Sustainability Practices and their Effect on Performance in the Banking Sector - A Stakeholder Approach

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Abstract

Sustainability has gained considerable interest from businesses, academics and in the press in the last two decades. However, the existing sustainability literature says little about what banks gain from moving towards sustainable development. Studies on the relationship between sustainability practices and performance in banks are extremely scarce and have produced inconclusive results. This thesis has two major purposes: to investigate the current sustainability practices in the banking sector and to examine the relationship between sustainability and performance in the banking sector. To achieve this, a sustainability model has been developed for the banking sector taking stakeholders' effects into consideration.

Content analysis was employed to collect the necessary data on stakeholder engagement, communication efforts to stakeholders, strategy and sustainability information. Performance data were obtained from the Bankscope database and 483 bank reports for EU & USA banks over the period 2006-2012 were examined. The data were first analysed using descriptive statistics. The main analysis involved bivariate tests and structural equation modelling path analysis.

The results indicate that European banks pay more attention and communicate significantly more with different stakeholder groups than American banks. Banks responded to different degrees to stakeholder issues in their sustainability reports. Moreover, the results show that EU banks carry out more sustainability practices than USA banks. The results also show positive relationships between stakeholders' salience and all aspects of sustainability; stakeholders' communications and the environmental aspects of sustainability; size and all sustainability aspects except product sociology. The effect of stakeholder salience on sustainability is more significant in European banks pursuing a sustainability strategy while the effects of communications on sustainability are more significant in American banks with a non-sustainability strategy. Size affects sustainability more in banks with a non-sustainability strategy, but no differences were found for the effect of size on sustainability between the two regions. Furthermore, the results show that the environmental aspects of sustainability are not related to the banks' performance, but a positive association with the social aspects of sustainability was found.

This study is the first to develop a sustainability model for the banking sector. Hence, it makes significant contributions to the sustainability literature. It helps improve our understanding of the different dimensions of sustainability, how they are affected by different stakeholders and strategic orientations, and how they affect the performance of banks. The results of this study can help EU and USA banks to direct their efforts to areas that improve their engagement with stakeholders and their own performance.

Dedication

*To my Father "**Salah Moufty**"*

*My Mother "**Ragda Azhari**"*

&

*My husband "**Abdulhadi Ibrahim**"*

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I thank God Almighty for helping me and giving me the strength to finish this thesis.

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Finally, I would like to thank all of my friends in the UK and in Syria, with whom I have so many happy memories, for supporting me.

Thank you all!

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Declaration

I hereby declare that this thesis contains no material that has been previously submitted, in whole or in part, for a degree in this or any other university. I further declare that this thesis is my own work.

I also declare that all ideas, information and conclusions reported in this thesis are entirely my effort, except where otherwise acknowledged.

Souad Moufty

Publications Associated with the Thesis

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Moufty, S. (2013) Sustainability performance management in UK banking sector, *The doctoral colloquium of the British Accounting and Finance Association*: BAFA, Newcastle (49th event).

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List of Abbreviations

AMOS	Analysis of Moment Structures
CBsem	Covariance Based SEM
CDOs	Collateralized debt obligations
CFI	Comparative Fit Index
CLOs	Collateralized Loan Obligations
CMIN	Chi-square
CMIN/DF	Relative Chi-square
CSR	Corporate Social Responsibility
EIRIS	Ethical Investment Research Service
EIUR	Economist Intelligence Unit report
EPA	Environmental Protection Agency
FSA	Financial Services Authority
FSSS	Financial Services Sector Supplement
GRI	Global Reporting Initiative
GRI-FSSS	Global Reporting Initiative-Financial Services Sector Supplement
IBM	International Business Machines Corporation
IFC	International Finance Corporation
IFI	Incremental Fit Index
KLD	Kinder, Lydenberg, Domini and Company
LBOs	Leverage Buyouts
ML	Maximum Likelihood
NFI	Normed Fit Index
OLS	Ordinary Least Square
PLSsem	Partial Least Square SEM
RMSEA	Root Mean Square Error of Approximation
ROAA	Return on Average Assets
ROA	Return On Assets
ROE	Return On Equity
ROI	Return On Investment
ROS	Return On Sale
SEM	Structural Equation Modelling
SMC	Squared Multiple Correlations
SRI	Stanford Research Institute
UNEP	United Nations Environment Program
URN	Unique Reference Number
VFU	Verein für Umweltmanagement in Banken, Sparkassen und Versicherungen. English: "Association for environmental management in banks and insurance companies"
WCED	World Commission on Environment and Development

Chapter 1: Introduction

> *"The reason there has been so much focus on banks and sustainability is because that is where the money is"* Andrew Savitz (author of The Triple Bottom Line) (Willman, 2007, p. 2).

1.1 Background

The main theme of this thesis is corporate sustainability[1] in the banking sector, which has gained the considerable interest of businesses, academics, and even the press in the last two decades. It is believed that the ability of banks to exist for generation after generation depends on their capability to pursue environmental protection and social justice along with growth and profitability. However, for banks to be sustainable, they should have a good relationship with all their stakeholders. Banks use sustainability disclosure in their annual reports or stand-alone sustainability reports to demonstrate and communicate their social and environmental impacts along with their profits. However, it is still not clear whether sustainable banks would be more profitable than non-sustainable (or less sustainable) ones. Previous studies produced inconclusive results and there is no sound explanation for the relationship between corporate sustainability and financial performance.

This chapter provides an introduction to the thesis. It explains the research problem, the motivation for the study, and its aim and objectives. The remainder of this chapter is organised into six more sections. The next section introduces the research problem and this is followed by an explanation of the motivation of the study. Then, the research aims, objectives and questions are stated in the fourth section while the fifth section gives a brief description of the research method used in this study. The sixth section illustrates the main contributions of this research. The final section outlines the organisation of the thesis.

1.2 The Research Problem

The banking sector occupies a significant position in the global economy (Jayawardhena and Foley, 2000). This importance is due to the sector's size, its ability to influence

[1] The key principle of corporate sustainability is to integrate fully the social and environmental objectives of companies with their financial aims and account for their actions against the wellbeing of a wider range of stakeholders through accountability and reporting mechanisms (e.g. Gao and Zhang, 2006).

monetary markets by playing an intermediate role, and its investment, directly and indirectly, in all industries and services (Heffernan, 1998; Basel Committee on Banking Supervision, 1999; Sims, 2009). In recent years, the banking sector has experienced major changes and increased competition due to deregulation, technological development, the globalization of capital markets and more recently, the global financial crisis (Lapavitsas and Santos, 2008; Blundell-Wignall and Atkinson 2010; Munir *et al*., 2011). Since 2007, many countries have experienced what could possibly be called the worst economic crisis in history. It is considered by many economists (Petrov, 2008; Hilsenrath *et al*., 2008, Blundell-Wignall and Atkinson, 2009) to be the worst financial crisis since the Great Depression of the 1930s.

Many authors (such as, Hilsenrath *et al*., 2008; Jordan and Jain, 2009; Blinder, 2009) have analysed the causes and the underlying reasons for this crisis. They found that irresponsible lending, excessive risk taking, and the pressure placed by shareholder on managers to produce unsustainable growth in earnings (which forced managers to take excessive risks), are some of the reasons behind this crisis. As a result, financial institutions failed to take into account the longer term with regards to the risks they embraced and instead attempted to acquire profits in the short term; this turned out to be disastrous for future stakeholders (Keay, 2012; Asel *et al*., 2011). Hence, the need to harmonize shareholders' demand for profitability with the concerns of other stakeholders has intensified (Sundin *et al*., 2010) and maintaining relations with stakeholders' relations have become more important for banks since the financial crisis (Wall and Greiling, 2011). Banks are required to be more open and accountable to a wider range of interested groups. This was stressed by the World Bank when it stated: "only by effectively managing social and environmental opportunities alongside risks can banks create long-term value for their businesses" (World Bank group, 2007, p.7).

Banks should have good relationships with their stakeholders. "The capacity of a firm to generate sustainable wealth over time, and hence its long-term value, is determined by its relationships with critical stakeholders" (Post *et al*., 2002, p. 8, 9). Proponents of stakeholder theory argue that the success of the firm depends on the successful management of all the firm's relationships with its stakeholders (Elijido-Ten, 2007). Moreover, stakeholders impose pressure on companies regarding the impact of their economic activities on the environment and society (Yongvanich and Guthrie, 2006). Banks need to increase engagement with their stakeholders as a part of the sustainability

process (International Finance Corporation-IFC., 2005) while sustainability is unachievable without stakeholders' engagement as the two concepts are closely interrelated (Strand, 2008). Consequently, in order for the banking sector to remain competitive within the increasing competitive nature of financial markets, and in order to be successful, they must achieve sustainability (Brandy, 2009; Gordon and Lacy, 2011).

In order for sustainable development to happen, banks must focus on both economic value added, and on the environmental and social value added or destroyed (Capella, 2002). In the case of banks, because of their great influence on the economy since they provide finance to industries with significant environmental impact, it is important to achieve sustainable development (Capella, 2002). As pointed out by the Director of the United Nations Environment Program (UNEP), "if financial institutions do not get involved in the stewardship of the environment, sustainable development will lose its power" (quoted in Capella, 2002, p. 19). As a result of this public pressure on companies, banks have started to report social and environmental information in order to secure their right from society to operate (Gray *et al*., 1995a; Walden and Schawartz, 1997). These reports are seen as a vehicle to communicate with stakeholders about their company's sustainability activities (Dierkes and Antal, 1985; Preston *et al*., 1999; Owen *et al*., 2001; Kolk, 2004; Gray, 2006). However, there is little research on how banks manage their diverse stakeholder groups or how they engage with them and communicate their sustainability activities to them.

Empirical studies have examined the relationship between sustainability practices and performance control in terms of some firms' characteristics, such as company size, type of industry or reporting region. However, these studies produced inconclusive results. Moreover, studies on the relationship between sustainability practices and performance in the banking sector are scarce. As a result, it is not clear whether banks that achieve sustainability are more likely to be profitable than non-sustainable or less sustainable banks. Furthermore, it is not clear what roles stakeholders and strategy play in this regard.

1.3 Research Motivation

Various aspects of sustainability and sustainable development have been addressed, cited and debated by many businesses, academics and the press. Increasing attention has been paid to this in the literature since the publication of the Brundtland Report by the World Commission on Environment and Development in 1987. Schubert and Lang (2005) found

2434 papers that cited the report during the period between 1987 and 2001. This interest on the part of academics is evidenced by the attention paid by researchers (e.g., Wiseman, 1982; Guthrie and Parker, 1990; Gray *et al*., 1995a; Hackston and Milne, 1996; Buhr and Freedman, 2001; Gray, 2002; Mathews, 2004; Parker, 2005; Thomson and Bebbington, 2005; Ashcroft, 2012). A similar interest shown by businesses is evidenced by the number of companies producing stand-alone sustainability reports. While in 1999 fewer than 500 companies issued sustainability reports, the number of companies was close to 3500 in 2010, reflecting the growing trend to issue such reports (Economist Intelligence Unit report, 2010).

This research is, furthermore, motivated by the importance and the significant position of the banking sector in the global economy. For example, the average growth in the UK banking sector has been 2.3% a year since 1990, outperforming the whole economy which grew at an average rate of 1.9% a year (Kosmidou *et al*., 2006). Financial institutions are crucial to any economy due to their size and their ability to influence monetary markets (Sims, 2009). Thus, in 2007, many countries in the world experienced an economic crisis which was considered by many economists (Petrov, 2008; Hilsenrath *et al*., 2008, Blundell-Wignall and Atkinson, 2009) to be the worst financial crisis since the Great Depression of the 1930s. In 2009, The Economist reported that the financial crisis had hit nearly every bank and financial institution and was now pervading to the economy as a whole (The Economist, 2009; Chambers, 2009). It has been argued that those banks that had been able to avoid the impact of the crisis and had continued to grow were sustainable banks that focused on sustainable businesses that delivered explicit social, environmental and cultural benefits (Earhart *et al*., 2009). In the increasingly competitive finance sector resulting from deregulation and the globalisation of capital markets, the banking sector should remain competitive by achieving financial sustainability (Brandy, 2009). Moreover, banks' stakeholders are pressurising banks to improve their performance (Munir *et al*., 2011). However, according to Jeucken (2002), the banking sector has responded more slowly than other sectors to sustainability challenges as they consider themselves to operate in an environmentally friendly industry (in terms of emissions and pollution).

The sustainability literature says little about the benefits of moving to sustainable development. Previous studies have produced mixed results with many limitations, such as a lack of theory, the absence of strategy in the model, and using a wide variety of methods to measure performance and sustainability. Furthermore, the banking sector occupies a

significant position in the global economy (Jayawardhena and Foley, 2000) and by the beginning of the 20th century it had become the largest sector (Looy *et al*., 2003), although it was only in the late 1990s that the sector began attracting academic attention (Jeucken, 2001). Therefore, this study addresses this gap in the literature.

1.4 Research Aims, Objectives and Questions

The main aims of this research is to develop a sustainability model to explain the relationships among stakeholders' management (engagement), sustainability strategy and sustainability, and to explore whether sustainability leads to a better performance in banks. In particular, the following objectives are to be achieved in this study:

1. To examine how banks engage with their stakeholders (identifying the target groups, how communication is made with them, and mapping their expectations).
2. To identify the current sustainability practices in the banking sector.
3. To investigate (validate) empirically a proposed sustainability model that explains the relationships among stakeholders' management, sustainability and performance, and whether the sustainability strategy has an influence on these relationships in the banking sector.

These objectives will be achieved by addressing the following research questions (RQs):

1. Which stakeholder groups are presented by banks as the main targets of their sustainability practices?
2. What communication methods do banks use in their reports to communicate sustainability information?
3. To what extent does the sustainability information disclosed by banks meet their stakeholders' expectations?
4. To what extent, and in which dimensions, do banks report on their sustainability practices?
5. Does stakeholders' salience have an effect on sustainability? If so, does sustainability strategy have a moderating effect on this relationship?
6. Does the intensity of communication with stakeholders have an effect on sustainability? If so, does sustainability strategy have a moderating effect on this relationship?

7. Is there a relationship between sustainability and performance in the banks? If so, does sustainability strategy influence this relationship?

1.5 Research Design

In order to achieve the aim of this study and develop a fuller and richer picture of the phenomena under study, content analysis is used to collect data about stakeholder engagement (management), effort to communicate with stakeholders and sustainability information from the reports of 71 EU & USA banks over the period 2006 – 2012. The analysis of sustainability information is conducted by developing a sustainability index based on the Global Reporting Initiative (GRI) 2011, GRI-FSSS (Financial Services Sector Supplement) and VFU (1996) in order to examine the context and extent of sustainability. Performance data is obtained from the Bankscope database.

Data analysis takes three forms. First, descriptive statistics are used to obtain an understanding of the sample data and their distribution. Second, bivariate tests are used to address the first four RQs. Finally, structural equation modelling path analysis is used to test the theoretical sustainability model (see Chapter 3).

1.6 Research Significance

This research makes significant contributions to the field of corporate sustainability. First, despite the enormous interest shown in various aspects of sustainability by academics, very few studies have been conducted in the financial sector in general and in the banking sector in particular. Therefore, this study contributes to the literature by focusing on the banking sector. Moreover, focusing on a single industry enhances the internal validity of the results (Griffin and Mahon, 1997).

Second, there is little research into how companies manage the diverse stakeholder groups and how they engage and communicate with them about sustainability activities. One of the main reasons for the inconclusive findings concerning the relationship between sustainability and performance may be the failure to take the effect of stakeholders into consideration (Ullmann, 1985; McWilliams and Siegel, 2001; Ruf *et al*., 2001; Moore, 2001; Barnett, 2007; Lee *et al*., 2013). As a result, this study contributes to the literature by

taking stakeholder theory as the basis for the development of a theoretical framework to explain the relationship between sustainability and performance.

Third, this study examines the influence of sustainability strategy on the sustainability model. Ullmann (1985) suggested that strategy was the missing element in the previous models on social responsibility and, if included, would help in explaining the relationships. Few examples could be found in the literature where sustainability was linked to strategic alignment (Adams and Frost, 2008). This study adds to this literature.

Fourth, in order for companies "to communicate clearly and openly about sustainability, a globally shared framework of concepts, consistent language, and metrics is required" (GRI Sustainability Reporting Guidelines, 2006, p. 2). There are many frameworks for sustainability evaluation and performance (Dias-Sardinha and Reijnders, 2001) but most of the previous sustainability databases do not incorporate stakeholders' issues (Mishra and Suar, 2010). Hence, there are calls for researchers to develop new sustainability databases (Harrison and Freeman, 1999; Mishra and Suar, 2010). This study contributes to this literature by developing a new framework for measuring sustainability. This sustainability index is based on the GRI (2011), GRI-FSSS and VFU (1996) and examines the context and extent of sustainability. It can be used by future studies concerning sustainability in the financial sector.

Fifth, in the last few years, there has been a growing interest on the part of both academics and businesses in sustainability accounting and reporting and an increasing number of companies are producing stand-alone sustainability reports. For banks and insurance companies listed in the Fortune Global 250 companies, sustainability reporting percentages were 15% in 1998 and 24% in 2001 (Kolk, 2003). Despite of this attention, most previous studies used only annual reports to analyse sustainability practices (Gray *et al*., 1995a); this study bridges this gap.

Sixth, most previous studies used one or few measures of performance, but Griffin and Mahon (1997) argue that multiple accounting measures of performance should be used. This study uses a group of measures to minimise measurement bias.

Finally, this study seeks to understand the differences in sustainability practices between EU and USA banks. The previous sustainability literature is dominated by studies examining the issue mainly in the USA (Van der Laan Smith *et al*., 2005).

1.7 Structure of the Remainder of the Thesis

This thesis is structured into seven more chapters. The next chapter reviews the literature relating to sustainability, its strategy, and its relation to stakeholders and performance. How these perspectives are logically interrelated is articulated in this chapter. Chapter 3 draws on stakeholder theory and the literature review to develop a theoretical framework for the study and associated hypotheses.

This is followed by Chapter 4, which describes and justifies the research methodology. It starts with by discussing the philosophical assumptions and then describes the research design, the sample selection, the data collection and the data analysis methods.

Chapter 5 presents the results of the statistical tests that address the first four research questions and Chapter 6 reports the results of tests relating to the remaining research questions. A discussion of the results is provided in Chapter 7 in the context of previous research and the implications of the findings. Finally, Chapter 8 draws conclusions and points out the contributions and limitations of the study.

Chapter 2: Literature Review

2.1 Introduction

This chapter critically reviews the relevant literature related to corporate sustainability and the review concludes that corporate sustainability is unachievable without engaging different stakeholder groups and implementing a sustainability strategy. This in turn affects the economic outcomes of organisations. Stakeholder theory is used as a theoretical base to explain the current practices of sustainability and to explain the relationships between the different constructs.

The chapter is organised into five main sections. Section 2.2 explores the concept of sustainability and how it relates to stakeholder theory, sustainability reporting in the financial sector and previous sustainability models. Section 2.3 outlines strategic considerations with regard to corporative sustainability; this is related to stakeholders and sustainability strategy is also introduced. In section 2.4 the relationship between sustainability and performance is reviewed while the subsequent section, 2.5, is dedicated to illustrating the limitations and identifying gaps in the current literature. The final section, 2.6, concludes the chapter.

2.2 Sustainability

The impact of companies' business activities on the environment and society were highlighted in the World Commission on Environment and Development (WCED, 1987). Since then there has been a growing awareness internationally of these impacts. In this report (WCED), the concept of sustainable development was introduced; this tried to balance the conflicting forces of economic efficiency, social equity and environmental awareness as major values. This was defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987, p. 47). It was also defined as development that seeks to achieve societal and environmental equity while, at the same time, pursuing economic gain (Ngwakwe, 2012). Sustainability development is a broad, controversial concept that balances the need for economic growth with environmental protection and social justice (Wilson, 2003). If firms want to achieve long-term economic gain they should not ignore the environmental and social responsibility goal of sustainable development. Corporate sustainability, the

capacity of a firm to continue operating over a long period of time, depends on the sustainability of its stakeholder relationships (Perrini and Tencati, 2006). Also, sustainability was defined as "meaning the incorporation of social, environmental, economic, and cultural concerns into corporate strategy" (Eweje, 2011, p. 125).

Many concepts in the literature refer to the role of businesses in society and the concept of "corporate sustainability" has been used as an "umbrella term" for them (Signitzer and Prexl, 2008). Among these concepts are corporate social responsibility (CSR); corporate citizenship; people, planet, profit (PPP); corporate social performance and many others, as shown in Figure 2.1 (Signitzer and Prexl, 2008).

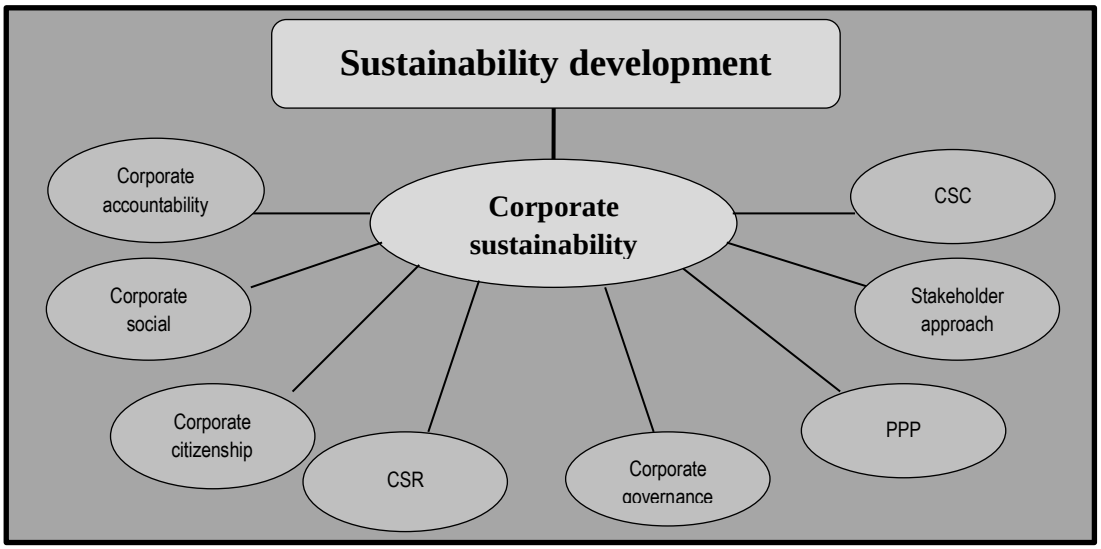


Figure 2.1: Corporate sustainability and other related terms (Signitzer and Prexl, 2008, p. 4)

On the other hand, Wilson (2003) suggests that the concept of corporate sustainability borrows elements from four more established concepts: 1) sustainable development; 2) corporate social responsibility (CSR) which deals with the role of business in society; 3) stakeholder theory; and, 4) corporate accountability which is the legal or ethical responsibility to provide an account of the actions for which one is held responsible. The basic principle of stakeholder theory is that the stronger relationships are with other external parties, the easier it is to meet corporate business objectives; conversely, the worse the relationships, the harder it is to meet such objectives (Wilson, 2003). The goal of stakeholder theory is to help corporations strengthen relationships with external groups in order to develop a competitive advantage.

Corporate sustainability requires companies to pursue growth and profitability while, at the same time, pursuing sustainable development goals (i.e. societal and environmental equity alongside economic gain) (Wilson, 2003). Sustainable development has two contributions to corporate sustainability: first, "it helps to set out the areas that companies should focus on: environmental, social and economic performance" (Wilson, 2003, p. 2); second, it provides ecological, social and economic sustainability goals for corporations, governments, and civil society to work towards (Wilson, 2003). However, as a result of the conflict between financial performance and social/environmental performance, most work in the area of corporate sustainability does not acknowledge the importance of financial performance as an important part of sustainability (Aras and Crowther, 2008). Therefore, when analysing corporate sustainability, social, environmental and financial impacts need to be acknowledged (Aras and Crowther, 2008). Similarly, Dyllick and Hockerts (2002, p. 131) state: "firms have to consider their economic, social and environmental operations and continue to contribute to sustainability in the political domain".

However, in the literature of sustainability, the trade-off between sustainability and economic growth is controversial. Moreover, arguments have appeared in the literature on whether optimal growth is sustainable or not, and how to formulate an optimal sustainable growth programme (Islam, 2001). Based on the following definition of sustainability development provided by the World Commission on Environment and Development (1987): "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987, p. 43), some authors (Pezzey, 1989; Tietenberg, 1988) have considered growth to be sustainable if no sacrifice from future generations is required. Similarly, Sathiendrakumar (1996) stated that the current generation should take the sustainability principle into account with regard to the resources which are used and the resources which are left behind for future generations. "The financial idea of sustainable growth means the actual growth of the enterprise must harmonise with its resources" (Huang, and Liu, 2009, p. 200).

Models of optimal sustainable growth have been developed in the literature. For example, Pezzey (1989) analysed the conditions when optimal growth can be sustainable, and Anand and Sen (1996) modelled sustainable growth (in Islam, 2001). Some authors expressed a concern that environmental protection would come at the expense of economic growth (Cho, 1994). Cho (1994) indicated that some models appeared to deal with the

problem of economic growth and environmental preservation (i.e. Barett, 1992; Fisher *et al*., 1972; Krautkraemer, 1985). Similarly, Hartman and Kwon (2005) stated that many models have been developed to study the relationship between environmental quality in general or pollution and economic growth (i.e. John and Pecchenino, 1994 and Jones and Manuelli, 1995). These sustainable growth models attempt to find the optimal path for growth, which is the path that maximises social welfare in a certain period of time (Young, 1993).

2.2.1 Sustainability and Stakeholders

Sustainability has been closely related to stakeholders, as companies will not be able to achieve sustainability without taking stakeholders' needs into account. Banks need to increase engagement with stakeholders as a part of the sustainability process (IFC, 2005). They are required to make themselves more open and accountable to a wider range of interested groups. This is stressed by the World Bank thus: "only by effectively managing social and environmental opportunities alongside risks can banks create long-term value for their businesses" (World Bank Group, 2007, p. 7). The key principle of corporate sustainability is to integrate fully the social and environmental objectives of companies with their financial aims; they must account for their actions against the wellbeing of a wider range of stakeholders through accountability and reporting mechanisms (Gao and Zhang, 2006; Perrini and Tencati, 2006). Sustainability can be understood as "the creation of not just financial and economic value but also long-term environmental and social value for a wide range of stakeholders with particular consideration for the needs of future generations" (World Bank Group, 2007, p. 8). Accordingly, in order for sustainable development to happen, banks must focus on the environmental and social value added or destroyed, and not only on the economic value added (Capella, 2002). Post *et al*. (2002, p. 8-9) emphasised that "the capacity of a firm to generate sustainable wealth over time, and hence its long-term value, is determined by its relationships with critical stakeholders". Therefore, banks must consider their relationships, not only with their shareholders, but also with employees, clients, suppliers, public authorities, the local (or national) community and civil society in general, financial partners, etc. (Perrini and Tencati, 2006). Moreover, the spirit of sustainability requires banks to meet the needs of their stakeholders in the future as well as today, and not only for short-term profit.

The relationship between stakeholders and the bank must be managed in ways that not only meet the needs of the bank but also meet the needs and expectations of stakeholders (Bourne, 2005, 2009). Stakeholder theory suggests that it is in the bank's best economic interest to work toward sustainability, as this will strengthen its relationships with stakeholders and help the bank to meet its business objectives (Wilson, 2003). The basic proposition of stakeholder theory is that a bank's success is dependent upon the successful management of all the relationships a bank has with its stakeholders (Elijido-Ten, 2007). Sustainability is not achievable without stakeholder engagement as the two concepts are closely interrelated (Strand, 2008). Sustainability is influenced by the bank's stakeholders, and managers are required to define the goals and criteria of corporate sustainability with stakeholders in a communicative way (Schaltegger and Wagner, 2006a). Most previous studies have tried to find a link between the management of stakeholders and achieving social and/or environmental benefits. Therefore, there is a need to identify the stakeholders are in the banking sector and how banks engage with them.

2.2.2 Sustainability Reporting

Gao and Zhang (2006) argued that sustainability reporting becomes an essential part of the process towards corporate sustainability. The term "Sustainability reporting" is a broad one and has been used as being "synonymous with others used to describe reporting on economic, environmental, and social impacts (e.g., triple bottom line, corporate responsibility reporting, etc.)" (GRI, 2006, p. 3). The key premise of corporate sustainability is that corporations should fully integrate their social and environmental objectives with their financial aims and should account for their actions against the wellbeing of a wider range of stakeholders through accountability and reporting mechanisms (World Bank group, 2007; Gao and Zhang, 2006). This premise includes reporting on sustainability in addition to balancing the three dimensions of sustainability, stakeholders' engagement and accountability (Gao and Zhang, 2006). Moreover, stakeholders impose pressure on banks regarding the impact of their economic activities on the environment and on society; hence calls for banks to report on their social and environmental performance are increasingly being made (Yongvanich and Guthrie, 2006).

However, traditional financial reporting has proved to be incomplete (especially after the last corporate failures and accounting scandals of Ansett, Enron, WorldCom, British

Petroleum and Parmalat, HIH, One-Tel, Worldcom). Traditional financial reporting has been criticised as it does not facilitate the inclusion of external environmental and social factors (Accounting for Sustainability, part1). It provides an incomplete account of business activities (Yongvanich and Guthrie, 2006) and only provides "a snapshot of past financial performance" (Leadbeater, 1999, p. 17). In the last few years, there has been a growing interest in sustainability accounting and reporting by the academic and business worlds. For banks and insurance companies listed in the Fortune Global 250 companies, the percentages producing sustainability reports grew from 15% in 1998 to 24% in 2001 (Kolk, 2003). International surveys of environmental reporting shows that in the years 2002, 2005, 2008, 2011, 45%, 52%, 80%, 95% respectively of the 250 largest companies in the world (G250 companies) produced separate environmental reports (KPMG 2002, 2005, 2008, 2011). Tarna (1999) found that most sustainability reports published by financial institutions concentrate on environmental issues. The same point was stressed by Sharma and Ruud (2003) who stated that the focus of sustainability reports was on environment issues and did not reflect social issues. However, banks have now started also to report on the social component of sustainability (Tarna, 1999).

As a result of this public pressure on banks, they began to report sustainability information in order to secure their right from society to operate (Gray *et al*., 1995a; Darrell and Schawartz, 1997) as sustainability means that a bank is able both to operate for a long time and be profitable (WRI, 2002) and the right to operate comes from the society (Yongvanich and Guthrie, 2006). Therefore, it is vital for banks to achieve economic, environmental and social performance (Yongvanich and Guthrie, 2006) and take stakeholders' concerns into account.

Sustainability reporting is seen as a vehicle to communicate with stakeholders on a bank's economic, environmental and social practices, policies and/or the impacts of the bank's activities (Dierkes and Antal, 1985; Preston *et al*., 1999; Owen *et al*., 2001; Kolk, 2004; Gray, 2006). Sustainability reporting is considered by the Global Reporting Initiative G3.1 Guidelines (GRI, 2006, p. 3) as "the practice of measuring, disclosing, and being accountable to internal and external stakeholders for organisational performance towards the goal of sustainable development". Similarly, Gray *et al*. (1995a, p. 53) asserts that "social disclosure is thus seen as part of the dialogue between the company and its stakeholders". Banks will communicate their environmental activities if they are

complying with environmental regulations and laws and wish to assure their stakeholders of this (Holland and Boon Foo, 2003). In other words, sustainability reporting may be used as a way of legitimising a bank to its stakeholders (Mathews, 2004; Deegan, 2007).

Previous studies on sustainability have revealed that companies in general direct their reports towards key stakeholders who are important to them and have an influence on their activities (Preston *et al*., 1999; Epstein and Birchard, 2000; Core, 2001; Smith *et al*., 2005; Thomson and Bebbington, 2005; GRI, 2006); and they viewed sustainability reporting as a strategic plan to manage their firm's relationship with stakeholders (Roberts, 1992; Lundholm and Winkle, 2006). Moreover, sustainability reporting is shaped by input from a bank's engagement with various stakeholders (Bouma, 1999; KPMG, 2008). From the previous argument, it can be considered that "the greater the salience associated with a stakeholder group, the higher will be the level of interaction between the firm and the stakeholder group and the more will be the stakeholder dialogues addressing the interests of the group" (Boesso and Kumar, 2009, p. 165). Accordingly, sustainability reports could be used to "find information about how much and what kinds of attention various stakeholder groups receive and are likely to receive from the management of a firm" (Boesso and Kumar, 2009, p. 165). The same conclusion could be drawn about banks: the higher the salience associated with a stakeholder group means this group is of greater importance to the bank and hence, the greater number of dialogues will be addressed to this group. However, there is a shortage of evidence within sustainability reports as to whether stakeholder engagement and dialogue are actually taking place (Unerman, 2007). Hence, there is a need to demonstrate how much communication banks are actually engaged in with their stakeholders in their reports.

2.2.3 Sustainability in the Financial Sector

Sustainable banking can be defined as "a decision by banks to provide products and services only to customers who take into consideration the environmental and social impacts of their activities" (Bouma *et al*., 2001, p. 101). Earhart *et al*. (2009) added that most sustainable banks devote their operations to fields that provide real economic growth and only finance businesses that provide services and products that people need. Adams and Frost (2008) stated that, in order for organisations to survive and prosper, they should make decisions which serve the interests of the environment and society.

However, according to Jeucken (2002), the banking sector has responded more slowly than other sectors to sustainability challenges as they deem themselves to operate in an environmentally friendly industry (in terms of emissions and pollution). Thus, "the way in which their clients manage the impacts of their business activities can pose risks to the bank's assets and reputation" World Bank Group (2007, p. 24). The World Bank Group added that, in order to avoid these risks, banks need to make sure that their clients' operations do not have negative impacts on environment or society that would, in turn, have adverse impacts on their own sustainability. Nevertheless, banks have been unexpectedly slow in examining the social and environmental impact of their clients. They attribute this to clients' privacy as such investigations would 'require interference' with a client's activities (Jeucken and Bouma, 1999). To support this, empirical research in the 1990s found that banks were not interested either in their own environmental impact or that of their clients (Tomorrow, 1993). Later, it has been found that, in terms of managing environmental and social impacts, the financial sector is still behind other sectors (Earhart *et al*., 2009). However, this situation is changing and attention is now increasingly being turned to the financial sector's social and environmental performance (risks and opportunities). Thompson (1998) noted that bankers have started to realise that the operations of the banking sector both affect and are affected by the environment.

Moreover, sustainability-related products and services bring advantages to financial institutions, such as improving their reputation among customers and stakeholders, meeting the needs of major stakeholders expanding their portfolios, differentiating them from competitors, reducing risk in their credit portfolio, and strengthening brand and trust (Capella, 2002; Gordon and Lacy, 2011). This was established during the last financial crisis[2] as some banks proved to be resistant to it and were able to survive; some, such as Triodos, have even continued to grow, while others simply vanished altogether (Shapiro, 2007; Earhart *et al*., 2009). Banks that were able to avoid the impact of the financial crisis and continued to grow were sustainable banks that focused on sustainable businesses that delivered social, environmental and cultural benefits (Earhart *et al*., 2009).

The Financial Times and the International Finance Corporation launched the Sustainable Financial Award to recognise leaders and innovative organisations in the financial industry who integrated environmental and social considerations into their business (Kenny, 2009;

[2] For more on the crisis, see Appendix 1.

Earhart *et al*., 2009). In 2007, 100 banks entered for this Award (Brandy, 2009). The winners were:

- 2011: Itau Unibanco of Brazil; The Co-operative Financial Services, UK (Regional winner, Europe);
- 2010: Co-operative Financial Services, UK; HSBC, UK (Runner-up);
- 2009: Triodos Bank, The Netherlands; Standard Chartered, UK (Runner-up);
- 2008: Banco Real, Brazil; Rabobank, The Netherlands (Runner-up);
- 2007: ABN Amro, Netherlands; and
- 2006: HSBC.

Moreover, the environment presents significant direct, indirect and reputational risks to banks (Case, 1996; Wanless, 1995; Thompson, 1998). Therefore, in order for sustainable development to happen, banks must focus on both economic value added, and on the environmental and social value added or destroyed (Capella, 2002). The author also states that "financial institutions in developed countries are beginning to take environmental and social issues as an integrated part of their operations, providing the basic pillars for sustainable finance" (p.2). In the case of banks, taking into account their great influence on the economy as they provide finance to industries with significant environmental impact, it is important to achieve sustainable development (Capella, 2002). Therefore, the director of UNEP stated: "If financial institutions do not get involved in the stewardship of the environment, sustainable development will lose its power" (quoted in Capella, 2002, p. 19).

Despite the large amount of attention sustainability has received, there are only a few studies that have investigated sustainability practices in the banking sector (i.e. Cuesta-González *et al*., 2006; Branco and Rodrigues, 2008a; Chih *et al*., 2010). Using a sample of 520 financial firms in 34 countries, Chih *et al*. (2010) examined the determinants of CSR in financial firms from several dimensions: e.g., firm-specific characteristics, regulations, institutions and macroeconomic conditions. Similarly, Branco and Rodrigues (2008a) examined the social responsibility disclosures of 12 Portuguese banks while Cuesta-González *et al*. (2006) only analysed the social performance of the main Spanish financial companies. Previous studies have suffered from many limitations, such as small sample size, studying only one dimension of sustainability (social or environment), and using deficient methods to evaluate the social and/or environmental performance. Furthermore, according to Branco and Rodrigues (2008a), little attention has been paid to the

sustainability practices of companies belonging to industries with little direct environmental impact, such as banking. Consequently, this study examines current sustainability practices in European and American banks.

