unsatisfactory.

In achieveing objective 3, trends of of quantity of disclosures by UK and Nigerian companies showed increasing patterns. However, UK companies have high variations in the increasing trends over the years. Trends of quality of disclosure is fluctuating in both samples, but UK companies have high overall quality score over the years. On objective 4, numeric, graphical and statistical results showed significant differences in the quantity and quality of disclosure between UK and Nigerian companies. UK companies have high quantity and quality of disclosure as indicated in preceding objectives. The chapter also presented results showing how objective 5 is achieved. Corporate size is found statistically positively significant in explaining quantity and quality of disclosure by both samples. Efficiency is found statistically negatively significant in explaining quantity of disclosure by UK companies and quality of disclosure by UK and Nigerian companies. Similarly, liquidity is negatively significant in explaining quantity of disclosure by UK companies. These results are discussed within the context of previous studies, chosen theoretical framework for the study and practice within the oil and gas industry. Therefore, on the overall, the chapter presented discussions on how all the 5 objectives of the study are achieved. This in turn results in the achievement of the main aim of the study.

CHAPTER SEVEN
SUMMARY, FINDINGS, RECOMMENDATIONS AND CONCLUSIONS

7.1 Introduction

The aim of this chapter is to summarize previous six chapters of this PhD research project and re-highlight findings by the study. Based on findings, recommendations are offered and contributions, limitations and possible focus for future studies of similar nature are highlighted and finally, conclusions on the study are drawn.

7.2 Summary of Chapters

In chapter one background to the study is discussed dwelling on the enormous oil and gas resources that Nigeria is endowed with and the numerous social and environmental impacts of exploring and producing these resources. Corporate social disclosure is discussed as an aspect of corporate social accountability, meant to address the social issues and commitment to sustainable development. Conversely, it has been explained that Nigerian oil and gas industry is dominated by International Oil Companies (IOCs) that prepare annual reports on consolidated global operations. Their annual reports and accounts and stand-alone sustainability reports disclose very little on emerging and less developing countries like Nigeria. Thus, IOCs in Nigeria are not rendering social accountability, which perhaps may serve as means to solving the social and environmental problems of the industry and demonstrate their commitment to sustainable development.

Conversely, listed Nigerian oil and gas companies that are becoming significant players in the industry are required to publish annual reports and accounts. Through these reports, listed Nigerian oil and gas companies may be making social disclosure as means of rendering accountability and attainment of other benefits. Therefore, the main aim of the study is to describe and explain social and environmental disclosure by listed Nigerian oil and gas companies. However, the Mineral Oil Ordinance of 1914 following the British colonial petroleum law is the first enacted law in the Nigerian oil and gas industry. Similarly, Companies Ordinance of 1912 which is a replica of ECCA 1908 is the first corporate law in Nigeria. Thus, there is strong linkage between Nigerian and UK oil and gas industry in particular and their commercial laws. Therefore, the study compares SEDs by listed Nigerian oil and gas companies with SEDs by listed UK oil and gas companies as a gauge. Therefore, the aim is broadened to describe and explain social and environmental disclosure by listed Nigerian oil and gas companies compared with UK listed oil and gas companies.

The specific objectives of the study are (1) to determine the nature of social and environmental disclosure by listed Nigerian and UK oil and gas companies; (2) to measure and analyse the quantity and quality of the disclosure; (3) to find out the trends of quantity and quality of the disclosure; (4) to find out differences in quantity and quality of the disclosure; and (5) to explore the effect of corporate size, profitability, leverage, efficiency, liquidity and tax on the quantity and quality of the disclosure. To achieve the aim and specific objectives of the study, 5 research questions and hypotheses are raised. Theoretical framework underpinning the study is also briefly discussed which is followed by chapter two on literature review.

Chapter two is analytical review of literature on corporate social responsibility, corporate social and environmental disclosure and corporate social disclosure theories. Evolution of corporations and corporate reporting are discussed and linked to demands for corporate social responsibility to carter for changing corporate stakeholders. Similarly, corporate social and environmental disclosure, its goals, objectives and its types and drivers are discussed. Factors that determine corporate social disclosure are also discussed and 12 hypotheses are developed. What constitute nature; quantity and quality of social disclosure in light of previous literature are also highlighted and defined within the context of this study. Comparative studies are also reviewed from differing contexts and its applicability to this study stated. Being a study focusing on the oil and gas industry, the global oil and gas industry encompassing its social impacts and disclosure practices are discussed. Global social disclosure guidelines being used in social disclosure studies of this nature are reviewed and the study chooses the GRI as the guideline for benchmarking disclosure (Hemming et al., 2003, Dong and Burrit 2010). Some of the theories used in underpinning social disclosure studies are reviewed and vulnerability and exploitability analytical framework and legitimacy theory are considered most appropriate for this study.

Chapter three is on corporate social and environmental disclosure in Nigeria and UK in general. Consequently, Nigerian historical evolution, its contextual factors such as social and political, economic, education and cultural dimensions are discussed. Corporate social disclosure practices in Nigeria are then highlighted in general. The Nigerian oil and gas industry, its social and environmental impacts and social disclosure practices in the industry are also elucidated. SEDs in the UK are then discussed, followed by explanations of the UK oil and gas industry and its social disclosure practices. Two (2) hypotheses are developed in this chapter bringing to 14 total developed hypotheses in the study.

Chapter four is on research methodology and methods in which philosophical assumptions of ontology and epistemology in social research are discussed. Drawing from the context of the study ontologically the study believe that knowledge is real; thus, the researcher is independent of that being researched leading to adoption of positivism epistemological assumption. Overall research methodology encompassing its strategy; population of the study, sample size and sample selection; sources and nature of data for the study and data collection method are discussed. Similarly, variables in this study and their measurements and the method used in analysing collected data are discussed. PCSERA models for estimating the effects of corporate size, profitability, leverage, efficiency, liquidity and tax on the quantity and quality of disclosure by the samples are specified. In order to statistically determine differences in quantity and quality of disclosure two samples t-test for comparing means of the samples are discussed.

Chapter five is on descriptive and analytical results in which descriptive and statistical results from the study are presented. Similarly, results of regression analysis and two samples t-test, which are analytical, are presented. Descriptive statistics on quantity of SEDs by listed Nigerian oil and gas companies are presented followed by quantity of words disclosure on aspects and sub-categories of SEDs. This is followed by quantity of disclosure on SEDs categories, then quality of SEDs by listed Nigerian oil and gas companies. The chapter also presents descriptive statistics of quantity of disclosure by listed UK oil and gas companies. This is followed by presenting quantity of words disclosure on aspects and sub-categories of SEDs by UK companies.

Quality of SEDs by UK oil and gas companies is also presented in the chapter. Results of regression analysis of quantity and quality of disclosure by listed Nigerian and UK oil and gas companies are also presented and analysed. Similarly, results of comparative analysis of quantity and quality of SEDs by listed Nigerian and UK oil and gas companies are presented in the chapter. Results of two samples t-test comparison of the quantity and quality of disclosure by listed Nigerian and UK oil and gas companies are also presented and analysed in the chapter. Finally, comparison of results of regression analysis on determinants of quantity and quality of disclosure by Nigerian and UK oil and gas companies are also presented and analysed. The findings from preceding chapters are outlined as below.

7.3 Findings by the Study

In this section, findings from the study as presented and discussed in chapters five and six are outlined concisely. These findings are presented in accordance with the objectives of the study as follows:

7.3.1 Objective 1

Objective is meant to find out the nature of SEDs by listed Nigerian and UK oil and gas companies by means of disclosure index developed from GRI guidelines. Therefore, what constitute social or environmental disclosure is based on the adopted GRI guidelines. Findings indicate that listed Nigerian and UK oil and gas companies are making social and environmental disclosure on the overall. Listed Nigerian oil and gas companies are making disclosure on only two social sub-categories of labour practice and decent work and society. UK companies are making disclosure on human rights, and product responsibility in addition to these two[84]. However, both listed Nigerian and UK oil and gas companies are making disclosure on aspects of labour/management relations and corruption, which are new disclosure practices. In addition, UK companies are making disclosure on aspects of human rights in investment and procurement, in security practices, and in dealing with indigenous people, customer health and safety, compliance for fines and sanctions, product service and labelling and marketing and communications, which are also new social disclosure practices.

Listed Nigerian and UK companies are making environmental disclosure on biodiversity. However, listed UK oil and gas companies are making disclosure on materials; energy; water; emission, effluents and waste; environmental compliance and overall environment disclosure which listed Nigerian oil and gas are not disclosing. Disclosure on environmental compliance and overall aspects of environment are new environmental disclosure practices by UK sample. Thus, the study has found new social and environmental disclosure practices, which may be of interest to future social disclosure studies. Vulnerability and exploitability analytical framework and legitimacy theory are found useful in explaining nature of social disclosure by listed Nigerian oil and gas companies. Conversely, legitimacy theory better explains nature of social disclosure by listed UK oil and gas companies.

[84]This is considered as an expected finding considering high level of education, economic growth, awareness, concerns and commitment of citizens and government in UK on betterment of the society. Thereby making sample listed UK oil and gas companies to be making more social disclosure.

7.3.2 Objective 2

Quantity of social disclosure by listed Nigerian and UK oil and gas companies are obtained by means of words counts content analysis of annual reports of sampled companies. Quantity of social disclosure by listed Nigerian oil and gas companies is very low compared to disclosure by UK companies. Although this finding is expected considering reported advancement of social disclosure in UK, the margin is too wide. However, mandatory disclosure in UK accounted for the extensive differences. Quality of social disclosure scores by listed Nigerian and UK oil and gas companies are obtained by means of scoring consistency of disclosure with GRI guidelines as explained in section 4.4.5. Listed Nigerian oil and gas companies scored sum of average of 1.01 points on quality of disclosure over the period 2004 to 2013 and the score is rated unsatisfactory based on the rating criteria of this study. Listed UK oil and gas companies have approximately 3 points as their overall sum of average over the period of the study. This disclosure score is rated satisfactory based on the scoring criteria used in this study.

Thus, the quantity and quality of social disclosure by listed Nigerian oil and gas companies could be argued as not adequately reflecting the social disclosure practices of UK companies. However, the quality of disclosure by listed UK oil and gas companies were expected to be higher than found by the study. This is based on reported advancement in SEDs practices in UK and disclosure by sampled companies on numerous social and environmental performance indicators. This is a clear indication that quantity of disclosure by listed UK oil and gas companies are not accompanied with quality. Quantity of social disclosure by listed Nigerian oil and gas companies are explained by combination of vulnerability and exploitability analytical framework and legitimacy theory. Conversely, legitimacy theory better explains quantity of social disclosure by listed UK oil and gas companies. However, vulnerability and exploitability theory explain quality of disclosure by both listed Nigerian and UK oil and gas companies.

7.3.3 Objective 3

The third objective is assessing the trends of quantity and quality of SED by listed Nigerian and UK companies over the period of the study 2004 to 2013. This objective is achieved by words counts content analysis of quantity of social disclosure and by scoring consistency of the disclosure with GRI disclosure guidelines to obtain quality of the disclosure. Quantity of social disclosure by listed Nigerian oil and gas companies over the years showed increasing trends, although, the overall quantity is very low. Similarly, disclosure by listed UK oil and gas companies showed increasing trend on the overall and are more compared to disclosure by Nigerian companies. Quality of disclosure by listed Nigerian and UK oil and gas companies showed fluctuating trends over the period of the study. Pattern of quantity of social disclosure by UK companies are better understood from the perspective of legitimacy theory. However, pattern of quantity of disclosure by Nigerian companies is better understood from the combination of legitimacy theory and vulnerability and exploitability analytical framework. Fluctuating trends of quality of SEDs by listed Nigerian and UK oil and gas companies are better explained by vulnerability and exploitability analytical framework.

7.3.4 Objective 4

The fourth objective of this study is to find out differences in the quantity and quality of SEDs by listed Nigerian and UK oil and gas companies. To achieve this objective, numeric quantity and quality of social disclosure by listed Nigerian and UK oil and gas companies are compared in the first instance. The results showed listed Nigerian oil and gas companies having lower quantity and quality of disclosure than listed UK oil and gas companies do. In the second instance, statistical means of disclosure by listed Nigerian and UK oil and gas companies are compared using two samples t-test for comparison and Wilcoxon rank-sum (Mann-Whitney) test. Conducting these tests result in testing hypotheses 13 and 14 in section 3.6.4. Results from the tests showed statistical evidence that the means of quantity and quality of disclosure by UK companies is higher than that of Nigerian companies. This implies higher quantity and quality of social disclosure by UK companies than Nigerian companies do.

Listed Nigerian oil and gas companies are found making fewer disclosures on few aspects of interest to few and weak legitimacy conferring groups. These disclosures are argued as better explained by vulnerability and exploitability analytical framework and legitimacy theory. However, listed UK oil and gas companies are making more disclosure to gain or maintain legitimacy with broad and strong legitimacy conferring groups. Therefore, low mean of quantity and quality of disclosure by listed Nigerian oil and gas companies is better explained by vulnerability and exploitability analytical framework. Higher mean of quantity and quality of disclosure by listed UK oil and gas companies is better explained by legitimacy theory.

7.3.5 Objective 5

The fifth objective of this study is to explore the effect of corporate size, profitability, leverage, liquidity, efficiency and tax on the quantity and quality of disclosure by listed Nigerian and UK oil and gas companies. PCSERA is conducted on quantity and quality of social disclosure by listed Nigerian and UK oil and gas companies to achieve this objective. Similarly, the results of testing research hypotheses 1 to 12 have been analysed. It is concluded that corporate size is statistically positive and significant in explaining quantity and quality of social disclosure by listed Nigerian and UK oil and gas companies. Efficiency has significant negative effect in explaining quantity and quality of disclosure by UK companies and quality of disclosure by listed Nigerian and UK oil and gas companies. Similarly, leverage has positive and significant effect in explaining quality of disclosure by UK companies. Liquidity has significant but negative relationship with quantity of social disclosure by UK companies.

Significant positive effect of corporate size on social disclosure by listed Nigerian and UK oil and gas companies confirms legitimacy response to public and political visibility. Efficiency is a variable not tested in previous studies; however, results indicated the variable having significant but negative association with quantity and quality of disclosure by UK companies. Similarly, it has significant negative association with quality of disclosure by Nigerian companies. This result could be indicating that when management of sampled listed UK oil and gas companies are generating enough revenues they provide less social information. In this way, they conserve revenues for wealth maximization of stockholders. Thus, maintaining legitimacy with these important legitimacy stakeholders. However, if managements are inefficient in generating enough revenues, they pay attention to providing more quantitative and qualitative social information. In this way, on one hand, more volume of social disclosures may be meant to cover their inefficiencies in the sight of shareholders. On the other hand, it may send positive message to all stakeholders of commitment to social accountability. Therefore, this scenario could be better explained using the lens of agency theory. Thus, results from this study on this variable may serve as pivot for further studies on the influence of this corporate variable on social disclosures. Negative association of efficiency with quality of disclosure by sampled Nigerian companies may be implying the use of social disclosure as a tool to covering management inefficiencies in generating enough revenues. This also needs to be further explored by future studies. The main motive of comparing social and environmental disclosure by listed Nigerian oil and gas companies with listed UK oil and gas companies is to gauge disclosure by the former against the latter.

7.3.6 Gauging Disclosures by Nigerian with UK Companies

Findings from gauging social and environmental disclosure practices of listed Nigerian oil and gas companies with listed UK oil and gas companies reveals: (1) Number of social aspects on which listed Nigerian oil and gas companies made disclosure constitute 41% of number of social aspects on which listed UK oil and gas companies made disclosure. Therefore, it could be argued that listed Nigerian oil and gas companies are following the social disclosure practices of listed UK oil and gas companies. However, listed Nigeria oil and gas companies are disclosing 14% of what listed UK oil and gas companies are disclosing on environment. Consequently, it could be debated that listed Nigerian oil and gas companies are not following disclosure practices of listed UK oil and gas companies on environmental disclosure.

(2) Quantity of disclosure by listed Nigerian oil and gas companies represent 9.5% of quantity of disclosure by listed UK oil and gas companies. Thus, listed Nigerian oil and gas companies could be contended as not following listed UK oil and gas companies on quantity of disclosure. However, quality of disclosure by listed

Nigerian oil and gas companies represent 34% of quality of disclosure by listed UK oil and gas companies. This is in spite of UK companies making disclosure on 24 disclosure aspects against 8 by Nigerian companies. Therefore, it could be argued that quality of disclosure by listed Nigerian oil and gas companies are following practices by listed UK oil and gas companies.

(3) Increasing trends of quantity of disclosure by listed Nigerian oil and gas companies are consistent with increasing trends of disclosure by listed UK oil and gas companies. Similarly, trends of quality of disclosure by listed Nigerian oil and gas companies over the period of the study are fluctuating. This is similar to fluctuating trends of quality of disclosure by listed UK oil and gas companies. Thus, trends of quality of disclosure by listed Nigerian oil and gas companies are following trends of quality of disclosure by listed UK oil and gas companies. (4) Significant numeric and statistical differences are found between quantity of disclosure by listed Nigerian oil and gas companies and UK oil and gas companies. It could be argue that listed Nigerian oil and gas companies are not following disclosure practices by listed UK oil and gas companies on quantity of disclosure, which account for the differences. However, despite numeric and statistical differences in quality of disclosure between listed Nigerian and UK oil and gas companies, listed Nigerian oil and gas companies are following UK oil and gas companies on quality of disclosure as argued under item 2 of this section.

(5) Corporate size is found positive and significant on quantity and quality of social disclosure by listed Nigerian and UK oil and gas companies. This may be an indication that corporate size, which creates public and political visibilities, is an important determinant of disclosure practices by the two groups of companies. Efficiency ratio is found significant but negatively

related to quality of social disclosure by listed Nigerian and UK oil and gas companies. Thus, it is an important determinant of social disclosure by the two groups of companies. This may perhaps suggest that both groups of companies ignore quality of disclosure if managements are able to generate revenues efficiently. However, if managements are not efficient in generating revenues, quantity and quality of social disclosure is increased respectively, perhaps to cover inefficiencies on revenue generation.

Liquidity is also significant but negatively related with quantity of disclosure by listed UK oil and gas companies. Leverage is positive and significant in determining quality of social disclosure by listed UK oil and gas companies. Thus, overall, 3 variables are found having effects on quantity and quality of social disclosure by listed UK and Nigerian oil and gas companies. Having presented findings by this study, the next section is policy recommendations by the study based on its findings.

7.4 Policy Recommendations

In this section, recommendations that may be useful to policy makers in sampled companies in particular, in the industries and the two countries in general are offered by the study based on its findings. The recommendations are as follows:

1. Nigerian government policy makers should put in place regulatory frameworks and enforcement mechanisms on social and environmental disclosure. The need for this could be deduced from significant increase in social disclosure (section 6.2) consequent to issuance of CCG by the NSEC. Similarly, mandatory disclosure majorly contributed to quantity of social disclosure by listed UK oil and gas companies. This is portraying the effectiveness of regulating disclosure and is another reason

why policy makers in Nigeria should regulate social and environmental disclosure.

2. The NSEC should review and broaden its disclosure requirements to include environmental disclosure which existing CCG does not cover. Activities of most corporate organisations are associated with lots of environmental problems. Therefore, making disclosure requirements on corporate environmental impacts may result in more corporate environmental accountability. Ensuring more corporate social and environmental corporate accountability may result in dialogue between the society and corporate organisations to address such impacts. This may particularly be more important in the oil and gas industry which is characterised by numerous environmental problems that triggers social problems bedevilling the Niger Delta oil and gas producing region. Therefore, it is of significance that Nigerian policy makers should include environmental disclosure in the code of corporate governance.

3. Policy makers in sampled listed Nigerian oil and gas companies in particular should realize the importance of rendering social accountability through more disclosure. By rendering social accountability, sampled companies will be portraying good corporate behaviour, which may enhance their corporate image and contribution to sustainable development. This may in turn result in sampled companies reaping such benefits as increase sales and market share; decrease operating costs; and increase corporate appeal to investors and financial analysts. By taking more responsibility for their social and environmental impacts, sampled companies may create an environment of dialoguing with host communities. Through such dialogues social and environmental impacts could be discussed and ways of solving such be agreed between the two parties. This in turn, will reduce

crises between the two parties mostly arising from corporate denials of their social and environmental impacts. This may also stop oil theft; sabotage on oil and gas assets and kidnapping of oil and gas workers. Thus, it will be a win-win situation for sampled listed Nigerian oil and gas companies to be more socially accountable.

4. Quantity of social disclosure by listed UK oil and gas companies are majorly accounted for by mandatory social disclosure. This is portraying the effectiveness of regulating disclosure in the UK. However, the UK Company's act 2006, that eventually made requirement for environmental disclosure leave much to be desired. Environmental disclosure requirement in the act appears to be broad and vague; thus, it could be argued as not capable of enhancing environmental disclosure. Therefore, policy makers should review existing provision on environmental disclosure in the company act with a view to making the requirement more precise and clear. Doing this may result in sampled companies in particular and other corporate organisations in general rendering more environmental accountability. The next section highlights the contributions and limitations of this study.

7.5 Contributions of the Study

There is literature on social and environmental disclosure in the Nigerian oil and gas industry such as the work of Asaolu, et al (2011), Ayoola (2011), Waziri and Masud (2012), Hassan (2012), Hassan and Kouhy (2013), Hassan and Kouhy (2014), Hassan and Kouhy (2015), Hennchen (2015). However, Hassan (2012) looked into gas flaring accountability, Hassan and Kouhy (2013) was on gas flaring, its carbon emission and reporting; Hassan and Kouhy (2014) was on relationship between environmental performance and disclosure while Hassan and Kouhy (2015) were discussing environmental accountability. Hassan 2012, Hassan and Kouhy 2013, focused on activities of FMOGCs. Similarly, all other studies are on activities of IOCs conducted for period not exceeding three years. However, this study is on listed Nigerian oil and gas companies and could be argue to have the following contributions.

First, the study focused on listed Nigerian oil and gas companies looking into their SEDs for ten years in order to observe trends of the disclosure. Previous literatures have not looked into disclosure practices in the industry from this perspective. Second, the study employed vulnerability and exploitability analytical framework and legitimacy debate as its theoretical framework. Therefore, the use of vulnerability and exploitability analytical framework and legitimacy debate to underpin the study is a theoretical contribution to SED studies. Likewise, using this analytical framework to explain disclosure by sampled companies from Nigeria a developing and UK a developed country is another contribution.

Third, the study used a modified words counts content analysis on quantity of disclosure by listed Nigerian and UK oil and gas companies. Modified words count content analysis rather than considering individual social or environmental words consider total words in a phrase, sentence, or paragraph conveying social or environmental information. Therefore, the use of this unit of analysis is another contribution by this study to social disclosure studies. Fourth, the study measures quality of the disclosure, which is an evolving aspect of social disclosure studies in Nigeria and even in UK there is dearth of literature on quality of disclosure. Therefore, this could be regarded as a contribution to this evolving perspective of social disclosure studies. Fifth, the study revealed new social and environmental issues on which UK and Nigerian companies provided information. On social issues both UK and Nigeria provided information on labour/management relations and corruption. Listed UK oil and gas companies provided information on human rights in investment, human right in security practices, human rights in dealing with indigenous people, compliance for fines and sanctions, customer health and safety, product service and labelling and marketing communications. Similarly, UK companies provided information on two new environmental issues of environmental compliance and overall environment. These could be another contribution of this study to social disclosure studies. Sixth, the study found efficiency having significant negative influence on quantity of disclosure by UK companies and on quality of disclosure by both UK and Nigerian oil and gas companies. There is no previous literature on the influence of this variable on CSEDs. These results could not be explained by vulnerability and exploitability analytical framework or legitimacy theory. Consequently, this study posits that agency theory better explain these results. Therefore, this could be a contribution to SED studies as future studies could explore these further. Having outlined the contributions of the study below are limitations of the study.

7.6 Limitations of the Study

One, the study's use of GRI guidelines to develop disclosure indexes could be a limitation as use of other indexes may lead to obtaining different results. Two, scale used in scoring quality of disclosure is another limitation of this study as the use of other scoring methods and scales may give different results. Three, the use of words counts content analysis could be a limitation as adopting other means of unit of analysis may give different results. Four, other theoretical frameworks could be used which may result in different explanations of the motive of disclosure practices by sample companies. These limitations notwithstanding, findings from this study are valid and important contributions to social disclosure studies. However, the study may not have addressed all gaps raised in the literature and may have create more gaps to be filled. Thus, next section is recommendations for future studies in this area.

7.7 Recommendations for Future Research

This study looked into social and environmental disclosure practices of listed Nigerian and UK oil and gas companies. However, disclosure could be soft and unverifiable or hard and verifiable. Thus, future disclosure studies may look into not only the disclosure, but classify the disclosure into these groupings. This may bring to light companies that are really committed to giving factual social disclosure accountability and those that are rather using disclosure to cover up their social impacts. It might have been more interesting if this study had involved managers of sampled companies as key players to obtain their perceptions and perspectives about social disclosure. Therefore, future studies may be extended to involve managers of sampled companies.

Similarly, the study is unable to involve host communities of sampled oil and gas companies. Thus, future studies may involve the host communities in order to obtain their perspective of social accountability of sampled companies. This study use vulnerability and exploitability analytical framework and legitimacy theory to explain disclosure by sampled companies. Future studies could extend it by using the lens of other social disclosure theories to explain social disclosure practices of sampled companies. Similarly, future studies could also extend on this study by using other social disclosure indexes to determine social and environmental practices of sampled companies. Subsequent section is on general conclusions.

7.8 General Conclusions

The aim of this study is to comparatively analyse social and environmental disclosure practices of listed Nigerian and UK oil and gas companies. The motive of the comparison is to use disclosure practices of listed UK oil and gas companies to gauge disclosure practices of listed Nigerian oil and gas companies. In order to achieve its main aim of describing and explaining the social disclosure practices of sampled companies, annual reports and accounts and stand-alone sustainability reports were analysed. Modified words count content analysis was carried out guided by an index developed from GRI disclosure guidelines.

Listed UK oil and gas companies are found making disclosure on more social and environmental aspects than Nigerian companies. Similarly, listed UK companies are disclosing more quantity of social and environmental words than Nigerian companies. However, social and environmental disclosure by UK and Nigerian companies showed increasing trends over the period of the study. Findings indicating listed UK oil and gas companies providing more social information could be concluded as legitimacy strategy. This is premised on the fact that sampled listed UK oil and gas companies have to contend with pressures from strong and broad legitimacy conferring groups. They have to provide reasonable explanations for actions taken or not taken to highly educated and economically affluent society. Similarly, they have to satisfy the requirements of government regulatory agencies in view of the existence of strong legal and regulatory institutions and frameworks obviously to avoid enforcement of sanctions in the event of violating any legal provision. Therefore, sampled UK companies have to provide sufficient explanations on their social accountability. This may take the form of educating, changing the perception, or contriving the perception of these relevant strong and broad legitimacy conferring stakeholders consistent with legitimacy theory. Similarly, UK companies are larger in size compared to Nigerian companies and size is an important determinant of social accountability.

Low quantity of disclosure by sampled listed Nigeria oil and gas companies could be concluded as reflecting exploitation of vulnerable Nigerian society. Government is in dire need of revenues from its resources; thus, social accountability is of less importance. Citizens as employees are also more interested in earning low wages coming from the companies paying no attention to social disclosure. Legal and institutional frameworks are weak and unenforceable; thus, corporate organisations such as sampled listed Nigerian oil and gas companies are not deterred by sanctions. Combination of these vulnerabilities are what sampled Nigerian oil and gas companies are exploiting by providing low quantity of information on few aspects leading to overall low quantity of disclosure. Consequently, disclosure by listed Nigerian oil and gas companies could be concluded as explicable by vulnerability and exploitability analytical framework. Overall, looking at the low quantity of disclosure by sampled listed Nigerian oil and gas companies; it could be concluded that they are not influenced by the corporate social behaviour of UK companies on quantity of provided information. Another dimension of social accountability in UK and Nigeria is mandatory social disclosure requirements. Indeed, social disclosure by listed UK oil and gas companies over the period of the study are mainly accounted by mandatory disclosure. Similarly, social disclosure by listed Nigerian oil and gas companies for the years 2011, 2012 and 2013 are predominantly on mandatory disclosure. Therefore, it could be concluded that regulating social disclosure in UK and Nigeria is effective in enhancing social accountability. This is practically important in the oil and gas industries of the two countries especially if environmental accountability could be regulated. This scenario further reveals the relevance of legitimacy theory in explaining the social disclosure practices of both listed UK and Nigerian oil and gas companies. The trends of quantity of disclosure by both listed UK and Nigerian oil and gas companies showed increasing patterns over the period of the study. Although, listed UK companies have more significant increase in variations of disclosure year in year out than Nigerian companies. Significant increase in variations of disclosure by UK companies could be attributed to large size of the companies and growing demands of corporate social accountability in UK over the period of the study. Insignificant variations in quantity of disclosure by listed Nigerian oil and gas companies could be attributed to small size of the companies compared to UK companies. Similarly, there is apparently no reported societal quest for corporate social accountability which could have pressured Nigerian companies to provide more information than provided. Nonetheless, it could be concluded that listed Nigerian oil and gas companies are influenced by increasing social disclosure practices of listed UK oil and gas companies' year in year out over the period of the study.