2.2.4 Models of Corporate Sustainability

Some authors have focused on "sustainable development" and have tried to redefine the societal role of businesses (Sharma and Vredenburg, 1998). According to Steger *et al.* (2007), many theoretical frameworks have emerged which try to link corporate social or environmental performance with financial performance. Carroll (1979) and Wartick and Cochrane (1985) were among the first to develop models to examine corporate sustainability. Both models recognised the paths firms follow to achieve corporate sustainability. Carroll (1979) identified four categories, namely: economic, legal, ethical and discretionary. Depending on Carroll (1979), Wartick and Cochrane (1985) proposed four paths, namely: reactive, defensive, accommodative and proactive. Another model was established by Wood (1991) who proposed a model of three levels of analysis to explain corporate social responsibility principles: the institutional level (legitimacy), the organisational level (public responsibility), and the individual level (managerial discretion).

Ullmann (1985) criticised the inconsistent findings of previous sustainability studies and, in response and building on Freeman's (1984) stakeholder theory, he developed a three dimensional model to explain the relationships among economic performance, social disclosures and social performance. Ullmann's three-dimensional model consists of *stakeholder power*, *strategic posture* (which describes the mode of response of an organisation's key decision makers towards social demands) and *economic performance;* this explains why companies engage in socially responsible activities. In this context, Ullmann (1985) viewed social performance as the result of a strategy for dealing with stakeholder demands. According to the author, strategy was the missing element in the previous models on social responsibility and, if included, would help in explaining the relationships. Similarly, a few years before the creation of Ullmann's model, Bowman and Haire (1975) suggested that strategy should be included as a variable (stated in Ullmann, 1985). Stakeholder theory offers a justification for including strategy in a sustainability model (Ullmann, 1985). Bowman and Haire's (1975) model found a U-shaped relationship

between social disclosure and economic performance. Empirical studies in this regard are dominated by two principal domains: (a) managers' attitudes towards sustainability and (b) instrumental research that investigates the link between sustainability and performance (Steger *et al*., 2007).

Previous studies (e.g. Roberts, 1992; Trotman and Bradley, 1981; Belkaoui and Karpik, 1989; Hackston and Milne, 1996; Branco and Rodrigues, 2008b; Garcia-Sanchez *et al*., 2013) examined factors (e.g. firm size, profitability, industry, country of ownership, capital intensity, company age) that might affect or determine sustainability practices. Basu and Palazzo (2008) described the focus of previous sustainability research as "shifting from understanding *why* (i.e., reasons for CSR engagement) and *what* (i.e., defining the CSR construct) to *how* best to adopt strategies and processes that support CSR decisions within organizations" (p. 23). However, this literature says little about what companies' gain from moving to sustainable development (Sharma and Vredenburg, 1998).

2.3 Strategic Considerations in Corporation Sustainability

Over the past 15 years, interest in corporate sustainability has increased (e.g. Schaefer, 2004; Epstein and Roy, 2003; Friedman and Miles, 2001). This literature has concluded that companies should treat sustainability as a strategic asset and integrate its rules into strategic policies and business processes as it affects the triple-bottom line and long-term profitability (Gao and Zhang, 2006; Elkington, 1997). Similarly, in order for banks to pursue sustainability they should integrate the different aspects of sustainability into their strategy in order to translate sustainability into a practical reality (Cleene and Wood, 2004; Eweje, 2011; Bonn and Fisher, 2011).

The literature provides a number of definitions of "strategy". For example, it has been defined as the route companies choose to take to reach the desired destination rather than the destination itself (Li and Tang, 2009) while Hartgraves and Morse (2012) defined strategy as "a course of action that will assist in achieving one or more goals" (p. 8). According to Herath, (2007, p. 907) strategy is "expected to provide support in the accomplishment of organizational goals in harmony with the organizational environment, both internal and external……strategy is believed to be the road map for any organizational effort". Hence, "policy-makers and business strategists will have to develop

appropriate social and environmental strategies for a dynamic sustainability policy" (Eweje, 2011, p. 127). In the same vein, Bonn and Fisher (2011, p. 5) argued that "for organizations to achieve sustainability, managers must address the different aspects of sustainability during the strategic decision-making process and incorporate them into their corporate, business and functional level strategies".

2.3.1 The Relationship between Sustainability and Strategy

Embedding sustainability into corporate strategy is necessary in order to implement sustainability principles (Cresti, 2009) and so corporate sustainability is becoming an integrative aspect of the business strategy of many firms (Signitzer and Prexl, 2008). Gao and Zhang (2006) offered examples of leading-edge companies (such as Body Shop, General Motors, SBN Bank and Shell) that have started to integrate their strategy with sustainability and have also begun to report on it. Consequently, in order for banks to remain competitive, they must address their social and environmental impacts by incorporating social and environmental concerns into their decision-making processes (Eweje, 2011).

However, Bonn and Fisher (2011) found that sustainability has been addressed by managers as an operational rather than as a strategic issue. Hence, for these authors, in order for companies to become more sustainable, the different dimensions of sustainability must be addressed at a strategic level. As a result, Bonn and Fisher (2011, p.13) concluded that sustainability is the "ingredient that has been missing from these organizations' strategies". Many authors (e.g. Zadek, 1999; Adams and Frost, 2008; Eweje, 2011) stated that nowadays corporations are integrating their sustainability indicators into their strategic planning, performance measurement and decision-making processes. Moreover, Gordon and Lacy (2011) asserted that the new era of sustainability would be where sustainability sits at the heart of a company's strategy and operations and is fully integrated or embedded into the strategy and operations of a company.

However, integrating sustainability issues within core business is not easy and many problems arise when executing a strategy that embeds sustainability across the business. In 1997 Hart observed that "few companies have incorporated sustainability into their strategic thinking" (Hart 1997, p. 71). In 2011 the problem was still the same and

Kashmanian *et al*., (2011) stated that most companies had not yet incorporated sustainability into their overall business strategy even though they recognised its value. Similarly, Gordon and Lacy (2011) surveyed 1000 CEOs around the world and found that 98% of banking CEOs said that sustainability issues should be integrated into the operations and strategy of banks, while only 80% of banking CEOs said that sustainability issues were fully integrated into the operations and strategy at that point; this, leave a performance gap of 18%. This gap could be a result of overconfident assessments of companies' progress or a lack of understanding of what full integration really involves (Gordon and Lacy, 2011). It would seem that most bank CEOs believe in the importance of integrating sustainability issues within core business but the problem is in making that vision a reality. Some of the barriers include financial and time constraints, personal motivation, and lack of knowledge (Rotheroe *et al*., 2003). There are many internal challenges (such as managing complexity, competing strategic priorities, and people and performance) and also external ones (consumer uncertainty, investor uncertainty, regulatory uncertainty) that arise when executing a strategy that embeds sustainability across the business (Gordon and Lacy, 2011).

Gordon and Lacy (2011) also found that 51% of banking managers felt that finding a balance between competing strategic priorities was an important obstacle when implementing sustainability issues. The problem, according to the authors, is that businesses regard sustainability as a separate or discrete strategy in itself rather than embedding it across all corporate and functional strategies and business plans. Consequently, companies need to incorporate long-term perspectives into their business strategy by moving away from focusing only on maximising shareholder value to broader questions about the common good and more general societal value by taking into account other stakeholders' concerns. This is discussed in the next section.

2.3.2 Sustainability Strategy

Even though sustainability is considered important by corporate executives for driving success, almost six out of 10 organisations have no strategy for sustainability and many others are unclear about which environmental and social issues will affect their overall strategy, especially because sustainability reporting focuses mainly on the transparency of information rather than on corporate strategy (Galbreath, 2009). As a consequence,

Galbreath states that corporate executives are still struggling to develop corresponding "win-win" strategies.

No definition was found for sustainability strategy in the financial sector but there were some definitions of environmental strategy; this is because most "sustainability" reports published by financial institutions concentrated on environmental issues (Tarna, 1999). Environmental strategy "refers to outcomes in the form of actions firms take for regulatory compliance and those they take voluntarily to further reduce the environmental impacts of operations" (Sharma, 2000, p. 684). Such strategy was also defined as "an organization's comprehensive approach to environmental issues…It defines how the environment is considered within an organization: whether it is a matter of legal compliance; risk management; an opportunity; or whether the organization wishes to be a truly sustainable company by balancing all three dimensions of sustainability (economic, social and environmental) in its operations" (Bouma *et al*., 2001, pp. 155-156). Thus, sustainability strategy can be similarly defined as a bank's comprehensive approach to sustainable issues; it defines how sustainability (regarding social, environmental and economic issues) is considered within the bank. Baumgartner and Ebner (2010) explained that sustainability strategies focus on the internal/external directions of commitment to sustainability. They added that strategies should be designed to improve performance. Zollinge, (2009) defined sustainability as seeking "to ensure long-term business success while at the same time contributing towards economic and social development, a healthy environment, and a stable society". According to Baumgartner and Ebner (2010), in order to develop sustainability strategies, companies should be aware of all sustainability issues that should be taken into consideration and integrated into that strategy; this strategy should work to improve performance in the identified issues.

Sustainability could be considered within business strategy in many ways. It could be seen as a compliance issue (required by law), as a cost to be minimised, or as an opportunity to gain competitive advantage (Hubbard, 2009). There is some evidence that organisations' strategic responses to sustainability follow a sequential logic evolving from compliance to competitive advantage (Florida, 1996; Hubbard, 2009). One of the earliest contributions in this regard is the work of Carroll (1979, p. 501-504) who argued that strategies can "range on a continuum from no response (do nothing) to a proactive response (do much)". He proposed four strategies: "Reaction", denying business responsibility for a certain social

issue or withdrawing; "Defence", avoiding addressing certain social issues despite their relevance; "Accommodation", addressing social issues outside the core business or complying with legal demands; and "Protecting", actively anticipating and solving social issues.

Similarly many authors (Azzone and Bertele, 1994; Hunt and Auster, 1990; Roome, 1992; Sharma and Vredenburg, 1998; Buysse and Verbeke, 2003; Aragon-Correa *et al*., 2008, Kashmanian *et al*., 2011) classified firms' responsibility strategy according to their attitude towards the sustainability requirements of their stakeholders. Sometimes these authors referred only to social or only environmental issues along a continuum or a path with certain milestones. These milestones started with fighting requirements (or what is called "reactive strategies") (Henriques and Sadorsky, 1999; Buysse and Verbeke, 2003; Aragon-Correa and Sharma, 2003), "beginner" (Hunt and Auster, 1990) or "non-compliance" (Roome, 1992). Through proactive or sustainability strategies, leaders firms in terms of sustainability which apply this strategy go beyond obeying the law with respect to sustainability issues.

In the banking sector, Baumgartner and Ebner (2010) identify four types of strategy: introverted (risk mitigation) strategy, extroverted (legitimating) strategy, conservative (efficiency) strategy, and visionary (holistic sustainability) strategy.

2.3.3 Strategy and Stakeholders

It is commonly accepted by most people in and outside of the business world that companies cannot be successful in the long term if they ignore the concerns of key stakeholders (Norman and MacDonald, 2004). Freeman (1984, p. 46) defined stakeholders as: "any group or individual who is affected by or can affect the achievement of an organization's objectives". He argued that the firm exists for the purpose of serving stakeholders' interests. From this definition it can be seen that banks' choices affect the welfare of their stakeholders (Berman *et al*., 1999). For this reason, managers may feel that they have a moral obligation toward stakeholders and will shape the business's strategy around certain such obligations (Berman *et al*., 1999). Similarly, Freeman and McVea (2001, p. 193) stated that "the interests of key stakeholders must be integrated into the very

purpose of the firm, and stakeholder relationships must be managed in a coherent and strategic fashion".

Many authors pointed out the linkages between strategy and stakeholders' engagement (e.g., Buysse and Verbeke, 2003; Andersen *et al*., 2006; Strandberg, 2005; Brown and Flynn, 2008, Gordon and Lacy, 2011). For example, Strandberg (2005) stated that stakeholders' engagement provides input into business strategy and resolves issues of public concern while Buysse and Verbeke (2003) stated that when banks formulate their sustainability strategies, they take into consideration their stakeholders. Moreover, many authors incorporated a stakeholder perspective into their strategic management models (e.g. Kaplan and Norton, 1992; Ferreira and Otley, 2005). In addition, Neely *et al*. (2001) and Wisniewski and Stewart (2004) stated that strategy must be derived from stakeholders' analysis. Also, Ferreira and Otley (2009) stated that formulating a firm's objectives and strategies is not easy and should be done by consulting stakeholders (i.e. carrying out stakeholder analysis). Furthermore, one reason for the failure of the implementation of strategic plans, according to Andersen *et al*. (2006), is because they are not grounded in either the external stakeholder environment nor internal resources and capabilities. Harrison *et al*. (2010) believed that a strategy that follows stakeholder management is likely to be more competitive than a strategy that does not take this into consideration.

Since not all stakeholders are of the same importance for banks when formulating sustainability strategies, it is important to conduct a stakeholder management analysis (i.e. stakeholders' engagement). Accordingly, banks should expand their objectives to address the wants and needs of a wide variety of salient stakeholders (Buysse and Verbeke, 2003). The mission of a stakeholders' analysis is to provide input information for formulating a stakeholder strategy (Wall and Greiling, 2011). According to Buysse and Verbeke (2003), identifying salient stakeholders is a crucial step in the formation of corporate strategy. "The key to solving the core strategic problem is to understand the firm's entire set of stakeholder relationships" (Post *et al*., 2002, p. 8).

2.4 Sustainability and Performance

In the previous discussion it was established that in order for sustainability to be achieved banks should achieve societal and environmental equity while, at the same time, pursuing

economic gain (Wilson, 2003; Ngwakwe, 2012). On the other hand, stakeholder theory gives an explanation regarding why banks should work towards sustainable development. This theory proposes that it is in a bank's best economic interest to work toward sustainability as, by doing so, the bank's relationship with its stakeholders will be strengthened and this will help the bank to meet its business objectives (Wilson, 2003).

However, in reality, banks face a trade-off between various aspects of sustainability and performance. In general, three arguments exist about the relation between sustainability and performance. The first view argues that if firms want to take action that benefits stakeholders, they will incur costs which will put them at an economic disadvantage compared with firms that ignore stakeholders' claims (Ullmann, 1985). Similarly, McWilliams and Siegel (2001) state that sustainability investment does not attend to the best interests of the firm, which is profit maximisation. Moreover, if the firm wants to satisfy various stakeholder interests, this may distract it from focusing on profit-making, as well as limiting its strategic alternatives (Scholtens and Zhou, 2008). A second and contrasting perspective was proposed by Moskowitz (1972). The author claimed that if a firm behaves in the interests of its stakeholders, its explicit costs would be minimal. He added that firms may also benefit from sustainability activities by improving employee loyalty and productivity as well as customer satisfaction. Furthermore, Hillman and Keim (2001) pointed out that sustainability behaviour may also improve a firm's relationship with banks, investors and the government. The third view, and an intermediate one, is that the costs of sustainability activities are significant but are offset by a reduction in other costs which accompany them (McWilliams and Siegel, 2001). A review of the literature reveals that previous studies on the relationship between firms' sustainability and performance have produced mixed results.

2.4.1 Relationship between Sustainability and Performance

There is extensive literature examining the relationship between firms' sustainability behaviour and financial performance. The first two studies in this regard were published in 1972 by Bragdon and Marlin (1972) and Moskowitz (1972). Since then, hundreds of empirical studies have analysed the relationship between firms' sustainability behaviour and their economic and financial performance. Over the last three decades, significant efforts have been made to understand this relationship (e.g. Pava and Krausz, 1996;

Hackston and Milne, 1996; Griffin and Mahon, 1997; Ruf *et al*., 2001; Moore, 2001; Hillman, and Keim, 2001; Orlitzky *et al*., 2003; Lopez *et al*., 2007; Ngwakwe, 2008; Callan and Thomas, 2009; Rettab et al., 2009; Samy *et al*., 2010; Wagner, 2010; Buys *et al*., 2011; Lee *et al*., 2013) and many extensive reviews of this cumulative literature have also appeared in the last three decades (e.g. Ullmann, 1985; Pava and Krausz, 1996; Griffin and Mahon, 1997; Roman *et al*., 1999; Orlitzky *et al*., 2003; Margolis and Walsh, 2003).

However, these studies have produced mixed results. Most previous studies have found a positive relationship between sustainability and financial performance (e.g. Pava and Krausz, 1996; Preston and O'Bannon, 1997; Waddock and Grave, 1997; Moore, 2001; Ruf *et al*., 2001; Simpson and Kohers, 2002; Ngwakwe, 2008; Chang, and Kuo, 2008; Callan and Thomas, 2009; Rettab *et al*., 2009; Perrini *et al*., 2009; Samy *et al*., 2010; Uwuigbe and Egbide, 2012; Lee *et al*., 2013). However, a negative relationship (e.g. McGuire *et al*., 1988; Patten, 1991; Riahi-Belkaoui, 1992; Sarkis and Cordeiro, 2001) or even no relationship or non-significant results (e.g. Levy, 1995; Murray *et al*., 2006; Buys *et al*., 2011) between sustainability and financial performance have also been found by some authors.

The same mixed results were found by authors who tried to offer extensive literature reviews. For example, Ullmann (1985) reviewed 13 studies concerning the relationship between Social Performance and Economic Performance. The result indicated that eight studies showed a positive correlation, four found no correlation and one asserted a negative correlation. Pava and Krausz (1996) reviewed 21 empirical studies between 1972 and 1992. The authors argued that, for 12 of these, a positive relationship was found, eight found no association while only one found a negative relationship. They suggested that "the overwhelming preponderance of the evidence indicates that (sustainability) firms perform at least as well as other firms" (Pava and Krausz, 1996, p. 324). A year later, Griffin and Mahon (1997) reviewed 51 studies, spanning the 25-year time period from 1972 until 1997, that empirically tested the relationship between sustainability and financial performance. They identified 33 studies which found a positive relationship, 20 which found a negative relationship while 9 found no relationship or were inconclusive. Griffin and Mahon (1997) reported that some studies had found both a positive and negative link in the same study, which caused them to be inconclusive. Moreover, a

considerable number of studies have found a negative relationship; Griffin and Mahon (1997) attributed this to a flaw in the investigations. Overall, however, the largest number of associations between sustainability and financial performance were found to be positive.

Roman *et al*. (1999) reviewed the work of Griffin and Mahon (1997) as they had some concerns over the large number of studies asserting a negative association in Griffin and Mahon's review. Roman *et al*. (1999) reclassified the 51 studies in the Griffin and Mahon review and concluded that 33 of them suggested a positive relationship between sustainability and financial performance, 14 studies found no effect or were inconclusive, and only five found a negative relationship. Roman *et al*. (1999) attributed the differences between their results and those of Griffin and Mahon (1997) to the invalidity of the early researchers' results for the relationship between sustainability and financial performance. These authors stressed that "it is time to treat that work as argument, not evidence" (Roman *et al*., 1999, p. 121). As noted in the review of Roman *et al*. (1999) the majority of the evidence indicated a positive relationship.

In 2003, two important studies were carried out by Orlitzky *et al*. (2003) and Margolis and Walsh (2003). Orlitzky *et al*. (2003) conducted a meta-analysis of 52 studies over 30 years. The authors confirmed a positive and significant association between sustainability and financial performance and stated that the correlation between sustainability and financial performance seemed to be higher with accounting-based measures than with market-based ones. In a larger set of studies, Margolis and Walsh (2003) analysed 127 studies between 1972 and 2002 and also found that the correlation between sustainability and financial performance was positive for 54 of them; a negative coefficient was reported in only seven of them. Despite these mixed results, the authors concluded that a positive relationship predominated.

In the banking sector, few studies were found on the relationship between sustainability and economic performance. Simpson and Kohers' (2002) research was one of the few studies which concentrated on the banking sector. They studied the relationship between financial performance and bank's social performance only (there was no mention of the environmental aspect of sustainability) and found a positive relationship. However, they studied relatively old data (1993 and 1994) in only one country (the USA). One finding of Chih *et al*. (2010) was that the link between corporate financial performance and sustainability was insignificant for 520 financial firms in 34 countries. Similarly, Wu and

Shen (2013), using two-step regression, investigated the relationship between sustainability and financial performance for a sample of 162 banks in 22 countries for the period 2003–2009. They assessed sustainability using a survey conducted by the Ethical Investment Research Service (EIRIS). They found that sustainability positively affected (Net interest income / (Net interest income + Non-interest income), (Non-interest income / (Net interest income + Non-interest income), return on assets (ROA), and return on equity (ROE); it negatively affected (Non-Performing Loan / Total Loan). However, the link between sustainability and organisational performance is still the most controversial area in the "business-in-society" field (Barnett, 2007)[3].

2.4.2 Explanations for the Different Relationships

There are many explanations in the literature for the negative, positive and neutral associations between sustainability and financial performance and these are discussed next.

2.4.2.1 Explanations of Negative Impact

Several authors offered conceptual explanations for the negative impact of sustainability on performance. Previous research which predicted a negative impact of sustainability on performance argued that expenditure on sustainability is unnecessary and puts the firm at a competitive disadvantage (McGuire *et al*., 1988; Waddock and Graves, 1997; Preston and O'Bannon, 1997; Simpson and Kohers, 2002; Barnett, 2007; Lee *et al*., 2013). Moreover, sustainability activities may have an effect on intangible assets such as customer satisfaction, employees' loyalty, and reputation, which is not reflected in terms of accounting-based performance (Ittner and Larcker, 1998; McGuire *et al*., 1998; Lee *et al*., 2013). This view is rooted on those of neoclassical economists such as Friedman (1970).

Preston and O'Bannon (1997) explained the negative relation between financial performance and sustainability using the "managerial opportunism hypothesis". The authors explained that managers are always trying to increase their gain in the form of compensation. As a result, when financial performance is strong, managers will decrease expenditure on sustainability in order to increase their personal compensation. Conversely,

[3] Appendix 2 summarise some of the previous studies on the relation between sustainability and performance.

when financial performance is poor, managers will try to justify this by engaging in sustainability activities.

2.4.2.2 Explanations of Positive Impact

Studies that support the positive link between sustainability and financial performance implicitly support the idea that meeting the needs of major stakeholders increases financial performance by strengthening relationships with stakeholders, enhancing employee loyalty and motivation, enhancing the company's reputation, differentiating the company's products, improving trust and legitimacy, decreasing transaction costs, improving the company's public image and increasing the ability of firms to face competition (Porter, 1991; Preston and O'Bannon, 1997; Barnett, 2007; Perrini *et al*., 2009; Lee *et al*., 2013). From this viewpoint, Perrini *et al*. (2009) argued that sustainability can be viewed as an investment that yields financial returns and societal benefits.

Secondly, companies will benefit from the competitive advantage produced by sustainability; for example, customers are willing to pay higher prices for firms' sustainable products and services, showing higher purchase intentions (Lee *et al*., 2013). Thirdly, when companies try to lower implicit costs (e.g. product quality, environmental costs) by acting irresponsibly, they experience higher explicit costs (e.g. interest payments to bondholders) (Waddock and Graves, 1997; Simpson and Kohers, 2002). Fourthly, Waddock and Graves (1997) argued that the actual costs of sustainability are minimal, while the potential benefits are great.

On the other hand, profitable firms will have more resources which enable them to fund sustainability activities (Preston and O'Bannon, 1997; Waddock and Graves, 1997). Conversely, since less profitable firms have fewer resources to spare for sustainability activities, they will be less likely to act in a socially responsible way (Waddock and Graves, 1997; Campbell, 2007).

2.4.2.3 Explanations of Neutral Association

Some empirical studies concluded that there is no relationship, positive or negative, between sustainability and financial performance. The explanations for this are as follows: first, any relationship found between sustainability and financial performance is by chance because of the many intervening variables (Ullman, 1985, Waddock and Graves, 1997); second, this relationship might be misleading because of misspecification in the research

design or missing variables (Ullman, 1985; Lee *et al*., 2013); and finally, the use of a wide variety of performance and sustainability measures may mask any linkage that exists (Waddock and Graves, 1997).

2.4.3 Measurement Problem

Efforts have evolved to identify and test various measures of both sustainability and financial performance, though the first is considered to be the more difficult to capture empirically. One difficulty with the research to date is the variability of measures (sustainability and financial) that are used. For example, in 51 different studies, Griffin and Mahon (1997) found that 80 measures of financial performance had been used. Also, the measures of sustainability vary from study to study; however, these are considerably fewer.

2.4.3.1 Sustainability Measurement

Researchers have used a wide range of sustainability measures over time, "such as government environmental reports, various surveys, and information gathered by the Council on Economic Priorities" (Callan and Thomas, 2009, p. 63). However, the orientation toward sustainable development is relatively new and the majority of previous empirical studies have examined corporate social or/and environmental responsibility (Chang and Kuo, 2008). The foremost studies in this area tend to be of a one-dimensional measure (e.g. emissions and pollution reduction or community donations); however, environmental diminution is the most common (e.g. Bragdon and Marlin, 1972; Bowman and Haire, 1975; Fogler and Nutt, 1975; Chen and Metcalf, 1980). Thus, this measure does not truly represent sustainability as it provides too limited a perspective of a company's sustainability (Waddock and Graves, 1997) and lacks a suitable level of validity (Rowley and Berman, 2000). Similarly Ullmann (1985) noted that a variety of measures would be needed in order to study the complexity of social performance. He also suggested developing an inclusive index that would contain all the different criteria so that companies could be ranked in terms of their overall social performance. Moreover, the results of this type of studies are not comparable (Rowley and Berman, 2000; Lopez *et al*., 2007).

Other studies have employed a third party evaluation or reputation index of various social and environmental responsibility indicators. The two most common indices used in this area are the Fortune Corporate Reputation Index and the Kinder, Lydenberg and Domini (KLD) index (e.g. Waddock and Grave, 1997; Preston and O'Bannon, 1997; McWilliams and Siegel, 2000). A third and different view considered sustainability from the point of view of company disclosure (Hackston and Milne, 1996; O'Dwyer and Owen, 2005; Buys *et al*., 2011; Uwuigbe and Egbide, 2012). Hubbard (2009, p. 182) identified the three most commonly used sustainability standards: "(1) the SustainAbility framework, developed by an international consulting firm; (2) the Global Reporting Initiative (GRI), developed by a United Nations affiliated organization, and (3) the Environment Sustainability Index".

There are many frameworks for sustainability evaluation and performance (Dias-Sardinha and Reijnders, 2001) but most of the previous sustainability databases do not incorporate stakeholders' issues (Mishra and Suar, 2010). Hence, some authors (e.g. Harrison and Freeman, 1999; Mishra and Suar, 2010) suggested that the currently available sustainability databases should not be relied upon and stated that new ones should be developed. Therefore, this study develops a new framework for measuring sustainability practices in the banking sector. This index will help in capturing the context and the extent of the sustainability practices of banks. Thus, it has been specially tailored for banks' specific settings and could be used in future studies.

2.4.3.2 Performance Measures (Accounting VS. Market-based Measures)

When measuring performance, researchers usually face two obstacles. The first one is to determine whether to use accounting-based measures, market-based measures or a mixture of both. The second obstacle is to determine which set of measures should be used within the chosen group.

The first problem is to determine how to measure performance, using accounting-based or market-based measures. Pava and Krausz (1996) reviewed 21 studies published between 1972 and 1992 and found that 6 studies focused solely on accounting-based measures, 7 based their results on market-based measures, and 6 used multiple criteria.

Thus, many authors (e.g. Ullmann, 1985; Griffin and Mahon, 1997; Moore, 2001; Simpson and Kohers, 2002) preferred to use accounting-based measures of performance (i.e. a

firm's return on assets (ROA), return on equity (ROE)) to the market-based measures (i.e. price per share or share price, investor returns, Tobin's Q). Accounting-based measures are less complicated since they indicate what actually happens in a firm (Cordeiro and Sarkis, 1997; Lopez *et al*., 2007). They are better in terms of predicting sustainability than market-based measures (McGuire *et al*., 1988) and the studies that have used accounting variables to measure economic performance are more long-term oriented, ranging from 1 to 10 years, while market reaction studies focus on the short term with a maximum period of 24 months (Ullmann, 1985). Similarly, Chang and Kuo (2008) preferred accounting measures to market ones (e.g. share price) as market measures are affected by external market factors and macroeconomic status. Griffin and Mahon (1997) used only accounting-based measures as market-based ones often evaluate more than just financial outcomes. Market-based measures suffer from information asymmetry between managers and stockholders (Cordeiro and Sarkis, 1997) and assume that shareholders are the primary stakeholder group (Orlitzky *et al*., 2003).

On the other hand, and as a results of criticisms of accounting-based measures, some studies used a mixture of accounting-based and market-based measures (e.g. Simpson and Kohers, 2002; Salzmann, *et al*., 2005; Callan and Thomas, 2009), or even only market-based measures (e.g. Wagner, 2010). Accounting-based measures are more affected by managers' choices and could be manipulated by them (McGuire *et al*., 1988; Cordeiro and Sarkis, 1997; Hillman and Keim, 2001; Orlitzky *et al*., 2003; Wagner, 2010). They reflect internal decision-making competences and managerial performance only (Orlitzky *et al*., 2003) and are also based on past data so they only reflect historical aspects of performance (McGuire *et al*., 1988; Cordeiro and Sarkis, 1997; Hillman and Keim, 2001; Wagner, 2010). Furthermore, they are more affected by inflation periods (Wagner, 2010); are affected by different accounting procedures and asset allocations (Salzmann *et al*., 2005); need to be adjusted for certain characteristics such as risk, industry and size (McGuire *et al*.,1988; Cordeiro and Sarkis, 1997); cannot be compared as a result of industry- and country-specific practices (Cordeiro and Sarkis, 1997); and are short term in nature and so fail to capture the long-term value of company (Hillman and Keim, 2001; Abdel-Kader *et al*., 2011). On the other hand, market-based measures are able to capture the future value of income streams (Hillman and Keim, 2001), reflect future expected performance (McGuire *et al*., 1988; Wagner, 2010), and are less subject to manipulation (McGuire *et al*., 1988).

In this study, accounting-based measures were used to measure performance. They were preferred to market-based measures as this study is about the relationship between sustainability and performance, and accounting-based measures are better in predicting sustainability than market-based ones (McGuire *et al*., 1988). Also, sustainability is a continual action, not an unexpected event that elicits a market reaction which could be studied at a certain point in time. Thus, to avoid some of the criticisms levelled at accounting-based measures, a group of accounting measures was used instead of only one measure. Moreover, time lag was taken into consideration.

After determining the use of accounting- or market-based measures, the set of economic measures to be used within the chosen group was selected. In 1997, Griffin and Mahon found 80 different measures of financial performance had been used in 51 different studies (spanning 25 years of research). Of these 80 measures, 57 measures have been used only once by one study, which leaves 23 more common measures. Thus, the most commonly used measures are: return on assets (ROA), return on equity (ROE), return on sale (ROS), assets age and size (Griffin and Mahon, 1997). However, ROA may be biased when used in studies with a multi-industry sample as these have different industry-driven levels of fixed assets (Al-Tuwaijri *et al*., 2004). Among other measures, many authors have used all or some "return" measures. For example, Pava and Krausz (1996), Margolis and Walsh (2001), Chang and Kuo (2008), Callan and Thomas (2009) used all of them while Graves and Waddock (1994) and Buys *et al*., (2011) used (ROA) (ROE). Simpson and Kohers (2002) used only return on assets (ROA) while Buys *et al*. (2011) preferred return on investment (ROI) to the other measures.

Previous sustainability studies focused on corporate characteristics which are potential determinants of sustainability practices (Roberts, 1992; Trotman and Bradley, 1981; Belkaoui and Karpik, 1989; Hackston and Milne, 1996; Branco and Rodrigues, 2008b; Garcia-Sanchez *et al*., 2013). The characteristics examined in the literature included firm size, profitability, industry, country of ownership, capital intensity, and company age. In this literature, two types of studies could be found.

The first type of study, examined the relationship between disclosure and certain individual characteristics, such as:

- Industry type and liquidity ratio (Cooke, 1989).

- Firm size, debt-liquidity ratio, profit margin, return on equity, liquidity, audit firm, ownership dispersion, and industry type (Wallace and Naser, 1995).
- Company size, listing status and industry type (Curuk, 2009).
- Profitability (ROA), leverage (debt ratio), liquidity (current ratio), size (assets), audit, and B shares (Xiaowen, 2012).

The second type of study examined the relationship between disclosure and some groups of characteristic (Lang and Lundholm, 1993; Wallace *et al*., 1994; Camfferman and Cooke, 2002; Al-Saeed, 2006). These groups were:

- Structure-related variables (size, solvency).
- Performance-related variables (liquidity ratio, earning return, profit margin).
- Market-related variables (industry, stock exchange, type of auditor).

2.5 Conclusions

This literature review has revealed that sustainability practices in the banking sector have not received the research attention they deserve. In addition, most of the sustainability literature is dominated by studies examining the issue in the USA (Van der Laan Smith *et al*., 2005). De Noose *et al*. (2006, p.11) pointed out that academic studies on the USA and EU banking sector are "very few and far between, not to mention the lack of cross Atlantic comparative studies".

The gaps in the literature are now discussed. Most of the previous studies have tried to find the link between stakeholders' management and achieving social and/or environmental benefits. Thus, there is a need to identify who are the stakeholders in the banking sector and how banks engage with them. However, there is a scarcity of research on how to identify systematically and analyse stakeholders, or how to manage competing and complex stakeholder relationships (McAdam *et al*., 2005). In addition, there is a shortage of evidence within sustainability reports whether stakeholder engagement and dialogue are actually taking place (Unerman, 2007). Hence, there is a need to demonstrate how much communication banks are engaged in with their stakeholders in terms of their reports. Thus, companies' relationships with stakeholders are reciprocal as a company has wants and needs from stakeholders while stakeholders also have wants and needs from the

company (Neely *et al*., 2002). To satisfy stakeholders, companies must know their wants and needs so there is a need to comprehend what stakeholder issues have been experienced by banks. These gaps are addressed in the first 3 RQs:

RQ1-Which stakeholder groups are perceived by banks as the main targets for their sustainability practices?

RQ2-What communication methods do banks use in their reports to communicate sustainability information?

RQ3-To what extent does the sustainability information disclosed by banks meet their stakeholders' expectations?

According to Branco and Rodrigues (2008a), little attention has been paid to the sustainability practices of companies belonging to industries, such as banking, with little direct environmental impact. Consequently, this study examines and compares the current sustainability practices in European and American banks (RQ4). There are many frameworks for sustainability evaluation and performance (Dias-Sardinha and Reijnders, 2001). However, in this study a new framework is developed to measure sustainability practices in the banking sector. This is supported by calls from some authors (e.g. Harrison and Freeman, 1999; Mishra and Suar, 2010) to develop new sustainability databases and not to depend on those that are currently available.

Many theoretical frameworks have emerged which try to link corporate social or environmental performance with financial performance. However, no single universally agreed sustainability model exists. Ullmann (1985) suggested that strategy was the missing element in the previous models of social responsibility and, if included, would help in explaining the relationships. Moreover, there is little research into how companies manage the diverse sets of stakeholders and how they engage and communicate with them about sustainability activities. There is, however, extensive literature examining the relationship between firms' sustainability behaviour and financial performance. However, previous studies examining this relationship have drawn inconclusive findings. Furthermore, most of the previous studies have used samples from multiple industries (Griffin and Mahon, 1997; Moore, 2001), with few examples from the banking sector (i.e. Simpson and Kohers, 2002; Wu and Shen, 2013). Hence, this research fills these gaps by developing a sustainability model to explain the relationships among stakeholders' engagement, stakeholders' communication and sustainability; and whether sustainability leads to better

financial performance in a group of EU and USA banks. Also, the influence of a sustainability strategy on this model is considered. The related RQs are:

Do stakeholder salience and the intensity of stakeholder communication have any effect on sustainability?

What is the relationship between sustainability and the financial performance of EU and USA banks? What is the influence of sustainability strategy on the sustainability model?

This review has revealed the importance of stakeholder theory (which will be used as a base for the theoretical framework in the next chapter) in addressing the current research problem. Also, stakeholder theory is used here to guide the empirical work and to explain the results.

Chapter 3: Theoretical Framework and Hypotheses

3.1 Introduction

This chapter draws together a theoretical framework for a sustainability model based on perspectives of stakeholder theory and develops the hypotheses tested in the study of the EU and USA banking sector. The chapter starts by reviewing stakeholder theory, its development, concepts and propositions. Then the process of stakeholders' engagement is reviewed. After this, the theoretical model is introduced and explained, and hypotheses are developed based on the expected relationships among the model concepts. The final section provides conclusions for the chapter.

3.2 Stakeholder Theory

In the 10 years following the publication of Freeman's (1984) landmark book, "Strategic Management: A Stakeholder Approach", about a dozen books and more than 100 articles were published on the topic of stakeholder management (Donaldson and Preston, 1995) and the notion of stakeholders has become embedded in management scholarship and in managers' thinking (Mitchell *et al.*, 1997). Freeman (1984) proposed a general theory of the firm and argued that the firm exists for the purpose of serving stakeholders' interests. Stakeholder theory, according to Freeman, suggests that managers should emphasis the development and maintenance of all stakeholder relationships, not just the shareholders. Similarly, Smith (2003) stated that the purpose of firms (including banks) is to serve all stakeholders, and that stakeholders' satisfaction is therefore a measure of success. This is because firms and banks have more duties than merely those that are required by law, as they also have duties to key stakeholder groups such as customers, employees, communities, suppliers, etc. (Heath and Norman, 2004).