Empirical evidence confirm that UK companies have more quantity and quality of disclosure than Nigerian companies do over the period of the study. Possible conclusions on differences in quantity of disclosure has been discussed in the preceding paragraph. On quality of provided information, this study contends that although total average quality score of disclosure by UK companies is rated satisfactory and is argue as consistent with legitimacy theory; it is depicting an aspect of exploitation. UK is reported as a country in which social disclosure practices are reported as advanced. Therefore, it is expected that quality of disclosure should be found on better rating scale. However, it is likely that broad and strong legitimacy conferring stakeholders are not privy to factual social and environmental impacts of sampled companies. Consequently, sampled companies are providing detailed explanations about their social accountability with less regard to quality of provided information. Therefore, this study concludes that satisfactory quality of social accountability by sampled listed UK oil and gas companies is portraying exploitation. The role of size of sampled companies is an important determinant of the quantity and quality of social disclosure by UK and Nigerian listed oil and gas companies. All sampled listed UK oil and gas companies are larger in size than sampled listed Nigerian oil and gas companies. With size being a significant determinant of disclosure practices, sampled UK companies have to be providing more quantity and quality of disclosure than Nigerian companies.

Low quality of social information by listed Nigerian oil and gas companies is depicting exploitation of vulnerable stakeholders in Nigeria. Government is in dire need of revenues from its natural resources, employees are more concern with wages and citizens are living in poverty and illiteracy to demand for corporate social accountability. Therefore, where corporate organisations provide social information, quality of provided social information is not an issue of interest to these weak and vulnerable stakeholders. Thus, it may well be concluded that listed Nigerian oil and gas companies are exploiting the vulnerabilities of their stakeholders on provision of quality social information. This situation is better explained by vulnerability and exploitability analytical framework. However, comparative trends of quality of disclosures by listed UK and Nigerian oil and gas companies showed similar fluctuating patterns. Therefore, it could be concluded that there is colonial influence of listed UK oil and gas companies on the quality of social disclosure practices by listed Nigerian oil and gas companies.

Corporate size is found positive and significant in determining the quantity and quality of social disclosure practices of UK and Nigerian companies. Thus, listed UK and Nigerian oil and gas companies are responding to possible public and political visibility and pressure on SED practices. Therefore, this study concludes that SED practices of sampled UK and Nigerian oil and gas companies are significantly influenced by their size. This is better explained using the lens of legitimacy theory as employed in this study. The result is also indicating the influence of colonialism as large listed Nigerian oil and gas companies are copying the good social accountability of large UK oil and gas companies. This study found efficiency ratio having significant negative relationship with quantity and quality of disclosure by listed UK oil and gas companies and with quality of disclosure by listed Nigerian oil and gas companies. The result is depicting that management's efficiency in generating enough revenues, obviously for the benefit of financial stakeholders negatively affects social accountability by UK and Nigerian companies. However, it is likely that when management of the companies are inefficient to generate enough revenues, they may resort to providing more social information and qualitatively. This is an unexpected result as efficient management of corporate resources should have translated to more social accountability. This result is indicating that managements of sampled listed UK and Nigerian oil and gas companies are using social disclosure to cover their inefficiencies. Neither legitimacy theory or vulnerability and accountability framework can explain this. Perhaps, agency theory could best explain this result; thus, further study on relationship between social disclosure, efficiency and agency theory could be useful.

Leverage is another variable found influencing the social disclosure practices of listed Nigerian oil and gas companies having significant and positive relationship with quality of disclosure. This is implying that even the unsatisfactory quality disclosure score by listed Nigerian oil and gas companies is perhaps provided due to the influence of creditors. Therefore, the result is portraying effort by sampled companies to gain or maintain legitimacy with creditors interested in quality of social accountability in consistent with legitimacy theory. On the overall, the result is suggesting exploitation of other vulnerable stakeholders. This is better understood from the perspective of vulnerability and exploitability analytical framework. Liquidity is a variable found having influence on the quality of social disclosure by sampled UK companies. The variable is having significant negative relationship with quality of social information provided by UK oil and gas companies. This implies that when sampled UK companies are liquid enough to sustain their operations; thus, unlikely to approach the financial market for funding; quality of social information is reduced. However, it is probable that when sampled companies are facing liquidity problems, thus, likely to approach the capital market for funding attention is paid to quality of provided social disclosure. In this regard, the UK capital market is perhaps sensitive to social accountability which is consistent with reported advancement of societal concerns for society and environment in UK. Legitimacy theory better explain this approach to social accountability by sampled UK companies. Conversely, vulnerability and exploitability could also explain another perspective of this pattern of disclosure. The result is implying that sampled companies are exploiting the low vulnerability of their strong and broad legitimacy conferring stakeholders by not providing more quantity of disclosure for accountability. Rather, more quantity of social disclosure is provided only to enhance legitimacy with creditors. On the overall, listed Nigeria oil and gas companies could be argue as following UK companies in terms of their social disclosure practices but at slow pace.

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APPENDIX I -Social and Environmental Disclosure Categories GRI 2, 3 & 3.1

Social Performance Indicators: Labour Practices and Decent Work

Employment

LA1: Breakdown of workforce, where possible, by region/country, status (employee/non-employee), employment type (full time/part time), and by employment contract (indefinite or permanent/fixed term or temporary). Also identify workforce retained in conjunction with other employers (temporary agency workers or workers in co-employment relationships), segmented by region/country.

LA2: Net employment creation and average turnover segmented by region/country.

LA12: Employee benefits beyond those legally mandated. (e.g., contributions to health care, disability, maternity, education, and retirement).

Labour/Management Relations

LA3: Percentage of employees represented by independent trade union organisations or other bona fide employee representatives broken down geographically OR percentage of employees covered by collective bargaining agreements broken down by region/country.

LA4: Policy and procedures involving information, consultation, and negotiation with employees over changes in the reporting organisation's operations (e.g., restructuring).

LA13: Provision for formal worker representation in decision making or management, including corporate governance.

Health and Safety

LA5: Practices on recording and notification of occupational accidents and diseases, and how they relate to the ILO Code of Practice on Recording and Notification of Occupational Accidents and Diseases.

LA6: Description of formal joint health and safety committees comprising management and worker representatives and proportion of workforce covered by any such committees.

LA7: Standard injury lost day, and absentee rates and number of work-related fatalities (including subcontracted workers).

LA8: Description of policies or programmes (for the workplace and beyond) on HIV/AIDS.

LA14: Evidence of substantial compliance with the ILO *Guidelines for Occupational Health Management Systems*.

LA15: Description of formal agreements with trade unions or other bona fide employee representatives covering health and safety at work and proportion of the workforce covered by any such agreements.

Training and Education

LA9: Average hours of training per year per employee by category of employee. (e.g., senior management, middle management, professional, technical, administrative, production, and maintenance)

LA16: Description of programmes to support the continued employability of employees and to manage career endings.

LA17: Specific policies and programmes for skills management or for lifelong learning.

Diversity and Opportunity

LA10: Description of equal opportunity policies or programmes, as well as monitoring systems to ensure compliance and results of monitoring. Equal opportunity policies may address workplace harassment and affirmative action relative to historical patterns of discrimination.

LA11: Composition of senior management and corporate governance bodies (including the board of directors), including female/male ratio and other indicators of diversity as culturally appropriate.

Social Performance Indicators: Human Rights

Strategy and Management

HR1: Description of policies, guidelines, corporate structure, and procedures to deal with all aspects of human rights relevant to operations, including monitoring mechanisms and results. State how policies relate to existing international standards such as the Universal Declaration and the Fundamental Human Rights Conventions of the ILO

HR2: Evidence of consideration of human rights impacts as part of investment and procurement decisions, including selection of suppliers/contractors.

HR3: Description of policies and procedures to evaluate and address human rights performance within the supply chain and contractors, including monitoring systems and results of monitoring. “Human rights performance” refers to the aspects of human rights identified as reporting aspects in the GRI performance indicators.

HR8: Employee training on policies and practices concerning all aspects of human rights relevant to operations. Include type of training, number of employees’ trained and average training duration.

Non-discrimination

HR4: Description of global policy and procedures/programmes preventing all forms of discrimination in operations, including

Freedom of Association and Collective Bargaining

HR5: Description of freedom of association policy and extent to which this policy is universally applied independent of local laws, as well as description of procedures/programmes to address this issue.

Child Labour

HR6: Description of policy excluding child labour as defined by the ILO Convention 138 and extent to which this policy is visibly stated and applied, as well as description of procedures/ programmes to address this issue, including monitoring systems and results of monitoring.

Forced and Compulsory Labour

HR7: Description of policy to prevent forced and compulsory labour and extent to which this policy is visibly stated and applied as well as description of procedures/programmes to address this issue, including monitoring systems and results of monitoring. See ILO Convention No. 29, Article 2.

Disciplinary Practices

HR9: Description of appeal practices, including, but not limited to, human rights issues. Describe the representation and appeals process.

HR10: Description of non-retaliation policy and effective, confidential employee grievance system (including, but not limited to, its impact on human rights).

Security Practices

HR11: Human rights training for security personnel. Include type of training, number of people trained, and average training duration.

Indigenous Rights

HR12: Description of policies, guidelines, and procedures to address the needs of indigenous people. This includes indigenous people in the workforce and in communities where the organisation currently operates or intends to operate.

HR13: Description of jointly managed community grievance mechanisms/authority.

HR14: Share of operating revenues from the area of operations that are redistributed to local communities.

Social Performance Indicators: Society

Community

SO1: Description of policies to manage impacts on communities in areas affected by activities, as well as description of procedures/ programmes to address this issue, including monitoring systems and results of monitoring. Include explanation of procedures for identifying and engaging in dialogue with community stakeholders

SO4: Awards received relevant to social, ethical, and environmental performance.

Bribery and Corruption

SO2: Description of the policy, procedures/management systems, and compliance mechanisms for organisations and employees addressing bribery and corruption. Include a description of how the organisation meets the requirements of the OECD Convention on Combating Bribery

Political Contributions   **SO3:** Description of policy, procedures/management systems, and compliance mechanisms for managing political lobbying and contributions.   **SO5:** Amount of money paid to political parties and institutions whose prime function is to fund political parties or their candidates.   ***Competition and Pricing***   **SO6:** Court decisions regarding cases pertaining to anti-trust and monopoly regulations.   **SO7:** Description of policy, procedures/management systems, and compliance mechanisms for preventing anti-competitive behaviour
Social Performance Indicators: Product Responsibility   ***Customer Health and Safety***   **PR1:** Description of policy for preserving customer health and safety during use of products and services, and extent to which this policy is visibly stated and applied, as well as description of procedures/programmes to address this issue, including monitoring systems and results of monitoring. Explain rationale for any use of multiple standards in marketing and sales of products   **PR4:** Number and type of instances of non-compliance with regulations concerning customer health and safety, including the penalties and fines assessed for these breaches.   **PR5:** Number of complaints upheld by regulatory or similar official bodies to oversee or regulate the health and safety of products and services.   **PR6:** Voluntary code compliance, product labels or awards with respect to social and/or environmental responsibility that the reporter is qualified to use or has received.   Include explanation of the process and criteria involved   ***Products and Services***   **PR2:** Description of policy, procedures/management systems, and compliance mechanisms related to product information and labelling.   **PR7:** Number and type of instances of non-compliance with regulations concerning product information and labelling, including any penalties or fines assessed for these breaches.   **PR8:** Description of policy, procedures/management systems, and compliance mechanisms related to customer satisfaction, including results of surveys measuring customer satisfaction. Identify geographic areas covered by policy.   ***Advertising***   **PR9:** Description of policies, procedures/management systems, and compliance mechanisms for adherence to standards and voluntary codes related to advertising. Identify geographic areas covered by policy.

PR10: Number and types of breaches of advertising and marketing regulations.

Respect for Privacy

PR3: Description of policy, procedures/management systems, and compliance mechanisms for consumer privacy. Identify geographic areas covered by policy.

PR11: Number of substantiated complaints regarding breaches of consumer privacy

Summary of Performance Indicators

Labour practice and decent Work	17
Human Rights	14
Society	7
Product Responsibility	11
	49

SOCIAL PERFORMANCE INDICATORS GRI 3

Labour Practices and Decent Work Performance Indicators

Aspect: Employment

LA1: Total workforce by employment type, employment contract, and region

LA2: Total number and rate of employee turnover by age group, gender, and region

LA3: Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.

Aspect: Labour/Management Relations

LA4: Percentage of employees covered by collective bargaining agreements

LA5: Minimum notice period(s) regarding operational changes, including whether it is specified in collective agreements.

Aspect: Occupational Health and Safety

LA6: Percentage of total workforce represented in formal joint management–worker health and safety committees that help monitor and advise on occupational health and safety programs

LA7: Rates of injury, occupational diseases, lost days, and absenteeism, and number of work related fatalities by region

LA8: Education, training, counselling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases
LA9: Health and safety topics covered in formal agreements with trade unions.

Aspect: Training and Education

LA10: Average hours of training per year per employee by employee category
LA11: Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings
LA12: Percentage of employees receiving regular performance and career development reviews.

Aspect: Diversity and Equal Opportunity

LA13: Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity.
LA14: Ratio of basic salary of men to women by employee category.

Human Rights Performance Indicators

Aspect: Investment and Procurement Practices

HR1: Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening
HR2: Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken
HR3: Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.

Aspect: Non-discrimination

HR4: Total number of incidents of discrimination and actions taken.

Aspect: Freedom of Association and Collective Bargaining

HR5: Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights.

Aspect: Child Labour

HR6: Operations identified as having significant risk for incidents of child labour, and measures taken to contribute to the elimination of child labour.

Aspect: Forced and Compulsory Labour

HR7: Operations identified as having significant risk for incidents of forced or compulsory labour, and measures to contribute to the elimination of forced or compulsory labour.

Aspect: Security Practices

HR8: Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.

Aspect: Indigenous Rights

HR9: Total number of incidents of violations involving rights of indigenous people and actions taken.

Society Performance Indicators

Aspect: Community

SO1: Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting.

Aspect: Corruption

SO2: Percentage and total number of business units analysed for risks related to corruption.
SO3: Percentage of employees trained in organization's anti-corruption policies and procedures.
SO4: Actions taken in response to incidents of corruption.

Aspect: Public Policy

SO5: Public policy positions and participation in public policy development and lobbying.
SO6: Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.

Aspect: Anti-Competitive Behaviour

SO7: Total number of legal actions for anticompetitive behaviour, anti-trust, and monopoly practices and their outcomes.

Aspect: Compliance

SO8: Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with laws and regulations.

Product Responsibility Performance Indicators

Aspect: Customer Health and Safety

PR1: Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.
PR2: Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.

Aspect: Product and Service Labelling

PR3: Type of product and service information required by procedures and percentage of significant products and services subject to such information requirements.
PR4: Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labelling, by type of outcomes.

PR5: Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.

Aspect: Marketing Communications

PR6: Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.

PR7: Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.

Aspect: Customer Privacy

PR8: Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.