Traditionally, directors have focused on the interest of shareholders as management theories used to focus on a firm's profit maximisation and have centred on a firm's responsibility to its shareholders (Schilling, 2000). However, this has changed and companies have now started to take into account an increasing number of interest groups linked to environmental, social and ethical aspects (Pease and Macmillan, 1993). Norman and MacDonald (2004) stated that it is commonly accepted by most people in and outside

of the business world that firms cannot be successful in the long term if they ignore the interests of key stakeholders.

Companies have been put under pressure by stakeholders to be more transparent in the market, and this has convinced many companies that the traditional system of reporting no longer suffices (Bonacchi and Rinaldi, 2007). Proponents of stakeholder theory argue that firms and banks can achieve legitimacy by engaging in socially responsible behaviour (Callan and Thomas, 2009) and they can achieve higher financial performance from responding to their stakeholders concerns (Freeman, 1984). Similarly, Orlitzky *et al*. (2003, p. 405) noted that "the satisfaction of various stakeholder groups is instrumental for organisational financial performance". Furthermore, one of the main reasons for the mixed results regarding the relationship between sustainability and performance, according to Ullmann (1985), is the lack of theory. As a result, the author added "stakeholder power" to his proposed framework to reflect the theoretical basis. Similarly, Wood and Jones (1995) stated that stakeholders' perspective was the "missing link" in previous corporate sustainability studies.

3.2.1 Development of the Stakeholder Concept

The stakeholder concept in management literature has been developed in three stages which were summarised by Elias and Cavana (2006). The first stage, which they called classical stakeholder literature, originated in 1963; this expanded into four different areas: corporate planning, corporate social responsibility, systems theory, and organisation theory. The second stage started with Freeman's (1984) book "Strategic Management: A Stakeholder Approach". Following the publication of this book, the literature was developed around three different aspects namely, descriptive/empirical, instrumental and normative aspects. Later stages were formulated when the stakeholder literature started to expand its interests to other areas such as the dynamics of stakeholders and stakeholder theories (Elias and Cavana, 2006).

To many authors the origin of the stakeholder concept can be traced back to 1963 when it was implied in the work of the Stanford Research Institute (SRI). Stakeholders were defined as "those groups without whose support the organisation would cease to exist" (SRI: 1963; quoted in Freeman, 1984, p. 31). Likewise, its origin could be attributed to Ansoff (1965) in the United States with his book "Corporate Strategy" which argued for

the rejection of stakeholder theory. However, Freeman (1984) was the first to articulate fully the stakeholder framework in his book (Laplume *et al*., 2008). Building on Ansoff (1965), Freeman (1984, p. 76) asked a fundamental question relating to stakeholder theory: "For whose benefit and at whose expense should the firm be managed?" and he proposed a general theory of the firm.

3.2.2 Definition of Stakeholders

Two definitions of stakeholders were given by Freeman (1984): the "wide-definition" and the "narrow-definition". According to the "wide-definition", a stakeholder is "any group or individual who is affected by or can affect the achievement of an organization's objectives" (p. 46); and the "narrow-definition" stakeholders are "those groups without whose support the organization would cease to exist" (p. 31). The author argued that the firm exists for the purpose of serving stakeholders' interests. Stakeholder theory proposes that management activities should concentrate on the development and maintenance of all stakeholder relationships, and not just focus on shareholders' (Freeman, 1984).

Bourne (2005) defined stakeholders as individuals or groups that have a stake in the outcomes of a company. This stake could be an interest, a right or ownership. Carroll and Buchholtz (2000) explained that an interest is a condition in which "a person or group will be affected by a decision; it has an interest in that decision" (p. 66). That right, according to the authors, could be either a "legal right when a person or group has a legal claim to be treated in a certain way or to have a particular right protected" (p. 65) or a "moral right". Ownership, according to Carroll and Buchholtz (2000, p. 65), is a circumstance "when a person or group has a legal title to an asset or property". Bourne (2005) explained that most stakeholders will have an "Interest", many will have a "Right" and some will have "Ownership".

Clarkson (1995) defined stakeholders as "persons or groups that have, or claim, ownership, rights, or interests in a corporation and its activities, past, present, or future" (p. 106). These rights or interests are as a result of dealings with, or activities taken by the corporation. Clarkson (1995) added that stakeholders with similar interests, claims or rights can be classified as belonging to the same group: shareholders, employees, customers, and so on, and the survival and enduring success of the company depend upon its managers' ability to create wealth and value, and to satisfy different stakeholder groups.

The same view was stated in Freeman's (1984) book where he proposes that "current approaches to understanding the business environment fail to take account of a wide range of groups who can affect or are affected by the corporation, its stakeholders" (p.1). Clarkson's definition of stakeholders is adopted in this study. The following stakeholder groups were defined as the banks' stakeholders in this study: customers; employees; investors; community, society and environment; government and others (the public, the media, rating agencies, financial advisors, suppliers and the press).

3.2.3 Classifications of Stakeholder

Stakeholders have been classified under various categories. For example, Freeman (1984) classified stakeholders as direct and indirect, while Carroll (1989) classified them as generic or specific. Harrison and St. John (1994) classified stakeholders according to the stake in the company and their influence on behaviour. "Stake in the company" in Harrison and St. John's classification is separated into three parts: stakeholders with ownership; stakeholders who are economically dependent; and stakeholders who are interested in the company's social responsibility activities. Others (e.g. Clarkson, 1995; Waddock, 2001; Volume 1 of the Stakeholder Engagement Manual, 2005; Manetti, 2011) distinguished between primary and secondary stakeholders.

This study classifies banks stakeholders into two main groups: primary and secondary stakeholders. *Primary stakeholders* are those who constitute the business; without their continuing involvement the corporation cannot survive (Clarkson, 1995; Carroll, 1989). Primary stakeholders, such as owners, employees, customers, suppliers, shareholders and investors, bear some forms of risk as a result of their investment in the company (Waddock, 2001). This group may also contain shareholder activists and rating agencies, as well as suppliers or business partners even if they are far away from the company's home base (Volume 1 of the Stakeholder Engagement Manual, 2005). S*econdary stakeholders*, on the other hand, are "those who influence or affect, or are influenced or affected by, the corporation, but they are not engaged in transactions with the corporation and are not essential for its survival" (Clarkson, 1995, p. 107). They include communities, governments, environmental groups, society at-large, the media, social interest groups, consumer groups, civil society organisations, and international multi-stakeholder organisations and networks (Volume 1 of the Stakeholder Engagement Manual, 2005). In

the context of this research, customers, employees and investors are considered as primary stakeholders while community, society and the environment, government and others (the public, the media, rating agencies, financial advisors, suppliers and the press) are considered as secondary stakeholders.

3.2.4 The Basics of Stakeholder Theory

The basic assumption of stakeholder theory, when applied to a banking sector, is that a bank's success is dependent upon the successful management of all the relationships the bank has with its stakeholders (Elijido-Ten, 2007). This is because the relationship between the bank and its various stakeholders is supposed to be a nexus of explicit and implicit contracts (Baker *et al*., 2001); as a result, the traditional view that the success of the bank solely depends on maximising shareholders' wealth is not adequate. Furthermore, Elijido-Ten (2007) noticed that one of the propositions of stakeholder theory is that banks have an influence, not just on society in general, but also on various stakeholders; this is in contrast to Institutional theory where norms are imposed on the firms.

A bank's relationships with stakeholders influence the way the bank is governed and these, in turn, are influenced by the bank's behaviour (Perrini and Tencati, 2006). In more depth, Post *et al*. (2002, pp. 9- 8) emphasised that "the capacity of a firm to generate sustainable wealth over time, and hence its long-term value, is determined by its relationships with critical stakeholders" and "any stakeholder relationship may be the most critical one at a particular time or on a particular issue". Moreover, to De Wit and Meyer (2003), companies are joint ventures among all stakeholders (De Wit and Meyer, 2003). The authors added that the purpose of an organisation is to serve all stakeholders, and stakeholders' satisfaction is the measure of success. Smith (2003) agreed with this point and emphasised that both shareholders and stakeholders are directly or indirectly affected by or they themselves affect a bank's wealth creation and activities; therefore banks should be responsible to them. The same opinion was shared by Macey and O'Hara (2003) who stated that a corporation is seen as a set of explicit and implicit contracts among the various claimants to the corporation's products and earnings. These claimants include shareholders, employees, creditors, managers, local communities, customers and suppliers; they also include, in the case of banks, the regulators (Macey and O'Hara, 2003).

3.2.5 Classifications of Stakeholder Theory

Many authors have tried to classify stakeholder theory (Donaldson and Preston, 1995; Swanson, 1999; Berman *et al*., 1999; Jones and Wicks; 1999). Phillips *et al*. (2003) described stakeholder theory as "a theory of organisational management and ethics" (p. 480). Hasnas (1998, p. 25) pointed out that stakeholder theory is used to "refer to both an empirical theory of management and a normative theory of business ethics". Among the first authors who tried to classify stakeholder theory were Donaldson and Preston (1995). They recognised three classifications of stakeholder theory which have been presented and used in a number of ways that are quite distinct. These classifications are Descriptive, Instrumental and Normative. However, there was a lack of agreement among authors whether stakeholder theory is primarily a normative or an instrumental theory (Hasnas, 1998; Moir, 2001; Deegan, 2002; Durden, 2008). Donaldson and Preston's (1995) classifications are explained below.

Descriptive or Empirical: according to Donaldson and Preston (1995), when the theory describes and explains specific corporate characteristics and behaviours (i.e., how managers actually deal with stakeholders), then it is empirical. Hasnas (1998) explained the empirical branch of stakeholder theory thus: in order to manage effectively, managers should pay attention to the legitimate interests of all stakeholders and this attention should be equitable to all shareholders. The author added that the empirical branch asserts that only by paying attention to the interests of the business's stakeholders can financial success be achieved. Thus, the empirical form of stakeholder theory does not imply that businesses have any social responsibilities.

Instrumental or managerial: when the theory is used to recognise the connections, if any, between stakeholders' management and the attainment of various company performance goals (e.g., growth, profitability) then it is instrumental or managerial (i.e., what happens *if* managers treat stakeholders in a certain manner) (Donaldson and Preston, 1995, Yamak and Suer, 2005). In another word, Berman *et al*. (1999) explained that the firm will have an instrumental posture towards its stakeholders if those stakeholders' activities can affect the achievement of a firm's objectives, decisions, and hence its performance. Therefore the firm will try to manage those stakeholders in order to maximise profits. Deegan (2002) and Durden (2008) explained that the managerial or instrumental branch of stakeholder theory

emphasises how particular stakeholder groups (the powerful ones that control resources) are managed.

Normative or ethical: according to Donaldson and Preston (1995), when the theory is used to understand the role of the company, including the moral or philosophical guidelines for the management of companies, then it is a normative one (i.e., how managers *should* deal with stakeholders) (Yamak and Suer, 2005). It is "in effect, do (don't do) this because it is the right (wrong) thing to do" (Donaldson and Preston, 1995, p. 72). Berman *et al*. (1999) explained that the firm will have a normative obligation to its stakeholders if the well-being of those stakeholders is affected by the achievement of the firm's objectives and decisions. As a result, managers may feel they have a moral obligation to stakeholders that sets their managerial approach. According to Donaldson and Preston (1995) and Hasnas (1998), it is the managers' responsibility to direct the resources and choose the activities that yield benefits for stakeholders. According to the normative or ethical form of stakeholder theory, the previous view is true regardless of whether managing for stakeholders leads to improved financial performance (Hasnas, 1998). Accordingly, the essential obligation of management is "not to maximize the firm's financial success, but to ensure its survival by balancing the conflicting claims of multiple stakeholders" (Hasnas, 1998, p. 26). With regard to this form of stakeholder theory, Hasnas (1998) stated that all stakeholders' interests must be given an equal consideration by managers, and if a conflict occurs between these interests, managers should manage in a way to achieve the optimal balance among them.

The normative form of stakeholder theory does imply that businesses have true social responsibilities. Deegan (2002) and Durden (2008) explained that the ethical or normative branch of stakeholder theory gives guidance to organisations, based on philosophical/ ethical principles, on how they should treat their stakeholders in accordance with their needs. Similarly, Swanson (1999, p. 507) stated that "*normative* theories/research concern why organizations should take stakeholder interests into account; while *descriptive* 'theories'/research concern whether they are taken into account; and *instrumental* theories/research assesses the effects of stakeholder management on the achievement of corporate goals".

However, some authors, like Freeman (1999), have criticised Donaldson and Preston's classification of stakeholder theory. Similarly, Kaler (2003) considered that the three

aspects of stakeholder theory are not seen as discrete; rather they are "nested within each other" (p. 73). Likewise, Jones and Wicks (1999) argued that none of the form of stakeholder theory can be completed without the others. The authors indicated that stakeholder theory research could be grouped into two broad categories: social science-based theory (including instrumental and descriptive/empirical issues), and ethics-based theory focusing on normative issues. As a result, Jones and Wicks (1999) proposed a hybrid stakeholder theory, covering elements from both social science- and ethics-based theories, called convergent stakeholder theory. Convergent stakeholder theory integrates descriptive, instrumental and normative theory.

In a more recent classification, Bourne and Walker (2005) revealed three categories of stakeholder theory and defined stakeholders in accordance with each category:
1-Social science stakeholder theory **(**Bourne and Walker, 2005**):** concentrates on issues like justice, equity and social rights. Therefore, according to this view, a stakeholder is defined as anyone affected by the company and influencing its outcome by a moral right. However, this view is very wide and its consequences are incontrollable because a company can impact in so many ways on a very wide range of people.
2-Instrumental stakeholder theory **(**Bourne and Walker, 2005**):** in this classification, the relationship and interaction of stakeholders and managers depend on the nature, quality and characteristics of their interactions. Thus, in this view, the definition of stakeholders is more concerned with their instrumentality, agency capacity, or being routes of influence.
3-Convergent stakeholder theory (proposed by Jones and Wicks, 1999): "explains stakeholder actions and reaction to change, leading for a need for project managers to strive to develop mutual trusting and cooperative relationships with stakeholders" (Bourne and Walker, 2005, p. 3). This theory implies that stakeholders' actions should be morally based on ethical standards so that organisations can gain competitive advantage.

In this research, the normative form of stakeholder theory is adopted. Banks will take their stakeholders' needs into consideration because they have true social responsibilities. If stakeholders' relations are well managed, their rights ensured and they participate in decisions that considerably affect their own welfare, a bank's profitability will be improved (Rausch, 2011).

3.2.6 Criticisms of Stakeholder Theory

Many scholars have criticised stakeholder theory as it does not make clear who is and who is not a stakeholder, or how to identify them (Rawlins, 2006) while, Laplume *et al*. (2008) stated that the term "can affect" causes the term "stakeholder" to be much less practical. Phillips and Reichart (2000, p. 190) wondered: "Why should we espouse a theory of stakeholder management if all living entities, inasmuch as they can affect the firm, must fall under the obligatory umbrella of managerial consideration?" Rawlins (2006) criticised the theory as it focuses heavily on the importance of meeting the needs of all stakeholders, but does not state who the stakeholders actually are or how to identify them. Therefore, in order to avoid the anxiety of facing this unlimited number of persons who are affected by or have interest in the organisation, stakeholders' management (engagement) must identify and communicate with stakeholders. This is the cause behind the questions such as "Which stakeholders should managers then pay attention to? Which stakeholders do managers really care about?" (Laplume *et al*., 2008, p.1161). To overcome these criticisms, this study performs a stakeholders' management analysis in which the banks' stakeholders are identified and prioritised. Furthermore, the ways in which banks communicate with their stakeholders are examined.

3.3 Stakeholder Engagement

For a bank to be successful, the relationships between stakeholders and the organisation must be managed in ways that best meets both stakeholders' needs and expectations and the needs of the bank (Bourne, 2005, 2008). Also, Freeman's perspective of stakeholder theory mentions that companies should be managed for the benefit of all stakeholders (Freeman, 1984) and managers are agents of all stakeholders (Rausch, 2011). If stakeholders' relations are well managed, their rights ensured and they participate in decisions that considerably affect their welfare, the bank's profitability will improve (Rausch, 2011). However, the main problem is the conflict of interests between the various stakeholders involved (Lins and Wajnberg, 2007) as "different target groups could have different needs and uses for the information provided by the indicators" (Segnestam, 2002, p. 913).

Stakeholder research has focused on *identifying* a firm's stakeholders and determining what *types of influence* they have (McGee, 1998). However, nowadays, existing

relationships are changing and new stakeholders are arriving. Hence, banks need to prepare themselves and should understand many factors in addition to the simple division of primary and secondary stakeholders. These factors include, for example: "the dynamics of the interrelationships between stakeholders; the power and influence of different stakeholders; the abilities and competencies of the engaging parties; and the mind-sets and cultures (values, beliefs and behaviours) of the engaging parties" (Stakeholder Engagement Manual, Vol. 1, 2005, p.20).

The first point was noted by Ambler and Wilson (1995) who established that companies do not simply respond to individual stakeholders' needs; rather, they respond to the multiple influences of the entire stakeholder set. Accordingly, Andriof *et al*. (2002) stated that an analysis of the complex range of multiple, interdependent relationships existing within stakeholders' groups is required in order to respond to stakeholders' needs. In accordance with the second point mentioned, Aras and Crowther (2008) stated that stakeholders do not only have an interest in a firm's activities, they also have a degree of influence over the shaping of those activities.

Since the mid-1980s, stakeholder engagement has developed from communication and dialogue using traditional methods with the key stakeholders into a more comprehensive set of approaches to help companies (and banks) understand and succeed (Stakeholder Engagement Manual, Vol. 1, 2005). The Manual added that "engagement" is the efforts exerted by organisations to understand and involve stakeholders in their activities and decisions. Stakeholder theory does not require firms only to understand types of stakeholder influence, but also how they respond to those influences: "the engagement" (Andriof *et al*., 2002). Moreover, the Stakeholder Engagement Manual, Vol. 1 (2005) clarified that, in order for companies (and banks) to understand what sustainability means for them and what are the contributions of sustainability to value creation and the viability of their operations, they need to conduct stakeholder engagement.

However, stakeholder engagement should be carried out within the context of a particular company and one company's experience with its stakeholders cannot be generalised, as every stakeholder engagement experience is unique (Andriof *et al*., 2002; Mathur *et al*., 2007; Stakeholder Engagement Manual, Vol. 1, 2005). In addition, there is no generic list of stakeholders for all firms, and producing this list depends on the industry, company, geography and the issue in question (Stakeholder Engagement Manual, Vol. 2, 2005).

Moreover, the set of stakeholders changes with changes in business strategies and the business environment (Stakeholder Engagement Manual, Vol. 1, 2, 2005).

Therefore, in order to have effective stakeholder engagement, the relevant stakeholders must be identified early in the process (Mathur *et al*., 2007). However, the authors added that some stakeholders' interests are obvious whereas those of others' are not. This will result in their exclusion leading to biased outcomes even though they might bear some environmental, social and/or economic costs. As a result, the need has arisen for a systematic approach to identify stakeholders for different contexts. Similarly, Mathur *et al*. (2007) argued that, in order to have successful stakeholder engagement, a systematic process for identifying and mapping stakeholders should be addressed, otherwise it will lead to improper methods of engagement, resulting in limited success or no success at all.

However, there is still a scarcity of research regarding how systematically to identify and analyse stakeholders, or how to manage competing and complex stakeholder relationships (McAdam *et al*., 2005). As a result, in order to manage stakeholders' relationships, a stakeholder analysis must be conducted (Bryson, 2004). Different methods for the identification of stakeholders have been developed in the literature.

3.3.1 Identifying Stakeholders

In order for a bank to identify and map its stakeholders and to manage the relationship with them, it should establish an appropriate methodology which includes systematic processes in ways that both build accountability to stakeholders and enhance overall performance (AA1000SES). Banks should then communicate the stakeholder map to its stakeholders (AA1000SES).

Four sets of stakeholders were identified by Briner *et al*. (1996): clients, leader's organisation, outside services, and employees. Similarly but wider, Neely *et al*. (2002) and Rowley (1997) suggested an identification and categorisation of stakeholders including customers, employees, regulators, suppliers, local communities, pressure groups, government and other organisations. Similarly, Fletcher *et al*. (2003) identified 11 stakeholder groups in a study of a Blood Service organisation in Australia.

Three key and distinct methods for the identification of stakeholders have been identified in the literature (Mathur *et al*., 2007): using a generic list, asking a set of questions, and employing a snowballing technique.

1-Generic list of stakeholder categories and types:

Mathur *et al*. (2007) summarised stakeholder types in a table according to three main groups: stakeholders affecting the project; stakeholders affected by the project; and other stakeholders who may be interested in the project. The authors added that some stakeholders may belong to more than one category.

2. Set of questions

To ensure the inclusion of all important stakeholders, the use of a list of questions is suggested by most engagement guidelines (Mathur *et al*., 2007). This list might include questions such as: Who are responsible for the project? And who are the intended beneficiaries of the project?

3-Snowballing technique:

This method can be used to identify stakeholders; this may be worked out through focus group discussions, questionnaires and interviews (Mathur *et al*., 2007).

3.3.2 Mapping Stakeholders

It is important to prioritise stakeholders, as engaging with all stakeholders is neither possible nor desirable (Stakeholder Engagement Manual, Vol. 2, 2005). The manual explains that responding to all stakeholders would go beyond any available resources; also, it is very difficult. Therefore, prioritising stakeholders is important as, by doing this, banks ensure that time, resources and expectations are well managed. However, quantifying the different 'stakes' is not possible so objective comparisons cannot be made; this makes prioritisation difficult without setting clear criteria to link it to bank strategy (Stakeholder Engagement Manual, Vol. 2). According to Mathur *et al*. (2007), many techniques for mapping stakeholders (stakeholder analysis techniques) have evolved and some of the most frequently used techniques for analysing stakeholders are:

3.3.2.1 Prioritisation According to the Social Maturity of Issues

The Stakeholder Engagement Manual, Vol. 2 (2005) suggested a scale to classify stakeholders according to their maturity, as shown in Table (3.1). The manual added that

this classification changes as the same issue can be identified at different stages of maturity in different regions or industries. In general**,** the more mature an issue is, the more important it is for a company to address.

Table (3.1): The Four Stages of Issue Maturity (Stakeholder Engagement Manual, Vol. 2, 2005, p.41)

Latent	– Some activist communities and NGOs are aware of the issue. – There is weak scientific or other hard evidence. – The issue is largely ignored or dismissed by the business community,
Emerging	– There is political and media awareness of the societal issue. – There is an emerging body of research, but data are still weak. – Leading businesses experiment with approaches to dealing with the issue.
Consolidating	– There is an emerging body of business practices around the societal issue. – Sector wide and issue-based voluntary initiatives are established. – There is litigation and an increasing recognition of the need for legislation. – Voluntary standards are developed, and collective action occurs.
Institutionalised	– Legislation or business norms are established. – The embedded practices become a normal part of a business-excellence model.

3.3.2.2 Plotting Stakeholders on a Matrix/Grid

The matrix-grid axes represent two key attributes of stakeholders. These attributes could be importance/influence, impact/priority or power/interest. (Bryson, 2004; Mathur *et al*., 2007). Among the many two-dimensional approaches of mapping stakeholders, the power/interest matrix is the simpler and most frequently used (Mathur *et al*., 2007).

In this domain, Stakeholder Engagement Manual, Vol. 2 (2005) suggested using *influence/ dependence of stakeholders* (see Table 3.2) as the greatest influence on the achievement of company's objectives comes from those stakeholders and they bear most of the impacts of operations (positively or negatively).

Table (3.2): Stakeholder Influence and Dependency Matrix (Stakeholder Engagement Manual, Vol. 2, 2005; p. 43)

		Stakeholder influence on organisation	
		Low	**High**
Stakeholder dependence on the organisation	**High**	**Treat fairly** – honour commitments to these stakeholders in line with company policy, regulations and industry norms, otherwise endeavour to keep stakeholders satisfied insofar as balance of costs and benefits allow.	**Strategic threat or opportunity** - invest in engagement processes to understand concerns and develop solutions.
	Low	**Low priority** - provide access to general channels of information and feedback.	**Keep involved and informed**, but ensure balance between the concerns of high influence stakeholders and those of people actually impacted by decisions.

However, this matrix may need to be adjusted to meet each company's particular prioritisation criteria and to consider the interactions between the different stakeholder groups (Stakeholder Engagement Manual, Vol. 2, 2005).

Similarly, Bryson (2004) and Mathur *et al*. (2007) suggested the use of the *power/interest matrix.* Bryson (2004) stated that different stakeholders are plotted on a two-dimensional grid matrix where the dimensions are the stakeholders' interest in the project and how much power they exert on it. This grid matrix results in four groups of stakeholders (as shown in Figure 3.1): players (interest and significant power); subjects (interest and little power); context setters (power and little direct interest); and the crowd (little interest and power).

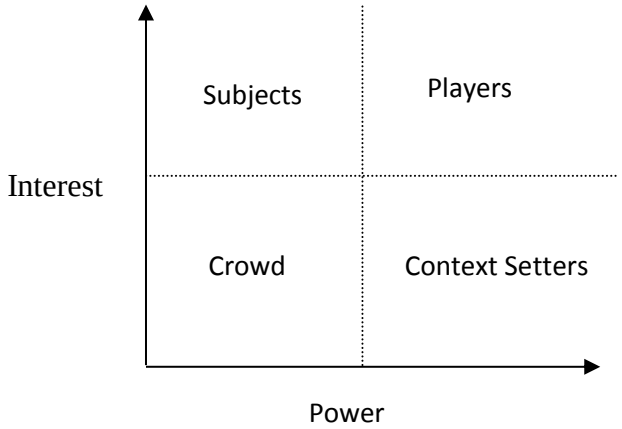


Figure 3.1: Mapping stakeholders on a power/interest grid (Bryson, 2004; p.30)

Moreover, in order to have a successful engagement process, the bank should understand the power that each stakeholder possesses (Mathur *et al*., 2007). The authors added that the power may be direct or indirect; it also could involve the ability to affect the project's activities or success in the short or long term. Therefore, different types of power must be considered. Yukl (1998) defined three sources of power**:** position power, personal power and political power while Greene and Elfrers (1999, p. 178) outlined seven forms of power which are related to Yukl's three forms: (1) coercive- based on fear; (2) connection (personal + political power); (3) reward (position power); (4) legitimate (position+ political power); (5) referent (personal power); (6) information (position, personal + political power); and (7) expert (personal power).

Friedman and Miles (2002), building on Archer's (1995) typology of social differentiation, developed a model of organisation/ stakeholder relations and categorised them into four groups (see Table 3.3).

Table (3.3): Stakeholder configurations and associated stakeholder types (Friedman and Miles, 2002; p.5)

	Necessary	**Contingent**
Compatible	**A** • Shareholders • Top management • Partners	**B** • The general public • Companies connected through common trade associations/ initiatives
Incompatible	**D** • Trade unions • Low-level employees • Government and their agencies • Customers • Lenders • Suppliers and other creditors • Some NGOs	**C** • Some NGOs • Aggrieved or criminal members of the public

3.3.2.3 Three-Dimensional Diagram

Mitchell *et al*. (1997) provided a model for stakeholder identification that included the attributes of power, urgency and legitimacy (as shown in Figure 3.2). When stakeholders can influence the organisation they are considered as having *power*, and they can make it take decisions that it would not otherwise take. Mitchell *et al*. relied on Etzioni's 1964 categorisation of power as stated by Rawlins (2006, p. 5). Those power categories are: "*coercive power*, based on the physical resources of force, violence or restraint; *utilitarian power*, based on material or financial resources; and *normative power*, based on symbolic resources". *Legitimacy* is determined by the stakeholder having a legal or moral claim that can influence the organisation's behaviour or outcome (Mitchell *et al*., 1997, p. 867). The authors continue to explain that *urgency* exists under two conditions: "(1) when a relationship or claim is of a time-sensitive nature and (2) when that relationship or claim is important or critical to the stakeholder." Urgency, then, demands organisations to fulfil stakeholders' claims quickly. Mitchell *et al*. combined the three attributes to develop a prioritisation strategy of salient stakeholders for a company.

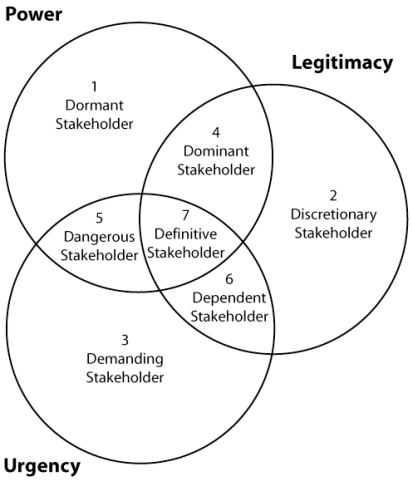


Figure 3.2: Stakeholder typology (from Mitchell *et al*., 1997, p. 874)

Accordingly, the various combinations of the three attributes give three types of stakeholders: latent stakeholders who have the lowest salience as they only have one attribute; the expectant stakeholders who possess two attributes and so have a moderate salience; while the stakeholders who have all three attributes are definitive stakeholders and have the highest priority (Mitchell *et al*., 1997). Thus, if individuals or groups do not possess any of the attributes, they are not considered to be stakeholders (Mitchell *et al*., 1997).

Other authors have discussed stakeholder issues using three-dimensional models. Ullmann (1985), for example, used stakeholder power, strategic posture and economic performance. A study conducted by Parent and Deephouse (2007) found that, among the three attributes, power had the most effect on salience, followed by urgency and legitimacy. The same was pointed out by Van der Laan Smith *et al*. (2005, p. 127) who stated that power is a "key attribute governing the relationship between corporate managers and their stakeholders".

An important feature of Mitchell *et al*.'s model is that attributes are variables and not constant. As pointed out by Mitchell *et al*. (1998), any group of stakeholders can acquire (or lose) any of the three attributes depending on the situation, and can shift from one class to another. Later, Agle *et al*. (1999) empirically tested Mitchell et al.'s (1997) theoretical model and confirmed it. However, Driscoll and Starik (2004) argued that Mitchell *et al*.'s dimensions are not comprehensive as they do not consider the natural environment. The authors suggested adding the dimension of "proximity" to incorporate eco-sustainability

criteria into the stakeholder concept. Moreover, Rawlins (2006) criticised Mitchell *et al*.'s model for the absence of one dimension of stakeholder attributes, which is whether the stakeholder group is supportive or threatening. To achieve this, Rawlins (2006) synthesised the Grunig and Hunt (1984) linkage model with the Mitchell *et al*. attribute model in order to obtain a stakeholder priority hierarchy.

3.3.2.4 Stakeholder Circle

The stakeholder Circle model was developed by Bourne and Walker (2005) in order to map and visualise stakeholders' power and impact on the organisation. This model helps the project team "identify and prioritise a project's key stakeholders, and to develop an appropriate engagement strategy and communications plan to ensure that the needs and expectations of these key stakeholders are understood and managed" (Bourne, 2005, p. 5). The stakeholder circle visualises the project's key stakeholders according to their influence on the project's success or failure (Bourne, 2005; Bourne and Walker, 2005).

3.4 The Theoretical Framework and Hypotheses

This study develops a sustainability model depending on stakeholder theory (Figure 3.3). The first stage in this model is to perform a stakeholder analysis as it guides the sustainability practices of banks. Stakeholders' analysis consists of identifying banks' stakeholders, prioritising them (stakeholders' salience) and discovering how banks communicate with them; these two factors affect how banks undertake their sustainability activities. Sustainability is closely related to stakeholders, as companies will not be able to achieve sustainability without taking stakeholders' needs into account. Banks need to increase their engagement with stakeholders as a part of the sustainability process (IFC, 2005). One additional variable that most previous studies suggested affects the sustainability of banks is size. Also, the literature has proved that strategy is linked to both stakeholders' engagement and sustainability. Hence, it was suggested that the relationships between those variables should be moderated in the model. Finally, the model examines the relationship between the banks' sustainability and performance.

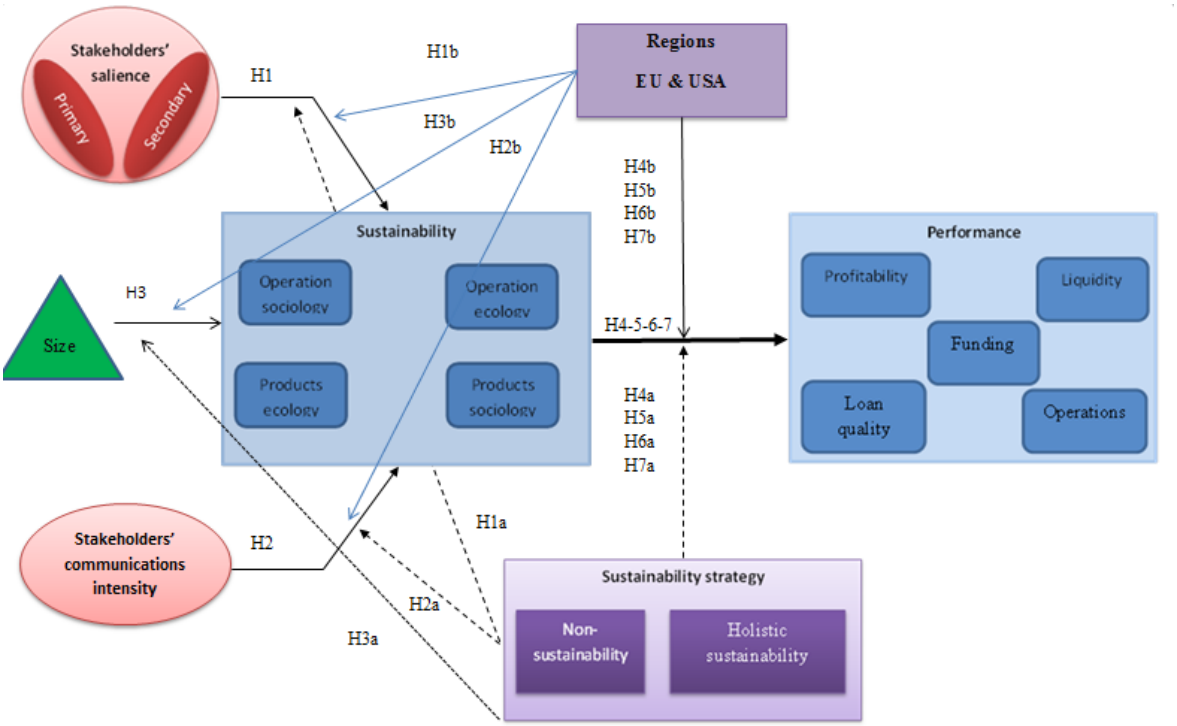


Figure 3.3: The theoretical framework

3.4.1 Relationship with Stakeholders

For a bank to be successful, the relationships between stakeholders and the bank must be managed in ways that best meet both stakeholders' needs and expectations and the needs of the bank (Bourne, 2005, 2009). If stakeholders' relations are properly managed, their rights are ensured and they participate in decisions that substantially affect their welfare, the bank's profitability will improve (Rausch, 2011). However, the main problem is the conflict of interests among the various stakeholders involved (Lins and Wajnberg, 2007) as "different target groups could have different needs and uses for the information provided by the indicators" (Segnestam, 2002, p. 913). Hence, it is very important to consider carefully who the bank's stakeholders are by performing a stakeholder analysis (Strand, 2008). The same point was stressed by Laplume *et al*. (2008) who stated that, in order to avoid the anxiety of facing this vast number of persons who have interest in, or are affected by the bank, stakeholder management must identify and communicate with stakeholders. This was the reason behind questions such as "Which stakeholders should managers pay attention to? Which stakeholders do managers really care about?" (Laplume *et al*., 2008, p. 1161). As indicated earlier, many efforts have been made to categorise stakeholders (Wall and Greiling, 2011). For example, Mitchell *et al*. (1997) identified power, legitimacy and

urgency as criteria for stakeholders' identification. Stakeholders' engagement is addressed in the first two research questions (see Chapter 1).

Thus, banks' relationship with stakeholders is reciprocal as the bank has wants and needs from stakeholders and stakeholders have wants and needs from the bank (Neely *et al*., 2002) thus, to satisfy stakeholders, banks must know their desires and needs. Neely *et al*., (2002) gave an example of such wants and needs (see Figure 3.4). The contributions of stakeholders are vital for the achievement of the bank's objectives (Li and Tang, 2009). This is addressed in the third research question (see Chapter 1).

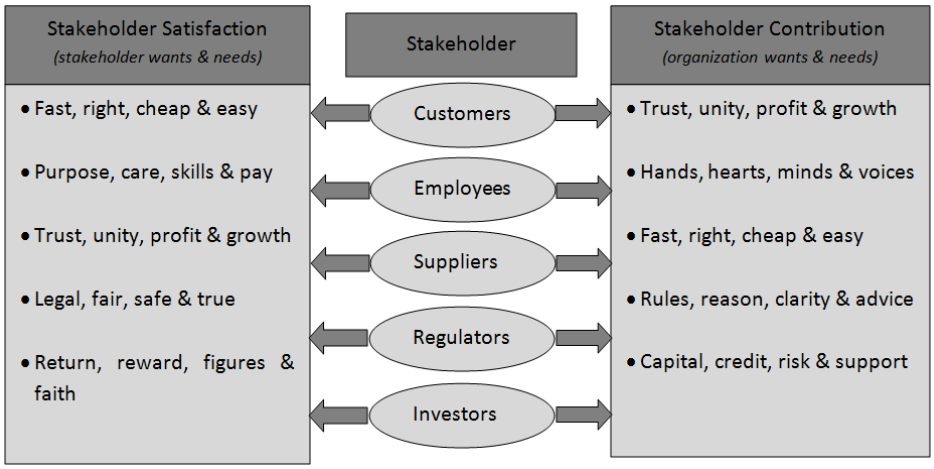


Figure 3.4: Wants and needs of stakeholders (Neely *et al*., 2002)

Moreover, for banks to address and respond effectively to emerging risks and opportunities, they should take into consideration a broad range of stakeholders (Brown and Flynn, 2008). These stakeholders could be without a direct connection to the enterprise, such as those who suffer from side-effects of a bank's lending practices (Schwind, 2007). Another reason for the more comprehensive set of stakeholders, according to Schlange (2009), is because sustainability-driven entrepreneurs pursue economic as well as non-economic values. Stakeholders exert pressure on banks to be socially and environmentally responsible (Epstein, 2008; Eweje, 2011) in order to move towards sustainable development (Harris and Crane, 2002). Stakeholder theory explains why companies (including banks) should work toward sustainable, development; the theory proposes that it is in the company's best economic interest to work toward sustainability as by doing so the company will be able to meet its business objectives by improving its relationships with stakeholders (Wilson, 2003).

However, banks do not simply respond to individual stakeholders' requirements; rather, they respond to the influence of interactions with the entire stakeholder set (Ambler and Wilson, 1995). Strand (2008) added that improved stakeholder engagement is seen by many industries as a means to reduce risks and increase opportunities. This was supported by Wall and Greiling (2011, p. 92) who stated that "the more severe firms have been affected by the crisis the more relevant sustainable stakeholder relations have become for them". Regular engagement with stakeholders has an important role in avoiding or minimising risks and impacts to people and the environment (IFC, 2012). The IFC (International Finance Corporation) added that this will benefit the stakeholders in economic, social, and/or environmental terms.

Financial organisations need to integrate better standards in terms of social and environmental issues and to generate long-term value for themselves and their stakeholders (World Bank Group, 2007). Banks need to be more proactive in engaging with stakeholders in order to achieve sustainability (Gordon and Lacy, 2011). Consequently, this thesis hypothesises:

H1: Stakeholders' salience has a positive impact on sustainability.

3.4.1.1 Corporate Stakeholder Engagement Stages

As indicated earlier, stakeholder theory does not clearly state who is a stakeholder or how to identify a stakeholder (Rawlins, 2006). In order to avoid the anxiety of facing this vast number of persons who have interest in, or are affected by the bank, stakeholder management must identify and communicate with key stakeholders through stakeholder engagement. Stakeholder theory not only requires firms to understand the types of influence stakeholders exert but also how they respond to those influences: i.e. "the engagement" (Andriof *et al*., 2002). According to the Stakeholder Engagement Manual, Vol. 1 (2005) "engagement" is the effort made by an organisation to understand and include stakeholders in its decisions and activities.

According to the Stakeholder Engagement Manual Vol. 1 (2005), a vital and emerging tool for companies to understand what sustainability is and how can they utilize it in creating value and operational prosperity, is stakeholder engagement (see Figure 3.5). The Manual defines "engagement" as the effort made by a company to understand and involve its stakeholders in decision-making processes and activities.

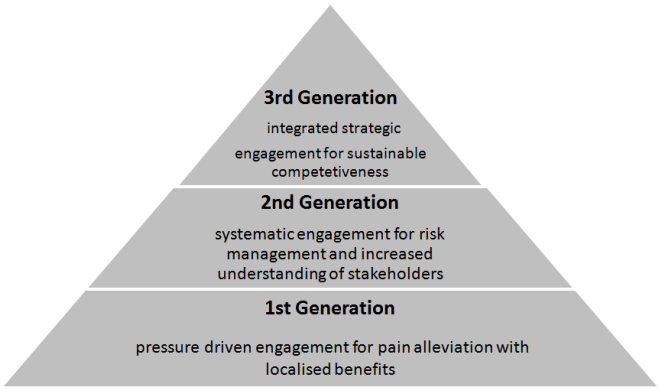


Figure 3.5: Three generations of corporate stakeholder engagement (Stakeholder Engagement Manual, 2005, Vol. 2, p.8)

"Successful stakeholder engagement not only helps companies to secure leadership in an increasingly complex and ever changing business environment, but will also help to bring about systemic change towards sustainable development" (Stakeholder Engagement Manual, Vol. 2, 2005; p. 9). Companies need to identify clearly their stakeholders and report effectively on their own performance in order to help the different identified stakeholder groups in analysing and evaluating companies' sustainability efforts (Perrini and Tencati, 2006). "The key to solving the core strategic problem is to understand the firm's entire set of stakeholder relationships" (Post *et al*., 2002, p. 8).

Since the mid-1980s, stakeholder engagement has developed from communication and dialogue using traditional methods with the key stakeholders into a more comprehensive set of approaches to help companies understand and succeed (Stakeholder Engagement Manual, Vol. 1, 2005). Zollinger (2009) described three phases in the development of stakeholder engagement over the last thirty years; similarly, Manetti (2011) classified three phases in the relationship between corporations and stakeholders:

1- Stakeholder mapping (1980s): companies started to recognise the interests of their stakeholders (Zollinger, 2009). The Stakeholder Engagement Manual Vol. 1 (2005) called it "the awareness era". In this phase, according to Manetti (2011), companies started to identify their stakeholders and to distinguish, where possible, between primary and secondary ones. Also, they started to communicate with them and address their concerns regarding specific issues (Zollinger, 2009). In this phase, organisations communicated with their stakeholders through one-way channels designed to spread information. At this stage stakeholders were the "receivers" of messages sent by the managers of the organisation (Foster and Jonker, 2005). Organisations do this in order for the purpose of "avoiding

conflicts and minimising the risk and costs of boycotts, litigation and failure to obtain regulatory and societal licence to operate" (Stakeholder Engagement Manual, Vol. 1, 2005, p. 26); the manual calls this relation "trust us". However, such one-way channels of communication are considered to be a relatively weak form of engagement (Burchell and Cook, 2006).

2- Stakeholder management (1990s): companies started to be aware, manage and to build long-term relationships through engagement with a wide variety of stakeholders who are affected by or affecting their operations (Zollinger, 2009). The Stakeholder Engagement Manual Vol. 1 (2005) called it "The Attentive Era" which called for increased corporate responsibility. This helped companies to raise their reputation, predict and manage risk more effectively, along with identifying new opportunities (Zollinger, 2009). According to the Stakeholder Engagement Manual Vol. 1(2005), the engagement methods in this phase were conducted through consultation and dialogue via interactive channels; this relation was called "show us". In this phase "information is viewed as a commodity to be transmitted to stakeholders" (Burchell and Cook, 2006, p. 155).

3- Stakeholder engagement (more recent): companies started to involve their stakeholders in decision-making procedures in dialogue and in the sharing of information, thus making stakeholders part of the management of companies. This created a model of mutual responsibility (Manetti, 2011). The Stakeholder Engagement Manual Vol. 1 (2005) called it "The Engagement Era" where businesses pursue a strategic business case for stakeholder engagement. Zollinger (2009) proposed the name "stakeholder governance" for this stage. This concept emerged from the idea that "shareholders are neither the only asset providers nor the only risk takers" (White, 2006). White (2006) explained this by saying that, since stakeholders offer their assets to the corporation, so each should be given a voice in the corporation's governance structure equal his/her contribution. This led to integrating stakeholder interests into the basic roles of decision-making processes in order to guarantee a fair balance in term of the claims of all important stakeholders, thus prioritising stakeholders' interests (Zollinger, 2009). According to the Stakeholder Engagement Manual, Vol. 1 (2005), the engagement method in this phase involves partnerships that focus on finding resolutions and creating value. This relation is known as "involve us, hear us". Hence, this thesis hypothesises:

H2: The intensity of stakeholders' communications has a positive impact on sustainability.

3.4.1.2 Stakeholder Relations and Strategy

Companies will define and pursue strategies that will deliver value to stakeholders (Neely *et al*., 2002). However, the difficult part is in identifying what the organisation wants from its stakeholders. Li and Tang (2009) share the same view point and stated that stakeholders' contributions and expectations should be taken into account when formulating a company's objectives and strategies; this will help to identify the critical performance variables. Consequently, when firms or banks formulate sustainability strategies, they take into consideration their stakeholders (Buysse and Verbeke, 2003; Neu *et al*., 1998) which shows the importance of conducting a stakeholder management analysis. Hence, according to the authors, identifying salient stakeholders is critical in the formulation of corporate strategy. Stakeholders' analysis provides input information for formulating stakeholder strategy (Wall and Greiling, 2011). Previous literature has cited that pressure from stakeholders was one of the factors contributing to the adoption of proactive (sustainability) strategies (e.g. Henriques and Sadorsky, 1999; Wheeler *et al*., 2003). Accordingly, this thesis hypothesises:

H1a: Sustainability strategy moderates the relationship between stakeholders' salience and sustainability.
H2a: Sustainability strategy moderates the relationship between the intensity of stakeholders' communications and sustainability.

3.4.2 Relationship between Size and Sustainability

Most previous studies have suggested that size affects the sustainability of a company. In 2001, Margolis and Walsh's review concluded that the most commonly used control variable was firm size and many authors have used size as a test or control variable in sustainability studies (Preston, 1978; Waddock and Graves, 1997; Stanwick and Stanwick, 1998; Moore, 2001; Simpson and Kohers, 2002; Kang *et al*., 2009; Rettab *et al*., 2009; Chih *et al*., 2010; Lee *et al*., 2013).

From the previous discussion it is obvious that size has an effect on sustainability practices and disclosures. As observed by Foster (1986, p. 44), "the variable most consistently reported as significant in studies examining differences across firms in their disclosure policy is firm size". Most previous studies have suggested that large companies are significantly more likely to practise and disclose sustainability information than small companies (for example, Trotman and Bradley, 1981; Belkaoui and Karpik, 1989; Patten,

1992; Wallace *et al*., 1994; Gray *et al*., 1995a; Hackston and Milne, 1996; Deegan and Gordon, 1996; Moore, 2001; Arcay and Vazquez, 2005, Branco and Rodrigues, 2008b). However, some empirical studies (such as Freedman and Jaggi, 1988; Roberts, 1992; Lynn, 1992; Xiaowen, 2012) have found no relationship between company size and the level of sustainability disclosures; some have even found a negative relationship (Jensen and Meckling, 1976; Cowen *et al*., 1987). The reason for the negative relationship, according to Jensen and Meckling (1976), is that larger companies tend to hide information to avoid tougher regulations and increasing tax. Bayoud *et al*. (2012) stated that only when the larger companies have weak economic performance do they tend to report sustainability information.

Reviewing the literature revealed some of the reasons why larger companies disclosed more sustainability information:

- Larger companies are more subject to public scrutiny; therefore, they are most likely to act in a more responsible way and hence, disclose more sustainability information (Cowen *et al*., 1987; Roberts, 1992; Alsaeed, 2006; Elijido-Ten, 2007; Chih *et al*., 2010).
- Larger companies have more shareholders who are interested in the companies' sustainability activities (Cowen *et al*., 1987; Roberts, 1992; Hackston and Milne, 1996).
- Larger companies may have more resources to spend on sustainability activities (Wu, 2006; Elijido-Ten, 2007).
- Larger companies may have lower costs for generating information (Cooke, 1992; Meek *et al*., 1995; Alsaeed, 2006).

This thesis hypothesises:

H3: Size has a positive impact on sustainability.
H3a: Sustainability strategy moderates the relationship between size and sustainability.

3.4.3 The Journey of Banks towards Sustainability

The environmental impacts of banks can be divided into internal and external ones (Jeucken and Bouma, 1999). However, compared to other sectors, banks have a lower direct environmental impact (Branco and Rodrigues, 2008a). The *internal issues* (direct impact) are associated with the business processes within banks such as the bank's water,

paper and energy use (Jeucken and Bouma, 1999; Peiyuan and Yongda, 2004). This could have a significant environmental impact as the overall size of the banking sector is sufficiently large. Coulson and Monks (1999, p. 2) agreed and stated that "substantial financial and environmental gains can be made by banks managing demand for, use and reuse of resources and waste disposal."

Although, the direct environmental impact of banks' activities matters from an economic viewpoint, it is considerably limited compared to the indirectly significant impact caused by their clients (Peiyuan and Yongda, 2005; Lins and Wajnberg, 2007; Lins and Wajnberg, 2007). *External issues* (indirect impacts) are associated with the banks' products and services; however, while they themselves do not contaminate, it is the users of these products and services who impact on the environment (Jeucken and Bouma, 1999; Lins and Wajnberg, 2007). "All pollution caused by companies who are financed by banks is the responsibility of banks" (Jeucken and Bouma, 1999, p. 28). In some countries (especially developed ones), a bank may be forced to pay for the cleaning-up costs of contamination that has been caused by a bankrupt borrower (Thompson, 1998; Capella, 2002). As a result, banks have a special interest in assessing environmental risk when taking lending decisions and how best to protect a loan (Thompson, 1998). Capella (2002, p. 23) believes that "stakeholders' pressure on the banking sector is believed to be a major force for this new tendency to consider environmental aspects in lending procedures".

This is also associated with indirect risk which arises when a borrower's activities damage the environment and he/she has to pay this cost, thereby reducing his/her ability to repay the loan, in turn increasing the risk to the lender (i.e. the bank) (Thompson, 1998). Jeucken (2001) identified six environmental aspects related to indirect risks: changing government requirements, changing market environment, changing external environmental conditions, private liability, government sanctions, and criminal prosecution.

Another type of environmental related risk is "reputational risk". If a bank is seen to finance environmentally unfriendly projects or borrowers then its reputation could be adversely affected (Thompson, 1998). Jeucken (2001, p.140) states: "if such campaigns receive widespread media attention and/or are taken seriously by the public, they can result in considerable damage for the bank". Therefore, banks will have to investigate environmental aspects of borrowers before agreeing to finance them (Capella, 2002).

Accordingly, these environmental risks have encouraged many banks to integrate environmental concerns into their credit decision process (Thompson, 1998; Schwind, 2007) in order to make sure that they do not lend to or invest in industrial activities that harm the environment (Branci and Rodrigues, 2008a). However, Giuseppi (2001, p.31) criticised this by saying: "the incorporation of environmental aspects into the bank's products and services is currently made to reduce their financial risk" and not to protect the environment. Therefore, Jeucken and Bouma (2001) asserted that both ideological reasons and risk assessment should be considered by responsible banks when pursuing sustainability.

Similarly, the social impact of a bank may be discussed. Banks should invest in companies that behave in a socially responsible way (i.e. they are not involved in certain businesses, such as nuclear power) (Schwind, 2007). Koslowski (2011) stressed that, because banks play a part in the creation of money, they should act even more ethically than the industries of the real economy. However, social impacts have not received the same attention as environmental ones, especially in European organisations (Strandberg, 2005). Similarly, Zadek (1999) stated that social aspects of sustainability have been marginal in sustainability debates and practices.

Companies are now more aware of the benefits of sustainable operations and are responding to a wider, more complex range of stakeholders (Handford, 2010). Also, "financial institutions in developed countries are beginning to take environmental and social issues as an integrated part of their operations, providing the basic pillars for sustainable finance" (Capella, 2002, p. 2). Thus, in order for sustainable development to happen, businesses must focus on the environmental and social value added or destroyed and not only on economic value added (Capella, 2002). Capella, (2002) also stated that, taking into account the power and influence of banks in the economy and their ability to finance industries which have a substantial environmental impact, sustainable development will lose its power without the involvement of financial institutions. Most banks in their journey towards sustainability will pass through four stages of awareness and response towards sustainability:

- Defensive banking: The bank ignores all sustainability issues (Jeucken and Bouma, 1999; Cleene and Wood, 2004) and may even try to oppose or delay new environmental regulations because it may, directly or indirectly, damage the interests of the bank

(Jeucken and Bouma, 1999). The strategy then is called *Introverted* (or risk mitigation) strategy in which the bank tries try to avoid environmental and social risks by focusing only on the legal and external standards relating to environmental and social aspects (Baumgartner and Ebner, 2010).

- Preventative or protective banking: Where environmental and social risks are more systematically managed (Cleene and Wood, 2004). According to Jeucken and Bouma (1999), as a result of legislation or social pressures, potential revenues, costs and risks will be integrated into the day-to-day business of preventative banks; however, they will only consider their internal processes. This is called *Extroverted* (legitimating) strategy which focuses on external relationships to acquire a license to operate (Baumgartner and Ebner, 2010).
- Offensive banking: Such banks strategically manage environmental and social risk, and narrow environmental and social value added (Cleene and Wood, 2004). According to Jeucken and Bouma (1999), offensive banks consider the effects of their internal and external activities. They are continuously looking for win–win solutions. However, according to the authors, in order for the win–win solutions to lead to sustainability, negative environmental costs should be completely integrated into the pricing system. This is then called *Conservative* (efficiency) strategy and it focuses on cleaner production and eco-efficiency (Baumgartner and Ebner, 2010).
- Sustainable banking: Embraces win–win solutions. However, the banks in this stage are aiming to reach the highest sustainable rate of return alongside the highest financial rate of return, while being profitable in the long term (Jeucken and Bouma, 1999). In this stage, the strategy is no longer limited to risk avoidance; it has started to integrate the triple bottom line approach. Also, sustainability-related issues drive the development of new products and services (Cleene and Wood, 2004). The strategy is then called *Visionary* (or holistic sustainability) strategy which focuses on sustainability issues within all corporate activities (Baumgartner and Ebner, 2010). As can be seen from the previous argument, the last stage, "sustainable banking", could be reached when a bank uses a "sustainability strategy". This helps in addressing the fourth research question (see Chapter 1).

3.4.4 Sustainability and Performance Relationship

As indicated earlier, there is extensive literature which examines the relationship between firms' sustainability behaviour and financial performance. However, these studies have produced mixed results. This study examines the relationship between sustainability and performance in banks and whether sustainability strategy influences this relationship. Accordingly, this thesis hypothesises:

H4: Operating ecology is positively related to a bank's performance.
H5: Operating sociology is positively related to a bank's performance.
H6: Product ecology is positively related to a bank's performance.
H7: Product sociology is positively related to a bank's performance.

3.5 Hypotheses

Based on the literature review and the theoretical model, four groups of hypotheses were developed. The first group of hypotheses (H1 to H3) are related to the direct effects of stakeholder salience, communication intensity and size on sustainability. The second group of hypotheses (H4 to H7) tests the direct effect of sustainability on banks' performance. The third group of hypotheses (H1a to H7a) are related to the moderating effect of sustainability strategy on the relationships between stakeholder salience, communication intensity and size on sustainability, as well as on the relationship between sustainability and banks' performance. The fourth group of hypotheses (H1b to H7b) are related to the moderating effect of region in the relationships between stakeholder salience, communication intensity and size on sustainability, as well as on the relationship between sustainability and banks' performance.

Group 1: The relationship between stakeholder salience, communication intensity, size and sustainability

H1: Stakeholders' salience has a positive impact on sustainability.

H1.1: Stakeholders' salience has a positive impact on operating ecology.
H1.2: Stakeholders' salience has a positive impact on operating sociology.
H1.3: Stakeholders' salience has a positive impact on product ecology.
H1.4: Stakeholders' salience has a positive impact on product sociology.

H2: The intensity of stakeholders' communications has a positive impact on sustainability.

H2.1: The intensity of stakeholders' communication has a positive impact on operating ecology.

H2.2: The intensity of stakeholders' communication has a positive impact on operating sociology.

H2.3: The intensity of stakeholders' communication has a positive impact on product ecology.

H2.4: The intensity of stakeholders' communication has a positive impact on product sociology.

H3: Size has a positive impact on sustainability.

H3.1: Size has a positive impact on operating ecology.

H3.2: Size has a positive impact on operating sociology.

H3.3: Size has a positive impact on product ecology.

H3.4: Size has a positive impact on product sociology.

Group 2: The relationship between sustainability and bank performance

H4: Operating ecology is positively related to a bank's performance.

H4.1: Operating ecology has a positive impact on profitability.

H4.2: Operating ecology has a positive impact on liquidity.

H4.3: Operating ecology has a positive impact on operation.

H4.4: Operating ecology has a positive impact on funding.

H4.5: Operating ecology has a positive impact on loan quality.

H5: Operating sociology is positively related to a bank's performance.

H5.1: Operating sociology has a positive impact on profitability.

H5.2: Operating sociology has a positive impact on liquidity.

H5.3: Operating sociology has a positive impact on operation.

H5.4: Operating sociology has a positive impact on funding.

H5.5: Operating sociology has a positive impact on loan quality.

H6: Product ecology is positively related to a bank's performance.

H6.1: Products ecology has a positive impact on profitability.

H6.2: Products ecology has a positive impact on liquidity.

H6.3: Products ecology has a positive impact on operation.

H6.4: Products ecology has a positive impact on funding.

H6.5: Products ecology has a positive impact on loan quality.

H7: Product sociology is positively related to a bank's performance.

H7.1: Products sociology has a positive impact on profitability.

H7.2: Products sociology has a positive impact on liquidity.

H7.3: Products sociology has a positive impact on operation.

H7.4: Products sociology has a positive impact on funding.

H7.5: Products sociology has a positive impact on loan quality.

Group 3: The influence of sustainability strategy on the relationship between stakeholder salience, communication intensity and sustainability, and on the relationship between sustainability and bank performance

H1a: Sustainability strategy moderates the relationship between stakeholders' salience and sustainability.

H1a.1: Sustainability strategy moderates the relationship between stakeholders' salience and operating ecology.

H1a.2: Sustainability strategy moderates the relationship between stakeholders' salience and operating sociology.

H1a.3: Sustainability strategy moderates the relationship between stakeholders' salience and product ecology.

H1a.4: Sustainability strategy moderates the relationship between stakeholders' salience and product sociology.

H2a: Sustainability strategy moderates the relationship between the intensity of stakeholders' communications and sustainability.

H2a.1: Sustainability strategy moderates the relationship between the intensity of stakeholders' communication and operating ecology.

H2a.2: Sustainability strategy moderates the relationship between the intensity of stakeholders' communication and operating sociology.

H2a.3: Sustainability strategy moderates the relationship between the intensity of stakeholders' communication and product ecology.

H2a.4: Sustainability strategy moderates the relationship between the intensity of stakeholders' communication and product sociology.

H3a: Sustainability strategy moderates the relationship between size and sustainability.

H3a.1: Sustainability strategy moderates the relationship between size and operating ecology.

H3a.2: Sustainability strategy moderates the relationship between size and operating sociology.

H3a.3: Sustainability strategy moderates the relationship between size and product ecology.

H3a.4: Sustainability strategy moderates the relationship between size and product sociology.

H4a: Sustainability strategy moderates the relationship between operating ecology and a bank's performance.

H4a.1: Sustainability strategy moderates the relationship between operating ecology and profitability.

H4a.2: Sustainability strategy moderates the relationship between operating ecology and liquidity.

H4a.3: Sustainability strategy moderates the relationship between operating ecology and operation.

H4a.4: Sustainability strategy moderates the relationship between operating ecology and funding.

H4a.5: Sustainability strategy moderates the relationship between operating ecology and loan quality.

H5a: Sustainability strategy moderates the relationship between operating sociology and a bank's performance.

H5a.1: Sustainability strategy moderates the relationship between operating sociology and profitability.

H5a.2: Sustainability strategy moderates the relationship between operating sociology and liquidity.

H5a.3 Sustainability strategy moderates the relationship between operating sociology and operation.

H5a.4: Sustainability strategy moderates the relationship between operating sociology and funding.

H5a.5: Sustainability strategy moderates the relationship between operating sociology and loan quality.

H6a: Sustainability strategy moderates the relationship between products ecology and a bank's performance.

H6a.1: Sustainability strategy moderates the relationship between product ecology and profitability.

H6a.2: Sustainability strategy moderates the relationship between product ecology and liquidity.

H6a.3: Sustainability strategy moderates the relationship between product ecology and operation.

H6a.4: Sustainability strategy moderates the relationship between product ecology and funding.

H6a.5: Sustainability strategy moderates the relationship between product ecology and loan quality.

H7a: Sustainability strategy moderates the relationship between products sociology and a bank's performance.

H7a.1: Sustainability strategy moderates the relationship between product sociology and profitability.

H7a.2: Sustainability strategy moderates the relationship between product sociology and liquidity.

H7a.3: Sustainability strategy moderates the relationship between product sociology and operation.

H7a.4: Sustainability strategy moderates the relationship between product sociology and funding.

H7a.5: Sustainability strategy moderates the relationship between product sociology and loan quality.

Group 4: The influence of region on the relationship between stakeholder salience, communication intensity and sustainability, and on the relationship between sustainability and bank performance

H1b: the region moderates the relationship between stakeholders' salience and sustainability.

H1b.1: The region moderates the relationship between stakeholders' salience and operating ecology.

H1b.2: The region moderates the relationship between stakeholders' salience and operating sociology.

H1b.3: The region moderates the relationship between stakeholders' salience and product ecology.

H1b.4: The region moderates the relationship between stakeholders' salience and product sociology.

H2b: The region moderates the relationship between stakeholders' communications intensity and sustainability.

H2b.1: The region moderates the relationship between the intensity of stakeholders' communication and operating ecology.

H2b.2: The region moderates the relationship between the intensity of stakeholders' communication and operating sociology.

H2b.3: The region moderates the relationship between the intensity of stakeholders' communication and product ecology.

H2b.4: The region moderates the relationship between the intensity of stakeholders' communication and product sociology.

H3b: The region moderates the relationship between size and sustainability.

H3b.1: The region moderates the relationship between size and operating ecology.

H3b.2: The region moderates the relationship between size and operating sociology.

H3b.3: The region moderates the relationship between size and product ecology.

H3b.4: The region moderates the relationship between size and product sociology.

H4b: The region moderates the relationship between operating ecology and a bank's performance.

H4b.1: The region moderates the relationship between operating ecology and profitability.

H4b.2: The region moderates the relationship between operating ecology and liquidity.

H4b.3: The region moderates the relationship between operating ecology and operation.

H4b.4: The region moderates the relationship between operating ecology and funding.

H4b.5: The region moderates the relationship between operating ecology and loan quality.

H5b: The region moderates the relationship between operating sociology and a bank's performance.

H5b.1: The region moderates the relationship between operating sociology and profitability.

H5b.2: The region moderates the relationship between operating sociology and liquidity.

H5b.3: The region moderates the relationship between operating sociology and operation.

H5b.4: The region moderates the relationship between operating sociology and funding.

H5b.5: The region moderates the relationship between operating sociology and loan quality.

H6b: The region moderates the relationship between product ecology and a bank's performance.

H6b.1: The region moderates the relationship between product ecology and profitability.

H6b.2: The region moderates the relationship between product ecology and liquidity.

H6b.3: The region moderates the relationship between product ecology and operation.

H6b.4: The region moderates the relationship between product ecology and funding.

H6b.5: The region moderates the relationship between product ecology and loan quality.

H7b: The region moderates the relationship between product sociology and a bank's performance.

H7b.1: The region moderates the relationship between product sociology and profitability.

H7b.2: The region moderates the relationship between product sociology and liquidity.

H7b.3: The region moderates the relationship between product sociology and operation.

H7b.4: The region moderates the relationship between product sociology and funding.

H7b.5: The region moderates the relationship between product sociology and loan quality.

3.6 Conclusions

This chapter has developed a sustainability model which gives a better understanding of the relationships between stakeholders' management, sustainability strategy and sustainability, and how these will lead to a better performance. Then, some research questions and hypotheses were developed which are tested in the later chapters.

Chapter 4: Research Design

4.1 Introduction

This chapter explains and justifies the research approach and the research methods used for data collection and analysis. It starts with a brief discussion of the research philosophies and is followed by description of the strategies of inquiries (or methodology). It then outlines the research design for this study. After that, it explains the research methods used to collect the data. The data collection method section includes a detailed description of the content analysis process used in this study. In the fourth section, the data analysis procedures are outlined including the statistical tests and SEM. Section 4.8 represent data screening procedures. Finally, a summary is provided.

4.2 Research Paradigm

A research paradigm reflects important assumptions about the way in which the researcher views the world (Saunders *et al.*, 2009). Collis and Hussey (2014, p. 43) defined a research paradigm as "a philosophical framework that guides how scientific research should be conducted". It affects the way in which data are collected and analysed, and the way the thesis is written (Collis and Hussey, 2003) and can help the researcher recognise which research design may work and which may not (Easterby-Smith *et al*., 1991).

There are three major ways of thinking about research philosophy: epistemology, ontology and axiology. Saunders *et al*. (2009, p. 110,112,116) define them thus: "Ontology is concerned with the nature of reality…Epistemology concerns what constitutes acceptable knowledge in a field of study…Axiology is a branch of philosophy that studies judgements about value". Creswell (2003, p. 6) notes: "Philosophically, researchers make claims about what is knowledge (ontology), how we know it (epistemology), what values go into it (axiology), how we write about it (rhetoric), and the process for studying it (methodology)". However, there are two main research paradigms commonly used in business and management research: "positivism" and "interpretivism" (Easterby-Smith *et al*., 2002; Collis and Hussey, 2003; Pansiri, 2005) which can be seen as the extremes of a continuum (Morgan and Smircich, 1980 in Collis and Hussey, 2014). Easterby-Smith *et al*. (2002) presented the implications of both philosophies (Table 4.1).

Table (4.1): The implications of both philosophies *(Easterby-Smith et al., 2002; p.30)*

	Positivism	Phenomenology
The observer	Independent	Part of what is observed
Human interests	Irrelevant	Are the drivers
Explanation	Must prove causality	Aim to increase general understanding of the issue
Research progresses through	Hypotheses and deductions	Gathering rich data from which ideas are induced
Concepts	Need to be defined so that they can be measured	Should incorporate stakeholder perspectives
Units of analysis	Should be reduced to simplest terms	May include the complexity of 'whole' situation
Generalization through	Statistical probability	Theoretical abstraction
Sampling requires	Large numbers selected randomly	Small numbers of cases chosen for specific reasons

4.2.1 Positivistic Paradigm

The main assumption of the positivistic approach is that social world is independent of us (Easterby-Smith *et al*., 1999; Collis and Hussey, 2003). Easterby-Smith *et al*. (1999) stated that the characteristics of this social world should not be deducted through reflections or intuition; rather, it should be measured through objective methods. Similarly, Creswell (2003) stated that, in this paradigm, knowledge is abstract and there is nothing called absolute truth. Collis and Hussey (2003) added that the positivistic approach seeks the causes of social phenomena, with little regard to the subjective state of the individual. In this type of philosophy, researchers use existing theory to develop testable hypotheses to confirm or refining the existing theory (Saunders *et al*., 2009).

4.2.2 Phenomenological Paradigm

The phenomenological approach argues that reality is not objective and exterior, but is socially constructed and given meaning by people (Easterby-Smith *et al*., 1999). This approach is interested in realising human behaviour and how it makes sense of the world (Collis and Hussey, 2003; Saunders *et al*., 2009).

In this paradigm, research does not predefine variables but tries to understand and explain why people have different experiences, rather than searching for causes to explain this behaviour (Easterby-Smith *et al*., 1999). In other words, it tries to interpret the data rather

than starting with a theory (as in positivism) though, in the end, it generates or develops a theory (Creswell, 2003). Collis and Hussey (2003) summarised the main features of the two paradigms (Table 4.2).

Table (4.2): The main features of the two paradigms (*Collis and Hussey, 2014, p.50*)

Positivistic	Phenomenological
Produces quantitative data	Produces qualitative data
Uses large sample	Uses small sample
Concerned with hypothesis testing	Concerned with generating theories
Data are highly specific and precise	Data are rich and subjective
Artificial location	Natural location
Reliability is high but validity is low	Reliability is low but validity is high
Generalises from sample to population	Generalises from one setting to another

Positivistic paradigms have dominated claims in management accounting research (Parker, 2012). Moreover, choosing one paradigm means to view the world from that point of view (Burrell and Morgan, 1979). As stated earlier, the aim of this study is to develop a sustainability model to explain the relationships among stakeholders' management (engagement), sustainability strategy, and sustainability; and whether sustainability leads to a better performance in a group of EU and USA banks. As a result, to attain this aim, a positivist paradigm is adopted.

4.3 Methodology

After seeing the positivist paradigm as the most suitable paradigm for this study, it is necessary to design the research and choose the most appropriate research methodology (strategies of inquiry) accordingly. The research design and methodology is closely related to the philosophical assumption of the selected paradigm (Collis and Hussey, 2014). Strategies of inquiry are "types of qualitative, quantitative, and mixed method designs or models that provide specific direction for procedures in a research design" (Creswell, 2009, p. 11). Thus, there is nothing called a preferred research strategy; the most important thing is enabling the researcher to answer the research questions and objectives (Saunders *et al.*, 2009). A number of methodologies could be used in business research in line with the positivist paradigm, such as cross-sectional studies, surveys and experimental studies (Collis and Hussey, 2014). The suitability of any research approach depends on the nature of the social phenomena to be explored (Morgan and Smircich, 1980) where the

methodological choice is influenced by the nature of the problem of the research and the extent of the availability of resources (Gill and Johnson, 1997).

The methodology used in this study is secondary data analysis. Secondary data are "data collected from an existing source" (Collis and Hussey, 2014, p. 59). Secondary data analysis is "the analysis of data by researchers who will probably not have been involved in the collection of those data" (Bryman and Bell, 2007, p. 313). The secondary data for this research are the reports of a group of European and American banks. Banks' reports were collected by visiting each bank's website and searching for the published reports. The banks' performance was obtained from the BankScope database.

Recently, there have been some changes in the way companies report sustainability (Azim *et al*., 2011). Companies are moving from using a section in the annual report to report on sustainability issues to issuing stand-alone reports (KPMG, 2008). When companies produce a separate report this signals that they consider sustainability as important as financial reporting (Holland and Boon Foo, 2003). Nowadays, there is an increase in companies producing separate sustainability reports and this may affect the amount and type of disclosure (Deegan, 2002; Holland and Boon Foo, 2003). However, according to Frost *et al*. (2005) and Branco and Rodrigues (2008a), previous research on sustainability practices studied only the disclosure in the annual report. However, Branco and Rodrigues (2008a) stated that nowadays companies are relying more heavily on other methods to disclose sustainability information (such as discrete reports and the internet). As a result of the use and availability of those other methods, questions about the significance of the annual report as the main method for reporting on sustainability issues have been raised (Frost *et al*., 2005). Similarly, Holland and Boon Foo (2003) stated that using only the annual reports to study sustainability may give incomplete or incorrect conclusions. Moreover, Frost (2001) gave supporting evidence to the idea that, when organisations employ alternative media for reporting, less information about sustainability will be provided in the annual report. Therefore, in this study, stand-alone sustainability reports were mainly used and, when not available, annual reports were used because, focusing only on annual reports might ignore important disclosure elsewhere and would be likely to give an incomplete picture of the amount of social responsibility companies are engaging in, as well as reporting practices (Roberts, 1991; Unerman, 2000; Holland and Boon Foo, 2003; Michelon and Parbonetti, 2012).

Some previous studies (e.g. Patten and Crampton, 2003; Frost *et al*., 2005; Branco and Rodrigues, 2008a) studied sustainability reporting practices through various reporting media, including websites. However, websites are not considered in this study because web disclosures display information at only one point in time; hence, the way in which the picture changes across time is not known (Kamal and Deegan, 2011). Also, it is not possible to track when web-pages are published or updated, which would lead to content analysis losing its reliability and consistency (Michelon and Parbonetti, 2012). For the previous reasons, analysis of websites' content cannot be used in longitudinal studies. Finally, reports are audited which gives them a degree of credibility that websites cannot claim to have (Branco and Rodrigues, 2006).

The annual reports and stand-alone sustainability reports were collected from 2006 to 2012. This time span was selected for three reasons: first, it is the most recent period for which companies have published sustainability information for stakeholders; secondly, it is the period during which the financial sector had experienced the financial crisis and had recovered from it. This gives an idea of how the disclosure of sustainability information has changed during this period. Thirdly, sustainability is a relatively new topic, especially in the financial sector. It was stated earlier that empirical research in the 1990s found that banks were not interested, either in their own environmental impact or that of their clients (Tomorrow, 1993) and the banking sector has responded more slowly than other sectors to sustainability challenges (Jeucken, 2002).

4.4 Sample Selection

This section describes the reasons behind the sample selection for the analysis. A sample is made up of members of the population; as a result, it is important to define clearly the target population. The purpose of sampling is to make a statement about the population from which the sample was drawn (Easterby-Smith *et al*., 2008). Collis and Hussey (2003, p. 155) said that "the population may refer to a body of people or to any other collection of items under consideration for research purposes". The target population should correspond with the objectives of the study. The target population of this study is EU and USA banks.

The sample of banks was obtained from the BankScope database, a commercial database which holds financial information on banks around the world and which contains

considerably more data on financial firms than alternative data sources (Laeven and Levine, 2007; Mercieca *et al*., 2007).

The criteria for the selection of the sample were as follows: Any active bank which was operating in any of the following 15 European member states in 2012 (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden and the United Kingdom) and was a publicly listed bank classified as a commercial or bank holdings and holding companies. The same criteria were used with regard to the USA (i.e. classic USA coverage, instead of the EU). The sample comprised 122 banks operating in Europe and 334 operating in the USA (total 456 banks).

The EU-15 and the USA were selected to facilitate comparison as most of the previous sustainability literature is dominated by studies examining the issue mainly in the USA (Van der Laan Smith *et al*., 2005). On the other hand, there is a degree of "uniformity" among EU banks in the way they report their sustainability activities (Perrini, 2005). Furthermore, De Noose *et al*. (2006) stated that there is a lack of academic studies on the USA and EU banking sectors; the authors added that these are "very few and far between, not to mention the lack of cross Atlantic comparative studies" (p.11).