Aspect: Compliance

PR9: Monetary value of significant fines for noncompliance with laws and regulations concerning the provision and use of products and service

Summary of Performance Indicators

Labour practice and decent Work	14
Human Rights	9
Society	8
Product Responsibility	9
	40

SOCIAL PERFORMANCE INDICATORS GRI 3 & 3.1

Labour Practices and Decent Work

Aspect: Employment

LA1: *Total workforce by employment type, employment contract, and region*

2. Compilation

2.1 Identify the total workforce (employees and supervised workers) working for the reporting organization at the end of the reporting period. Supply chain workers are not included in this Indicator.

2.2 Identify the contract type and full-time and part time status of employees based on the definitions under the national laws of the country where they are based.

2.3 Combine country statistics to calculate global statistics and disregard differences in legal definitions. Although the definitions of what constitutes types of contract and a full-time or part-time employment relationship may vary between countries, the global Figure will still reflect the relationships under law.
2.4 Report the total workforce broken down by employees and supervised workers.
2.5 If a substantial portion of the organization's work is performed by workers who are legally recognized as self-employed, or by individuals other than employees or supervised workers, this should be reported
2.6 Report the total number of employees broken down by type of employment contract.
2.7 Report the total number of permanent employees broken down by employment type.
2.8 Report the total workforce broken down by region, using a geographic breakdown based on the scale of the organization's operations.
2.9 If applicable, explain any significant seasonal variations in employment numbers (e.g., in the tourism or agricultural industries).
LA2: *Total number and rate of new employee hires and employee turnover by age group, gender, and region.*
2. Compilation
2.1 - Identify the total number of new employee hires during the reporting period, broken down by age group, gender and region.
2.2 – identify the total number of new employee hires leaving employment during the reporting period, broken down by age group, gender and region
2.3 - Report the total number and rate of new employee hires entering and employees leaving employment during the reporting period, broken down by age group (e.g., <30;30-50;>50), gender and region.
Rates should be calculated using the total employee numbers at the end of the reporting period
LA3: *Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.*
2. Compilation
2.1 - Identify benefits offered to all employees.
2.2 - Report which of the following benefits are standard for full-time employees of the organization but are not provided to temporary or part-time employees, by major operations: • Life insurance; • Health care; • Disability/invalidity coverage; • Maternity/paternity leave; • Retirement provision; • Stock ownership; and • Others.
2.3 - Standard benefits refer to those typically offered to at least the majority of full-time employees. This should not be interpreted as being offered to every single full-time employee of the organization. The intention of the Indicator is to disclose what fulltime employees can reasonably expect.
LA15: *Return to work and retention rates after parental leave, by gender*

2. Compilation
2.1 - Report the number of employees by genders that were entitled to parental leave.
2.2 - Report the number of employees by gender that took parental leave.
2.3 - Report the number of employees who returned to work after parental leave ended, by gender.
2.4 - Report the number of employees who returned to work after parental leave ended who were still employed twelve months after their return to work, by gender
2.5 - Report the return to work and retention rates of employees who returned to work after leave ended, by gender.

Aspect: Labour/Management Relations

LA4: *Percentage of employees covered by collective bargaining agreements.*
2. Compilation
2.1 - Use data from LA1 as the basis for calculating percentages for this Indicator.
2.2 - Binding collective bargaining agreements include those signed by the reporting organization itself or by employer organizations of which it is a member. These agreements can be at the sector, national, regional, organizational, or workplace level.
2.3 - Identify the total number of employees covered by collective bargaining agreements.
2.4 - Report the percentage of total employees covered by collective bargaining agreements.

LA5: *Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements*
2. Compilation
2.1 - Report the minimum number of weeks' notice typically provided to employees and their elected representatives prior to the implementation of significant operational changes that could substantially affect them.
2.2 - For organizations with collective bargaining agreements, report whether the notice period and/ or provisions for consultation and negotiation are specified in collective agreements.

Aspect: Occupational Health and Safety

LA6: *Percentage of total workforce represented in formal joint management worker health and safety committees that help monitor and advice on occupational health and safety programs.*
2.1 Compilation
2.2 Identify formal health and safety committees that help monitor and advice on occupational safety programs at the facility level or higher with joint management/labour representation. Formal refers to committees whose existence and function are integrated in the reporting organisation's organisational and authority structure and that operate according to certain agreed written rules.

2.3 Report the percentage of the total workforce represented in formal joint management-worker health and safety committees:
None; up to 25%; between 25% and 50%; between 50% and 75% and over 75%
2.4 Report the level(s) at which the committees typically operates (e.g at facility level and/or at multi-facility, region, group or company levels). This may either be a result of a formal policy, procedure, or informal practice within the organisation.
LA7: *Rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities by region*.
2. Compilation
2.1 This Indicator should provide a regional breakdown for the following: • The total workforce (i.e., total employees plus supervised workers); and • Independent contractors working on-site to whom the reporting organization is liable for the general safety of the working environment.
2.2 Since some reporting organizations include minor (first-aid level) injuries in their data, indicate whether such injuries are included or excluded.
2.3 In calculating 'lost days' indicate: • Whether 'days' means 'calendar days' or 'scheduled work days'; and • At what point the 'lost days' count begins (e.g., the day after the accident or 3 days after the accident).
2.4 Report injury, occupational diseases, lost days, and absentee rates in the reporting period using the following formulas by region: • Injury rate (IR) Note: The injury rate should capture fatalities. • Occupational diseases rate (ODR) • Lost day rate (LDR) • Absentee rate (AR)
2.5 Report fatalities in the reporting period using an absolute number, not a rate. 2.6 Report the system of rules applied in recording and reporting accident statistics. The 'ILO Code of Practice on Recording and Notification of Occupational Accidents and Diseases' was developed for the reporting, recording, and notification of workplace accidents. Where national law follows the ILO recommendations, it is sufficient to state that fact and that practice follows the law. In situations where national law does not comply, indicate which system of rules it applies and their relationship to the ILO code.
LA8: *Education, training, counselling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases*
2. Compilation
2.1 - Report the programs related to assisting workforce members, their families, or community members regarding serious diseases
2.2 - Report whether there are workers who are involved in occupational activities who have a high incidence or high risk of specific diseases.
LA9: *Health and safety topics covered in formal agreements with trade unions.*

2. Compilation
2.1 - Report whether formal agreements (either local or global) with trade unions cover health and safety. (Yes/No)
2.2 - If yes, report the extent to which various health and safety topics are covered by local and global agreements signed by the organization. Agreements at the local level typically address topics such as: • Personal protective equipment; • Joint management-employee health and safety committees; • Participation of worker representatives in health and safety inspections, audits, and accident investigations; • Training and education; • Complaints mechanism; • Right to refuse unsafe work; and • Periodic inspections. Agreements at the global level typically address topics such as: • Compliance with the ILO; • Arrangements or structures for resolving problems; and • Commitments regarding target performance standards or level of practice to apply.

Aspect: Training and Education

LA10: *Average hours of training per year per employee by employee category*
2. Compilation
2.1 - Identify the total number of employees in each employment category across the organization's operations at the end of the reporting year (e.g., senior management, middle management, professional, technical, administrative, production, maintenance, etc.). The organization should define employment categories based on its human resources system.
2.2 - Identify total hours devoted to training personnel within each employee category. 2.3 Report the average number of hours of training per year per employee by employee category using the following formula: LA10 = Total hours per employee category /Total employees per employee

LA11: *Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings*
2. Compilation
2.1 Do employee training or assistance programs to upgrade skills provide any of the following? • Internal training courses; • Funding support for external training or education; and • the provision of sabbatical periods with guaranteed return to employment.
2.2 Do transition assistance programs to support employees who are retiring or who have been terminated provide any of the following: • Pre-retirement planning for intended retirees; • Retraining for those intending to continue working; • Severance pay; • If severance pay is provided, does it take into account employee age and years of service; • Job placement services; and • Assistance (e.g., training, counselling) on transitioning to a non-working life

LA12: *Percentage of employees receiving regular performance and career development reviews*
2. Compilation

2.1 Identify the total number of employees. The total number of employees should match that reported under LA1.
2.2 Report the percentage of total employees who received a formal performance appraisal and review during the reporting period.

Aspect: Diversity and Equal Opportunity

LA13: *Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity*
2. Compilation
2.1 Identify the diversity Indicators used by the reporting organization in its own monitoring and recording that may be relevant for reporting.
2.2 Identify the total number of employees in each employee category (e.g., board, senior management, middle management, administrative, production, etc.). Categories of employment should be defined based on the reporting organization's own human resources system. The total number of employees should match that reported in LA1.
2.3 Report the percentage of employees in each of the following categories: (% of employees) • Gender: Female / Male • Minority groups • Age groups: Under 30 years old, 30-50 years old, over 50 years old
2.4 Report the percentage of individuals within the organization's governance bodies (e.g., the board of directors, management committee, or similar body for non-corporate reporting organizations) in each of the following categories: (% of Individuals within Governance Bodies) • Gender: Female / Male • Minority groups • Age groups: Under 30 years old, 30-50 years old, over 50 years old

LA14: *Ratio of basic salary of men to women by employee category*
2. Compilation
2.1 Identify the total number of employees in each employee category across the reporting organization's operations, broken down by gender using the information from LA13. Employee categories should be defined based on the reporting organization's own human resources system. The total number of employees should match that reported in LA1.
2.2 Identify the basic salary for women and for men in each employee category.
2.3 Any convenient pay period (e.g., hourly, weekly, monthly, or annually) may be used for this data. 2.4 Report the ratio of the basic salary of women to the basic salary of men for each employee category.

Human Rights Performance Indicators

Aspect: Investment and Procurement Practices

HR1: *Percentage and total number of significant investment agreements and contracts that include human rights clauses or that have undergone human rights screening*
2. Compilation
2.1 Count only the agreements and contracts that are significant in terms of size or strategic importance. The significance may be determined by the level of approval required within the organization for the investment or other criteria that can be consistently applied to agreements. The reporting organization should disclose their definition of "significant agreements".
2.2 Identify the total number of significant investment agreements and contracts finalized during the reporting period that either moved the organization into a position of ownership in another entity or initiated a capital investment project that was material to financial accounts.
2.3 If multiple significant investment agreements are undertaken and contracts signed with the same partner, the number of the agreements should reflect the number of separate projects undertaken or entities created.
2.4 Report the total number and percentage of significant investment agreements and contracts that include human rights clauses or that underwent human rights screening
HR2: *Percentage of significant suppliers, contractors, and other business partners that have undergone human rights screening, and actions taken.*
2. Compilation
2.1 Identify the total number of the reporting organization's significant suppliers, contractors and other business partners.
2.2 Report the percentage of contracts with significant suppliers, contractors and other business partners that included clauses or screening on human rights. See HR1 for definitions of 'clauses'.
2.3 Report the percentage of contracts with significant suppliers, contractors and other business partners that were either declined or imposed performance conditions, or were subject to other actions as a result of human rights screening.
HR3: *Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained*
2. Compilation
2.1 Identify the total number of hours devoted to employee training, using data from LA10.
2.2 Identify the total number of employees, using data from LA1.
2.3 Identify employees who have received formal training in the organization's policies and procedures on human rights issues and their applicability to the employees' work. This can refer either to training dedicated to the topic of human rights or to a human rights module within a general training program.

2.4 Report the total number of hours in the reporting period devoted to training on policies and procedures concerning aspects of human rights that are relevant to operations.
2.5 Report the percentage of employees in the reporting period trained in policies and procedures concerning aspects of human rights that are relevant to operations

Aspect: Non-discrimination

HR4: *Total number of incidents of discrimination and corrective actions taken*

2. Compilation
2.1 Identify incidents of discrimination on grounds of race, colour, sex, religion, political opinion, national extraction, or social origin as defined by the ILO, or other relevant forms of discrimination involving internal and/or external stakeholders across operations in the reporting period. 'Incidents' refer to legal actions, complaints registered with the organization or competent authorities through a formal process, or instances of non-compliance identified by the organization through established procedures such as management system audits or formal monitoring programs.
2.2 Report the total number of incidents of discrimination during the reporting period.
2.3 Report the status of the incidents and the actions taken with reference to the following: • Organization has reviewed the incident; • Remediation plan is being implemented; • Remediation plan has been implemented and results reviewed through routine internal management review processes; and • Incident is no longer subject to action (i.e., resolved, case completed, no further by action by company, etc).

Aspect: Freedom of Association and Collective Bargaining

HR5: *Operations and significant suppliers identified in which the right to exercise freedom of association or collective bargaining may be violated or at significant risk, and actions taken to support these rights.*

2. Compilation
2.1 Identify operations and significant suppliers in which employee rights to exercise freedom of association or collective bargaining may be violated or at risk. The process of identification should reflect the organization's approach to risk assessment on this issue and can draw from recognized international data sources such as ILO reports (yearly report of ILO Committee of Experts on the implementation of ratified conventions and recommendations, as well as the Governing Body's reports on freedom of association).
2.2 Report operations and significant suppliers identified in which employee rights to exercise freedom of association or collec-tive bargaining may be violated or at risk either in terms of: • Type of operations (e.g., manufacturing plant); or • Countries or geographical areas with operations considered at risk.
2.3 Report on any measures taken by the organization in the reporting period intended to support rights to freedom of association and collective bargaining. See the ILO Tripartite Declaration and OECD Guidelines for further guidance.

Aspect: Child Labour

HR6: *Operations and significant suppliers identified as having significant risk for incidents of child labour, and measures taken to contribute to the effective abolition of child labour*

2. Compilation

2.1 Identify operations considered to have significant risk for incidents of: • Child labour; and/or • Young workers exposed to hazardous work. The process of identification should reflect the organization's approach to risk assessment on this issue and can draw from recognized international data sources such as ILO reports.

2.2 Report operations considered to have significant risk for incidents of child labour either in terms of: • Type of operations (e.g., manufacturing plant); or • Countries or geographical areas with operations considered at risk.

2.3 Report on any measures taken by the organization in the reporting period intended to contribute to the elimination of child labour. See the ILO Tripartite Declaration and OECD Guidelines for further guidance

Aspect: Forced and Compulsory Labour

HR7: *Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labour, and measures taken to contribute to the elimination of all forms of forced or compulsory labour*

2. Compilation

2.1 Identify operations considered to have significant risk for incidents of forced or compulsory labor. The process of identification should reflect the organization's approach to risk assessment on this issue and can draw from recognized international data sources such as ILO reports.

2.2 Report operations considered to have significant risk for incidents of compulsory labor either in terms of: • Type of operations e.g. manufacturing plant); or • Countries or geographical areas with operations considered at risk.

2.3 Report on any measures taken by the organization in the reporting period intended to contribute to the elimination of all forms of forced or compulsory labour. See the ILO Tripartite Declaration and OECD Guidelines for further guidance.

Aspect: Security Practices

HR8: *Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations*

2. Compilation

2.1 Identify the total number of security personnel the reporting organization employs directly.

2.2 Report the percentage of security personnel, who have received formal training in the organization's policies on, or specific procedures for, human rights issues and their application to security. This can refer either to training dedicated to the topic or a module within a more general training program.
2.3 Report whether training requirements also apply to third party organizations providing security personnel.

Aspect: Indigenous Rights

HR9: *Total number of incidents of violations involving rights of indigenous people and actions taken*
2. Compilation
2.1 Identify incidents involving indigenous rights among the organization's own employees, and in communities near existing operations that are likely to be affected by planned or proposed future operations of the reporting organization. 'Incidents' refer to legal actions, complaints registered with the organization or competent authorities through a formal process, or instances of non-compliance identified by the organization through established procedures such as management system audits or formal monitoring programs.
2.2 Report the total number of identified incidents involving indigenous rights during the reporting period.
2.3 Report the status of the incidents and actions taken with reference to the following: • Organization has reviewed the incident; • Remediation plan is being implemented; • Remediation plan has been implemented and results reviewed through routine internal management review processes; and • Incident is no longer subject to action (i.e., resolved, case completed, no further by action by company, etc).

Aspect: Assessment

HR10: *Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments*
2. Compilation
2.1 Identify countries in which the reporting organization operates.
2.2 Report the total number of operations, by country.
2.3 Report the total number and percentage of operations that have undergone human rights reviews or human rights impact assessments, by country.

Aspect: Remediation

HR11: *Number of grievances related to human rights filed, addressed, and resolved through formal grievance mechanisms*
2. Compilation
2.1 Identify existing formal organizational grievance mechanisms
2.2 Report the total number of grievances related to human rights filed through formal organizational grievance mechanisms during the reporting period.

2.3 Report the total number of addressed grievances related to human rights from those filed in the reporting period, broken down by: • Internal Stakeholders; • External stakeholders; and • Gender, minority group membership and other indicators of diversity (for grievances filed by an individual or group of people and not an organization).
2.4 Report the total number of resolved grievances related to human rights from those filed in the reporting period, broken down by: • Internal Stakeholders; • External stakeholders; and • Gender, minority group membership and other indicators of diversity (for grievances filed by an individual or group of people and not an organization).
2.5 Report the total number of grievances related to human rights addressed and resolved during the reporting period that were filed before the reporting period, broken down by: • Internal Stakeholders; • External stakeholders; and • Gender, minority group membership and other indicators of diversity (for grievances filed by an individual or group of people and not an organization).

Society Performance Indicators

Aspect: Community

SO1: *Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting.*
2. Compilation
2.1 Report whether there are programs in place for assessing the impacts of operations on local communities: • Prior to entering the community; • While operating in the community; and • While making decisions to exit the community.
2.2 Report whether programs or policies define: • How data is collected for such programs, including by whom; and • How to select community members (individual or group) from whom information will be gathered.
2.3 Report the number and percentage of operations to which the programs apply.
2.4 Report whether the organization’s programs for managing community impacts have been effective in mitigating negative impacts and maximizing positive impacts, including the scale of persons affected.
2.5 Report examples of how feedback and analysis of data on community impacts have informed steps toward further community engagement on the part of the reporting organization.
SO9: *Operations with significant potential or actual negative impacts on local communities*
2.1 Compilation
2.2 Identify internal sources of information about potential and actual negative impacts, including sources such as: Actual performance data; Internal investment plans and associated risk assessments; All data collected with GRI indicators (e.g., EC9, EN1, EN3, EN8, EN12, EN14-15, FN19-26, EN29, LA8, HR6-9, and PR1-2) as relates to individual communities.

2.2 Identify significant potential negative impacts, including but not limited to consideration of: Vulnerability and risk to local communities from potential impacts due to factors such as: Degree of physical or economic isolation of the local community; Level of socio-economic development including the degree of gender equality within the community ; State of socio-economic infrastructure (health, education);

SO10: *Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities*

2.1 Compilation

2.2 report whether for the significant potential and actual negative impacts reported in SO9

Prevention and mitigation measures were implemented; Prevention and mitigation measures were implemented in order: remediate non-compliance with laws or regulations; maintain compliance with laws or regulations; achieve standard beyond legal compliance;

Prevention and mitigation objectives were achieved or not

Aspect: Corruption

SO2: *Percentage and total number of business units analysed for risks related to corruption*

2. Compilation

2.1 Identify business units analysed for organizational risks related to corruption during the reporting period. This refers to either a formal risk assessment focused on corruption or the inclusion of corruption as a risk factor in overall risk assessments.

2.2 Report the total number and percentage of business units analysed for risks related to corruption.

SO3: *Percentage of employees trained in organization's anti-corruption policies and procedures*

2. Compilation

2.1 Identify the total number of employees, distinguishing between management and non- management employees, using the data from LA1.

2.2 Report separately the percentage of total number of management and non-management employees who have received anti-corruption training during the reporting period.

SO4: *Actions taken in response to incidents of corruption*

2. Compilation

2.1 Report actions taken in response to incidents of corruption, including: • The total number of incidents in which employees were dismissed or disciplined for corruption; and • The total number of incidents when contracts with business partners were not renewed due to violations related to corruption.

2.2 Report any concluded legal cases regarding corrupt practices brought against the reporting organization or its employees during the reporting period and the outcomes of such cases.

Aspect: Public Policy

SO5: *Public policy positions and participation in public policy development and lobbying*
2. Compilation
2.1 Participation refers to efforts where the organization has taken a formal position or activities where participation has been formally recognized. While this could include activities through trade associations, round Tables, task forces, and other forms of lobbying with public policymakers, the disclosure relates to the position of the organization and not that of the bodies in which it is involved.
2.2 Report the significant issues that are the focus of the reporting organization's participation in public policy development and lobbying. This refers to participation at the level of the organization rather than individual operations.
2.3 Report the core positions held on each of the reported issues above and explain any significant differences between lobbying positions and stated policies, sustainability goals, or other public positions.
SO6: *Total value of financial and in kind contributions to political parties, politicians, and related institutions by country*
2. Compilation
2.1 Identify the total monetary value of financial and in-kind contributions committed by the reporting organization during the reporting period to political parties, politicians, and related institutions. The value of in-kind contributions should be estimated.
2.2 Calculate contributions in accordance with national accounting rules (where these exist).
2.3 Report the total monetary value broken down by country for those countries where: • The organization has major operations and/or sales; • The organization holds a significant share of the market in comparison to other organizations; or • The sums contributed are significant compared to the total amount contributed globally

Aspect: Anti-Competitive Behaviour

SO7: *Total number of legal actions for anti-competitive behaviour, anti-trust, and monopoly practices and their outcomes*
2. Compilation
2.1 This Indicator pertains to legal actions initiated under national or international laws designed primarily for the purpose of regulating anticompetitive behaviour, anti-trust, or monopoly practices. 2.2 Identify legal actions pending or completed during the reporting period regarding anti-competitive behaviour and violations of anti-trust and monopoly legislation in which the reporting organization has been identified as a participant.
2.3 Report the total number of legal actions for anticompetitive behaviour, anti-trust, and monopoly practices.
2.4 Report the main outcomes of such actions, including any decisions or judgements.

Aspect: Compliance

SO8: *Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations*
2. Compilation
2.1 Identify administrative or judicial sanctions levied against the organization for failure to comply with laws or regulations, including: • International declarations/conventions/ treaties, and national, sub-national, regional, and local regulations, and. • Cases brought against the organization through the use of international dispute mechanisms or national dispute mechanisms supervised by government authorities.
2.2 Report significant fines and non-monetary sanctions in terms of: • Total monetary value of significant fines; • Number of non-monetary sanctions; and • Cases brought through dispute resolution mechanisms.
2.3 Where the reporting organization has not identified any non-compliance with laws or regulations, a brief statement to this fact is sufficient.
2.4 Organizations are encouraged to report fines and non-monetary sanctions in terms of the focus of laws.

Product Responsibility Performance Indicators

Aspect: Customer Health and Safety

PR1: *Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures*
2. Compilation
2.1 In each of the following life cycle stages, report whether the health and safety impacts of products and services are assessed for improvement.
2.2 Report the percentage of significant product or service categories that are covered by and assessed for compliance with such procedures.
PR2: *Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes*
2. Compilation
2.1 This Indicator addresses the life cycle of the product or service once it is available for use and therefore subject to regulations concerning the health and safety of products and services. 2.2 Where the reporting organization has not identified any non-compliance with regulations and voluntary codes, a brief statement to this fact is sufficient.
2.3 Identify the total number of incidents of noncompliance with regulations and voluntary codes concerning the health and safety of products and services during the reporting period.
2.4 This Indicator refers to incidents of non-compliance within the reporting period. If a substantial number of incidents relate to events in preceding years, this should be indicated.

2.5 Incidents of non-compliance in which the organization was determined not to be at fault are not counted in this Indicator.
2.6 Report the total number of incidents of noncompliance with the health and safety of products and services, broken down by: • Incidents of non-compliance with regulations resulting in a fine or penalty; • Incidents of non-compliance with regulations resulting in a warning; and • Incidents of non-compliance with voluntary codes.

Aspect: Product and Service Labelling

PR3: *Type of product and service information required by procedures and percentage of significant products and services subject to such information requirements*
2. Compilation
2.1 Report whether the following product and service information is required by the organization's procedures for product and service information and labelling.
2.2 Report the percentage of significant product or service categories covered by and assessed for compliance with such procedures.

PR4: *Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labelling, by type of outcomes*
2. Compilation
2.1 This Indicator refers to incidents of noncompliance decided within the reporting period. If a substantial number of incidents relate to events in preceding years, this should be indicated.
2.2 Where the reporting organization has not identified any non-compliance with regulations and voluntary codes, a brief statement to this fact is sufficient.
2.3 Identify the total number of incidents of noncompliance with regulations and voluntary codes concerning product and service information and labelling during the reporting period.
2.4 Incidents of non-compliance in which the organization was determined not to be at fault are not counted in this Indicator.
2.5 Report the total number of incidents of noncompliance with regulations concerning product and service information and labelling, broken down by: • Incidents of non-compliance with regulations resulting in a fine or penalty; • Incidents of non-compliance with regulations resulting in a warning; and • Incidents of non-compliance with voluntary codes.

PR5: *Practices related to customer satisfaction, including results of surveys measuring customer satisfaction*
2. Compilation
2.1 Report on organization-wide practices in place to assess and maintain customer satisfaction, such as: • Frequency of measuring customer satisfaction; • Standard requirements regarding methodologies of surveys; and • Mechanisms for customers to provide feedback.

2.2 Report the results or key conclusions of surveys (based on statistically relevant sample sizes) conducted in the reporting period that were related to information about: • The organization as a whole; • A major product/service category; or • Significant locations of operation.
2.3 For any survey results reported, identify the product/service category or locations of operations to which they apply. 3. Definitions None. 4. Documentation Potential information sources include the reporting organization's customer relations and R&D departments. 5. References None. 8 IP Indicator Protocols Set: PR

Aspect: Marketing Communications

PR6: *Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship*

2. Compilation
2.1 Report any codes or voluntary standards relating to marketing communications applied across the organization.
2.2 Report the frequency with which the organization reviews its compliance with these standards or codes.
2.3 Report whether the organization sells products that are: • Banned in certain markets; or • The subject of stakeholder questions or public debate.
2.4 Report how the organization has responded to questions or concerns regarding these products.

PR7: *Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes*

2. Compilation
2.1 This Indicator refers to incidents of non-compliance within the reporting period. If a substantial number of incidents relate to events in preceding years, this should be indicated.
2.2 Where the reporting organization has not identified any non-compliance with regulations and voluntary codes, a brief statement to this fact is sufficient.
2.3 Identify the total number of incidents of noncompliance with regulations concerning marketing communications during the reporting period.
2.4 Incidents of non-compliance in which the organization was determined not to be at fault are not counted in this Indicator.
2.5 Report the total number of incidents of noncompliance with regulations concerning marketing communications, broken down by: • Incidents of non-compliance with regulations resulting in a fine or penalty; • Incidents of non-compliance with regulations resulting in a warning; and • Incidents of non-compliance with voluntary codes

Aspect: Customer Privacy

PR8: *Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data*

2. Compilation

2.1 Identify the total number of complaints regarding breaches of customer privacy during the reporting period.

2.2 If a substantial number of these breaches relate to events in preceding years, this should be indicated.

2.3 Report the total number of substantiated complaints received concerning breaches of customer privacy, categorized by: • Complaints received from outside parties and substantiated by the organization; and • Complaints from regulatory bodies.

2.4 Report the total number of identified leaks, thefts, or losses of customer data.

2.5 Where the reporting organization has not identified any substantiated complaints, a brief statement to this fact is sufficient.

Aspect: Compliance

PR9: *Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services*

2. Compilation

2.1 Identify administrative or judicial sanctions levied against the organization for failure to comply with laws or regulations, including international declarations/conventions/ treaties, and national, sub-national, regional, and local regulations concerning the provision and use of the reporting organization's products and services. Relevant information for this Indicator includes but is not limited to data from PR2, PR4, and PR7. 2.2 Report total monetary value of significant fines. 2.3 Where the reporting organization has not identified any non-compliance with laws or regulations, a brief statement to this fact is sufficient.

Human Rights Performance Indicators

Aspect: Investment and Procurement Practices

HR1: Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening.

HR2: Percentage of significant suppliers, contractors, and other business partners that have undergone human rights screening, and actions taken.

HR3: Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.

Aspect: Non-discrimination

HR4: Total number of incidents of discrimination and corrective actions taken.

Aspect: Freedom of Association and Collective Bargaining

HR5: Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights.

Aspect: Child Labour

HR6: Operations and significant suppliers identified as having significant risk for incidents of child labour, and measures taken to contribute to the effective abolition of child labour.

Aspect: Forced and Compulsory Labour

HR7: Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labour, and measures to contribute to the elimination of all forms of forced or compulsory labour.

Aspect: Security Practices

HR8: Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.

HR9: Total number of incidents of violations involving rights of indigenous people and actions taken.

Aspect: Assessment

HR10: Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments.

Aspect: Remediation

HR11: Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms.

Society Performance Indicators

Aspect: Local Communities

SO1: Percentage of operations with implemented local community engagement, impact assessments, and development programs.

SO9: Operations with significant potential or actual negative impacts on local communities.

SO10: Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities.

Aspect: Corruption

SO2: Percentage and total number of business units analysed for risks related to corruption.

SO3: Percentage of employees trained in organization's anti-corruption policies and procedures.

SO4: Actions taken in response to incidents of corruption.

Aspect: Public Policy

SO5: Public policy positions and participation in public policy development and lobbying.

SO6: Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.

Aspect: Anti-Competitive Behaviour

SO7: Total number of legal actions for anticompetitive behaviour, anti-trust, and monopoly practices and their outcomes.

Aspect: Compliance

SO8: Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with laws and regulations.

Product Responsibility Performance Indicators

Aspect: Customer Health and Safety

PR1: Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.

PR2: Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.