The sample was restricted to publicly listed banks as listed banks are usually relatively large; this was to ensure a relatively high quality of data and enhance comparability across countries (Demirguc-Kunt and Huizinga, 2009; Baele *el al*., 2007).[4]

Four main categories of bank could be distinguished from the data source, according to Demirguc-Kunt and Huizinga (2009): (1) commercial banks (including bank holding companies), (2) investment banks and securities' houses, (3) non-bank credit institutions and, (4) other banks (a broad category of banks including cooperative banks, Islamic banks, medium- and long-term credit banks, and real estate and mortgage banks). This study focused on the first category of banks (commercial banks and bank holding companies) in order to be able to compare their performance fairly. "Since public, mutual and cooperative banks pursue clearly stated social and economic development objectives,

[4] In general, the listed banks in the 15 European Union countries cover more than 85% of the total assets of the banking market, and the listed commercial and Bank holdings & Holding companies cover more than 52% of the total assets market.

their performance might be expected to compare unfavourably with that of profit-maximising privately owned banks" Goddard *et al*. (2007, p. 1926). Also, by including only the top-tier bank holding companies, double-counting was avoided.

Then, a further criterion was applied: sustainability reports data had to be available for some or all of the years during the period 2006-2012, leaving a final panel dataset containing 43 EU and 23 USA banks (commercial banks and bank holdings and holding companies). However, to avoid duplication, the list of Federal Reserve Banks in the USA was obtained and compared with the one from the Bankscope. This resulted in an additional 5 banks to which all the previously set criteria applied. This topped up the number of USA banks to 28, leaving a sample of 71 EU & USA banks (see Appendix 3) representing over 15% of the total population. These results were not surprising as, in 2003, Holland and Boon Foo stated that UK companies produced more stand-alone sustainability reports than USA companies. Similarly, Perrini (2006) declared that among the European countries the UK is the most active country in the field of sustainability. In a more recent study, the KPMG (2011) survey found that European countries responded to sustainability activities and reported on them more than USA companies. In the financial sector, KPMG (2011) found that 49% of the financial service insurance and securities in the G250 companies reported on their sustainability in 2008; this percentage rose to 61% in 2011.

Furthermore, the relatively small sample size could be a result of the concentration in the financial market, especially after the crisis. For example, the Competition Commission report (2002) found that the four largest clearing banks in the UK (Barclays, HSBC, Lloyds TSB and Royal Bank of Scotland Group) accounted for over 90% of banking services to small and medium-sized enterprises in each geographic region. Moreover, as a result of the financial crisis, many well-known financial firms in the UK such as HBOS, Alliance & Leicester, and Bradford and Bingley have either exited the market or merged with competitor firms (House of Commons Treasury Committee, 2011).

The information about the reports' availability was obtained by entering each of the 456 banks' websites and searching for published reports for the years between 2006 and 2012. When a sustainability (stand-alone) report was available it was downloaded and saved; when it was not available for a year, the annual report for that year was saved.

The researcher was faced by some obstacles when collecting the reports. For example, the language, two reports for a European bank could not be found in English so they were not added. Also, some European banks are now moving to the production of integrated reports instead of publishing two different reports, such were named in this research as annual reports (25 reports in seven different banks). Also, four banks published one sustainability report for two sequent years; in this case they were considered as the report of the latest year.

This gave a pooled total of 483 bank report-year observations, of which 295 came from the EU and 188 from the USA. This pool was formed from 340 sustainability reports and 143 annual reports, a data set which is an unbalanced panel.

4.5 Content Analysis

It is important to distinguish between method and methodology. Research method "involves the forms of data collection, analysis and interpretation that researchers propose for their studies" (Creswell, 2009, p. 15). Collis and Hussey (2014) distinguished between methodology, as the approach to the research process, from the theoretical foundation of the collection and analysis of the data; and methods as the means and techniques by which data can be collected and/or analysed. The methods selected to collect the data can improve the value of the research, as these methods facilitate achievement of the research objectives (Collis and Hussey, 2003). Data may be collected using one (mono methods) or more (multi methods) data collection techniques (Saunders *et al*., 2009). These multi methods could involve a multi-method quantitative study where the researcher uses more than one quantitative data collection technique and analyses the resulting data using quantitative data analysis procedures (Saunders *et al*., 2009). This study employs the deductive approach as it is more often associated with the positivistic paradigm (Ticehurst and Veal, 1999). In deductive research, the theoretical structure and hypotheses are established first and are then empirically tested (Collis and Hussey, 2003; Saunders *et al*., 2009).

Banks will communicate their environmental activities if they are complying with environmental laws and regulations and wish to assure their stakeholders of this (Holland and Boon Foo, 2003). In other words, sustainability reporting may be used as a way of legitimising a bank to its stakeholders (Mathews, 2004; Deegan, 2007). In addition, an

increasing number of banks produce stand-alone sustainability reports (Kolk, 2003). The readily available data source (i.e. reports) should not be ignored (Bowman, 1984; Hsieh and Shannon, 2005) and the availability of this large amount of data "makes the identification of a complete set of environmental information (both for researchers and for stakeholders) very difficult" (Holland and Boon Foo, 2003, p.7). Hence, content analysis of reports can be of real use, although being a modest way to study the topic of interest; it can also provide a primary or supplementary source of data in cases where data may be extremely difficult to obtain (Bowman, 1984; Hsieh and Shannon, 2005).

Content analysis is the research method employed in this research to collect and analyse the necessary data on sustainability and stakeholders' engagement from EU and USA bank reports between 2006 and 2012. In accounting research, some authors (e.g. Buhr and Freedman, 2001; Lajili and Zeghal, 2005; Beck *et al*., 2010) stated that content analysis has been widely used for a number of years. Content analysis has been commonly used for examining sustainability disclosure (e.g. Ernst & Ernst, 1978; Guthrie and Parker, 1990; Hackston and Milne, 1996; Buhr, 1998; Neu *et al*., 1998; Campbell, 2003; Beck *et al*., 2010). It seems that content analysis is the most commonly used research method used to assess sustainability (Milne and Adler, 1999).

Many authors (i.e. Milne and Adler, 1999; Smith and Taffler, 2000; Unerman, 2000; Hughes, 2001; Holland and Boon Foo, 2003; Al-Tuwaijri *et al*., 2004; Guthrie and Abeysekera, 2006; Vourvachis, 2007; Clarkson *et al*., 2008; Everaert *et al*., 2009; Zhang and Wildemuth, 2009; Beck *et al*., 2010; Azim *et al*., 2011; Lungu *et al*., 2011; O'Neill and Deegan, 2011; Michelon and Parbonetti, 2012; Wuigbe and Egbide, 2012) have used content analysis as a technique to analyse sustainability practices in reports. For example, Branco and Rodrigues (2008a) used content analysis to measure the level of sustainability information disclosed by Portuguese banks on the Internet and compared these disclosures with those made in annual reports. Similarly, by using content analysis to measure sustainability disclosures in annual reports, Hackston and Milne (1996) provided an up-to-date description of New Zealand companies' sustainability practices. Also, Patten and Crampton (2003) examined the extent of sustainability issues, both in annual reports and on corporate web pages for 62 USA firms, by adopting the content analysis method. Furthermore, Frost *et al*. (2005), using content analysis, examined the scope, nature and extent of sustainability reporting practices by Australian companies through various

reporting media (annual reports, discrete reports and websites). Holland and Boon Foo (2003), also employing content analysis, examined sustainability practices within UK and USA annual reports. The authors wanted to discover the differences between the disclosures of firms in the UK and those in the USA. In the same way, Beck *et al*. (2010) explored cross-sectional differences between sustainability disclosures in British and German annual reports using content analysis.

The popularity of content analysis as a method has arisen because it allows the study of messages in a rigorous and systematic manner and is useful for determining trends as this method enables sustainability information to be systematically classified and compared (Krippendorff, 1980; Milne and Adler, 1999; Uwuigbe and Egbide, 2012).

Content analysis is "a research technique for making replicable and valid inference from data according to their context" (Krippendorff, 1980, p. 21). Another definition is "a research method that uses a set of procedures to make valid inferences from text" (Weber, 1990, p. 9). Initially, content analysis was conceived as a method for systematically and quantitatively describing the manifest content of text (Berelson, 1952). Content analysis in sustainability disclosure studies is often viewed as "a technique for gathering data that consists of codifying qualitative information in anecdotal and literary form into categories in order to derive quantitative scales of varying levels of complexity" (Abbot and Monsen, 1979, p. 504). Content analysis, as a quantitative research method, is defined as coding text data into defined groups and then describing these using statistics (Hsieh and Shannon, 2005). This approach is described as allowing quantitative analysis to be carried out on apparently qualitative data (Smith *et al*., 1996). It is also referred to as quantitative analysis of qualitative data (Morgan, 1993). Finally, it was pointed out by Collis and Hussey (2009) that the content analysis method is widely used for quantifying qualitative data. This approach was adopted in this study in order to transform "qualitative" into "quantitative" data.

In accounting literature, two approaches of content analysis can be found: the "mechanistic" and the "interpretative" (Beck *et al*., 2010). Mechanistic studies "provide information about disclosure volumes and/or frequencies, and help to draw associations between different variables that might impact on disclosure behaviour" (Beck *et al*., 2010, p. 208). On the other hand, interpretative studies try to capture meanings and gain better understanding of what is communicated and how by classifying text into its principal parts

and then describing the contents of each group component (Beck *et al*., 2010). However, the mechanistic approach of content analysis has dominated prior research with only a minority using interpretative approaches (Beck *et al*., 2010). Studies that adopt the mechanistic approach usually capture data by word counts (such as Campbell, 2003), sentence counts (e.g. Patten and Crampton, 2003; Perrini, 2005), page proportions (e.g. Unerman, 2000), frequency of disclosure (Ness and Mirza, 1991), and disclosure ratings (e.g. Patten, 1991).

Content analysis is a powerful tool to analyse documents and texts "that seek to quantify content in terms of predetermined categories and in a systematic and replicable manner" (Bryman and Bell, 2011, p. 289). Content analysis has many benefits; it can be used to extract data from a wide variety of communication media and it also allows the rigorous exploration of many important but difficult-to-study issues of interest to researchers (Morris, 1994). Furthermore, it allows "rendering the rich meaning associated with organizational documents combined with powerful quantitative analysis" (Duriau *et al*., 2007; p7) and is a safe methodology since, unlike the survey methodology, for example, if any information is missed or incorrectly coded, it is possible to return to the original text and supplement the data collected (Woodrum, 1984). Moreover, content analysis does not suffer from some researcher bias or from ethical issues as the empirical part is conducted without disrupting the studied subjects (Woodrum, 1984; Morris, 1994). The last point does not hold with interviews or surveys. Finally, content analysis attracts lower costs in comparison with other types of research (Holland and Boon Foo, 2003).

Since the understanding of sustainability in the banking sector is relatively limited, data could be collected through interviews or survey questionnaires, typically to bank managers, finance directors or environmental managers. However, when the study involves senior executives, access to informants is often a serious issue (Morris, 1994). Therefore, content analysis was thought to be both achievable and best suited to finding answers to the research questions. The previous argument supports the rationale of why content analysis was considered to be the most appropriate technique to collect the required data.

4.5.1 Process for Conducting Content Analysis

Many authors (e.g. Weber, 1985; Boyatzis, 1998; Beattie *et al*., 2004; Zhang and Wildemuth, 2009) pointed out a set of systematic procedures for processing data in content analysis in order to support valid and reliable inferences. The steps, as described by Zhang and Wildemuth (2009), are as follow:

1- Preparing the data. 2- Defining the unit of analysis: (e.g., word, sentence or paragraph). 3- Developing categories and a coding scheme: this can be derived from the data, previous related studies and/or theories. 4- Coding all the text (analysing the collected data). After this, the final step is to draw conclusions from the coded data (reporting) which will be discussed later in the data analysis section.

4.5.1.1 Preparing the Data and the Unit of Analysis

The content analysis was carried out with the help of NVivo 10. The collected 143 annual reports contained financial statements and notes to the financial statements which were not included in the analysis of sustainability practices (in line with the studies of Michelon and Parbonetti, 2012 and Beck *et al*., 2010). Since it was not possible to edit in PDF, the reports were converted into a Word format (using the Adobe Acrobat PDF to Word converter) and all the financial statements and notes to the financial statements were deleted. Furthermore, the collected reports contained a great many photographs which made them huge in size. As a result, after transferring them to Word format and deleting all unwanted sections, the 483 reports were transferred to plain text format (deleting all photographs). The final step in the preparation of the data was to assign a unique reference number (URN) to the reports to allow them to be sorted by bank name and year.

An additional set of data was prepared for the sustainability strategy section. As discussed later in this chapter, the sustainability strategy was recognised from the chairman's statement. As a result, the chairman's statement in each report was copied into a separate Word document and assigned the same URN so, they could be matched.

4.5.1.2 How to Capture the Data/ Unit of Analysis

There is a distinction between two ways of capturing the disclosure in content analysis; "index" or "amount-volume". The index studies are the simplest form of content analysis for sustainability disclosure; they detect the presence or absence of sustainability information (Branco and Rodrigues, 2008a). On the other hand, amount-volume studies

check the amount or volume of disclosure by counting words, sentences or page proportions (Vourvachis, 2007).

The second type of content analysis is used in this study as it gives a better picture of the sustainability practices. Although, the index form of content analysis does not allow the extent of information disclosure to be measured and therefore does not reflect the emphasis attached to each information item by the company (Branco and Rodrigues, 2008a). On the other hand, it was argued that the extent of disclosure is an indication of the importance of a particular subject to the company (Krippendorf, 1980; Campbell *et al*., 2003).

Before conducting any content analysis study, the analyst must distinguish between and clarify different units. According to Krippendorff (2004), units are "wholes that analysts distinguish and treat as independent elements" (p. 97). Also, a recording unit is "the specific segment of content that is characterised by placing it into a given category" (Holsti, 1969; 116, cited in Guthrie and Abeysekera, 2006, p. 120). Thus, Milne and Adler (1999) emphasised the distinction between units of analysis with regards to what should form the basis for measuring or counting the amount of disclosure and what should form the basis for coding as the two are not the same. The authors added that it is not necessary to use the same unit to code and to measure. Krippendorff (2004), however, distinguished between three kinds of unit: sampling units, recording/coding units and context units. There is some confusion as a result of the use of different and sometimes conflicting terms among researchers (Vourvachis, 2007). "Milne and Adler's (1999) coding units are what Krippendorff (2004) describes as context units and Neuendorf (2002) as analysis units…[and] Milne and Adler's measurement units are Krippendorff's recording/coding units and Neuendorf's (2002) data collection units" (Vourvachis, 2007, p. 13). In this study Milne and Adler's (1999) terms, "coding units and measurement units", are used.

Sampling Unit

Sampling units are "units that are distinguished for selective inclusion in an analysis… Content analysts must define sampling units so that (a) connections across sampling units, if they exist, do not bias the analysis; and (b) all relevant information is contained in individual sampling units, or, if it is not, the omissions do not impoverish the analysis" (Krippendorff, 2004, pp. 98-99). Most previous sustainability studies have used corporate annual reports as the sampling unit (Vourvachis, 2007). In this study the sampling unit is the whole report (whether annual or sustainability).

Coding Units

Coding units are "not counted, need not be independent of each other, can overlap, and may be consulted in the description of several recording units" (Krippendorff, 2004, p. 101). Gray *et al*. (1995b) noted that there is a debate around the "unit of analysis" that should be used in content analysis (words, sentences or pages). The authors attributed the use of different units of analysis to the different meanings each unit can give. Gray *et al*. (1995b) explained that words can be categorised more easily, allowing for more exclusive analysis and allowing the database to be scanned for specified words. Sentences are better used when seeking to infer meaning. Finally, pages reflect the total amount of space given to a topic and hence, the importance of that topic. Sentences, according to Milne and Adler (1999), are more reliable than the other two units of analysis as individual words alone have no meaning for coding sustainability disclosures without a sentence or sentences for context. They added that most sustainability content analyses use sentences as the basis for coding decisions.

However, according to Berg (2001), research might require the use of a combination of several content elements. The author gave, as an example, a study he conducted in 1983 where he used a combination of both item and paragraph elements as a coding unit. On the other hand, a theme might also be used as a coding unit. The theme might be expressed in a single word, a phrase, a sentence, a paragraph, or an entire document (Zhang and Wildemuth, 2009). Theme is usually used as the coding unit when the aim is to look for the expression of an idea (Minichiello *et al*., 1990). Hence, the code might be anything from a single word to a section of text as long as it represents the theme or issue relevant to the research questions (Minichiello *et al*., 1990). In this study the theme is used as the coding unit. This theme varies between a single word, a phrase or a sentence, according to the idea that needs to be expressed.

Measurement Units

The volume of disclosures in each category reflects the importance of that category. Thus, the use of different measurement units may lead to different results that relate the importance of each category (Unerman, 2000). Hence, analysts must be careful when choosing the measurement unit as it affects the results. Unerman (2000) explained that the quantification of the sustainability disclosure may be done by either counting the number of documents that contain a particular category and/or the number of words, sentences,

pages or proportion of pages devoted to different categories, or the proportion of volume of sustainability disclosure to total disclosure. Previous studies have used different measurement units to measure disclosure (Hackson and Milne, 1996; Zeghal and Ahmad, 1990; Holland and Boon Foo, 2003).

The use of word units as a way of measuring volume allows the disclosure to be recorded in greater detail; however, it is not practical to interpret individual words out of context as this could result in different meanings (Unerman, 2000). Also, when using words as a measurement unit, disagreement between different coders could be quite significant (Hackston and Milne, 1996). Similarly, Milne and Adler (1999, p. 243) perceived that words do not appear to add to the understanding. On the other hand, sentences can be counted with more accuracy than words, and sentences are used to communicate meaning (Unerman, 2000). Using sentences overcomes the problems associated with word use and can help in determining any variations in disclosure practices (Holland and Boon Foo, 2003). Milne and Adler (1999, p. 243) added that "sentences could provide complete, reliable and meaningful data for further analysis". The use of words and sentences as measurement units is not affected by variations in the font size of different documents or by the presence of margins or blank pages; also, they are more controllable (Vourvachis, 2007).

Another unit of analysis is the paragraph, which is a unit above the sentence. According to Guthrie and Abeysekera (2006), for drawing conclusions from narrative messages, the use of the paragraph as the unit of analysis is more appropriate than words as meaning is more confirmed through paragraphs rather than through a word or sentence. However, the paragraph is rarely used as a measurement unit in content analysis studies, mainly because the paragraph embraces too many ideas to be assigned to a single category which leads to unreliable coding (Crowley and Delfico, 1996). Similarly, Berg (2001, p. 247) stated that the paragraph is infrequently used because of the "difficulties that have resulted in attempting to code and classify the various and often numerous thoughts stated and implied in a single paragraph".

Another method for measuring sustainability is the use of the proportion of a page (Unerman, 2000; Vourvachis, 2007). However, the use of page proportion as a way of measuring the disclosure has been criticised for many reasons, including: it is affected by the font and page size (Tilt and Symes, 1999); by margins and blank pages (Unerman,

2000); by differences in grammar and repetition (Patten, 2002); and it is impossible to measure directly data that are in an electronic form (Campbell, 2004). Thus, "the inherent limitations of this approach lend support to researchers to reject it and, albeit acknowledging the losses from the exclusion of pictorial or graphical evidence, to adopt words or sentences as recording units" Vourvachis (2007, p. 20). An alternative way of measuring disclosure is the number of pages or part of a page (the page size approach) in the report (Vourvachis, 2007). However, this method is affected by the report, font sizes, margins, blank pages, graphics, etc. (Holland and Boon Foo, 2003). Another way is to measure the number of different topics discussed; this is believed to be a reasonable measure of management's willingness to provide sustainability information in general (Branco and Rodrigues, 2008a).

In this study, "sentence" is used as the measurement unit because it was considered to be the most appropriate measure of disclosure and it was already adopted and supported by many sustainability studies (Hackson and Milne, 1996; Milne and Adler, 1999; Holland and Boon Foo, 2003; Al-Tuwaijri *et al*., 2004; Guthrie and Abeysekera, 2006; Michelon and Parbonetti, 2012). Sentences are also likely to provide more reliable measures of inter-rater coding than words (Hackston and Milne, 1996).

4.5.1.3 Developing Categories and a Coding Scheme

Coding is a vital stage in the content analysis procedure and, encompasses two main elements: the coding schedule and the coding manual (Bryman and Bell, 2007). These authors described the coding schedule as the template into which all the coded data are entered and they also described the coding manual as the "content analysis dictionary". This is because the coding manual contains instructions to the coders based on a set of written rules that define how the text will be classified.

Content analysis is used in this study to obtain data on sustainability, stakeholder engagement (identifying, communication and needs), and sustainability strategy and as a result, five sets of coding schedules are used.

Sustainability

To examine the current sustainability practices within the USA and EU banking, an index (framework) for measuring sustainability was developed which consists mainly of four

categories (operation ecology, operation sociology, products and services ecology, and products and services sociology), and many sub-categories. These categories represent the sustainability indicators (see Appendix 4). This index helps in capturing the context (i.e., the areas and sub-areas of disclosure) and the extent (i.e., the amount of disclosure in the different areas and sub-areas) of sustainability practices in different categories. The extent of disclosure can be taken as an indication of the importance of a sustainability topic to the bank (Krippendorf, 1980; Campbell *et al*., 2003).

In order for the resulting dataset to be used in future research, and for the research results to be acceptable, content analysis requires the coding structure to be derived from shared meanings and that the data collected are as replicable as possible (Gray *et al*., 1995b; Everaert *et al*., 2009). Therefore, the content analysis index (framework) developed for this research is based on the Global Reporting Initiative's (GRI) 2011 Sustainability Reporting Guidelines (Version 3.1), Sustainability Reporting Guidelines & Financial Services Sector Supplement (Version 3.0) and VFU (1996). VFU methodology draws a distinction between internal and external issues, labelling them "operating" and "product" ecology respectively (Labatt and White, 2002). Similarly, "operating" and "product" sociology groups were generated. These four groups were filled using the items in the GRI. All 27 disclosure items are equally weighted in the index.

The Global Reporting Initiative (GRI) was launched in 1997 by the Coalition of Environmentally Responsive Economies (CERES - a USA-based non-profit organisation), the United Nations Environmental Program (UNEP), and several other partners (Labatt and White, 2002; Clarkson *et al*., 2008; Sherman, 2009). The overall goal of the initiative is "to develop and disseminate globally applicable sustainability reporting guidelines for voluntary use by organizations reporting on the economic, environmental and social dimensions of their activities, products and services" (GRI, 2000, p. 1). The Global Reporting Initiative (GRI) provides "a trusted and credible framework for sustainability reporting that can be used by organizations of any size, sector, or location" (GRI, 2011, p. 5). The GRI has developed and published reporting guidelines based upon the TBL (Triple bottom line) concept (Sherman, 2009). The first set of GRI Guidelines was published in 1999 as an Exposure Draft of the GRI Sustainability Reporting Guidelines and several revisions have followed since then (Clarkson *et al*., 2008; Sherman, 2009). The final first set of GRI Guidelines was published in 2000, the second in 2002 (known as the G2

guidelines), and the third in October 2006 (G3 guidelines) (Azim *et al*., 2011); and in 2011 the latest issue of GRI was published (G3.1 guidelines). "The Sustainability Reporting Guidelines are the foundation of GRI's Framework and are now in their third generation. The G3.1 Sustainability Reporting Guidelines are the latest and most complete version. Launched in 2011, G3.1 completes the content of the G3 Guidelines released in 2006. The fourth generation of Guidelines – G4 – are currently in development and will be launched in May 2013" (Global Reporting Website).

GRI guidelines have two levels: the first is applicable to all organisations while the second consists of industry-specific guidelines designed for the chemical, mining and financial sectors (Labatt and White, 2002). Sector Supplements are "versions of the GRI Guidelines tailored for particular sectors. Some sectors face unique issues. Sector Supplements capture these issues, which may not be covered in the original Guidelines" (GRI, 2011, p. 44). In this study the financial sector supplement was used (GRI/FSSS). The GRI guidelines have achieved widespread support and global acceptance (O'Neill and Deegan, 2011) and are applied by a wide variety of experts and a considerable number of companies (Everaert *et al*., 2009; Lungu *et al*., 2011). The GRI guidelines are cited as the "the world's most widely used sustainability reporting framework" (GRI, 2011).

Many authors (i.e. Hirayama *et al*., 2002; Ho and Taylor, 2007; Clarkson *et al*., 2008; Sherman, 2009; Everaert *et al*., 2009; Azim *et al*., 2011; Lungu *et al*., 2011; O'Neill and Deegan, 2011; Michelon and Parbonetti, 2012) have used the GRI index or an index based on the GRI to study sustainability reporting because GRI is "the world's most widely used sustainability reporting framework" (GRI, 2011, p. 1). Lozano and Huisingh (2011) also agreed with this statement. Furthermore, the development of the GRI framework and sustainability reporting guidelines involved "a process that seeks consensus through dialogue between stakeholders from business, the investor community, labour, civil society, accounting, academia, and others" (GRI/FSSS, 2011, p. 7). Moreover, GRI allows for comparability among reports, is intended for all types of companies, and provides a structured framework (Everaert *et al*., 2009).

The developed index is the coding schedule of sustainability and the coding manual was developed by selecting 28 reports (14 from each country) then manually reading and searching for words or phrases within them that could express each coding schedule

category. Then, random reports were picked up and scanned for any additional phrases for each category until no additional phrases were found.

Stakeholders' Engagement

Stakeholders can be identified and prioritised depending on the emphasis placed on each group. In order to identify stakeholder groups, a random sample of bank reports was drawn and searched for those stakeholder groups the banks identified as the most important. This resulted in more than 10 groups of stakeholders and thus, some groups represented the same stakeholders but from different area of interest. As a result, the following groups were identified as the coding schedule: customers, employees, investors, community (society and environment), government and others (the public, the media, rating agencies, financial advisors, suppliers and the press). After this, the coding manual was developed in a similar way to the sustainability coding manual.

On the other hand, the coding schedule for stakeholders' ways of communicating was adopted from the literature (from the three phases to the relationship between corporations and stakeholders) as: one-way channels, consultation and dialogue, and partnerships. Again, the same process was followed to complete the coding manual. Further explanation of these three communication methods can be found in the Stakeholder Engagement Manual (Vol. 1, 2005; p. 14).

Finally, in order to map stakeholders' needs and expectations with regard to sustainability, an index was developed based on the literature (Wehrmeyer, 1999; Spiller, 2000; Yamak and Suer, 2005; Longo *et al*., 2005; Papasolomou-Doukakis, 2005; Jamali, 2008; Lydenberg and Wood, 2009) (see Appendix 5); then, the same process was followed to develop the coding manual.

Sustainability Strategy

As can be seen from arguments in the literature, the last stage, "sustainable banking", is reached when the bank uses a "sustainability strategy". However, an organisation's sustainability strategy is not directly observable (González-Benito and González-Benito, 2005). Previous studies measured sustainability strategy according to managers' understanding (e.g. Christmann, 2000; Sharma, 2000; Sharma and Vredenburg, 1998) due to the limited availability of environmental performance data (Aragon-Correa *et al*., 2008). Previous studies used two approaches to measure environmental strategy, as stated by

González-Benito and González-Benito (2005): (1) based on the degree of implementation of diverse environmental practices; (2) based on environmental performance records. Roberts (1992), however, used: (1) the average number of the company's public affairs staff; and (2) sponsorship of a philanthropic foundation by the firm. Chan and Kent (2003) used: (1) the recognition of social and environmental responsibility in the mission statement; and (2) social and/or environmental committees.

Moreover, a company's strategy is not usually easily interpreted from its sustainability report. Bouma *et al*. (2001) examined the strategy by placing emphasis on the role the organisation wished to play. According to the GRI-FSSS strategy can be detected from the statement from the most senior decision-maker of the organisation (e.g., CEO, chair or equivalent senior position). Moreover, Gray *et al*. (1995b) discussed the location of sustainability data in a particular document and examined what importance this then has. They argued that a chairman's statement is more likely to be read. In 1975 in the UK, Lee and Tweedie (1975) found that the chairman's report is the most widely read, followed by the profit and loss account. They attributed this result to the simplicity of the chairman's report which explains the technical information contained in other parts of the report. About 20 years later, Al-Razeen and Karbhari (2007) reached the same conclusion. They found that the most widely read section of the annual corporate report is the chairman's statement. The Dummies website defined the letter from the chairman as "the traditional place for a company's top management team to tell you what a great job it did during the preceding year and to lay out the company's goals and strategies for the future. It's also a great place to find apologies for problems that occurred during the year, which may or may not have been solved". Smith and Taffler (2000) found that the narrative disclosures provided in the chairman's statement contained important information about the firm's future financial state.

In this research, for all the previous reasons and to generate testable hypotheses, sustainability strategies were recognised from the statement from the most senior decision-maker in the company. The issue was examined by placing emphasis on the role the organisation wished to play (Bouma *et al*., 2001). Two different roles were recognised, according to how sustainability is considered within an organisation's strategy. The first group is the non-sustainability strategy: in this group the banks deal with sustainability activities as a legal compliance, a matter of risk management or as an opportunity. The

second group is the sustainability strategy: the bank wishes to be truly sustainable by balancing all sustainability dimensions in its operations. These groups are coded in the chairman's statement of the reports to represent how sustainability activities have been considered within the bank's sustainability strategy.

All the previous coding schedules were entered into NVivo as Nodes (see Figure 4.1) and, once all the coding manuals were rearranged to look like NVivo codes, they were entered into NVivo as Queries to run the coding process.

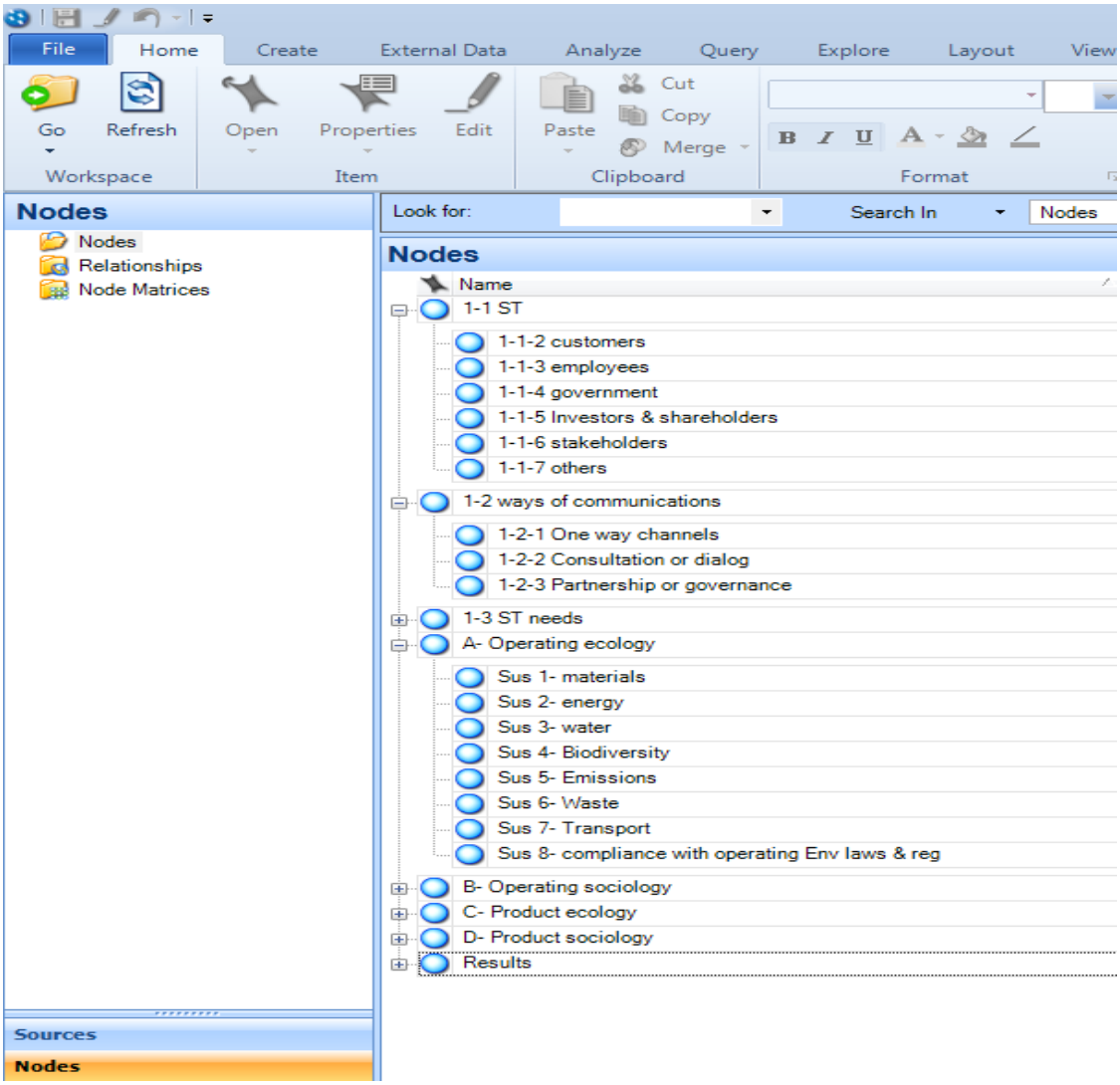


Figure 4.1: NVivo nodes showing the coding schedule

4.5.1.4 Coding All the Text

As indicated earlier, content analysis was employed in this study to transform "qualitative" to "quantitative" data. This was performed with the help of NVivo 10 (64 bits). NVivo is qualitative data analysis (QDA) computer software developed by QSR International. After the 1990s, a number of computer programs, such as NUD*IST, NVivo, Ethnograph, and

Atlas/ti, were developed to support the analysis of qualitative data (Baptiste, 2001). The use of computers in qualitative data analysis (QDA) has been wildly explored by authors (Welsh, 2002). Welsh (2002) explained that some authors expressed concerns that the use of software might "guide" researchers in a particular direction, or distance the researcher from the data and create similarity in methods across the social sciences. Baptiste (2001) added that computer programs may promote certain ways of interpreting and conducting QDA while excluding others. On the other hand, proponents of QDA argued that "it serves to facilitate an accurate and transparent data analysis process whilst also providing a quick and simple way of counting who said what and when, which in turn, provides a reliable, general picture of the data" (Welsh, 2002, p. 5). Also, Baptiste (2001) stated that these programs can enhance or constrain data analysis.

Content analysis is a very time consuming study so, by using NVivo, it was possible to analyse this large number of documents (483 reports). However, the use of computer software was not without its problems. The researcher started by using NVivo 9 but then, at a certain point, it stopped and refused to take any additional data or run any coding. This was because the maximum capacity of the NVivo 9 memory is 4GB and, due to the huge amount of data, this was soon reached. The study then moved on to use NVivo 10 (32 bit) as it has a memory of 10GB; unfortunately, since some projects were lost, so the work had to start again from the beginning. After working for a while on the program, a certain codes would not run and the program froze many times with the result that the projects were lost. All possible ways to make this work were tried, including dividing the reports into 50 report sets, contacting the QSR help desk many times and sending them the error logs. This process took more than a month and, the QSR was extremely helpful, offering a distance-controlled session to find out why the NVivo had behaved so strangely. QSR found that it was necessary to use the NVivo 10 (64 bit) instead of the NVivo 10 (32 bit) and a computer with at least 8GB of RAM was required instead of the 4GB RAM computer which was being used for the process. As a result, running the codes, which was supposed to take a few weeks, took about five to six months. Then, all of the coding outcomes were transferred to spreadsheets in Excel. Finally, to prepare the data for analysis, they were divided by the number of each report pages to get the relative weight of the variable in the report rather than an abstract number; this offered a more truthful view of each variable and allowed for comparison.

4.5.2 Reliability and Validity

There are two aspects of the credibility of the findings: validity and reliability. Saunders *et al*. (2009) emphasised that attention should be paid to them to reduce the possibility of getting the answer wrong. In the scope of content analysis "It is important to make defensible inferences based on the collection of valid and reliable data" (Elo and Kyngas, 2008, p. 112). For Weber (1985), the classification procedure is reliable when the text can be coded in the same way by two different people, and valid when the generated variables represent what they were initially intended to represent.

4.5.2.1 Definition

Reliability: is concerned with the findings of the research. If the findings of the research can be repeated, they are reliable (Collis and Hussey, 2009). Also, Saunders *et al*. (2009, p. 156) explained that reliability means that the data collection and analysis methods give consistent findings. Easterby-Smith *et al*. (2008, p. 109) posed three questions for assessing reliability: "Will the measures yield the same results on other occasions? Will similar observations be reached by other observers? Is there transparency in how sense was made from the raw data?" In positivistic studies, reliability is usually high. However, it is often when the reliability is high that the validity is low (Collis and Hussey, 2009).

Validity: means that the findings of the research to a greater extent accurately represent the studied topic (Collis and Hussey, 2009). Focusing on the accuracy of measurement and on the ability to repeat the experiment reliably makes the validity of positivistic paradigm studies very low (Collis and Hussey, 2009).