Aspect: Product and Service Labelling

PR3: Type of product and service information required by procedures and percentage of significant products and services subject to such information requirements.

PR4: Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labelling, by type of outcomes.

PR5: Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.

Aspect: Marketing Communications

PR6: Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.

PR7: Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.

Aspect: Customer Privacy

PR8: Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.

Aspect: Compliance

PR9: Monetary value of significant fines for noncompliance with laws and regulations concerning the provision and use of products and services.

ENVIRONMENT PERFORMANCEINDICATORS GRI 2

Materials

EN1: Total materials use other than water, by type. Provide definitions used for types of materials. Report in tonnes, kilograms, or volume

EN2: Percentage of materials used that are wastes (processed or unprocessed) from sources external to the reporting organisation. Refers to both post-consumer recycled material and waste from industrial sources. Report in tonnes, kilograms, or volume

Energy

EN3: Direct energy use segmented by primary source. Report on all energy sources used by the reporting organisation for its own operations as well as for the production and delivery of energy products (e.g., electricity or heat) to other organisations. Report in joules

EN4: Indirect energy use. Report on all energy used to produce and deliver energy products purchased by the reporting organisation (e.g., electricity or heat). Report in joules

EN17: Initiatives to use renewable energy sources and to increase energy efficiency.

EN18: Energy consumption footprint (i.e., annualised lifetime energy requirements) of major products. Report in joules

EN19: Other indirect (upstream/downstream) energy use and implications, such as organisational travel, product lifecycle management, and use of energy-intensive materials.

Water

EN5: Total water use

EN20: Water sources and related ecosystems/habitats significantly affected by use of water.
Include Ramsar-listed wetlands and the overall contribution to resulting environmental trends

EN21: Annual withdrawals of ground and surface water as a percent of annual renewable quantity of water available from the sources. Breakdown by region

EN22: Total recycling and reuse of water. Include wastewater and other used water (e.g., cooling water)

Biodiversity

EN6: Location and size of land owned, leased, or managed in biodiversity-rich habitats. Further guidance on biodiversity-rich habitats may be found at www.globalreporting.org (forthcoming).

EN7: Description of the major impacts on biodiversity associated with activities and/or products and services in terrestrial, freshwater, and marine environments.

EN23: Total amount of land owned, leased, or managed for production activities or extractive use.

EN24: Amount of impermeable surface as a percentage of land purchased or leased.

EN25: Impacts of activities and operations on protected and sensitive areas (e.g., IUCN protected area categories 1–4, world heritage sites, and biosphere reserves).

EN26: Changes to natural habitats resulting from activities and operations and percentage of habitat protected or restored. Identify type of habitat affected and its status

EN27: Objectives, programmes, and targets for protecting and restoring native ecosystems and species in degraded areas.

EN28: Number of IUCN Red List species with habitats in areas affected by operations.

EN29: Business units currently operating or planning operations in or around protected or sensitive areas

Emissions, Effluents, and Waste

EN8: Greenhouse gas emissions.
(CO_2, CH_4, N_2O, HFCs, PFCs, SF_6). Report separate subtotals for each gas in tonnes and in tonnes of CO_2 equivalent for the following:

- Direct emissions from sources owned or controlled by the reporting entity
- Indirect emissions from imported electricity heat or steam. See WRI-WBCSD Greenhouse Gas Protocol

EN9: Use and emissions of ozone-depleting substances. Report each Figure separately in accordance with Montreal Protocol Annexes A, B, C, and E in tonnes of CFC-11 equivalents (ozone-depleting potential)

EN10: NOx, SOx, and other significant air emissions by type. Include emissions of substances regulated under:

• Local laws and regulations
• Stockholm POPs Convention (Annex A, B, and C) – persistent organic pollutants
• Rotterdam Convention on Prior Informed Consent (PIC)
• Helsinki, Sofia, and Geneva Protocols to the Convention on Long-Range Trans-boundary Air Pollution

EN11: Total amount of waste by type and destination. "Destination" refers to the method, by which waste is treated, including composting, reuse, recycling, recovery, incineration, or landfilling. Explain type of classification method and estimation method.

EN12: Significant discharges to water by type.
See GRI Water Protocol.

EN13: Significant spills of chemicals, oils, and fuels in terms of total number and total volume. Significance is defined in terms of both the size of the spill and impact on the surrounding environment

EN30: Other relevant indirect greenhouse gas emissions (CO_2, CH_4, N_2O, HFCs, PFCs, SF_6). Refers to emissions that are a consequence of the activities of the reporting entity, but occur from sources owned or controlled by another entity. Report in tonnes of gas and tonnes of CO_2 equivalent. See WRI-WBCSD Greenhouse Gas Protocol

EN31: All production, transport, import, or export of any waste deemed "hazardous" under the terms of the Basel Convention Annex I, II, III, and VIII.

EN32: Water sources and related ecosystems/habitats significantly affected by discharges of water and runoff. Include Ramsar-listed wetlands and the overall contribution to resulting environmental trends. See GRI Water Protocol

Suppliers

EN33: Performance of suppliers relative to environmental components of programmes and procedures described in response to Governance Structure and Management Systems section (Section 3.16).

Products and services

EN14: Significant environmental impacts of principal products and services.
Describe and quantify where relevant

EN15: Percentage of the weight of products sold that is reclaimable at the end of the products' useful life and percentage that is actually reclaimed. "Reclaimable" refers to either the recycling or reuse of the product materials or components

EN33: Performance of suppliers relative to environmental components of programmes and procedures described in response to Governance Structure and Management Systems section (Section 3.16)

Compliance

EN16: Incidents of and fines for non-compliance with all applicable international declarations/conventions/treaties, and national, sub-national, regional, and local regulations associated with environmental issues. Explain in terms of countries of operation

Transport

EN34: Significant environmental impacts of transportation used for logistical purposes.

Overall

EN35: Total environmental expenditures by type. Explain definitions used for types of expenditures.

Total Performance Indicators = 35

ENVIRONMENT PERFORMANCEINDICATORS GRI 3 and 3.1

Aspect: Materials

EN1: *Materials used by weight or volume*

2. Compilation

2.1 - Identify total materials used, including materials purchased from external suppliers and those obtained from internal sources (captive production and extraction activities). This can include:

- Raw materials (i.e., natural resources used for conversion to products or services such as ores, minerals, wood, etc.);
- Associated process materials (i.e., materials that are needed for the manufacturing process but are not part of the final product, such as lubricants for manufacturing machinery);
- Semi-manufactured goods or parts, including all forms of materials and components other than raw materials that are part of the final product; and
- Materials for packaging purposes.

2.2 - Identify non-renewable and direct materials used. Convert any measurements into estimated weight or volume, calculated 'as is' rather than by 'dry substance/weight'.
2.3 - Report the total weight or volume of:
- Non-renewable materials used; and
- Direct materials used
-

EN2: *Percentage of materials used that are recycled input materials*
2. Compilation
2.1Identify the total weight or volume of materials used as reported under EN1.
2.2- Identify the total weight or volume of recycled input materials. If estimation is required, state the estimation methods.
2.3 - Report the percentage of recycled input materials used by applying the following formula:
EN2= Total recycled input materials used/ Input materials used x100
3. Definitions recycled input materials
Materials that replace virgin materials that are purchased or obtained from internal or external sources, and that are not by-products and non-product outputs (NPO) produced by the reporting organization.

Aspect: Energy

EN3: *Direct energy consumption by primary energy source*
2. Compilation
2.1 - direct energy sources purchased Identify primary energy sources purchased by the reporting organization for its own consumption. This includes:
- Direct non-renewable energy sources including: Coal; Natural gas; and Fuel distilled from crude oil, including gasoline, diesel, liquefied petroleum gas (LPG), compressed natural gas (CNG), liquefied natural gas (LNG), butane, propane, ethane, etc.
- Direct renewable energy sources including: Biofuels; Ethanol; Hydrogen. Note: Biomass is excluded from direct renewable energy sources for the purpose of reporting to the WRI/WBCSD GHG Protocol. For alignment with the WRI/WBCSD GHG Protocol, direct CO_2 emissions from the combustion of biomass should be reported separately
2.2 - direct energy sources produced Identify the amount of primary energy the reporting organization acquires by producing, extracting, harvesting, collecting, or converting it from other forms of energy into joules or multiples. This can include the same energy sources listed under 2.1.
2.3 - direct energy sources sold Identify the amount of primary energy exported outside the reporting boundary in joules or multiples.

2.4 - Calculate total energy consumption in joules or multiples such as gigajoules (one billion joules or 109 joules) using the following equation: Total direct energy consumption = direct primary energy purchased + direct primary energy produced- direct primary energy sold Refer to the following Table to convert volumes of primary sources to gigajoules:

EN4 Indirect energy consumption by primary source

2. Compilation

2.1 - Identify the amount of intermediate energy purchased and consumed from sources external to the reporting organization in joules or multiples, such as gigajoules (one billion joules, or 109 joules). This includes: Intermediate energy purchased and consumed from non-renewable energy sources as listed under EN3, including: Electricity; Heating and Cooling; Steam; Nuclear energy; and other forms of imported energy Intermediate energy purchased and consumed from renewable energy sources including: Solar; Wind; Geothermal; •Hydro energy; •Biomass based intermediate energy; Hydrogen based intermediate energy.

2.2 - Identify the amount of primary fuels consumed to produce intermediate energy based on the total amount of energy purchased from external suppliers (EN3- Energy Purchased). To estimate the fuels consumed to produce purchased energy, use either: Fuel consumption data acquired from the electricity provider if these data are available Default data for electricity and heat; or• Estimations where default Figures are not available.

2.3 - Using data from 2.1, report: •The total amount of indirect energy used by indirect non-renewable sources and indirect renewable sources in terms of intermediate energy; and the corresponding primary energy consumed in its production. Note: The sum of primary energy sources (expressed in joules) used to generate intermediate energy will, depending on the primary source used, significantly exceed the amount of intermediate energy purchased (in joules) due to grid and efficiency losses when converting and transporting energy

EN5: Energy saved due to conservation and efficiency improvements

2. Compilation

2.1 - Identify total energy saved by efforts to reduce energy use and increase energy efficiency. Reduced energy consumption from reduced production capacity or outsourcing should not be included in this Indicator.

2.2Report the total amount of energy saved in joules or multiples, such as gigajoules (one billion joules or 109 joules). Take into consideration energy saved due to: Process redesign; Conversion and retrofitting of equipment; and Changes in personnel behaviour.

EN6: Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.

2. Compilation

2.1 - Report existing initiatives to reduce the energy requirements of major products/product groups or services.
2.2 - Report quantified reductions in the energy requirements of products and services achieved during the reporting period.
2.3 - If use-oriented Figures are employed (e.g., energy requirements of a computer), clearly report any assumptions about underlying consumption patterns or normalization factors (e.g., 10% less energy use per average working day, assuming operation for 8 hours with changing processor load). Refer to available industry standards (e.g., fuel consumption of cars for 100 km at 90 km/h.
EN7: Initiatives to reduce indirect energy consumption and reductions achieved
2. Compilation
2.1 - For this Indicator, exclude indirect energy use associated with the purchase of intermediate energy sources as reported in EN4.
2.2 - Identify relevant upstream/downstream indirect energy use in the following four areas: •Use of energy-intensive materials; •Subcontracted production; •Business-related travel; and •Employee commuting.
2.3 - Report initiatives to reduce indirect energy use.
2.4 - Report quantitatively the extent to which indirect energy use has been reduced during the reporting period for the four areas listed in 2.2. 2.5Indicate underlying assumptions and methodologies used to calculate other indirect energy use and indicate the source of information.

Aspect: Water

EN8: Total water withdrawal by source.
2. Compilation
2.1 - Identify the total volume of water withdrawn from any water source that was either withdrawn directly by the reporting organization or through intermediaries such as water utilities. This includes the abstraction of cooling water.
2.2 - Report the total volume of water withdrawn in cubic meters per year (m3/year) by the following sources: •Surface water, including water from wetlands, rivers, lakes, and oceans; •Ground water; •Rainwater collected directly and stored by the reporting organization; •Waste water from another organization; and• Municipal water supplies or other water utilities.
EN9: *Water sources significantly affected by withdrawal of water*
2. Compilation
2.1 - Identify water sources significantly affected by water withdrawal by the reporting organization. Significant withdrawals meet one or more of the following criteria:•Withdrawals that account for an average of 5 percent or

more of the annual average volume of a given water body;•Withdrawals from water bodies that are recognized by professionals to be particularly sensitive due to their relative size, function, or status as a rare, threatened, or endangered system (or to their support of a particular endangered species of plant or animal); or Any withdrawal from a Ramsar-listed wetland or any other nationally or internationally proclaimed conservation area regardless of the rate of withdrawal. **Note:** If the water is provided by a public or private water supplier, the original water body/source should be identified and reported.
2.2 - Report the total number of significantly affected water sources by type according to the criteria above, indicating the following: •Size of water source in cubic meters (m3); •Whether or not the source is designated as a protected area (nationally and/or internationally); and• Biodiversity value (e.g., species diversity and endemism, number of protected species). •Value/importance of water source to local communities.

EN10: *Percentage and total volume of water recycled and reused*.

2. Compilation

2.1 - This Indicator measures both water that was treated prior to reuse and water that was not treated prior to reuse. Grey water (i.e., collected rainwater and wastewater generated by household processes such as washing dishes, laundry, and bathing) is included.
2.2 - Calculate the volume of recycled/reused water based on the volume of water demand satisfied by recycled/reused water rather than further withdrawals. For example, if the organization has a production cycle that requires 20 cubic meters of water per cycle, the organization withdraws 20 cubic meters of water for one production process cycle and then reuses it for an additional three cycles. The total volume of water recycled/reused for that process is 60 cubic meters.
2.3 - Report the total volume of water recycled/reused by the organization in cubic meters per year (m3/year) and also as a percentage of the total water withdrawal reported under Indicator EN8

Aspect: Biodiversity

EN11: *Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high bio-diversity value outside protected areas*

2. Compilation

2.1 - Identify operational sites owned, leased, managed in, located in, adjacent to, or that contain protected areas and areas of high biodiversity value outside protected areas. Include sites for which future operations have been formally announced.
2.2 - Report the following information for each operational site identified above: •Geographic location; •Subsurface and/or underground land that may be owned, leased, or managed by the organization; •Position in relation to protected area (in the area, adjacent to, or containing portions of the protected area) and high biodiversity value area outside protected area. Type of operation (office, manufacturing/production, or extractive); •Size of

operational site in km2; •Biodiversity value characterized by: -The attribute of the protected area and high biodiversity value area outside protected area (terrestrial, freshwater, or maritime ecosystem); and-Listing of protected status (e.g., IUCN Protected Area Management Category, Ramsar Convention, national legislation, Natura 2000 site, etc.).

EN12: *Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas*

2. Compilation

2.1 - Identify significant impacts on biodiversity associated with activities, products, and services of the reporting organization, including both direct impacts as well as indirect impacts (e.g., in the supply chain).