4.5.2.2 Scope of Content Analysis

For valid inferences to be drawn from content analysis and to permit replication, both the tools and the data collected using those tools must be reliable (Milne and Adler, 1999; Branco and Rodrigues, 2008a). The reliability of the data can be increased by using more than one coder or a good-trained single coder while the reliability of the tools used can be increased by using clearly specified decision categories and decision rules to instruct the instruments (Milne and Adler, 1999). Also, Elo and Kyngas (2008) stated that, in order to increase the reliability of the content analysis study, the analysis process must be described in as much detail as possible when reporting the results. This description helps to increase

the reliability of the findings and enables others to follow the process; this was achieved in this study.

Krippendorff (1980) identified three types of reliability. The first one is *stability* (intra-observer reliability/ consistency); it indicates consistency in the coding of the same data by the coder at different points in time. Stability is the weakest measure of reliability and should not be taken as the sole indicator of reliability. The second type is *reproducibility* (inter-coder reliability); it means obtaining the same results when the same data are coded by different coders following the same recording instructions. The most frequently used measure of reliability is inter-coder reliability (Beattie *et al*., 2004). However, neither of these apply to the current study as the coding process was done using NVivo, hence the coding process was consistent along the whole study. The third type is *accuracy*: "the degree to which the classification of text corresponds to a standard or norm" (Beattie *et al*., 2004, p. 214). This was taken into consideration when developing the coding scheme.

On the other hand, validity assesses whether the results represent the intended phenomena and the importance of validation lies in "the assurance it provides that the research findings have to be taken seriously in constructing scientific theories or in making decisions on particular issues" (Krippendorff, 1980, p.115). Krippendorff (1980) distinguished between three types of validity: the validity of data, results or processes. *The first type* of data-related validity assesses the data analysis methods used to see if they are suitable for the available data (Krippendorff, 1980). The type contains two kinds: semantic validity and sampling validity. Semantic validity evaluates whether all the text placed in one category has similar meanings (Weber, 1985). On the other hand, sampling validity is the extent to which the studied sample is unbiased and represents the population (Krippendorff, 1980).

The second type, results or products-oriented validity, assesses the effectiveness of the method used to work under different circumstances (Krippendorff, 1980). To the author, it contains two kinds: correlation and predictive validity. Correlation validity is the degree of correlation between the findings attained by content analysis with the findings attained by another method (using the same data). Predictive validity is the degree to which the inferences obtained from the content analysis agree with the attributes and properties in the context of the data to which these inferences refer, in other words, if they have predictive power (Krippendorff, 1980; Weber, 1985).

The third type, process-oriented validity or construct validity, is the extent to which the measure correlates with other measures of the same construct (Weber, 1985). It is also defined as the degree to which models mimic or represent relations in the context of data (Krippendorff, 1980). "Construct validity in content analysis can be achieved using variables tested in prior research and rigorous testing of any new variables in the coding system" (Kondracki *et al*., 2002, p. 226). Some authors (such as Beattie *et al*., 2004 and Kondracki *et al*., 2002) stated that construct validity is the most significant one for content analysts.

4.6 Performance Data

The performance data were collected from the Bankscope database. The data were collected for the same list of banks used in the content analysis. First, two lists were generated in Bankscope: one for the European banks and the other one for the American banks used in the study. Then, a list of the performance variables and controlled variables used was also generated for the years between 2006 and 2012. The currency was set to euros (this applies only to the size as the rest are ratio measures) to enable comparisons to be made between the EU and USA banks.

4.6.1 Measuring Performance Variables

Care is needed when choosing performance measures as they have a significant impact on the comparability and reliability of the results. In this research, a wide variety of variables was selected to measure banks' performance. This is in accordance with Freedman and Jaggi (1988) who used six measures of performance; Griffin and Mahon (1997) who emphasised that multiple accounting measures of performance should be used, and Lopez *et al*. (2007) who stated that the use of variations in the indicators helps in revealing whether the adoption of sustainability practices affects performance. When using multi-measures of performance, each one captures a different facet of performance. The following measures are used in this study:

1- Profitability: measured by Return on Average Assets ROAA (Net income/ total assets average %), which is considered to be the most easily recognisable measure of financial performance in the banking sector (Simpson and Kohers, 2002). Also, it provides better predictors of sustainability (McGuire *et al*., 1988). Similarly, in the Bankscope database,

ROAA is considered as the most important ratio for banks as it looks at the returns generated from the assets financed by the bank. "Return on assets measures the ability of bank managers to acquire deposits at a reasonable cost, invest these funds in profitable loans and investments, and profitably perform the daily operations of the bank" (Simpson and Kohers, 2002, p. 104). The authors stated that (ROE) is highly correlated with (ROA) in the banking industry so it was not used.

2- Loan quality: Loan quality measures are important to banks as "For most banks, the largest portion of total assets is loans and the largest amount of revenues comes from interest on loans. As a result, the ability to make collectible loans directly affects net income and capital, which determine financial success" (Simpson and Kohers, 2002, p. 104). This is why those authors used the measurement of loan losses to total loans as it is an important indicator of the success of the credit function of banks.

In this study Growth of Gross Loans is used (Current year's gross loans/ Previous year's gross loans). According to Bankscope, excessive growth over inflation and growth in the economy can be a warning sign of deteriorating underwriting standards.

3- Operations: are measured by (Non-interest Income/ Gross revenue %). According to Bankscope, this measure shows the amount of fees, trading and asset sale income to total revenues which also includes net interest income. It can also be described as the financial efficiency of a bank as it shows the bank's uses of its assets to generate gross revenues.

4- Liquidity: is the ability of the bank to meet its financial obligations as they come due in the short term, without disrupting the normal operations. Measured by (Net loans/ Total assets %). According to Bankscope, this liquidity ratio indicates what percentage of the assets of the bank is tied up in loans. The higher this ratio, the less liquid the bank will be.

5- Funding: is measured by (Customer Deposits / Total Funding excluding Derivatives %). It shows how the bank funds itself in terms of the strength of its deposit base (Bankscope).

4.6.2 Additional Variables

Methodological rigour was improved by controlling for certain variables known to affect firms' financial performance. The two most frequently used control variables are firm size and industry (Branco and Rodrigues, 2008b; Choi, 1999; Hackston and Milne, 1996; Gray

et al., 1995a). However, as this study was carried out on a single industrial sector (banking), there was no need to control for the industry. Moreover, size was treated as a variable in the model as, in most studies, it was found to have a significant effect. The study controls for the effect of leverage (gearing) as this is an important indicator in the banking industry and can have a major effect on performance and sustainability.

4.6.2.1 Size

In previous studies, company size has been measured by a wide variety of measures, such as number of employees, total assets, sales volume, and index rank (such as Fortune 500) or a mix of many measures. For example, Cowen *et al*. (1987) used Fortune rank; Roberts (1992) used a four-year average of revenues; Alsaeed (2006) used the total assets; Xiaowen (2012) used the natural logarithm of assets; Kimberly (1976) used employee numbers, sales and total assets; Trotman and Bradley (1981) used both sales and total assets; Patten (1991) first used the log of sales, then repeated the analysis for Fortune 500 rankings; Hackston and Milne (1996) also used three measures: market capitalisation, sales and total assets; Simpson and Kohers (2002) used the natural logarithm of average total assets; and Wu (2006) used total assets, total sales and number of employees.

Cooke (1991, p.76) indicated that "size can be measured in a number of ways and there is no overriding theoretical reason to select one rather than another". Similarly, Hackston and Milne (1996, p. 87) pointed out that "no theoretical reasons exist for a particular measure of size". In this study, size was measured by total assets. This measurement was adopted because it has frequently been used in prior sustainability studies (for example, Hackston and Milne, 1996; Gray *et al*., 1995a; Waddock and Graves, 1997; Simpson and Kohers, 2002) and for the banking industry it appears to be more appropriate than other measures (such as employee numbers).

4.6.2.2 Leverage (gearing)

Banks' leverage (measured by Liabilities (debt) / Equity) is an important indicator of capital structure in the banking industry. It is believed to have contributed to the global financial crisis (D'Hulster, 2009). Furthermore, "In the wake of the financial crisis of 2007-2008, finance companies and banks raised capital via debt offerings, leaving many with high debt-to-equity ratios" (Suttmeier, 2013, p.1).

However, this indicator is thought to affect a firm's performance and disclosure of sustainability practices. For example, Kakani *et al*. (2001) was among the authors who thought that capital structure has an important influential role on corporate performance. D'Hulster (2009) is another author who argued that "Banks typically engage in leverage by borrowing to acquire more assets, with the aim of increasing their return on equity" (2009, p. 1). Also, Lee *et al*. (2013) indicated that excess leverage affects financial performance by reducing taxes (as interest expenses are tax deductible). Similarly, Capon *et al*. (1990) pointed out that high level of debt (which mean high leverage values) have a negative effect on financial performance: "excessive debt can hurt performance" (p. 1157).

On the other hand, other studies produced mixed results on the association between leverage and sustainability disclosure. Belkaoui and Karpik (1989) believed that capital intensity has some effect on the disclosure of sustainability practices while Chow and Wong-Borne (1987), Roberts (1992), Moore (2001) and Alsaeed (2006) found no significant association; Malone *et al*. (1993) found that leverage positively affected the extent of disclosure but Jaffar *et al*. (2002) found a negative association with disclosure. This is why leverage is used as a control variable in this study.

4.7 Data Analysis

Descriptive statistics are used to summarise and give a brief description of the data to address the first four research questions. This is followed by testing the relationships between the variables under study using Structural Equation Modelling (SEM) path analysis.

4.7.1 Descriptive Statistics

The data (resulting from the content analysis) are first summarised using descriptive statistics and then tested. Descriptive statistics summarise the data to enable the researcher to describe and compare variables numerically (Easterby-Smith *et al*., 2002; Saunders *et al*., 2009; Collis and Hussey 2014). Descriptive statistics "are used to summarize the data in a more compact form and can be presented in tables, charts and other graphical forms". This "allows patterns to be discerned that are not apparent in the raw data" (Collis and Hussey, 2014, p. 226). Generally, descriptive statistics focus on two aspects: the central tendency and the dispersion (measures of variability) (Saunders *et al*., 2009). In this part of

the study, IBM SPSS statistics 20 software is used and tests such as the independent sample test and the paired sample *t*-test are conducted.

4.7.2 Path Analysis

In this research, Structural Equation Modelling (SEM) path analysis is used to analyse the data and test the proposed hypotheses in the sustainability model[5]. The first use of SEM was in marketing research in the early 1980s but, in recent years, it has gained more popularity (Hair *et al*., 2011). SEM was defined as a "collection of statistical techniques that allow a set of relationships between one or more independent variables, either continuous or discrete, and one or more dependent variables, either continuous or discrete, to be examined" (Tabachnick and Fidell, 2007, p. 676). Similarly, according to Henri (2007, p. 76), SEM is "a set of multivariate techniques that allow for the simultaneous study of the relationship between directly observable and/or unmeasured latent variables, while incorporating potential measurement errors". When a variable alters from dependent in one equation to independent in another, SEM proves to be particularly useful (Smith and Langfield-Smith, 2004). The SEM approach helps in bridging the gap between theory and data by bringing them together (Tabachnick and Fidell, 2000). Moreover, SEM includes a measurement model which evaluates relations between observed variables and latent variables, and a structural model which assesses relationships among latent variables and identified measurement error (Smith and Langfield-Smith, 2004).

Management accounting research has been dominated by multiple regression analysis for decades (Smith and Langfield-Smith, 2004). Traditional statistical techniques used for analysing data (e.g. correlation and multiple regression) have proved to have many limitations with regard to theory testing and development, such as the use of only one dependent variable, the incapacity to test different types of relation in a single model, and the assumption that measurement of constructs is error-free (Chin, 1998; Smith and Langfield-Smith, 2004). As a result, studies moved to the use of path analysis, which "involves the analysis of sets of relations between variables, so that the dependent variable in one equation becomes an independent variable in another equation" (Smith and Langfield-Smith, 2004, p. 53). However, traditional path analysis also has some limitations, such as assuming the unidirectional flow of relations between variables and not

[5] Analysing the data on SEM will be done with the help of an expert.

adjusting the coefficient of independent variables for estimated measurement error (Smith and Langfield-Smith, 2004).

As a result, there have been many calls to use SEM in management accounting research. SEM is preferred to traditional statistical techniques since it goes beyond and overcomes most of their limitations. SEM allows the simultaneous examination of the multi-relationships between dependent and independent variables, at the same time incorporating potential measurement error (Tabachnick and Fidell, 2007; Henri, 2007; Hair *et al*., 2010).

Performing path analysis using SEM instead of using traditional regression procedures brings the advantages of SEM into this technique and allows for the measurement of model fit, modification indices, measuring error while considering latent variables (Hair *et al*., 1998; Savalei and Bentler, 2006; Garson, 2012a). This has led some authors to consider path analysis as a special case of SEM (Savalei and Bentler, 2006) and to describe it as a second generation of multivariate analysis (Hair *et al*., 1998).

4.7.2.1 Reasons for Adopting Structural Equation Modelling in this Study

Structural Equation Modelling (SEM) path analysis, using the IBM/SPSS Analysis of Moment Structures (AMOS) 20 software was utilised in this study as the main analysis method for testing the model for the following reasons (based on Smith and Langfield-Smith, 2004; Hair *et al*., 2006, 2010; Tabachnick and Fidell, 2007). First, SEM is suitable in practical terms when the dependent variable becomes an independent variable in a consequent equation. In the current study, sustainability practice is expected to act as a dependent variable affected by stakeholders' salience and communication intensity. On the other hand, sustainability practice also acts as an independent variable affecting performance. These relationships could be tested using a multi-regression technique but this would mean examining one single relationship only in a time requiring a large number of analyses and complicating the process. SEM has the ability to test several dependent relationships simultaneously. It is considered to be a more powerful alternative to multiple regression and other traditional techniques to the extent that these techniques are seen as special cases of SEM (Garson, 2012a).

Secondly, SEM allows for the incorporation of latent variables into the analysis. Many variables (i.e. stakeholders' salience, communication intensity, sustainability) in the

current study are expected to be unobserved and are approximated by measured variables. Thirdly, unlike traditional statistical techniques, SEM allows the incorporation of measurement error; it also assesses the overall goodness of fit of the tested models. Fourth, SEM has the ability to estimate different types of relationship (including mediating and moderating), which is particularly helpful in this study. Finally, SEM gives the researcher the opportunity to adopt a more complex model.

4.7.2.2 SEM Approach Used

This study adopts SEM to test the hypothesised relationships among the multiple independent and dependent model constructs (observed and latent). The sustainability practice variables (operation ecology, operation sociology, product ecology, and product sociology), stakeholders' salience and communication intensity are considered as latent variables and measured by a group of observed variables. Furthermore, stakeholders' salience and communication intensity are the *exogenous independent contingency* variables while sustainability practices are the *endogenous mediating variables*. Financial performance is the *dependent endogenous* variable and strategy is a moderator variable. All other factors not included in the study are considered as *exogenous residuals* in the structural model.

The IBM/SPSS AMOS 20 software is used to perform the SEM analyse which employs a common factor analysis and path analysis. Factor analysis is used to examine how the underlying constructs influence the observed variables. To test the structural model and hypothesised relationships, path analysis is used. In order to determine the significance of the hypothesised relationships between the unobserved (latent) variables, critical ratio values (i.e., *t*-values) are used. Finally, to evaluate the Fit of the Model, a set of measures is used. Under SEM, goodness of fit is defined by Hair *et al*. (1998, p. 580) as "the degree to which the actual/observed input matrix (covariances and correlations) is predicted by the estimated model".

4.8 Data Screening

The data screening processes mainly involved three stages: 1) Checking for missing values, 2) checking for normality, and 3) checking for internal reliability. This section reports on the analysis of missing values, and testing for normality and reliability using SPSS 20. The section also reports on the data transformation procedures undertaken to

address non-normality. The assessment of multivariate normality was carried out using AMOS and this is reported in Section 4.8.1.

4.8.1 Missing Values' Analysis

Missing values are either random or non-random. Random missing values are more common in survey studies and occur because a respondent unintentionally fails to answer some questions or had made mistakes in data entry. Non-random missing values may occur in surveys because a respondent purposefully refuses to complete some questions or occur as result of missing information in the secondary data on certain variables. This leads to a reduced sample size and loss of data hence introducing bias into the estimates reported. Thus, in this study, the researcher used a missing values' function to identify the nature of the missing values. The results in Table (4.3) indicate that there were missing values in 7 variables, with "loan quality" having the greatest number of missing values (27 cases=5.59%). Further analysis reveals that those 16 cases have missing values on performance data.

Table (4.3): Missing Values Analysis

	Missing				
	N	%	N	M	SD
Loan quality	27	5.59%	456	9.14	21.68
Funding	22	4.55%	461	61.26	20.81
Operation	16	3.31%	467	43.17	25.02
Liquidity	16	3.31%	467	51.50	20.25
Profitability	16	3.31%	467	0.51	1.38
Leverage	16	3.31%	467	0.12	0.65
Size	16	3.31%	467	4.23	5.63

Figure 4.2 presents an overall summary of the missing values of variables, cases and values displayed as three pie charts. The variable pie chart indicates that 7 (13%) variables had missing values out of a total of 51. The case pie chart indicates that 30 cases (6.1%) had at least one missing value and the values pie chart shows that 0.49% of the values (cases × variables) are missing. The patterns chart in Figure 4.2 shows missing value patterns based on a group of cases with the same pattern of complete and incomplete data, while the bar chart shows the percentage of cases for each pattern. The chart pattern reveals that monotonicity exists in the data and hence this was not suitable for imputation. The bar chart reveals that the most common pattern is Pattern 1 with over 95% of complete

data, followed by Pattern 5 with missing data on at least 7 variables. Since the data could not be imputed and because the data were not missing at random, it was appropriate to remove the 16 cases with all information missing on financial performance.

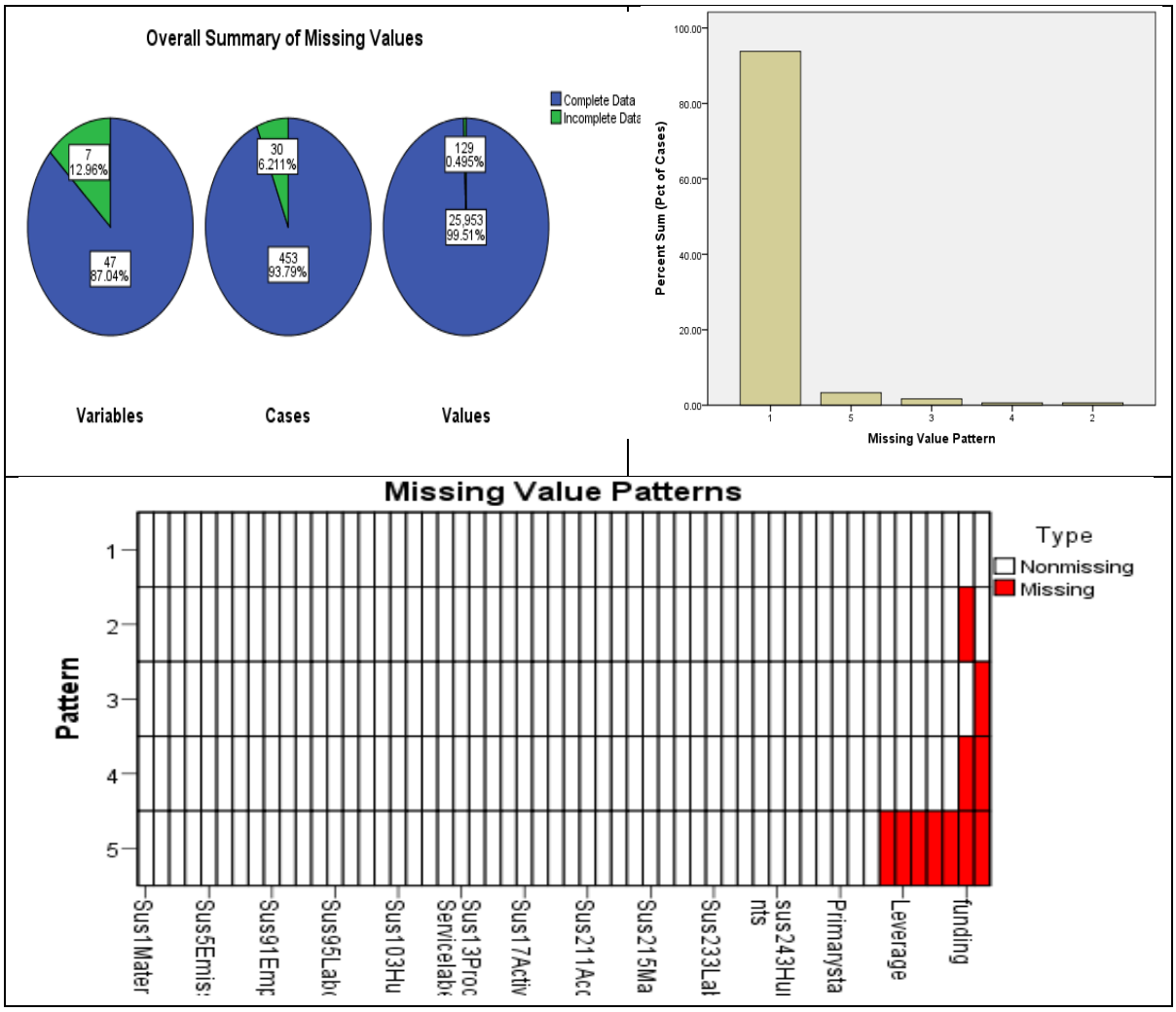


Figure 4.2: Missing Value Patterns

4.8.2 Normality Tests and Data Transformation

The second step of the data screening was the assessment of univariate normality. A normal distribution is "a symmetric bell-shaped" curve which expresses the mean and variance in the data (Zimmerman, 1998). Path analysis is one of the most robust parametric statistical tests with the power or ability to find significant results that require the data to meet assumptions of normality. In this study, the values of skewness and kurtosis were used to assess univariate normality. Both skewness and kurtosis are 0 in a normal distribution so the farther away from 0, the more non-normal the distribution. The recommended cut off point is between - to +1 (Garson, 2012b). The results presented in Tables (4.4) to (4.6) indicate that some variables were not normally distributed based on

the large levels of skewness and kurtosis reported. Hence, there was a need for transformation. According to Osborne (2002), the most common data transformation methods for improving the normality of variables discussed in texts include square root, log and inverse. In this study, the log transformation, particularly the Natural Logarithm (the constant **e** is the base) was used to transform the data. However, the Natural Log requires that the minimum value be a positive integer and not less than 1. Therefore, a constant was added to variables with negative minimum values and less than one. Thereafter, Natural Log transformation was performed, as presented in Tables (4.4) to (4.6). It should be noted that not all variables were normally distributed, even after transformation. However, the researcher decided against further transformation due to the benefits of using a data set which was representative of the context.

Table (4.4): Assessment of normality for operating ecology and sociology sustainability

		Before Transformation				**After Transformation**			
		Skewness		**Kurtosis**		**Skewness**		**Kurtosis**	
		Est	**SE**	**Est**	**SE**	**Est**	**SE**	**Est**	**SE**
Materials used	467	1.42	0.11	1.42	0.11	0.44	0.11	0.89	0.23
Energy used	467	1.60	0.11	1.60	0.11	0.48	0.11	0.32	0.23
Water used	467	4.76	0.11	4.76	0.11	2.26	0.11	10.42	0.23
Biodiversity	467	4.64	0.11	4.64	0.11	4.10	0.11	23.83	0.23
Emissions	467	1.33	0.11	1.33	0.11	0.04	0.11	0.04	0.23
Waste	467	2.07	0.11	2.07	0.11	0.98	0.11	1.85	0.23
Transport	467	0.84	0.11	0.84	0.11	-0.15	0.11	0.43	0.23
Compliance	467	0.73	0.11	0.73	0.11	0.09	0.11	-0.74	0.23
Employee information	467	0.96	0.11	0.96	0.11	0.01	0.11	0.13	0.23
Employee benefits	467	2.19	0.11	2.19	0.11	0.60	0.11	1.09	0.23
Labour /Management Relations	467	0.84	0.11	0.84	0.11	0.00	0.11	0.18	0.23
Labour health and safety	467	1.38	0.11	1.38	0.11	0.14	0.11	0.18	0.23
Labour training and education	467	1.24	0.11	1.24	0.11	0.28	0.11	-0.31	0.23
Labour diversity and opportunity	467	0.90	0.11	0.90	0.11	-0.16	0.11	-0.06	0.23
Child and compulsory labour	467	7.67	0.11	7.67	0.11	4.03	0.11	29.98	0.23
Employee training practices	467	2.31	0.11	2.31	0.11	0.95	0.11	1.18	0.23
Human rights policies	467	1.68	0.11	1.68	0.11	0.90	0.11	1.15	0.23
Human rights assessment and remediation	467	3.10	0.11	3.10	0.11	1.78	0.11	4.62	0.23
Impacts of operations on communities	467	1.35	0.11	1.35	0.11	0.07	0.11	0.28	0.23
Compliance social law/regulations	467	0.73	0.11	0.73	0.11	0.09	0.11	-0.75	0.23

Table (4.5): Assessment of normality for product ecology and sociology sustainability									
		Before Transformation				**After Transformation**			
		Skewness		**Kurtosis**		**Skewness**		**Kurtosis**	
		E	**SE**	**E**		**E**	**SE**	**E**	**SE**
Products and service labelling	467	0.83	0.11	1.45	0.22	0.24	0.11	0.16	0.23
Clients' environment risk	467	2.11	0.11	5.21	0.22	1.36	0.11	1.61	0.23
Environmental risks	467	1.25	0.11	4.25	0.22	0.23	0.11	0.78	0.23
Environmental staff competency	467	0.88	0.11	0.91	0.22	-0.06	0.11	-0.67	0.23
Active environmental ownership	467	0.67	0.11	0.61	0.22	-0.35	0.11	0.41	0.23
P & S compliance with env. laws	467	2.78	0.11	21.79	0.22	1.66	0.11	8.44	0.23
P &S environment policies	467	0.68	0.11	1.48	0.22	-0.69	0.11	1.02	0.23
Special products and services	467	1.27	0.11	1.94	0.22	0.25	0.11	-0.21	0.23
Accessibility of financial services	467	0.77	0.11	0.86	0.22	-0.21	0.11	-0.05	0.23
Financial literacy	467	3.18	0.11	16.75	0.22	2.72	0.11	12.04	0.23
Corruption	467	5.97	0.11	48.55	0.22	5.58	0.11	42.05	0.23
Anti -competitive behaviour	467	3.25	0.11	14.25	0.22	2.22	0.11	5.72	0.23
Marketing communications	467	1.63	0.11	3.47	0.22	0.57	0.11	0.31	0.23
Public policy	467	1.66	0.11	6.76	0.22	0.21	0.11	0.77	0.23
Social policies	467	0.83	0.11	1.69	0.22	-0.41	0.11	0.53	0.23
Social risks of business line	467	1.04	0.11	1.65	0.22	-0.12	0.11	0.15	0.23
Labelling social information	467	0.83	0.11	1.45	0.22	0.24	0.11	0.16	0.23
Special social products	467	1.54	0.11	3.98	0.22	0.62	0.11	0.46	0.23
Clients' social risk	467	3.71	0.11	18.67	0.22	1.91	0.11	4.56	0.23
Customer satisfaction and privacy	467	3.32	0.11	16.45	0.22	0.98	0.11	1.73	0.23
Human rights agreements	467	4.60	0.11	23.44	0.22	4.48	0.11	22.17	0.23
Social staff competency	467	1.37	0.11	2.54	0.22	0.32	0.11	-0.39	0.23
Active social ownership	467	0.64	0.11	0.92	0.22	-0.30	0.11	0.24	0.23
P &S compliance with social laws	467	2.78	0.11	21.79	0.22	1.66	0.11	8.44	0.23

Table (4.6): Assessment of normality for performance, salience and communication variables									
		Before Transformation				**After Transformation**			
	N	**Skewness**		**Kurtosis**		**Skewness**		**Kurtosis**	
		E	**SE**	**E**	**SE**	**E**	**SE**	**E**	**SE**
Size	467	1.63	0.11	1.73	0.23	0.58	0.11	-0.96	0.23
Leverage	467	-20.76	0.11	440.84	0.23	-17.79	0.11	346.87	0.23
Profitability	467	-9.21	0.11	114.20	0.23	-3.99	0.11	30.40	0.23
Liquidity	467	-0.89	0.11	0.03	0.23	-0.89	0.11	0.03	0.23
Operation	467	0.84	0.11	10.95	0.23	0.84	0.11	10.95	0.23
Funding	461	-0.10	0.11	-0.58	0.23	-0.10	0.11	-0.58	0.23
Loan quality	456	2.87	0.11	14.61	0.23	2.87	0.11	14.61	0.23
Primary stakeholders	467	1.05	0.11	1.45	0.22	-0.15	0.11	0.80	0.23
Secondary stakeholders	467	1.08	0.11	2.18	0.22	-0.15	0.11	0.67	0.23
Communication Intensity	467	1.34	0.11	3.01	0.22	0.23	0.11	0.25	0.23

4.8.3 Reliability Analysis

Reliability is the fact that a scale consistently represents a construct. The constructs in this study are operating ecology, operating sociology, product ecology, product sociology and stakeholder salience. In this study, Cronbach's alpha, a reliability coefficient which ranges between 0 and 1, was used to test the reliability of the measures. The closer the Cronbach's alpha coefficient is to 1.0, the greater the internal consistency of the items in the scale (Hair *et al*., 2010). The results in Table (4.7) indicate that all the indicators of the measures reliably measured the constructs, making them suitable for factor analysis.

Table (4.7): Reliability analysis

	Cronbach's Alpha	No. of Items
Operating Ecology	.764	8
Operating Sociology	.855	12
Product Ecology	.767	8
Product Sociology	.771	7
Stakeholder Salience	.771	2

4.9 Conclusions

This chapter has described the research design for this study. It started by explaining the research paradigm which was adopted, then the methodology used, including the reasons for the choice of secondary data documents. After that, the reasons behind the sample selection for the analysis were described. Then, the data collection method was outlined, including a detailed description of the content analysis process used in this study, together

with the validity and reliability of this method. After that, the data analysis procedures were presented, including the statistical tests and SEM. Finally, details of the data screening procedures were provided, including missing values analysis, normality tests and data transformation, and reliability testing. The next chapter provides findings of concerning the sustainability practices and communications in the EU and USA banks.

Chapter 5: Findings- Sustainability Practices and Communications in the EU and USA Banks

5.1 Introduction

This chapter addresses the following research questions:

1. Which stakeholder groups are presented by banks as the main targets of their sustainability practices?
2. What communication methods do banks use in their reports to communicate the sustainability information?
3. To what extent does the sustainability information disclosed by banks meet their stakeholders' expectations?
4. To what extent and in which dimensions do banks report on their sustainability practices?

This chapter is organised into seven sections. In the next section, the overall results from the sample are presented while the section that follows analyses stakeholders' groups in both EU and USA banks; this addresses the first research question. The fourth section compares how banks communicate with their stakeholders, which addresses the second research question, and the fifth section examines whether banks meet the needs of their stakeholders in terms of their sustainability practices; this addresses research question three. The sixth section compares the sustainability practices of USA and EU banks, thus addressing the fourth research question. The final section provides a summary for the chapter[6].

5.2 Overall Sample Characteristics

The sample consists of 483 reports, distributed as in Table (5.1). Over 70% of the reports used are sustainability reports which are almost equally distributed across the 7 years. The reports that belong to European banks make more than 61% of the total sample with the rest coming from the USA. With regard to the results, more than half of the sample had a sustainability strategy.

[6] A comparison between 2006 and 2012 is presented in Appendix 6.

Table (5.1) Descriptive statistics for the overall sample

		N	N %
Year	2006	64	13.3%
	2007	66	13.7%
	2008	71	14.7%
	2009	71	14.7%
	2010	71	14.7%
	2011	71	14.7%
	2012	69	14.3%
	Total	483	100.0%
Country	EU	295	61.1%
	USA	188	38.9%
	Total	483	100.0%
Sustainability Strategy	Non-sustainability strategy	214	44.3%
	Sustainability strategy	269	55.7%
	Total	483	100.0%

5.3 Stakeholder Groups

This section addresses the first research question: Which stakeholder groups are presented by European and American banks as the main targets of their sustainability practices and are there any differences between the two regions? First of all, a comparison between primary and secondary stakeholders is made, then stakeholders groups are analysed.

Table (5.2) gives a summary of the primary and secondary stakeholders in the overall sample and in each of the two regions. It was clear that primary stakeholders (m=5.31, SD=2.61) had received more attention from the banks in the sample than secondary stakeholders (m=2.74, SD=1.31).

When comparing the two regions, it can be seen from the means in Table (5.2) that European banks care more than American banks about both groups of stakeholders (primary and secondary). This was confirmed by the independent sample *t*-test (Table 5.2) as the results showed significant differences between the two samples with (m=6.00, SD=2.8), (m=4.17, SD=1.73), [$t(480.05)=8.771$, $p=0.00$] for primary stakeholders in the EU and the USA and (m=3.00, SD=1.44), (m=2.29, SD=0.96), [$t(479.93)=6.45$, $p=0.00$] for secondary stakeholders in the EU and the USA. However, in both countries, banks were more interested in their primary stakeholders than the secondary group.

As indicated earlier in this study, primary stakeholders were set as investors and shareholders, customers and employees. On the other hand, secondary stakeholders were defined as government, community and others. Table (5.2) tests whether the European banks had more interest in all of their stakeholders groups than the American banks, or whether this changed in the sub-groups of primary and secondary stakeholders.

Table (5.2) provides a summary for the different stakeholder groups across the sample. It was clear that banks in this sample paid greater attention to their customers (m=3.35, SD=1.45). Banks in the sample paid almost equal attention to the "other" group of stakeholders (the public, the media, rating agencies, financial advisors, suppliers and the press) (m=1.65, SD=0.82) and employees (m=1.32, SD=0.81). How banks in the sample prioritised their stakeholders group is presented in Figure 5.1.

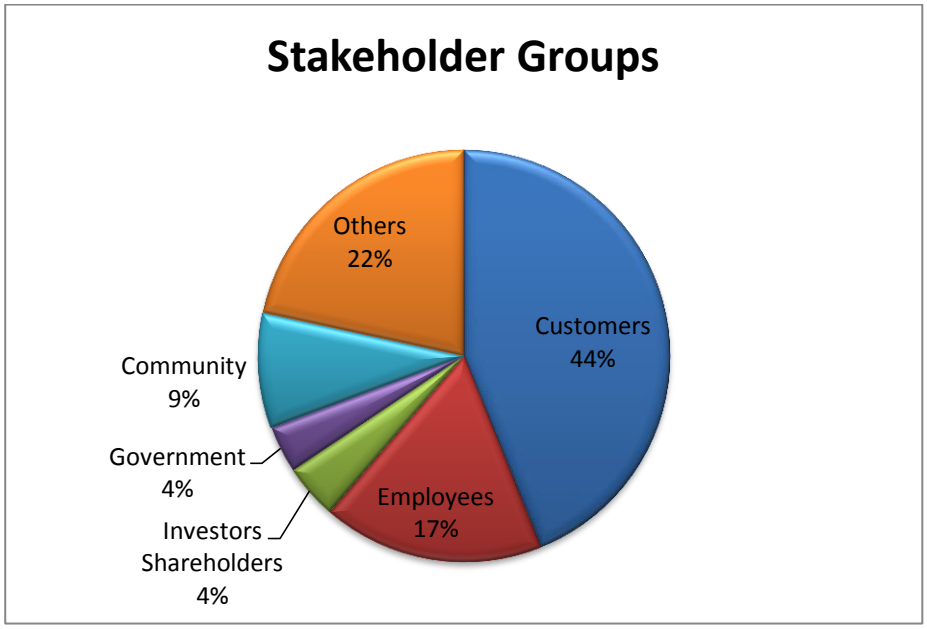


Figure 5.1: Distribution of stakeholder groups in the sample

Table 5.2: Stakeholders' statistics and the independent sample test

	total			EU			USA			*t*-test for Equality of Means	
	Mean (SD)	Min	Max	Mean (SD)	Min	Max	Mean (SD)	Min	Max	*t*(df)	*p*(2-tailed)
Primary stakeholders *	**5.31 (2.61)**	**1.43**	**16.24**	**6 (2.85)**	**1.51**	**16.24**	**4.17 (1.73)**	**1.43**	**13.40**	**8.77 (480.05)**	**0.00***
Customers*	3.35 (1.45)	0.78	8.80	3.66 (1.51)	0.90	8.80	2.87 (1.21)	0.78	7.60	6.38(456)	0.00*
Employees	1.33 (0.82)	0.11	5.60	1.52 (0.78)	0.16	4.80	1.03 (0.79)	0.11	5.60	6.63(481)	0.00*
Investor shareholders *	0.33 (0.24)	0.00	1.66	0.36 (0.28)	0.02	1.66	0.28 (0.18)	0.00	0.91	4.24(479.84)	0.00*
Secondary stakeholders *	**2.74 (1.31)**	**0.42**	**8.45**	**3.01 (1.44)**	**0.41**	**8.44**	**2.3 (0.96)**	**0.46**	**7.28**	**6.45 (479.94)**	**0.00***
Government	0.28 (0.23)	0.00	1.54	0.28 (0.28)	0.00	1.54	0.28 (0.22)	0.00	1.06	0.19(481)	0.85
Community*	0.69 (0.5)	0.00	2.89	0.83 (0.54)	0.00	2.89	0.47 (0.3)	0.00	1.57	9.5(471.96)	0.00*
Others*	1.65 (0.82)	0.00	5.97	1.72 (0.86)	0.00	5.52	1.55 (0.75)	0.28	5.97	2.23(435.09)	0.03*

* Equal variances not assumed

Table (5.2) helps in detecting which stakeholder groups had been given the greatest priority in each region. In the USA, the stakeholder groups' ranks (from the most important) are as follows: customers (m=2.86, SD=1.21), others (m=1.54, SD=0.75), employees (m=1.03, SD=0.79), community (m=0.46, SD=0.29), government (m=0.27, SD=0.18) and investors (m=0.27, SD=0.22). For the EU banks, the ranking is: customers (m=3.66, SD=1.5), others (m=1.71, SD=0.85), employees (m=1.51, SD=0.77), community (m=0.83, SD=0.54), investors (m=0.36, SD=0.27) and government (m=0.28, SD=0.24).

Moreover, Table (5.2) reveals that the EU banks have higher means than the USA banks for all the stakeholder groups. This may imply that European banks are more likely to address their reports to different groups of stakeholders than the USA banks. To confirm this, the independent sample *t*-test was performed, as shown in Table (5.2). These results hold true for the three primary stakeholder groups (investors and shareholders [$t(479.83)=4.23$, $p=0.00$], customers [$t(455.99)=6.38$, $p=0.00$] and employees [$t(481)=6.63$, $p=0.00$]) and for one of the secondary stakeholder groups (community [$t(471.95)=9.49$, $p=0.00$]). This signifies that European banks care about those four groups of stakeholders more than their American counterparts.

5.4 Methods of Communication

This section helps to answer the second research question: What communication methods do European and American banks use in their reports to communicate sustainability information? And are there any differences between the two regions?

Similar to the previous sections in this chapter, this section starts by comparing the overall communication intensity of the EU with the USA banks. Then, a comparison is presented between the three methods of communication in both the EU and the USA banks.

Table (5.3), which presents the overall communication intensity, shows that banks in Europe communicate more with their stakeholders (m=2.47, SD=1.18) compared with banks in the USA (m=1.33, SD=0.5). These results were confirmed as the independent sample *t*-test was significant [$t(431.69)=14.47$, $p=0.00$], indicating a significant difference between the two means.

Table 5.3 and Figure 5.2 show how banks in this sample communicate with their stakeholders. The dominant method of banks communicating with their stakeholders is the consultation or dialogue (m=1.56, SD=0.83). On the other hand, one-way channels of communication (m=0.06, SD=0.07) are fading and have almost disappeared.

To see if the result differs across the three methods of communication, or if the EU banks' superiority on terms of communications is maintained, the independent sample *t*-test was performed and the results presented in Table 5.3. Table 5.3 reveals that European banks use all three methods to communicate with their stakeholders and this was confirmed in the table as the result of independent sample *t*-test which was significant for all three methods of communication. Table 5.3 also reveals that banks in both regions used the two-way (consultation and dialogue) channels of communication the most (m=1.89, SD=0.87) in the EU and (m=1.06, SD=0.44) in the USA. Use of the one-way channels of communication had almost ended in both regions (m=0.07, SD=0.08) in the EU and (m=0.04, SD=0.06) in the USA.

Table 5.3: Methods of communication: statistics and independent sample test

	Total			EU			USA			*t*-test for Equality of Means	
	Mean (SD)	Min	Max	Mean (SD)	Min	Max	Mean (SD)	Min	Max	*t*(df)	*p*(2-tailed)
Communication Intensity*	**2.04 (1.12)**	**0.28**	**7.14**	**2.47 (1.18)**	**0.00**	**7.14**	**1.34 (.51)**	**0.28**	**3.35**	**14.47(431.69)**	**0.00***
Consultation or dialogue*	1.57 (0.84)	0.08	5.80	1.89 (0.87)	0.08	5.80	1.06 (0.44)	0.22	2.79	13.86(459.82)	0.00*
Partnership or governance*	0.3 (0.24)	0.00	1.55	0.34 (0.25)	0.00	1.55	0.23 (.18)	0.00	0.83	5.75(472.47)	0.00*
One-way channels*	0.06 (0.08)	0.00	0.67	0.07 (0.08)	0.00	0.67	0.04 (0.06)	0.00	0.33	4.17(476.24)	0.00*

* Equal variances not assumed

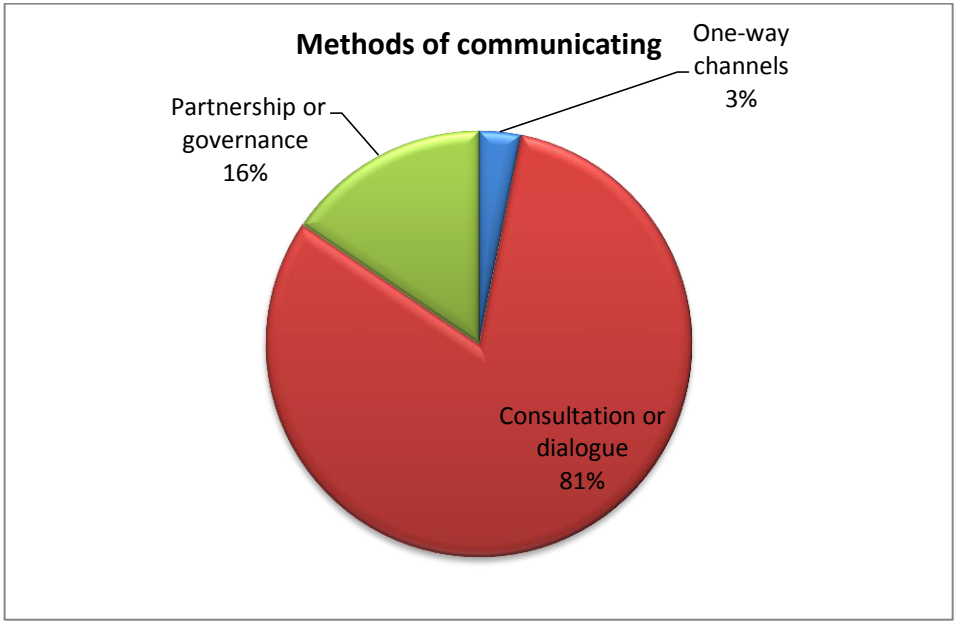


Figure 5.2: Methods of communicating with stakeholders

5.5 Stakeholders' Issues Presented by Banks

This section seeks to address the third research question: To what extent does the sustainability information disclosed by European and American banks meet their stakeholders' expectations? And are there any differences between the two regions? In order to do this, an index was developed based on the literature (Appendix 5) and coded against the reports. The results are presented in Table 5.4. Panel A of the table reveals that banks in the sample satisfied the employees' needs to different degrees, as banks gave more attention to "employees' health and safety" (m=6.70, SD=2.76) and to their "diversity and equity" (m=4.91, SD=2.26) more than to the other needs as these together encompass more than 50% of the total needs satisfied. The same thing could be said about how banks respond to customers' needs (Panel B) as banks cared mostly about fulfilling customers' need to "access financial services" (m=3.89, SD=1.85) and "having responsible products" (m=3.55, SD=1.87), rather than their need for "financial education" (m=0.03, SD=0.05), for example. In Panel C, banks cared most about satisfying the government's requirements with regards to "taxation" (m=7.65, SD=3.32). "Environment and social commitment" was the need that banks cared about most in the "community, society and environment" group (m=14.36, SD=5.53), followed by the banks caring about the "community" (m=5.98, SD=2.59). In the "others group" (the media, the public and suppliers) (see Panel E), banks reported most on "potential risks" (m=4.27, SD=2.23) followed, to a much smaller extent, by "labour standards for their suppliers" (m=0.71, SD=0.52). In the final panel (F), banks most often reported on their "performance" (m=3.51, SD=2.49) for their investors and shareholders.

These results were largely similar when the sample was divided into the two regions, the EU and the USA as in terms of employees' needs the two dominants groups were again "employees' health and safety" (m=5.79, SD=2.19) in the EU and (m=8.13, SD=2.97) in the USA, and "diversity and equity" (m=5.61, SD=2.35) in the EU and (m=3.84, SD=1.61) in the USA. "Accessibility to financial services" was the need which banks most cared about need for customers in both regions: (m=3.65, SD=1.66) in the EU and (m=4.26, SD=2.05) in the USA. In the USA, this was followed by "responsible products" (m=4.23, SD=2.30), then "risks associated with products" (m=2.93, SD=1.86), "satisfaction and privacy" (m=2.78, SD=1.29), and "marketing policies"; these were closely mentioned by American banks (m=2.42, SD=1.48) while, in the EU, "satisfaction and privacy" (m=3.31,

SD=2.71), “responsible products” (m=3.11, SD=1.38), “risks associated with products” (m=3.06, SD=1.32) and “marketing policies” (m=1.75, SD=0.76) were noted as important. In the EU, banks talked about their “taxes, lobbying and public policy” (m=7.72, SD=2.88) the most in terms of their governments’ needs; this was similar in the USA (m=7.53, SD=3.92). When comparing the EU and the USA regarding the degree to which each need of the community group was addressed, the following results were obtained. In the EU, banks addressed “environmental and social commitment and policy” the most (m=14.87, SD=5.40) for the community group, followed by the “operational environment” (m=5.88, SD=2.41) and “community activities” (m=5.82, SD=2.52); finally came “environmental and social requirements for clients” (m=4.55, SD=1.83). In the USA, banks also responded the most to the “environmental and social commitment and policy” (m=13.56, SD=5.64). This was followed by “community activities” (m=6.23, SD=2.69), then “the operational environment” (m=4.92, SD=2.07) and “environmental and social requirements for clients” (m=4.7, SD=2.55). When comparing the banks of the two regions, “potential risk” appeared to be the most important item for the needs of the “others group” (the media, the public and suppliers), as this was mentioned with (m=4.14, SD=1.70) in the EU and (m=4.49, SD=2.86) in the USA for the total “others group” needs in each region. When comparing investors’ and shareholders’ needs within the two regions, “performance” was the most mentioned item in the investors’ and shareholders’ group (m=4.31, SD=2.65) in the EU and (m=2.27, SD=1.53) in the USA when compared with all the other needs of investors and shareholders in each region.

To see if there was any significant difference in the way that European and American banks responded to the different needs of their stakeholders, the independent sample *t*-test was performed and gave the following results. In terms of employees’ needs, the EU outperformed the USA in the following areas: family, union relations, learning and development, diversity and social equity, wages, effective communication, and leadership. However, the USA cared more than the EU about: health and safety, and community spirit. In terms of customers’ needs, the EU outperformed the USA in the following aspects: satisfaction and privacy, consumer protection, and communication while the USA cared more than the EU about: marketing polices, avoiding engagement in price fixing, responsible products, accessibility to financial services, and financial literacy. However, with regard to “information that is truthful” and “risk associated with products”, no significant difference was found between the two regions. Concerning governments’

needs, European banks cared more than American banks about human rights and compliance with the law but no significant difference was found in “taxes, lobbying and public policy” between the two regions.

Table 5.4: Stakeholders' needs: statistics and independent sample test

Panel A: Employees' needs											
	Total			**EU**			**USA**			*t*-test for Equality of Means	
	Mean (SD)	**Min**	**Max**	**Mean (SD)**	**Min**	**Max**	**Mean (SD)**	**Min**	**Max**	***t*(df)**	***p*(2-tailed)**
Family*	2.78(1.34)	0.65	12.60	2.98 (1.41)	0.65	12.60	2.46 (1.15)	0.72	8.86	4.47(451.77)	0.00*
Union relations*	2.01(.8)	0.41	5.20	2.09 (0.79)	0.41	5.20	1.9 (0.81)	0.50	4.93	2.62(481)	0.01*
Health and safety*	6.7(2.76)	1.48	20.80	5.79 (2.19)	1.48	20.80	8.13 (2.97)	2.26	20.57	-9.30(314.33)	0.00*
Learning and development*	1.82(1.15)	0.17	6.25	2.21 (1.19)	0.33	6.25	1.22 (0.74)	0.17	3.91	11.25(480.66)	0.00*
Diversity and social equity*	4.92(2.26)	0.65	16.20	5.61 (2.35)	0.65	16.20	3.84 (1.61)	0.83	9.29	9.79(478.72)	0.00*
Community spirit*	0.14(0.21)	0.00	2.00	0.1 (0.13)	0.00	0.88	0.2 (0.28)	0.00	2.00	-4.9(241.65)	0.00*
Wages*	0.79(0.65)	0.00	4.00	0.85 (0.63)	0.00	4.00	0.71 (0.69)	0.00	3.11	2.25(373.48)	0.03*
Effective communication	0.16(0.170	0.00	1.33	0.18 (0.19)	0.00	1.33	0.14 (0.14)	0.00	1.07	2.24(481)	0.03*
Leadership*	0.31 (0.31)	0.00	1.68	0.35 (0.34)	0.00	1.68	0.25 (0.23)	0.00	1.22	3.9(478.09)	0.00*
Panel B: Customers' needs											
	Total			**EU**			**USA**			*t*-test for Equality of Means	
	Mean (SD)	**Min**	**Max**	**Mean (SD)**	**Min**	**Max**	**Mean (SD)**	**Min**	**Max**	***t*(df)**	***p*(2-tailed)**
Satisfaction and privacy*	3.1 (2.28)	0.52	21.00	3.31 (2.71)	0.58	21.00	2.78 (1.29)	0.52	6.75	2.87(450.8)	0.00*
Marketing policies*	2.01 (1.14)	0.11	7.43	1.75 (0.76)	0.49	4.80	2.42 (1.48)	0.11	7.43	-5.76(250.95)	0.00*
Information that is truthful	0.89 (0.5)	0.00	3.27	0.89 (0.48)	0.00	3.27	0.88 (0.53)	0.00	2.59	0.32(481)	0.75
Avoiding engagement in price fixing*	0.21 (0.30)	0.00	2.46	0.15 (0.20)	0.00	1.29	0.3 (0.41)	0.00	2.46	-4.61(243.45)	0.00*
Responsible products*	3.55 (1.87)	0.65	11.92	3.11 (1.38)	0.71	8.53	4.23 (2.30)	0.65	11.92	-6.06(272.99)	0.00*
Consumer protection*	0.26 (0.3)	0.00	3.00	0.42 (0.30)	0.00	3.00	0.02 (0.03)	0.00	0.20	22.77(306.51)	0.00*
Accessibility to financial services*	3.89 (1.85)	0.00	13.03	3.65 (1.66)	0.00	11.22	4.26 (2.05)	0.53	13.03	-3.41(338.79)	0.00*
Financial literacy*	0.03 (0.05)	0.00	0.42	0.03 (0.04)	0.00	0.21	0.04 (0.06)	0.00	0.42	-2.85(287.47)	0.00*

Risks associated with products*	3.01 (1.55)	0.00	10.28	3.06 (1.32)	0.00	7.76	2.93 (1.86)	0.10	10.28	0.85(306.44)	0.40
Communications	0.16 (0.17)	0.00	1.33	0.18 (0.19)	0.00	1.33	0.14 (0.14)	0.00	1.07	2.24(481)	0.03*
Panel C: Governments' and regulators' needs											
	Total			**EU**			**USA**			*t*-test for Equality of Means	
	Mean (SD)	**Min**	**Max**	**Mean (SD)**	**Min**	**Max**	**Mean (SD)**	**Min**	**Max**	***t*(df)**	***p*(2-tailed)**
Taxes lobbying*	7.65 (3.32)	1.22	23.22	7.72 (2.88)	2.27	17.76	7.53 (3.92)	1.22	23.22	0.57(314.1)	0.57
Compliance with the law	0.8 (0.55)	0.00	2.72	0.92 (0.53)	0.00	2.72	0.62 (0.52)	0.00	2.38	6.13(481)	0.00*
Human rights	0.71 (0.52)	0.00	5.14	0.76 (0.48)	0.00	3.24	0.64 (0.57)	0.09	5.14	2.38(481)	0.02*
Panel D: Community, society & environment needs											
	Total			**EU**			**USA**			*t*-test for Equality of Means	
	Mean (SD)	**Min**	**Max**	**Mean (SD)**	**Min**	**Max**	**Mean (SD)**	**Min**	**Max**	***t*(df)**	***p*(2-tailed)**
Environmental and social commitment and policy	14.36 (5.53)	2.33	34.20	14.87 (5.40)	5.15	34.20	13.56 (5.64)	2.33	33.44	2.56(481)	0.01*
Community	5.98 (2.59)	0.00	20.00	5.82 (2.52)	1.04	20.00	6.23 (2.69)	1.44	17.73	-1.67(481)	0.10
Operational environment	5.51 (2.33)	0.67	22.80	5.88 (2.41)	1.59	22.80	4.92 (2.07)	0.67	14.00	4.52(481)	0.00*
Env. & social requirements for clients*	4.61 (2.14)	0.31	13.08	4.55 (1.83)	1.00	9.94	4.7 (2.55)	0.31	13.08	-0.73(308.45)	0.46
Panel E: Others' (the media, the public and suppliers) needs											
	Total			**EU**			**USA**			*t*-test for Equality of Means	
	Mean (SD)	**Min**	**Max**	**Mean (SD)**	**Min**	**Max**	**Mean (SD)**	**Min**	**Max**	***t*(df)**	***p*(2-tailed)**
Potential risk*	4.27 (2.23)	0.19	14.83	4.14 (1.70)	0.33	9.95	4.49 (2.86)	0.19	14.83	-1.54(272.29)	0.12
Suppliers' labour standards	0.71 (0.52)	0.00	5.14	0.76 (0.48)	0.00	3.24	0.64 (0.57)	0.09	5.14	2.38(481)	0.02*
Improving suppliers' environmental/social performance*	0.03 (0.05)	0.00	0.33	0.03 (0.04)	0.00	0.23	0.04 (0.06)	0.00	0.33	-2.86(280.35)	0.00*
Relationship with suppliers	0.00 (0.01)	0.00	0.06	0.00 (0.01)	0.00	0.06	0.00(0.01)	0.00	0.05	-0.10(481)	0.92

Panel F: Investors' and shareholders' needs											
	Total			EU			USA			*t*-test for Equality of Means	
	Mean (SD)	Min	Max	Mean (SD)	Min	Max	Mean (SD)	Min	Max	*t*(df)	*p*(2-tailed)
Performance*	3.51 (2.49)	0.24	22.40	4.31 (2.65)	0.82	22.40	2.27 (1.53)	0.24	9.72	10.75(476.93)	0.00*
Legislation	0.8 (0.55)	0.00	2.72	0.92 (0.53)	0.00	2.72	0.62 (0.52)	0.00	2.38	6.13(481)	0.00*
Directors and senior managers*	0.22 (0.33)	0.00	2.42	0.24 (0.40)	0.00	2.42	0.19 (0.16)	0.00	1.14	1.92(410.89)	0.06
CG*	0.11 (0.13)	0.00	1.05	0.13 (0.14)	0.00	1.05	0.06 (0.08)	0.00	0.50	6.8(469.64)	0.00*
Dividend policy*	0.06 (0.11)	0.00	0.63	0.03 (0.04)	0.00	0.25	0.10 (0.16)	0.00	0.63	-6.66(202.74)	0.00*
Relationships with shareholders*	0.00 (0.01)	0.00	0.05	0.00 (0.01)	0.00	0.05	0.00 (0.00)	0.00	0.03	3.32(479.09)	0.00*
Staff ownership of shares*	0.00 (0.00)	0.00	0.04	0.00 (0.00)	0.00	0.01	0.00 (0.00)	0.00	0.04	-0.81(193.03)	0.42

* Equal variances not assumed

For community group needs, European banks disclosed significantly more information than American banks about “environmental and social commitment and policy”, and “the effects of the operational environment”. No significant difference was found for “community”, and “environmental and social requirements” for clients between the banks in the two regions. In the others group, the European banks care more about “suppliers’ labour standards” than the American banks while the American banks cared more about “improving suppliers’ environmental and social performance” than European banks. There was no significant difference between the two regions in terms of “potential risk” and “relationships with suppliers”. For investors’ and shareholders’ needs, European banks considered 4 out of 7 needs significantly more than American banks, namely: “corporate governance”, “relationships with shareholders”, “legislation”, and “performance”; while American banks outperformed European banks only with regard the “dividend policy”. In terms of both “staff ownership of shares”, and “directors’ and senior managers’ information”, no significant difference was found.

5.6 Sustainability Practices in the EU and the USA

This section addresses research question 4, that is: To what extent and in which dimensions do European and American banks report on their sustainability practices?

Table 5.5 provides a comparison between the four main groups of sustainability (operation ecology, operation sociology, products and service ecology and products and service sociology); these are also presented in Figure 5.3. The results show that banks cared the most about the direct consequence of their operations on society (m=2.51, SD=1.01) and least about the direct effect of their operations on the environment (m=0.81, SD=0.36). These results are not surprising as banks to a great extent do not have much direct environmental impact (for example, they do not pollute).

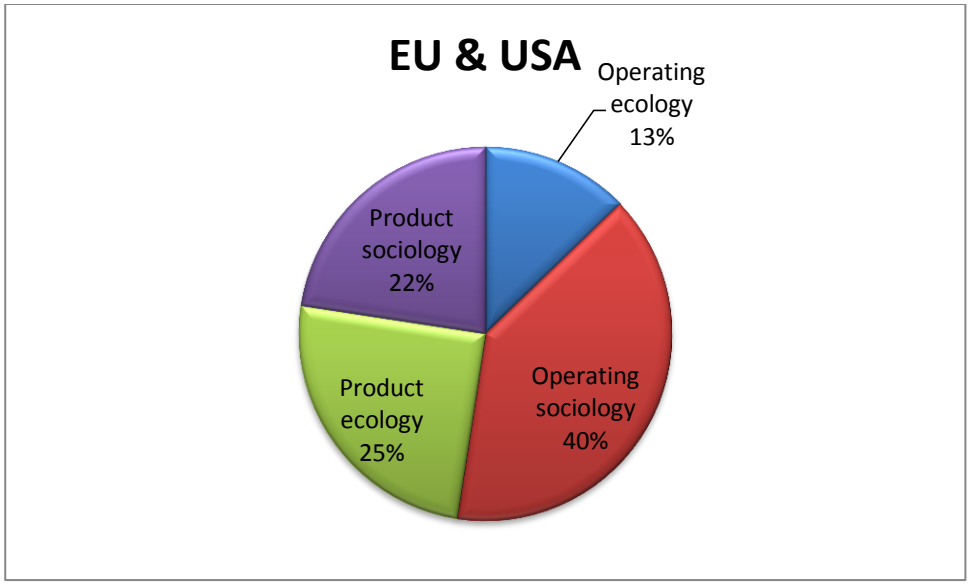


Figure 5.3: Distribution of the main sustainability groups in the whole sample

Table 5.5 also shows that both European and American banks were most interested in the (direct) impacts of their operations on society, with (m=2.67, SD=1.1) and (m=2.25, SD=0.78) respectively, followed by the environmental impacts of their products and services (indirect) (m=1.64, SD=0.68), (m=1.48, SD=0.6) and then the social impacts of their products and services (indirect) (m=1.45, SD=0.6), (m=1.4, SD=0.57). Operational (direct) impact on the environment came last for both European and American banks with (m=0.9, SD=0.39), (m=0.68, SD=0.26) respectively. The table also shows that, in all the main sustainability groups, the EU banks had higher means than the banks from the USA. However, it may be asked if these results imply that EU banks carry out more sustainability activities than banks in the USA. To answer this, and to assess the difference in sustainability means between the two groups (EU and USA), the independent sample *t*-test was used (see Table 5.5). The results were significant for operation ecology and product sociology, which indicates that European banks disclosed more information in those two groups than the USA banks.

The results showed that the differences were statistically significant in two of the four groups (operation ecology [$t(481)=-3.46$, $p=0.00$], product sociology [$t(429.28)=5.14$, $p=0.00$]), as indicated in Table 5.5; however, no significant difference was found for operation sociology [$t(413.51)=-0.46$, $p=0.65$] and product ecology [$t(481)=1.21$, $p=0.23$]). This implies that both EU and USA banks engage in almost the same amount of sustainability practices in term of the effects of their products on the environment and the impact of their operations on society.

However, differences in the level of sustainability practices could vary across the different sub-themes between the two groups. Table 5.5 presents the results for the sub-themes in each sustainability group and provides an overview of the sustainability sub-sections in the total sample and in the two regions, divided into its four main sections (Panels A-B-C-D). Panel A shows that three out of the eight sub-themes of operation ecology have a mean over 1.0. Those are: emission (m=1.74, SD=1.00), transport (m=1.46, SD=0.78), and energy used (m=1.17, SD=0.70). It is clear from the table (Panel B) that seven out of the twelve sub-themes in operation sociology have a mean of around 2.0 and higher. However, labour health and safety (m=7.02, SD=2.98), is what banks most care about in their operation sociology (Panel B) followed by their impact on the community (m=6.34, SD=2.99) and labour diversity and equal opportunity (m=5.20, SD=2.62). In term of banks' products and service ecology (Panel C), products' and services' environmental policies (m=3.23, SD=1.64) occupy the first priority for banks, followed by special products and services (m=2.73, SD=1.58) and environmental staff competency (m=2.61, SD=1.44). Finally, for the banks' products and service sociology (Panel D), banks pay more attention to their social policies (m=4.28, SD=2.03), followed by the accessibility of financial service (m=4.03, SD=2.00) and then customer privacy and satisfaction (m=3.21, SD=2.32). 8 out of the 16 sub-themes of products and service sociology have a mean higher than 1.0.

Table 5.5: Sustainability statistics and independent sample test

	total			EU			USA			*t*-test for Equality of Means	
	Mean (SD)	Min	Max	Mean (SD)	Min	Max	Mean (SD)	Min	Max	*t*(df)	*p*(2-tailed)
Panel A: Operating Ecology	**0.81 (0.36)**	**0.10**	**3.18**	**0.9 (0.39)**	**0.20**	**3.18**	**0.68 (0.26)**	**0.10**	**1.76**	**-3.46(481)**	**0.00**
Emissions*	1.74 (1.00)	0.11	7.80	2.01 (1.05)	0.23	7.80	1.32 (0.75)	0.11	3.60	8.38(473.62)	0.00*
Transport*	1.46 (078)	0.00	5.50	1.58 (0.86)	0.00	4.10	1.27 (0.60)	0.00	3.08	4.75(477.21)	0.00*
Energy used*	1.17 (0.70)	0.08	4.83	1.32 (0.71)	0.08	4.40	0.93 (0.62)	0.13	4.83	6.4 (438.64)	0.00*
Compliance with operating env. laws & reg.*	0.74 (0.51)	0.00	2.67	0.87 (0.49)	0.00	2.67	0.53 (0.48)	0.00	2.33	7.47(403.86)	0.00*
Waste*	0.59 (0.44)	0.00	3.00	0.58 (0.04)	0.00	3.00	0.60 (0.49)	0.00	2.65	-0.49(343.29)	0.63
Materials used	0.57 (0.33)	0.00	2.80	0.57 (0.34)	0.00	2.80	0.57 (0.30)	0.00	1.60	-0.02(481)	0.98
Water used	0.22 (0.22)	0.00	2.80	0.24 (0.24)	0.00	2.80	0.20 (0.20)	0.00	1.50	1.85 (481)	0.07
Biodiversity *	0.03 (0.05)	0.00	0.43	0.02 (0.03)	0.00	0.19	0.03 (0.06)	0.00	0.43	-2.79(246.29)	0.01*
Panel B: Operating Sociology*	**2.51 (1.01)**	**0.76**	**7.92**	**2.67 (1.1)**	0.79	7.92	**2.25 (0.78)**	0.76	5.60	**-0.46(413.51)**	**0.65**
Labour health and safety	7.02 (2.98)	1.48	20.80	6.31 (2.77)	1.48	20.80	8.13 (2.97)	2.26	20.57	-6.82 (481)	0.00*
Impacts of operations on communities	6.34 (2.99)	1.04	20.79	6.40 (3.17)	1.04	20.00	6.23 (2.69)	1.44	17.73	0.63 (481)	0.53
Labour diversity and equal opportunity*	5.20 (2.62)	0.65	17.63	6.06 (2.78)	0.65	16.20	3.84 (1.61)	0.83	9.29	11.13 (477.03)	0.00*
Employee benefits*	2.93 (1.44)	0.65	12.60	3.23 (1.53)	0.65	12.60	2.46 (1.15)	0.72	8.86	6.3 (467.71)	0.00*
Employee information*	2.77 (1.36)	0.33	9.14	3.22 (1.45)	0.65	6.85	2.06 (0.81)	0.33	5.00	11.25 (474.34)	0.00*
Labour /management relations*	2.12 (0.93)	0.41	7.00	2.26 (0.98)	0.41	5.20	1.90 (0.81)	0.50	4.93	4.41 (451.02)	0.00*
Labour training and education*	1.94 (1.22)	0.17	6.25	2.40 (1.24)	0.33	6.25	1.22 (0.74)	0.17	3.91	13.1 (479.21)	0.00*
Compliance with operating social laws &regulations	0.74 (0.51)	0.00	2.67	0.87 (0.49)	0.00	2.67	0.53 (0.48)	0.00	2.35	7.38 (481)	0.00*
Human rights policies*	0.41 (0.29)	0.00	2.48	0.39 (0.27)	0.00	1.30	0.45 (0.32)	0.00	2.13	-2.23 (355.04)	0.03*
Employee training & security practices on human rights*	0.29 (0.34)	0.00	3.00	0.47 (0.33)	0.00	3.00	0.02 (0.03)	0.00	0.20	23.04 (304.26)	0.00*
Human rights assessment and remediation*	0.23 (0.27)	0.00	2.43	0.31 (0.27)	0.00	1.38	0.1 (0.23)	0.00	2.43	9.4 (440.5)	0.00*

Child and compulsory labour	0.12 (0.17)	0.00	2.43	0.13 (0.12)	0.00	0.67	0.1 (0.23)	0.00	2.43	2.27 (481)	0.02*
Panel C: Product Ecology	**1.58 (0.65)**	**0.25**	**4.40**	**1.64 (0.68)**	0.50	4.40	**1.48 (0.6)**	0.25	3.70	**1.21(481)**	**0.23**
Products and services environment policies	3.23 (1.64)	0.13	10.87	3.59 (1.68)	0.68	9.08	2.67 (1.41)	0.13	7.36	6.28 (481)	0.00*
Special products and services*	2.73 (1.58)	0.33	9.80	2.48 (1.38)	0.33	6.15	3.11 (1.79)	0.39	9.33	- 4.09 (325.59)	0.00*
Environmental staff competency*	2.61 (1.44)	0.21	8.80	2.86 (1.35)	0.35	8.00	2.21 (1.49)	0.21	8.80	4.83 (369.68)	0.00*
Active environmental ownership*	2.25 (1.12)	0.10	7.31	2.41 (1.17)	0.50	5.59	1.99 (0.99)	0.10	4.97	4.27 (445.31)	0.00*
Environmental risks in business lines	0.84 (0.49)	0.00	3.97	0.89 (0.48)	0.00	2.48	0.76 (0.48)	0.00	3.31	2.88 (481)	0.00*
Products and service labelling environment information	0.47 (0.28)	0.00	1.64	0.48 (0.29)	0.00	1.64	0.44 (0.26)	0.00	1.29	1.72 (481)	0.09
Clients' environment risk*	0.43 (0.43)	0.00	2.67	0.32 (0.24)	0.00	1.35	0.61 (0.59)	0.00	2.67	-6.45 (226.36)	0.00*
Products and service compliance with environmental laws and regulations	0.09 (0.09)	0.00	0.96	0.1 (0.09)	0.00	0.96	0.08 (0.08)	0.00	0.38	1.67 (481)	0.09
Panel D: Product Sociology*	**1.43 (0.59)**	**0.32**	**3.86**	**1.45 (0.6)**	0.49	3.67	**1.4 (0.57)**	0.32	3.86	**5.14(429.28)**	**0.00***
Social policies	4.28 (2.03)	0.50	12.55	4.58 (2.07)	1.27	10.50	3.8 (1.89)	0.50	12.39	4.21 (481)	0.00*
Accessibility of financial services	4.03 (2.00)	0.00	13.03	3.89 (1.98)	0.00	8.04	4.26 (2.05)	0.53	13.03	-2.01 (481)	0.05*
Customer satisfaction and privacy*	3.21 (2.32)	0.52	21.00	3.48 (2.75)	0.58	21.00	2.78 (1.29)	0.52	6.75	3.79 (448.6)	0.00*
Social risks of business lines	2.32 (1.39)	0.00	10.75	2.42 (1.35)	0.00	5.70	2.17 (1.43)	0.10	6.97	1.9 (481)	0.06
Marketing communications*	2.10 (1.29)	0.11	7.93	1.91 (1.11)	0.49	4.80	2.42 (1.48)	0.11	7.43	-4.07 (318.49)	0.00*
Social staff competency*	1.81 (1.14)	0.16	7.20	1.73 (0.93)	0.16	7.20	1.95 (1.39)	0.21	6.80	-1.98 (293.42)	0.05*
Active social ownership	1.73 (0.90)	0.00	6.94	1.82 (0.91)	0.00	4.31	1.59 (0.87)	0.13	4.75	2.74 (481)	0.01
Public policy*	1.19 (0.72)	0.00	5.00	1.35 (0.77)	0.13	5.00	0.95 (0.54)	0.00	2.51	6.76 (477.07)	0.00*
Special social products*	0.96 (0.56)	0.10	3.52	0.85 (0.48)	0.10	2.33	1.12 (0.63)	0.10	3.52	-4.99 (321.68)	0.00*
Labelling social information	0.47 (0.28)	0.00	1.64	0.48 (0.29)	0.00	1.64	0.44 (0.26)	0.00	1.29	1.72 (481)	0.09
Clients' social risk*	0.41 (0.38)	0.00	2.47	0.34 (0.24)	0.00	5.62	0.51 (0.51)	0.00	2.47	-4.5 (241.6)	0.00*
Anti -competitive behaviour*	0.22 (0.30)	0.00	2.46	0.17 (0.20)	0.00	1.18	0.3 (0.41)	0.00	2.46	-4.18 (244.51)	0.00*
Products and service compliance with social laws and regulations	0.09 (0.09)	0.00	0.96	0.1 (0.09)	0.00	0.96	0.08 (0.08)	0.00	0.38	1.67 (481)	0.09

Financial literacy	0.04 (0.06)	0.00	0.53	0.03 (0.05)	0.00	0.21	0.04 (0.06)	0.00	0.42	-1.85 (481)	0.06
Corruption*	0.01 (0.03)	0.00	0.26	0.01 (0.03)	0.00	0.26	0.01 (0.01)	0.00	0.06	3.51 (386.92)	0.00*
Human rights investment agreements	0.00 (0.01)	0.00	0.04	0.00 (0.01)	0.00	0.04	0.00 (0.00)	0.00	0.04	0.08 (481)	0.93

* Equal variances not assumed

The sub-groups in each of the four main groups for the two regions were compared. In terms of operation ecology, the comparison revealed that both regions cared most about their emissions of their total operation ecology (m=2.01, SD=1.05) in the EU, (m=1.32, SD=0.75) in the USA, followed by transport (m=1.58, SD=0.86) in the EU and (m=1.27, SD=0.60) in the USA, and then energy used (m=1.32, SDS=0.71) in the EU and (m=0.93, SD=0.62) in the USA.

In terms of operation sociology, the health and safety of the labour force was the most important sub-operation in the sociology theme for the USA (m=8.13, SD=2.97), followed by the impacts of operations on communities (m=6.23, SD=2.69) and labour diversity and equal opportunity (m=3.84, SD=1.61). In the EU, the impacts of operations on communities came first among the operation sociology sub-themes with (m=6.4, SD=3.17), closely followed by the health and safety of the labour force (m= 6.31, SD=2.77) and labour diversity and equal opportunity (m= 6.06, SD=2.78).

For the product ecology sub-themes, in the EU, products and services environment policies came first (m=3.59, SD=1.68), then environmental staff competency (m=2.86, SD=1.35). They were followed by special products and services (m=2.48, SD=1.38) and active environmental ownership (m=2.41, SD=1.17). In the USA, special products and services came first (m=3.11, SD=1.79), followed by products and services environment policies (m=2.67, SD=1.41), then environmental staff competency (m=2.21, SD=1.49) and active environmental ownership (m=1.99, SD=0.99).

Finally, for product sociology sub-themes in the EU, social policies came first (m=4.58, SD=2.07), followed by accessibility of financial service (m= 3.89, SD=1.98) and customer satisfaction and privacy (m= 3.48, SD=2.75). In the USA, accessibility of financial services was the most important sub-theme (m= 4.26, SD=2.05), followed by social policies (m= 3.8, SD=1.89) and customer satisfaction and privacy (m= 2.78, SD=1.29).

Comparing the sustainability practices between EU and USA banks showed that, in operation ecology, USA banks cared more about biodiversity than banks in the EU countries. However, in the same main theme (operation ecology), European banks surpassed American banks in terms of energy used, emissions, transport, and with regard to compliance with operation laws and regulations. In the second main sustainability group, operation sociology, EU banks outperformed USA banks in almost every aspect (except labour health and safety). In the third group, products ecology, EU banks

outperformed USA banks in four sub-groups but were outperformed in their turn in two sub-groups.

The previous results reveal that EU banks outperformed USA banks in most of the sustainability sub-themes. To examine if there were any significant differences between European and American banks' sustainability practices, the independent sample *t*-test was performed. The results are presented in Table 5.5. The overall results show 33 significant differences across all the sub-themes; in 11 of these the USA banks surpassed those of the EU and in the remaining 22, the EU surpassed the USA. When the differences are significant and the USA sample has a higher mean, they are highlighted.

5.7 Conclusions

This chapter has provided a preliminary analysis and summary of the output data of the content analysis. It has also delivered some answers to the first four research questions by analysing and comparing the results of the European and American banks. It also compared the results of the year 2006 and with those for the year 2012.