2.2 - Report the nature of significant direct and indirect impacts on biodiversity with reference to one or more of the following: •Construction or use of manufacturing plants, mines, and transport infrastructure; •Pollution (introduction of substances that do not naturally occur in the habitat from point and non-point sources); •Introduction of invasive species, pests, and pathogens; •Reduction of species;•Habitat conversion; and Changes in ecological processes outside the natural range of variation (e.g., salinity or changes in groundwater level).

2.3 - Report significant direct and indirect positive and negative impacts with reference to the following: •Species affected; •Extent of areas impacted (this may not be limited to areas that are formally protected and should include consideration of impacts on buffer zones as well as formally designated areas of special importance or sensitivity); •Duration of impacts; and Reversibility or irreversibility of the impacts.

EN13 *Habitats protected or restored*

2. Compilation

2.1 - This Indicator refers to areas in which remediation has been completed or the area is actively protected (see Definitions). Areas in which operations are still active can be counted if they conform to the definitions of 'restored' or 'protected'.

2.2 - Assess the status of the area based on its condition at the close of the reporting period.

2.3 - Report the size and location of all habitat protected areas and/or restored areas (in hectares), and whether the success of the restoration measure was/is approved by independent external professionals. If the area is larger than one km2, report in km2.

2.4 - Report whether partnerships exist with third parties to protect or restore habitat areas distinct from where the organization has overseen and implemented restoration or protection measures.

EN14: *Strategies, current actions, and future plans for managing impacts on biodiversity*

2. Compilation

2.1 - If national regulations have influenced the specific strategies, actions, or plans reported under this Indicator, this should be noted.

2.2 - Report the organization's strategy for achieving its policy on biodiversity management including: •Integration of biodiversity considerations in analytical tools such as environmental site impact assessments; •Engagement with relevant stakeholders; •Methodology for establishing risk exposure to biodiversity; •Setting specific targets and objectives; •Monitoring processes; and• Public reporting
2.3 - Report actions underway to manage biodiversity risks identified in EN11 and EN12, or plans to undertake such activities in the future.
EN15: *Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk*
2. Compilation
2.1 - Identify the location of habitats affected by the operations of the reporting organization that include species on the IUCN Red List and on national conservation lists.
2.2 - Report the number of species in habitats identified as affected by the reporting organization, indicating one of the following levels of extinction risk: •Critically endangered; •Endangered; •Vulnerable; •Near threatened; and Least concern.

Aspect: Emissions, Effluents, and Waste

EN16: *Total direct and indirect green-house gas emissions by weight*
2. Compilation
2.1 - Different conversion methodologies are available to calculate the amount of greenhouse gas emissions per source. Indicate the standard used, and indicate the methodology associated with the data with reference to the following categories: •Direct measurement (e.g., continuous online analysers, etc.); •Calculation based on site specific data (e.g., for fuel composition analysis, etc.); •Calculation based on default data; and Estimations. If estimations are used due to a lack of default Figures, indicate which basis Figures were obtained. Further details on the compilation of this Indicator are available in the WRI /WBCSD GHG Protocol and in the IPCC document as listed under references.
2.2 - Identify direct emissions of greenhouse gases from all sources owned or controlled by the reporting organization, including: •Generation of electricity, heat, or steam (as reported in EN3); •other combustion processes such as flaring; •Physical or chemical processing; •Transportation of materials, products, and waste; •Venting; and Fugitive emissions. Emissions from combustion processes and sources will correspond to the direct primary energy from non-renewable and renewable sources as reported in EN3. Note that the direct CO2 emissions from the combustion of biomass shall not be included but reported separately under GHG Protocol Corporate Standard (revised edition).

2.3 - Identify indirect emissions of greenhouse gases resulting from the generation of purchased electricity, heat, or steam (this corresponds with energy consumption reported under EN4). Other indirect emissions (e.g., from organizational travel) are not included since they are accounted for in EN17.
2.4 - Report total greenhouse gas emissions as the sum of direct and indirect emissions (as identified in 2.2 and 2.3) in tonnes of CO2 equivalent.
EN17: *Other relevant indirect green-house gas emissions by weight.*
2. Compilation
2.1 - Identify the greenhouse gas emissions resulting from indirect energy use. Exclude indirect emissions from imported electricity, heat, or steam, as these are covered by EN16.
2.2 - Additionally, identify which of the reporting organization's activities cause indirect emissions and assess their amounts (e.g., employee commuting, business travel, etc). When deciding on the relevance of these activities, consider whether emissions of the activity: •Are large compared to other activities generating direct emissions or energy related indirect emissions (as reported in EN16); •Are judged to be critical by stakeholders; •could be substantially reduced through actions taken by the reporting organization.
2.3 - Report the sum of indirect GHG emissions identified in tonnes of CO2 equivalent
EN18: *Initiatives to reduce greenhouse gas emissions and reductions achieved*.
2. Compilation
2.1 - Identify emissions reductions from all sources owned or controlled by the reporting organization as reported under EN16 and resulting from indirect energy use and activities of the reporting organization as reported under EN17. Distinguish between mandatory and voluntary emissions reductions.
2.2 - Report initiatives to reduce greenhouse gas emissions include the areas where the initiatives were implemented.
2.3 - Report quantitatively the extent greenhouse gas emissions reductions achieved during the reporting period as a direct result of the initiative(s) in tonnes of CO2 equivalent
EN19: *Emissions of ozone-depleting substances by weight.*
2. Compilation
2.1- Ozone-depleting substances contained or emitted from products during their usage and disposal are not covered by this Indicator.
2.2 - Emissions of substances covered in Annexes A, B, C, and E of the Montreal Protocol on Substances that Deplete the Ozone Layer are included.
2.3 - Identify emissions of ozone-depleting substances using the following formulas: Emissions = Production + Imports- Exports of Substances Production = Substances Produced- Substances Destroyed by Technology-

Substances used entirely as feedstock in the manufacture of other chemicals Note: ODS that is recycled and reused is not considered production.

2.4 - Report the emissions of specific ozone-depleting substances in tonnes and tonnes of CFC-11 equivalent.

EN20: *NOx, SOx, and other significant air emissions by type and weight.*

2. Compilation

2.1- Identify significant air emissions and calculate their weight.

2.2 - Since calculating certain air emissions such as NOx requires complex quantification efforts, indicate the methodology used for calculations, selecting one of the following approaches: •Direct measurement of emissions (e.g., online analysers, etc.); •Calculation based on site specific data; •Calculation based on default data; or Estimation (if estimations are used due to a lack of default Figures, indicate on what basis Figures were obtained).

2.3 - Report the weight of significant air emissions (in kilograms or multiples such as tonnes) for each of the following categories NOx; •SOx; •Persistent organic pollutants (POP) •Volatile organic compounds (VOC); •Hazardous air pollutants (HAP); •Stack and fugitive emissions; •Particulate matter (PM); or Other standard categories of air emissions identified in regulations

EN21 *Total water discharge by quality and destination*

2. Compilation2.1Identify planned and unplanned water discharges (excluding collected rainwater and domestic sewage) by destination and indicate how it is treated. If the reporting organization does not have a meter to measure water discharges, this Figure needs to be estimated by subtracting the approximate volume consumed on-site from the volume withdrawn as reported in EN8.

2.2 - Report the total volume of planned and unplanned water discharges in cubic meters per year (m3/year) by: •Destination; •Treatment method; and •whether it was reused by another organization.

2.3 - Reporting organizations that discharge effluents or process water should report water quality in terms of total volumes of effluent using standard effluent parameters such as Biological Oxygen Demand (BOD), Total Suspended Solids (TSS), etc. The specific choice of quality parameters will vary depending on the organization's products services/operations. The selection of parameters should be consistent with those used in the organization's sector. Clean water refers to water that meets national regulations for freshwater quality when leaving the boundaries of the reporting organization. This can be either freshwater whose quality has not been affected by the organization's use, or wastewater that is treated to meet freshwater standards prior to discharge.

EN22 *Total weight of waste by type and disposal method*

2. Compilation

2.1- Identify the amount of waste created by the organization's operations, by: •Hazardous waste (as defined by national legislation at the point of generation); and Non-hazardous waste (all other forms of solid or liquid waste excluding wastewater).

2.2 - If no weight data are available, estimate the weight using available information on waste density and volume collected, mass balances, or similar information.
2.3 - Report the total amount of waste in tonnes by type as identified in 2.1 for each of the following methods: ·Reuse; ·Recycling; ·Composting; ·Recovery, including Energy Recovery, Incineration (mass burn); ·Deep well injection; Landfill; ·On-site storage; and Other (to be specified by the reporting organization).
2.4 - Report how the method of disposal has been determined: •Disposed directly by the reporting organization or otherwise directly confirmed; •Information provided by the waste disposal contractor; or Organizational defaults of the waste disposal contractor.
EN23: *Total number and volume of significant spills*
2. Compilation
2.1 - Identify all recorded significant spills and the volume of these spills.
2.2 - Report the total number and total volume of recorded significant spills.
2.3 For spills that were reported in the organization's financial statement, report the additional following information for each such spill: •Location of spill; •Volume of spill; and Material of spill, categorized by: -Oil spills (soil or water surfaces); -Fuel spills (soil or water surfaces); -Spills of wastes (soil or water surfaces); -Spills of chemicals (mostly soil or water surfaces); and-Other.
2.4 - Report the impacts of significant spills.
EN24: *Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally.*
2. Compilation
2.1 - Identify hazardous wastes transported by or on behalf of the reporting organization within the reporting period by destination.
2.2 - Identify the total weight of transported hazardous waste using the following equation: Total weight of hazardous waste transported by destination=Weight of hazardous waste transported to the reporting organization by destination from external sources/suppliers not owned by the reporting organization + Weight of hazardous waste transported from the reporting organization by destination to external sources/suppliers not owned by the reporting organization + Weight of hazardous waste transported nationally and/or internationally by destination between locations owned, leased, or managed by the reporting organization
2.3 - Identify the total weight of hazardous waste transported across international borders and which enters the boundaries of the reporting organization, by destination. Waste transported between different locations of the organization is not counted as imported.
2.4 - Identify the proportion of the total amount of transported hazardous waste by destination that is transported from the reporting organization to locations abroad. Include all wastes that leave the boundaries of the reporting

organization to cross international borders, excluding transportation between different locations of the reporting organization.
2.5 - Identify the portion of the total amount of transported and exported waste by destination that the organization has treated.
2.6 - Identify the portion of the total amount of waste by destination that is treated by external sources/suppliers, that has been transported, exported, or imported by the organization.
2.7 - Convert volumes to an estimate of weight with a brief explanation of the methodology used.
2.8 - Report the following information in kilograms or tonnes: •Total weight of hazardous waste transported; •Total weight of imported hazardous waste; •Total weight of exported hazardous waste; and Total weight of treated hazardous waste
EN25: *Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.*
2. Compilation
2.1 - Identify water bodies significantly affected by the reporting organization's water discharges that meet one of more of the following criteria:•Discharges account for an average of 5% or more of the annual average volume of the water body;•Discharges that, on the advice of appropriate professionals (e.g., municipal authorities), are known to have or are highly likely to have significant impacts on the water body and associated habitats; •Discharges to water bodies that are recognized by professionals to be particularly sensitive due to their relative size, function, or status as a rare, threatened, or endangered system (or support a particular endangered species of plant or animal); or Any discharge to a Ramsar-listed wetland or any other nationally or internationally proclaimed conservation area regardless of the rate of discharge.
2.2 - Report water bodies significantly affected by water discharges based on the criteria above, adding information on: •Size of water body in cubic meters (m3); •Whether the source is designated as a protected area (nationally and/or internationally); and •Biodiversity value (e.g., number of protected species).

Aspect: Products and Services

EN26: *Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.*
2. Compilation
2.1 - In this Indicator, the following impacts are excluded since they are covered in other Environmental Indicators: •reclaiming of products and product packaging (EN27); and Impacts on biodiversity (EN12).
2.2 - Report initiatives in the reporting period to mitigate the most significant environmental impacts of products/service groups in relation to: •Materials use (e.g., use of non-renewable, energy-intensive, toxic materials); •Water use (e.g., volumes used during production and/or use); •Emissions (e.g., GHG, toxic, ozone-

depleting emissions); •Effluents (e.g., quality of water used during production and/or use); •Noise; and •Waste (e.g., non-reclaimable, toxic materials/compounds).
2.3 - Report quantitatively the extent to which environmental impacts of products and services have been mitigated during the reporting period. If use-oriented Figures are employed (e.g., water use of washing machine), clearly indicate the underlying assumptions regarding consumption patterns or normalization factors (e.g., 10% less water use per 5 kg of laundry).
EN27: *Percentage of products sold and their packaging materials that are reclaimed by category*
2. Compilation
2.1 - Identify the amount of products and their packaging materials reclaimed (i.e., recycled or reused) at the end of their useful life within the reporting period. Rejects and recalls of products should not be counted. Recycling or reuse of packaging should also be reported separately.
2.2 - Report the percentage of reclaimed products and their packaging materials for each category of products (i.e., a group of related products sharing a common, managed set of features that satisfy the specific needs of a selected market) using the following formula:
% of reclaimed products = products and their packaging materials reclaimed within the reporting period/products sold within the reporting period x100
2.3 - Given potential variations in data sources, report how the data for this Indicator has been collected (e.g., data is gathered from an internal collection system or data is provided by external collection systems reclaiming products on behalf of the organization

Aspect: Compliance

EN28 *Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations*
2. Compilation
2.1 - Identify administrative or judicial sanctions for failure to comply with environmental laws and regulations, including: •International declarations/conventions/treaties, and national, sub-national, regional, and local regulations. Include non-compliances related to spills as disclosed under EN23 that meet the criteria for EN28; •Voluntary environmental agreements with regulating authorities that are considered binding and developed as a substitute for implementing new regulations. In certain jurisdictions, such agreements are referred to as 'covenants'; and Cases brought against the organization through the use of international dispute mechanisms or national dispute mechanisms supervised by government authorities.
2.2 - Report significant fines and non-monetary sanctions in terms of: •Total monetary value of significant fines; •Number of non-monetary sanctions; and •Cases brought through dispute resolution mechanisms.

2.3 - Where reporting organizations have not identified any non-compliance with laws or regulations, a brief statement to this fact is sufficient.

Aspect: Transport

EN29 *Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce*

2. Compilation

2.1 - Identify the significant environmental impacts of the modes of transportation used by the organization, including: •Energy use (e.g., oil, kerosene, fuel, electricity); •Emissions (e.g., greenhouse gas emissions, ozone-depleting substances, NOx, SOx, and other air emissions); •Effluents (e.g., different kinds of chemicals); •Waste (e.g., different types of packaging material); •Noise; and Spills (e.g., spills of chemicals, oils, and fuels).

2.2 - Report the significant environmental impacts of transportation used for logistical purposes and for transportation of members of the organization's workforce. Where quantitative data is not stated in the report, disclose the reason.

2.3 - Indicate the criteria and methodology used to determine which environmental impacts are significant.

2.4 - Report how the environmental impacts of transporting products, members of the organization's workforce, and other goods and materials are mitigated.

Aspect: Overall

EN30: *Total environmental protection expenditures and investments by type.*

2. Compilation

2.1 - The compilation of the expenditures in this Indicator should exclude the following categories as defined in the IFAC 'International Guidance Document on Environmental Management Accounting' document: •Costs of non-product output; and Fines for non-compliance with environmental regulation. 2.2 - Identify waste disposal, emissions treatment, and remediation costs based on expenditures related to the following items: •Treatment and disposal of waste;•Treatment of emissions (e.g., expenditures for filters, agents);•Expenditures for the purchase and use of emissions certificates; Depreciation of related equipment, maintenance, and operating material and services, and related personnel costs; •Insurance for environmental liability; and •Clean-up costs, including costs for remediation of spills as reported in EN23.

2.3 - Identify prevention and environmental management costs based on expenditures related to the following items:•Personnel employed for education and training;•External services for environmental management;•External certification of management systems;•Personnel for general environmental management activities;•Research and development; Extra expenditures to install cleaner technologies (e.g., additional cost beyond standard technologies);•Extra expenditures on green purchases; and Other environmental management

costs. 2.4 - Report total environmental protection expenditures broken down by: •Waste disposal, emissions treatment, and remediation costs; and Prevention and environmental management costs

APPENDIX II - Sample of Words Counts Content Analysis Recording Form

LA3	LA7	LA10	HR3	LA12	HR6	HR9	SO1	SO3	EN2	EN5	EN7	EN10	EN30
				25 28									

				105 33 191									

APPENDIX III: Unit Roots, multicollinearity, Contemporaneous and Serial Correlations Tests (Nigeria and UK)

Results of unit roots tests (Quantity of disclosure NG)

xtunitroot fisher log_csed, dfuller lags(0)

Fisher-type unit-root test for log_csed based on augmented Dickey-Fuller tests

Ho: All panels contain unit roots; Ha: At least one panel is stationary

Number of panels = 8 Number of periods = 10

		Statistic	***p-value***
Inverse chi-squared(16)	P	28.2422	0.0296
Inverse normal	Z	-1.6800	0.0465
Inverse logit t(44)	L*	-1.7067	0.0475
Modified inv. chi-squared	Pm	2.1641	0.0152

. xtunitroot fisher log_size, dfuller lags(0)

Fisher-type unit-root test for log_size based on augmented Dickey-Fuller tests

Ho: All panels contain unit roots; Ha: At least one panel is stationary

Number of panels = 8 Number of periods = 10

		Statistic	***p-value***
Inverse chi-squared(16)	P	40.7917	0.0006
Inverse normal	Z	-2.5193	0.0059
Inverse logit t(44)	L*	-3.1683	0.0014
Modified inv. chi-squared	Pm	4.3826	0.0000

xtunitroot fisher eps, dfuller lags(0)

Fisher-type unit-root test for eps based on augmented Dickey-Fuller tests

Ho: All panels contain unit roots; Ha: At least one panel is stationary

Number of panels = 8 Number of periods = 10

		Statistic	***p-value***
Inverse chi-squared (16)	P	32.0641	0.0098
Inverse normal	Z	-2.2143	0.0134
Inverse logit t(44)	L*	-2.4530	0.0091
Modified inv. chi-squared	Pm	2.8398	0.0023

xtunitroot fisher lev, dfuller lags (0)
Fisher-type unit-root test for lev based on augmented Dickey-Fuller tests
Ho: All panels contain unit roots; Ha: At least one panel is stationary
Number of panels = 8 Number of periods = 10

		Statistic	***p-value***
Inverse chi-squared (16)	P	38.2228	0.0014
Inverse normal	Z	-2.3209	0.0101
Inverse logit t (44)	L*	-3.0021	0.0022
Modified inv. chi-squared	Pm	3.9285	0.0000

xtunitroot fisher eratio, dfuller lags(0)
Fisher-type unit-root test for eratio based on augmented Dickey-Fuller tests
Ho: All panels contain unit roots; Ha: At least one panel is stationary
Number of panels = 8 Number of periods = 10

		Statistic	***p-value***
Inverse chi-squared (16)	P	29.4579	0.0210
Inverse normal	Z	-1.8346	0.0333
Inverse logit t (44)	L*	-1.9912	0.0263
Modified inv. chi-squared	Pm	2.3790	0.0087

xtunitroot fisher liq, dfuller lags (0)
Fisher-type unit-root test for log_csed based on augmented Dickey-Fuller tests
Ho: All panels contain unit roots; Ha: At least one panel is stationary
Number of panels = 8 Number of periods = 10

		Statistic	***p-value***
Inverse chi-squared (16)	P	104.0230	0.0000
Inverse normal	Z	-5.8098	0.0000
Inverse logit t (44)	L*	-10.0191	0.0000
Modified inv. chi-squared	Pm	15.5604	0.0000

xtunitroot fisher log_tax, dfuller lags (0)
Fisher-type unit-root test for log_tax based on augmented Dickey-Fuller tests
Ho: All panels contain unit roots; Ha: At least one panel is stationary
Number of panels = 8 Number of periods = 10

		Statistic	***p-value***
Inverse chi-squared (16)	P	40.7280	0.0006
Inverse normal	Z	-2.4399	0.0073
Inverse logit t (44)	L*	-2.8222	0.0036
Modified inv. chi-squared	Pm	4.3713	0.0000

Results of Multicollinearity test (Quantity of disclosure – NG)

pwcorr log_csed log_size eps lev eratio liq log_tax, sig

	log_csed	log_size	eps	lev	eratio	liq	log_tax
log_csed	1.0000						
log_size	0.4943	1.0000					
	0.0000						
Eps	0.0967	0.3707	1.0000				
	0.3937	0.0007					
lev	0.1195	0.1910	0.2146	1.0000			
	0.2909	0.0897	0.0559				
eratio	-0.0324	0.3820	0.5180	0.4181	1.0000		
	0.7756	0.0005	0.0000	0.0001			
liq	0.0256	0.0611	-0.0062	-0.2597	-0.0683	1.0000	
	0.8220	0.5900	0.9562	0.0200	0.5469		
log_tax	0.4260	0.7692	0.4524	0.2577	0.3498	-0.0306	1.0000
	0.0001	0.0000	0.0000	0.0210	0.0015	0.7873	

Results of Serial Correlation Test

Serial Correlation:

LM(rho=0) = 4.73 Pr>chi2(1) = 0.0296

Results of Contemporaneous Correlation Test (Quantity of Disclosure – NG)

Joint Test:

LM(Var(u)=0,rho=0) = 5.73 Pr>chi2(2) = 0.0570

Results of Unit Roots Tests (Quality of Disclosure NG)

xtunitroot fisher log_comsco, dfuller lags(0)
Fisher-type unit-root test for log_comsco based on augmented Dickey-Fuller tests

Ho: All panels contain unit roots; Ha: At least one panel is stationary
Number of panels = 8 Number of periods = 10

		Statistic	***p-value***
Inverse chi-squared(16)	P	47.4598	0.0001
Inverse normal	Z	-3.3813	0.0004
Inverse logit t(44)	L*	-4.0913	0.0001
Modified inv. chi-squared	Pm	5.5614	0.0000

Results of Serial Correlation Test (Quality of Disclosure – NG)

Serial Correlation:

LM(rho=0) = 15.20 Pr>chi2(1) = 0.0001

Results of Contemporaneous Correlation Test (Quality of Disclosure – NG)
Joint Test:

LM(Var(u)=0,rho=0) = 18.95 Pr>chi2(2) = 0.0001

Results of Unit Roots Tests (Quantity of Disclosure UK)

xtunitroot fisher log_qncsed, dfuller lags(0)

Fisher-type unit-root test for log_csed based on augmented Dickey-Fuller tests

Ho: All panels contain unit roots; Ha: At least one panel is stationary

Number of panels = 8 Number of periods = 10

		Statistic	***p-value***
Inverse chi-squared(16)	P	118.0553	0.0000
Inverse normal	Z	-4.6748	0.0000
Inverse logit t(44)	L*	-10.2718	0.0000
Modified inv. chi-squared	Pm	18.0410	0.0000

xtunitroot fisher log_size, dfuller lags(0)

Fisher-type unit-root test for log_size based on augmented Dickey-Fuller tests

Ho: All panels contain unit roots; Ha: At least one panel is stationary

Number of panels = 8 Number of periods = 10

		Statistic	***p-value***
Inverse chi-squared(16)	P	20.1293	0.2145
Inverse normal	Z	-1.0281	0.1519
Inverse logit t(44)	L*	-1.0033	0.1606
Modified inv. chi-squared	Pm	0.7300	0.2327

xtunitroot fisher eps, dfuller lags(0)

Fisher-type unit-root test for eps based on augmented Dickey-Fuller tests

Ho: All panels contain unit roots; Ha: At least one panel is stationary

Number of panels = 8 Number of periods = 10

		Statistic	***p-value***
Inverse chi-squared(16)	P	45.1686	0.0001
Inverse normal	Z	-3.7369	0.0001
Inverse logit t(44)	L*	-4.0815	0.0001
Modified inv. chi-squared	Pm	5.1563	0.0000

xtunitroot fisher lev, dfuller lags(0)

Fisher-type unit-root test for lev based on augmented Dickey-Fuller tests

Ho: All panels contain unit roots; Ha: At least one panel is stationary

Number of panels = 8 Number of periods = 10

		Statistic	***p-value***
Inverse chi-squared(16)	P	35.2717	0.0036
Inverse normal	Z	-3.0189	0.0013
Inverse logit t(44)	L*	-3.0625	0.0019
Modified inv. chi-squared	Pm	3.4068	0.0003

xtunitroot fisher eratio, dfuller lags(0)
Fisher-type unit-root test for eratio based on augmented Dickey-Fuller tests
Ho: All panels contain unit roots; Ha: At least one panel is stationary
Number of panels = 8 Number of periods = 10

		Statistic	***p-value***
Inverse chi-squared(16)	P	104.9741	0.0000
Inverse normal	Z	-4.8624	0.0000
Inverse logit t(44)	L*	-9.4027	0.0000
Modified inv. chi-squared	Pm	15.7286	0.0000

xtunitroot fisher liq, dfuller lags(0)
Fisher-type unit-root test for liq based on augmented Dickey-Fuller tests
Ho: All panels contain unit roots; Ha: At least one panel is stationary
Number of panels = 8 Number of periods = 10

		Statistic	***p-value***
Inverse chi-squared(16)	P	45.3300	0.0001
Inverse normal	Z	-3.5346	0.0002
Inverse logit t(44)	L*	-4.0078	0.0001
Modified inv. chi-squared	Pm	5.1849	0.0000

xtunitroot fisher log_tax, dfuller lags(0)
Fisher-type unit-root test for log_tax based on augmented Dickey-Fuller tests
Ho: All panels contain unit roots; Ha: At least one panel is stationary
Number of panels = 8 Number of periods = 10

		Statistic	***p-value***
Inverse chi-squared(16)	P	57.5599	0.0000
Inverse normal	Z	-4.1575	0.0000
Inverse logit t(44)	L*	-5.3095	0.0000
Modified inv. chi-squared	Pm	7.3468	0.0000

Results of Multicollinearity test (Quantity of disclosure – UK)

pwcorr log_csed log_size eps lev eratio liq log_tax, sig

	log_csed	log_size	eps	lev	eratio	liq	log_tax
log_qncsed	1.0000						
log_size	0.7922	1.0000					
	0.0000						
Eps	0.3183	0.2729	1.0000				
	0.0040	0.0143					
lev	0.5970	0.6395	0.1279	1.0000			
	0.0000	0.0000	0.2583				
eratio	0.3041	0.7105	0.1668	0.4273	1.0000		
	0.0061	0.0000	0.1393	0.0001			
liq	-0.0586	-0.1321	-0.0520	-0.3451	-0.1283	1.0000	
	0.6055	0.2426	0.6467	0.0017	0.2568		
log_tax	0.7870	0.8986	0.2030	0.6161	0.4685	-0.1502	1.0000
	0.0000	0.0000	0.0710	0.0000	0.0000	0.1836	

Results of Serial Correlation Test (Quality of Disclosure UK)

Serial Correlation:

LM(rho=0) = 23.48 Pr>chi2(1) = 0.0000

Results of Contemporaneous Correlation Test (Quality of Disclosure UK)

Joint Test:

LM(Var(u)=0,rho=0) = 7.72 Pr>chi2(2) = 0.0211

Results of Unit Roots tests (Quality of Disclosure UK)

xtunitroot fisher log_qlcsed, dfuller lags(0)

Fisher-type unit-root test for log_qlcsed based on augmented Dickey-Fuller tests

Ho: All panels contain unit roots; Ha: At least one panel is stationary

Number of panels = 8 Number of periods = 10

		Statistic	***p-value***
Inverse chi-squared(16)	P	47.4598	0.0001
Inverse normal	Z	-3.3813	0.0004
Inverse logit t(44)	L*	-4.0913	0.0001
Modified inv. chi-squared	Pm	5.5614	0.0000

Results of Serial Correlation Test (Quality of Disclosure UK)

Serial Correlation:

LM(rho=0) = 3.76 Pr>chi2(1) = 0.0525

Results of Contemporaneous Correlation Test (Quality of Disclosure UK)

Joint Test:

LM(Var(u)=0,rho=0) = 7.72 Pr>chi2(2) = 0.0211

APPENDIX IV: Results of Levene's Equality of Variance Ratio Test on Quantity and Quality of Disclosure by UK and Nigerian Companies

Quantity of Disclosure						
Variable	**Obs**	**Mean**	**Std. Err.**	**Std. Dev.**	**[95% Conf. Interval]**	
qn_u	80	13732.05	1350.366	12078.04	11044.21	16419.89
qn_n	80	1293.225	133.4238	1193.379	1027.652	1558.798
Combined	160	7512.637	837.0811	10588.33	5859.405	9165.87

Quality of Disclosure						
Variable	**Obs**	**Mean**	**Std. Err.**	**Std. Dev.**	**[95% Conf. Interval]**	
ql_u	80	.3693941	.0304171	.2720592	.3088503	.4299379
ql_n	80	.1262108	.0051665	.0462105	.1159271	.1364944
Combined	160	.2478024	.0181511	.229595	.2119541	.2836507

APPENDIX V: Shapiro-Wilk Test for Normal Data on Quantity and Quality of Disclosure by UK and Nigerian Companies

Shapiro-Wilk test for normal data				
Variable	Country	Observations	W	Prob>z
QNCSED				
	UK	80	0.89463	0.00001
	NG	80	0.84246	0.00000
QLCSED				
	UK	80	0.89879	0.00001
	NG	80	0.95955	0.01262