Chapter 6: Results of the Statistical Tests

6.1 Introduction

This chapter illustrates the process of preparing and analysing the data to test the proposed hypotheses. Section 6.2 addresses the factor score process and results. Section 6.3 explains the path analysis process and, in Section 6.4, the proposed hypotheses are tested.

6.2 Factor Analysis

6.2.1 Factor Analysis Procedure

Factor analysis (FA) is broadly used in business research to examine how underlying constructs influence a number of observed variables by examining the pattern of correlations or covariance between the variables (Decoster, 1998; Costello and Osborne, 2005). It assumed that indicators that are highly correlated are influenced by a common factor. In this study, the factor analysis procedures suggested by Decoster (1998) and Costello and Osborne (2005) were followed with the help of SPSS 20. The first step was to collect information on measured variables; this was achieved through the content analysis of banks' reports. The second step involved selecting a number of factors for inclusion after the initial extraction. Although some texts recommended the use of 'screen tests', in this study, the Kaiser criterion was used. "The Kaiser criterion states that you should use a number of factors equal to the number of the eigenvalues of the correlation matrix that are greater than one" (Decoster, 1998, p. 2). The third stage involved extracting an initial set of factors. There are a number of extraction methods available, such as principal component analysis, principal axis factoring, generalised least squares and *maximum likelihood*. The researcher chose the maximum likelihood method based on Costello and Osborne's (2005) recommendation that researchers should use maximum likelihood as it is similar to the estimation method implemented in the SEM path analysis software. The fourth stage was the rotation of the factors to arrive at a final solution in order to find a factor solution equal to that obtained in the initial extraction but with the simplest interpretation (Decoster, 1998). Statistical tests offer rotation methods as both *orthogonal rotations*, which produce uncorrelated factors, and *oblique rotations*, which produce correlated factors. In this study, varimax (orthogonal rotation) was used to interpret the factors' structure based on factor loadings produced by the rotation method. Factor loadings are standardised regression

coefficients, regressing the factor on the measures (Decoster, 1998). Finally, the construct factor scores that were obtained were later used in SEM path analysis in AMOS. DiStefano *et al*. (2009) discuss several methods of computing factor scores ranging from non-refined methods, such as a sum of scores, average of means, and weighted sum of scores, to refined methods, such as regression scores, Bartlett scores and Anderson-Rubin scores. Regression scores depend on an underlying model to predict an "optimal" factor score; with Bartlett Scores only the shared variance has an impact on factor scores; and in Anderson-Rubin scores, factor scores are not only uncorrelated with other factors, but also uncorrelated with each other. In this study, Bartlet scores were used as they closely reflect the factor structure, taking into account the contribution of each measure. These factor scores were saved in the SPSS file to be later used with the AMOS software.

6.2.2 Factor Analysis Results

6.2.2.1 Operating Ecology

Operating ecology was measured by 8 variables. The initial extraction indicated that variable biodiversity had a weak correlation with the operating ecology factor and so it was dropped. The operating ecology explained at least a 50% variance in the remaining 7 measures. The valid measures of operating ecology were energy used, emissions, water used, and transport.

Table 6.1: Maximum likelihood factor analysis: operating ecology

			Rotated Factor Matrix					
Communalities				**Factor**		**Rotation Sums of Squared Loadings**		
	Initial	**Extraction**		**1**	**2**	**Total**	**% of Variance**	**Cum % of Variance**
Materials	.29	.37	Energy used	**.99**		2.406	34.376	34.376
Energy used	.75	1.00	Emissions	**.78**	.20	1.114	15.915	50.291
Water used	.47	.43	Water used	**.62**	.20			
Biodiversity	.09	.06	Transport	.43	**.55**			
Emissions	.67	.66	Waste		.48			
Waste	.20	.24	Compliance	.27	.48			
Transport	.40	.50	Materials	.36	.48			
Compliance	.25	.31						

6.2.2.2 Operating Sociology

Operating sociology was measured by 12 variables. The initial extraction in Table 6.2 indicates that all the measures were significantly related to the operating sociology.

Operating sociology factors explained 69% of the variance in the related measures. Three factors were extracted from the maximum likelihood rotation. The valid variables for Factor 1 were: labour health and safety, impacts on communities, employee benefits, labour /management relations, and human rights policies. The significant variables of Factor 2 were: employee training practices, labour training and education, labour diversity, compliance with social law, and employee information. The third factor was represented by human rights assessment, and child and compulsory labour laws.

Table 6.2: Maximum likelihood factor analysis: operating sociology

Communalities			**Rotated Factor Matrix**	**Factor**		
	Initial	Extraction		1	2	3
Employee information	0.53	0.49	Labour health and safety	**0.93**		
Employee benefits	0.76	0.74	Impacts on communities	**0.76**	0.27	0.27
Labour relations	0.63	0.57	Employee benefits	**0.68**	0.41	0.33
Labour health and safety	0.77	0.88	Labour /management relations	**0.61**	0.43	0.14
Labour training	0.72	0.73	Human rights policies	**0.52**	0.28	
Labour diversity	0.80	0.82	Employee training practices		**0.86**	0.26
Child and compulsory labour	0.83	0.86	Labour training and education	0.44	**0.70**	0.22
Employee training practices	0.74	0.82	Labour diversity	0.57	**0.69**	0.14
Human rights policies	0.44	0.34	Compliance with social law	0.19	**0.54**	0.13
Human rights assessment	0.86	0.95	Employee information	0.46	**0.53**	
Impacts on communities	0.75	0.72	Human rights Assessment		0.37	**0.90**
Compliance with social law	0.46	0.34	Child and compulsory labour	0.23		**0.89**
Rotation Sums of Squared Loadings; Total				**3.36**	**2.93**	**1.97**
% of Variance explained				**28.04**	**24.45**	**16.43**
Cumulative % explained				**28.04**	**52.49**	**68.92**

6.2.2.3 Product Ecology

Product ecology was measured by 8 variables. The initial extraction in Table 6.3 reveals that most of the 8 variables were significantly related to the product ecology construct, explaining 62% of the variance in product ecology. The significant factor loadings on Factor 1 were active environmental ownership, products and service environment policies, environmental risks, environmental staff competency, products and service labelling, and products and service compliance with laws. Factor 2 explained more variance in clients' environment risk, and special products and services.

Table 6.3: Maximum likelihood factor analysis: product ecology					
Communalities			**Rotated Factor Matrix**	**Factor**	
	Initial	**Extraction**		**1**	**2**
Products and service labelling	0.45	0.38	Active environmental ownership	**0.92**	0.26
Clients' environment risk	0.62	0.81	P &S environment policies	**0.87**	0.20
Environmental risks	0.68	0.65	Environmental risks	**0.68**	0.44
Environmental staff competency	0.53	0.51	Environmental staff competency	**0.59**	-0.40
Active environmental ownership	0.82	0.92	Products and service labelling	**0.55**	0.28
P & S compliance with env. laws	0.31	0.20	P & S compliance with laws	**0.44**	
P &S environment policies	0.76	0.80	Clients' environment risk		**0.90**
Special products and services	0.67	0.74	Special products and services	0.33	**0.80**
Rotation Sums of Squared Loadings total				**3.02**	**1.99**
% of Variance explained				**37.71**	**24.92**
Cumulative % explained				**37.71**	**62.63**

6.2.2.4 Product Sociology

Product sociology was measured by 16 variables. The initial extraction in Table 6.4 suggests that financial literacy, corruption, human rights agreements, and products and service compliance with social laws were not correlated with product sociology. The rotated factor matrix revealed product sociology explained 58% of the variance of the 12 variables. Factor 1 was represented by marketing communications, social risks of business line, accessibility of financial services, anti-competitive behaviour, clients' social risk, active social ownership, and special social products. Factor 2 was represented by public policy, social policies and staff social competency.

Table 6.4: Maximum likelihood factor analysis: product sociology					
Communalities			**Rotated Factor Matrix**	**Factor**	
	Initial	**Extraction**		**1**	**2**
Accessibility of financial services	0.75	0.73	Marketing communications	**0.85**	
Financial literacy	0.28	0.20	Social risks of business line	**0.82**	0.44
Corruption	0.20	0.09	Accessibility of financial services	**0.82**	0.17
Anti -competitive behaviour	0.56	0.56	Anti -competitive behaviour	**0.70**	
Marketing communications	0.77	0.82	Clients' social risk	**0.69**	-0.11
Public policy	0.65	0.71	Active social ownership	**0.69**	0.56
Social policies	0.86	0.91	Special social products	**0.66**	0.21
Social risks of business line	0.90	1.00	Labelling of social information	0.47	0.38
Labelling of social information	0.54	0.68	Public policy	0.15	**0.80**
Special social products	0.69	0.72	Social policies	0.66	**0.68**
Clients' social risk	0.50	0.50	Social staff competency	-0.26	**0.53**

Customer satisfaction and privacy	0.24	0.24	Customer satisfaction/privacy		0.35
Human rights agreements	0.03	0.02			
Social staff competency	0.62	0.96			
Active social ownership	0.86	0.88			
P &S compliance with social laws	0.37	0.49			
Rotation Sums of Squared Loadings				4.71	2.26
% of Variance explained				39.28	18.84
Cumulative % explained				39.28	58.1

6.3 Path Analysis

Traditionally, path analysis was implemented with a series of ordinary least square (OLS) regressions, testing individual path coefficients using the standard *t* or F test from regression output (Garson, 2013); however, more recently, path analysis has become popular with Structural Equation Modelling (SEM) software such as covariance based SEM (CBsem) with AMOS and Partial Least Square SEM (PLSsem) with SmartPLS software. In this study, the researcher used CBSEM with AMOS 20 software. While PLSsem is desirable due to its less rigid assumptions and its suitability for low sample sizes, in this study, the researcher chose CBSEM path analysis because of the ability of AMOS to output significance levels for indirect effects using a bootstrapping function. Furthermore, its graphic interface is easier to use and the outputs are easier to interpret. Path analysis implemented by AMOS calculates all the paths simultaneously and yields an overall goodness of fit for the model.

6.3.1 Structural Equation Modelling

Although SEM typically focuses on latent variables, it is possible to conduct path analysis using observed variables obtained from composite factor scores with no measurement error. In this study, the researcher specified a path model (Figure 6.1) in a diagram to specify relationships between independent exogenous variables (stakeholder salience, communication intensity and size), endogenous mediating variables (operating ecology sustainability, operating sociology sustainability, product ecology sustainability, and product sociology sustainability), and endogenous dependent variables (profitability, liquidity, operation, funding and loan quality).

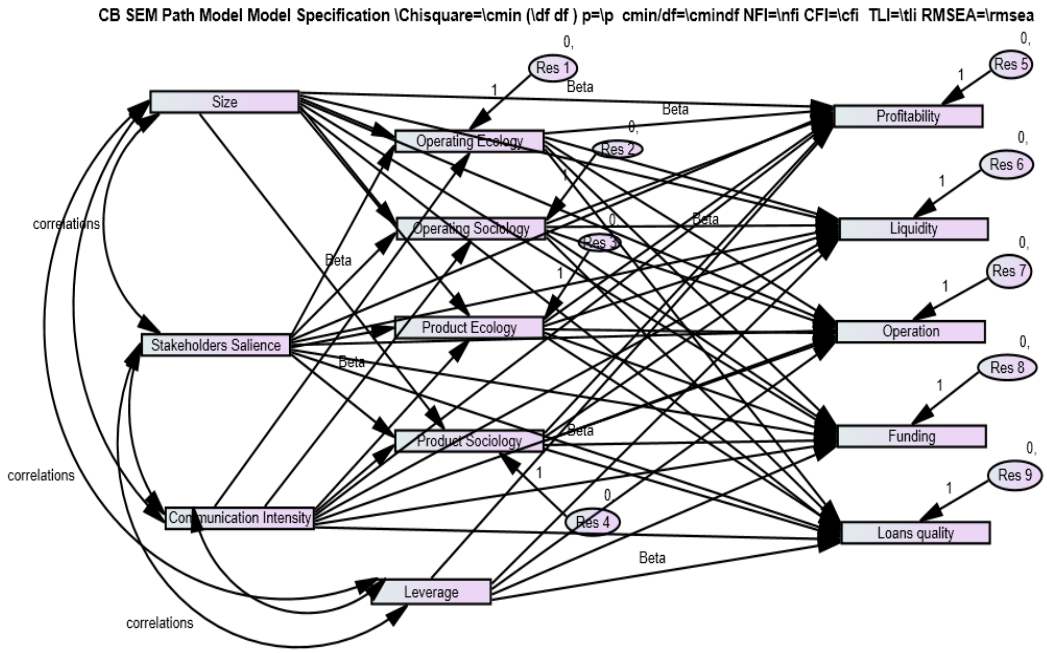


Figure 6.1: The SEM path model

The correlations between exogenous variables are indicated by a double-headed arrow and the related path weights are equal to the Pearson correlations. The hypotheses were tested by interpreting the path coefficients, which are standardised regression coefficients (beta weight), showing the direct effect of independent variables on dependent variables in the path model while controlling for other prior causes of the given dependent variables. The residuals (Res 1-9) in the endogenous variables reflect unexplained variance in those endogenous variables due to the effects of variables not in the model and the effect of measurement error. The path coefficient was estimated using the maximum likelihood (ML) method. The models were evaluated using the following use of goodness of fit tests: Chi-square (CMIN), Relative Chi-square (CMIN/DF), Tucker-Lewis Index (TLI), Comparative Fit Index (CFI), Normed Fit Index (NFI) and Root Mean Square Error of Approximation (RMSEA). The Chi-square value should not be significant if there is a good model fit, while a significant chi-square indicates lack of satisfactory model fit (Arbuckle, 2006). The Relative Chi-square should be in the range of 2:1 or 3:1 for an acceptable model (Kline, 1998). CFI compares the fit of the existing model with a null model and a CFI close to 1 indicates a very good fit; hence, it should be equal to or greater than 0.90. NFI reflects the proportion by which the model improves the fit compared to the null model, with values above 0.90 deemed acceptable (Arbuckle, 2006). TLI is similar to NFI with a value close to 1 indicating a good fit; however, it is penalised for model complexity (Arbuckle, 2006). Finally, RMSEA deals with discrepancy per degree of

freedom and a good model fit should have a RMSEA less than or equal to 0.08 (Arbuckle, 2006). The results in Figure 6.2 indicate that the overall fit of the model was acceptable, with $\chi 2$ of 17.60 (df=12, p=0.00), Relative Chi square ($\chi 2$/df ratio) of 1.46, CFI of 0.99, NFI of 0.99 and TLI of 0.98, IFI of 0.90 and RMSEA of 0.032. This indicates that the specified model was acceptable.

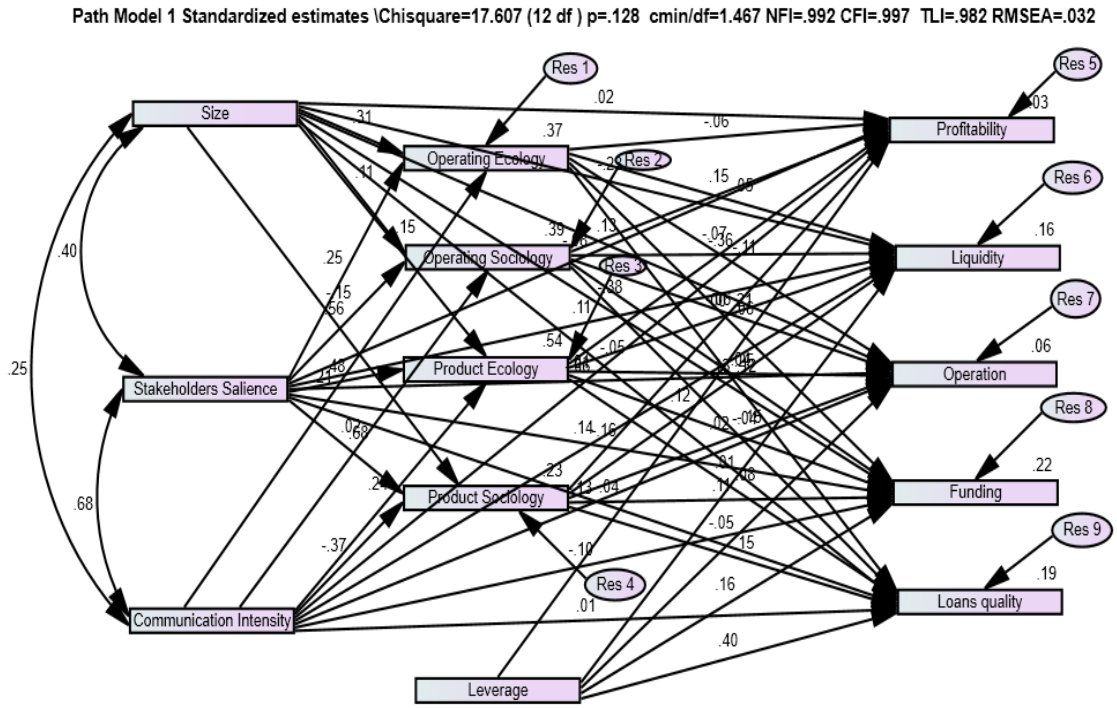


Figure 6.2: Path Model 1

6.4 Hypotheses Testing

The main aim of this research was to develop a sustainability model to explain the relationships among stakeholders' management (engagement), sustainability strategy and sustainability; and whether sustainability leads to a better performance in a group of EU and USA banks. To achieve this aim, a number of research questions were formulated:

- Does stakeholders' salience have an effect on sustainability? If so, does sustainability strategy have a moderating effect on this relationship?
- Does the intensity of communication with stakeholders have an effect on sustainability? If so, does sustainability strategy have a moderating effect on this relationship?

- Is there a relationship between sustainability and performance in the banks? If so, does sustainability strategy influence this relationship?

To answer the above questions, four groups of hypotheses were formulated from the literature review and the proposed hypotheses were organised into four main groups. The first group (H1-3) hypothesises direct relationships between stakeholder salience, communication intensity and size on sustainability[7]. The second group (H4-5-6-7) hypothesises a direct relationship between sustainability and banks' performance. The third group (H1a-2a-3a-4a-5a-6a-7a) tests the moderation effects of sustainability strategy (holistic sustainability strategy and non-sustainability strategy) on relationships between stakeholder salience and communication intensity on sustainability, as well as on the relationship between sustainability and performance. The fourth group, (H1b-2b-3b-4b-5b-6b-7b) hypothesised a moderating effect of region (EU and USA) on relationships between stakeholder salience and communication intensity on sustainability, as well as on the relationship between sustainability and performance. In order to determine significant effects, the researcher reported bivariate correlations (covariance), squared multiple correlations (R^2 -variance explained), Beta weights (path coefficients) and *P* values (two-tailed significance levels).

6.4.1 Effect of Stakeholder Salience, Communication Intensity and Size on Sustainability

The first group of hypotheses was related to stakeholder salience, communication intensity and size. The bivariate correlations, which are presented in Table 6.5, indicate that stakeholder salience is positively correlated to all four sustainability measures. This means that as stakeholder salience increases in banks, there is increased emphasis on sustainability practices. Both communication intensity and size are positively correlated with operating ecology, operating sociology and product ecology, but there was no correlation with product sociology. Thus, communication intensity and size are not related to product sociology measures. The study further found positive correlations between the independent variables of size, communication intensity and stakeholder's salience. Surprisingly, product sociology was negatively related to operating ecology.

[7] For the indirect effects of stakeholders' salience and communication intensity on banks' performance, see Appendix 8.

Table 6.5: Correlations between stakeholder salience, communication intensity and size and sustainability							
	Operating ecology	**Operating Sociology**	**Product Ecology**	**Product Sociology**	**Stakeholders' Salience**	**Communication Intensity**	**Size**
Operating ecology	1						
Operating Sociology	.47**	1					
Product Ecology	.57**	.60**	1				
Product Sociology	-.24**	.31**	.27**	1			
Stakeholders' Salience	.49**	.62**	.73**	.37**	1		
Communication Intensity	.42**	.43**	.60**	0.06	.68**	1	
Size	.46**	.34**	.40**	0.03	.40**	.24**	1
**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).							

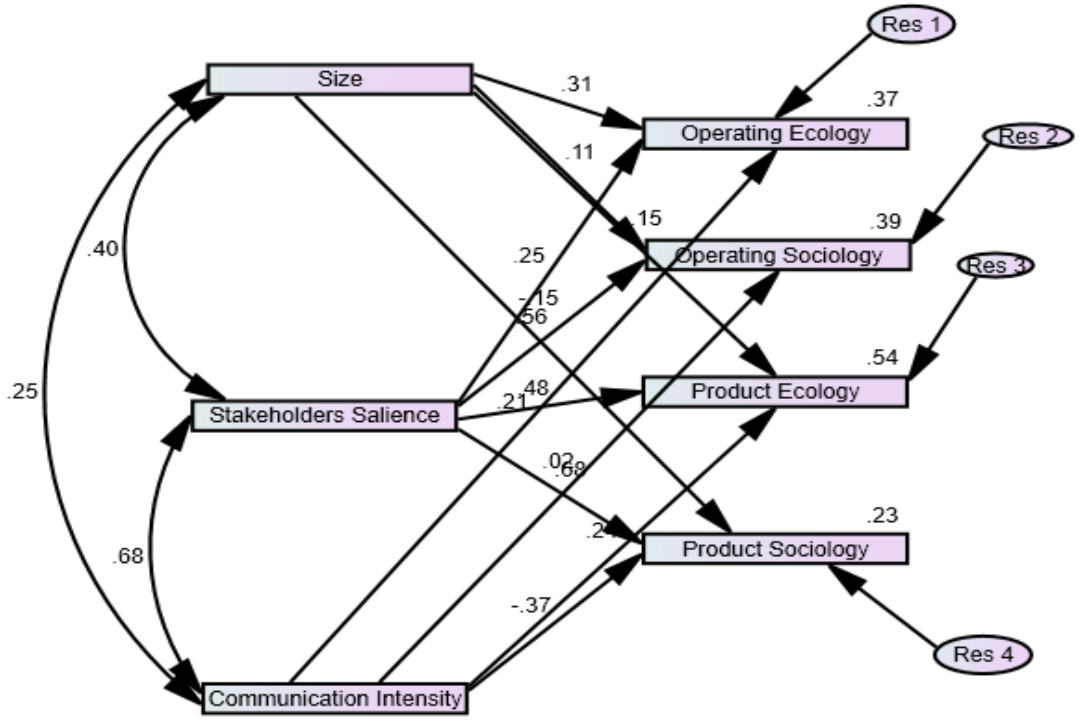


Figure 6.3: Stakeholder salience, communication intensity, size and sustainability

To test the direct effect of stakeholder salience, communication intensity and size on sustainability, hypotheses H1 to H3 were specified. Figure 6.3 was extracted from the path model (see Figure 6.1) above to represent the direct effects of H1 to H3. The Squared Multiple Correlations in Figure 6.3 and Table 6.6 indicate that size, stakeholders' salience and communication intensity explain 37% of the variance in operating ecology, 39% of the variance in operating sociology, 54% of the variance in product ecology and 23% of the

variance in product sociology. The remaining variance may be due to other factors not included in the model.

Table 6.6: Squared Multiple Correlations and Regression Weights: (H1-H3)

Dependent Variable(SMC)		**Independent Variable**	**Est.**	**S.E.**	**C.R.**	**Beta**	***P***	**Label**
Operating Ecology (0.37)	<---	Stakeholders' Salience	0.24	0.05	4.78	**0.25**	**	H1.1
Operating Sociology (0.39)	<---	Stakeholders' Salience	0.56	0.05	10.64	**0.56**	**	H1.2
Product Ecology (0.54)	<---	Stakeholders' Salience	0.49	0.05	10.72	**0.48**	**	H1.3
Product Sociology(0.23)	<---	Stakeholders' Salience	0.68	0.06	11.53	**0.68**	**	H1.4
Operating Ecology (0.37)	<---	Communication Intensity	0.67	0.16	4.20	**0.21**	**	H2.1
Operating Sociology (0.39)	<---	Communication Intensity	0.08	0.16	0.47	0.02	0.64	H2.2
Product Ecology (0.54)	<---	Communication Intensity	0.79	0.14	5.52	**0.24**	**	H2.3
Product Sociology(0.23)	<---	Communication Intensity	-1.23	0.19	-6.61	**-0.37**	**	H2.4
Operating Ecology (0.37)	<---	Size	0.32	0.04	7.81	**0.31**	**	H3.1
Operating Sociology (0.39)	<---	Size	0.12	0.04	2.91	**0.11**	**	H3.2
Product Ecology (0.54)	<---	Size	0.15	0.04	4.26	**0.15**	**	H3.3
Product Sociology(0.23)	<---	Size	-0.16	0.05	-3.29	**-0.15**	**	H3.4

**. Beta is significant at the 0.01 level (2-tailed).
*. Beta is significant at the 0.05 level (2-tailed).
SMC-Squared Multiple Correlations(variance explained)

6.4.1.1 H1 Stakeholders' Salience Has a Positive Impact on Sustainability

The results in Table 6.6 indicate that there is a significant positive relationship between stakeholder salience and operating ecology, operating sociology, product ecology and product sociology at *p*-level<0.05. Hence, H1.1 to H1.4 are accepted.

6.4.1.2 H2 Stakeholders' Communications Intensity Has a Positive Impact on Sustainability

H2 states that stakeholders' communications intensity has a positive impact on sustainability. The results presented in Table 6.6 suggest that communication intensity has a positive impact on operating ecology and product ecology at *p*-level <0.05. However, communication intensity negatively predicts product sociology and is not related to operating sociology in the studied banks. Hence, H2.1 and H2.3 are accepted while H2.2 and H2.4 are rejected.

6.4.1.3 H3 Size Has a Positive Impact on Sustainability

The researcher hypothesised that bank size has a positive impact on sustainability in EU and USA banks. The results in Table 6.6 reveal that the size of the bank positively predicts

operating ecology, operating sociology and product ecology but negatively predicts product sociology. Thus, small banks are likely to focus on product sociology. Thus, H3.1-H3.3 are accepted while H3.4 is rejected.

6.4.2 Effect of Sustainability Variables on Banks' Performance

The second group of hypotheses were related the effect of sustainability on bank performance. The bivariate correlations, presented in Table 6.7, indicate that all four measures of sustainability were not significantly correlated to bank profitability and loan quality. Although there is no correlation between product sociology and liquidity, the results reveal significant negative correlations between operating ecology, operating sociology and product ecology and liquidity. Similarly, both operating ecology and product ecology are negatively correlated to funding. There is a positive correlation between operating sociology and operation performance. The results further indicate that there are positive correlations among the sustainability measures; however, there is a significant negative correlation between operating ecology and product sociology. Among the bank performance measures, there are positive correlations between profitability and operation, profitability and loan quality, liquidity and funding, and liquidity and loan quality variables. On the contrary, there is a significantly negative correlation between liquidity and operation. It should be noted that product sociology is not correlated to any of the banks' performance measures.

Table 6.7: Correlations between sustainability and banks' performance

	OE	**OS**	**PE**	**PS**	**Profitability**	**Liquidity**	**Operation**	**Funding**	**Loan quality**
Operating Ecology	1								
Operating Sociology	.47**	1							
Product Ecology	.57**	.60**	1						
Product Sociology	-.24**	.31**	.27**	1					
Profitability	-0.04	0.04	-0.06	0.01	1				
Liquidity	**-.28****	**-.25****	**-.14****	0.04	-0.07	1			
Operation	0.02	**.13****	0.04	0.06	.12**	-.30**	1		
Funding	**-.21****	0.01	**-.23****	0.05	0.07	.28**	-0.07	1	
Loan quality	0.02	-0.03	0.03	0.06	.15**	.11*	-0.03	0.02	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

OE= Operating Ecology OS= Operating Sociology
PE= Product Ecology PS= Product Sociology

To test the direct effect of sustainability measures on banks' performance, hypotheses H3 to H6 were tested. Figure 6.4 was extracted from the path model (see Figure 6.1) to represent the direct effects of H4 to H7. The Squared Multiple Correlations in Figure 6.4 and Table 6.8 indicate that sustainability, size and leverage explain 3% of the variance in profitability, 16% of the variance in liquidity, 6% of the variance in operation, 22% of the variance in funding and 19% of the variance in loan quality.

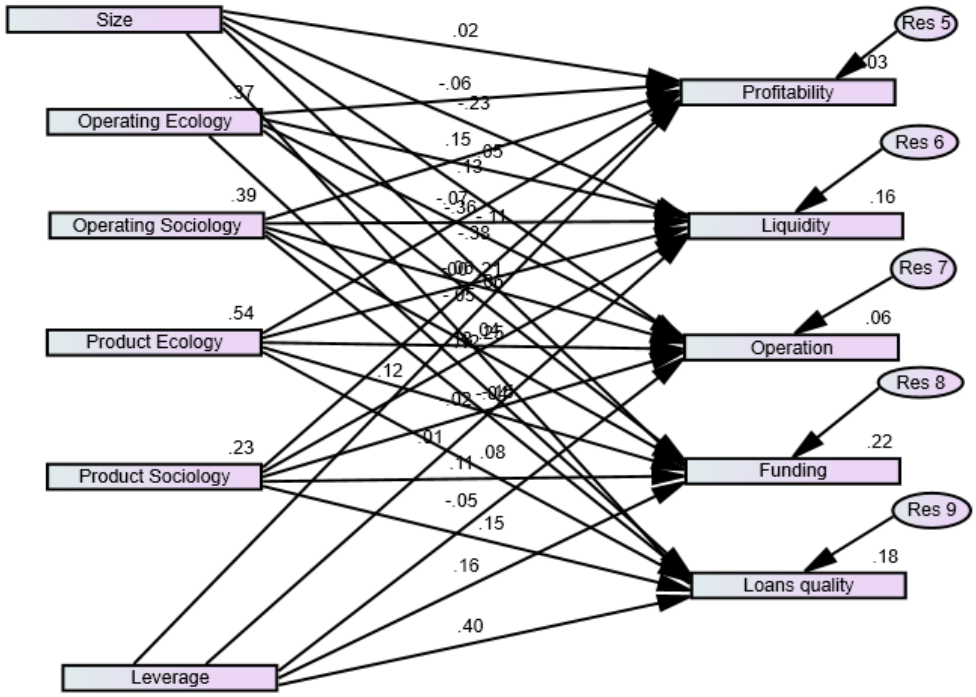


Figure 6.4: Sustainability and banks' performance

6.4.2.1 H4 Operating Ecology is Positively Related to the Banks' Performance

Hypothesis H4 states that there is a positive relationship between operating ecology and bank performance. Controlling for other variables, the results in Table 6.8 confirm that there is no relationship between any of the banks' performance variables and operating ecology at a significance e level $p<0.05$. Thus, hypothesis H4 is rejected.

6.4.2.2 H5 Operating Sociology is Positively Related to Banks' Performance

It was hypothesised that there is a positive relationship between operating sociology and banks' performance. The results in Table 6.8 indicate that there is a positive relationship between operating sociology and profitability, operation and funding, but that operating

sociology negatively predicts liquidity and loan quality at *P*-level<0.05. Therefore, H5.1- H5.3- H5.4 are accepted.

Table 6.8: Squared Multiple Correlations (banks' performance) and Regression Weights (sustainability) (H4-H7)

Dependent Variable (SMC)		**Independent Variable**	**Est**	**S.E.**	**C.R.**	**Beta**	***P***	**Label**
Profitability (0.03)	<---	Operating Ecology	-0.01	0.01	-0.76	-0.06	0.45	H4.1
Liquidity (0.16)	<---	Operating Ecology	0.04	0.05	0.65	0.05	0.52	H4.2
Operation (0.06)	<---	Operating Ecology	-0.03	0.02	-1.39	-0.11	0.16	H4.3
Funding (0.22)	<---	Operating Ecology	0.03	0.03	0.80	0.06	0.42	H4.4
Loan quality (0.19)	<---	Operating Ecology	0.05	0.03	1.69	0.12	0.09	H4.5
Profitability (0.03)	<---	Operating Sociology	0.02	0.01	2.39	**0.15**	*	H5.1
Liquidity (0.16)	<---	Operating Sociology	-0.26	0.04	-6.05	**-0.36**	**	H5.2
Operation (0.06)	<---	Operating Sociology	0.05	0.02	3.37	**0.21**	**	H5.3
Funding (0.22)	<---	Operating Sociology	0.11	0.03	4.28	**0.25**	**	H5.4
Loan quality (0.19)	<---	Operating Sociology	-0.06	0.02	-2.57	**-0.15**	**	H5.5
Profitability (0.03)	<---	Product Ecology	-0.01	0.01	-0.90	-0.07	0.37	H6.1
Liquidity (0.16)	<---	Product Ecology	-0.04	0.05	-0.82	-0.06	0.41	H6.2
Operation (0.06)	<---	Product Ecology	0.01	0.02	0.57	0.04	0.57	H6.3
Funding (0.22)	<---	Product Ecology	-0.02	0.03	-0.62	-0.04	0.54	H6.4
Loan quality (0.19)	<---	Product Ecology	0.03	0.03	1.18	0.08	0.24	H6.5
Profitability (0.03)	<---	Product Sociology	0.00	0.01	-0.05	0.00	0.96	H7.1
Liquidity (0.16)	<---	Product Sociology	0.09	0.04	2.06	**0.13**	*	H7.2
Operation (0.06)	<---	Product Sociology	0.00	0.02	-0.25	-0.02	0.80	H7.3
Funding (0.22)	<---	Product Sociology	0.05	0.03	1.82	0.11	0.07	H7.4
Loan quality (0.19)	<---	Product Sociology	0.06	0.02	2.37	**0.15**	*	H7.5

**. Beta is significant at the 0.01 level (2-tailed).
*. Beta is significant at the 0.05 level (2-tailed).
SMC-Squared Multiple Correlations(variance explained)

6.4.2.3 H6 Product Ecology is Positively Related to Banks' Performance

Hypothesis H6 states that there is a positive relationship between product ecology and banks' performance. An analysis of results in Table 6.8 reveals that there were no significant relationships reported in the current study at *P*-level<0.05. Hence, the researcher rejects H6.

6.5.2.4 H7 Product Sociology is Positively Related to Banks' Performance

Hypothesis H7 states that product sociology is positively related to banks' performance. This study found a significantly positive relationship between product sociology and the liquidity and loan quality of the banks' performance, but no relationship to profitability, operation, and funding at $p<0.05$. Thus, the researcher accepts hypotheses H7.2 and H7.5 but rejects Hypotheses H7.1, H7.3 and H7.4.

Table 6.9: Regression Weights for size and leverage

Dependent Variable		**Independent Variable**	**Est**	**S.E.**	**C.R.**	**Beta**	***P***	**Label**
Profitability	<---	Size	0.00	0.01	0.40	0.02	0.69	H8.1
Liquidity	<---	Size	-0.18	0.04	-4.69	**-0.23**	**	H8.2
Operation	<---	Size	0.03	0.01	2.47	**0.13**	**	H8.3
Funding	<---	Size	-0.18	0.02	-7.94	**-0.38**	**	H8.4
Loan quality	<---	Size	-0.02	0.02	-1.10	-0.05	0.27	H8.5
Profitability	<---	Leverage	0.16	0.06	2.68	**0.12**	**	H9.1
Liquidity	<---	Leverage	0.05	0.26	0.19	0.01	0.85	H9.2
Operation	<---	Leverage	-0.12	0.10	-1.20	-0.05	0.23	H9.3
Funding	<---	Leverage	0.63	0.16	3.98	**0.16**	**	H9.4
Loan quality	<---	Leverage	1.31	0.14	9.50	**0.40**	**	H9.5

**. Beta is significant at the 0.01 level (2-tailed).
*. Beta is significant at the 0.05 level (2-tailed).
SMC-Squared Multiple Correlations(variance explained)

The results presented in Table 6.9 reveal that bank size has a positive impact on operation while it negatively predicts liquidity and funding at $p<0.05$. Leverage is positively related to profitability, funding and loan quality at $p<0.05$.

6.4.3 Moderating Effect Testing

To test for moderation effects, multi group analysis was performed in SEM employing standard errors for path coefficients. One of the main goals of this type of analysis is to compare pairs of path coefficients for identical models but using different samples (Kock, 2013). The procedures described by Arbuckle (2006) and Garson (2012a) were employed in this study. Garson (2012a) argues that before testing for path invariance across groups, the researcher must first check to see if the model, as drawn, has acceptable fit for each of the multiple groups (in this case, for Non-sustainability Strategy and for Holistic Sustainability Strategy). First, a baseline Chi-square value is derived by computing a model fit for the pooled sample of all the groups in the same model to confirm that the model has acceptable goodness of fit indices for both groups; path coefficients are then

estimated for the separate groups. Only after the model is acceptable for both groups can the researcher proceed with testing path invariance across groups. In this study, multiple group analysis was used to compare the models based on sustainability strategy and regions with the relationships between sustainability and banks' performance; for this, critical ratios (C.R) were used for differences between parameters. This means that C.R > 1.96 indicates a beta weight is significantly different from 0 at the p=.05.

6.4.3.1 The Influence of Sustainability Strategy on the Relationship between Stakeholder Salience, Communication Intensity and Bank Sustainability

First, a multi group model for sustainability strategy was specified as Path Model 2. The overall fit of the model (Figure 6.5) was acceptable, with $\chi 2$ of 45.10 (df=18, p=0.00), Relative Chi square ($\chi 2$/df ratio) of 2.57, CFI of 0.99, NFI of 0.98 and TLI of 0.90, and RMSEA of 0.05.

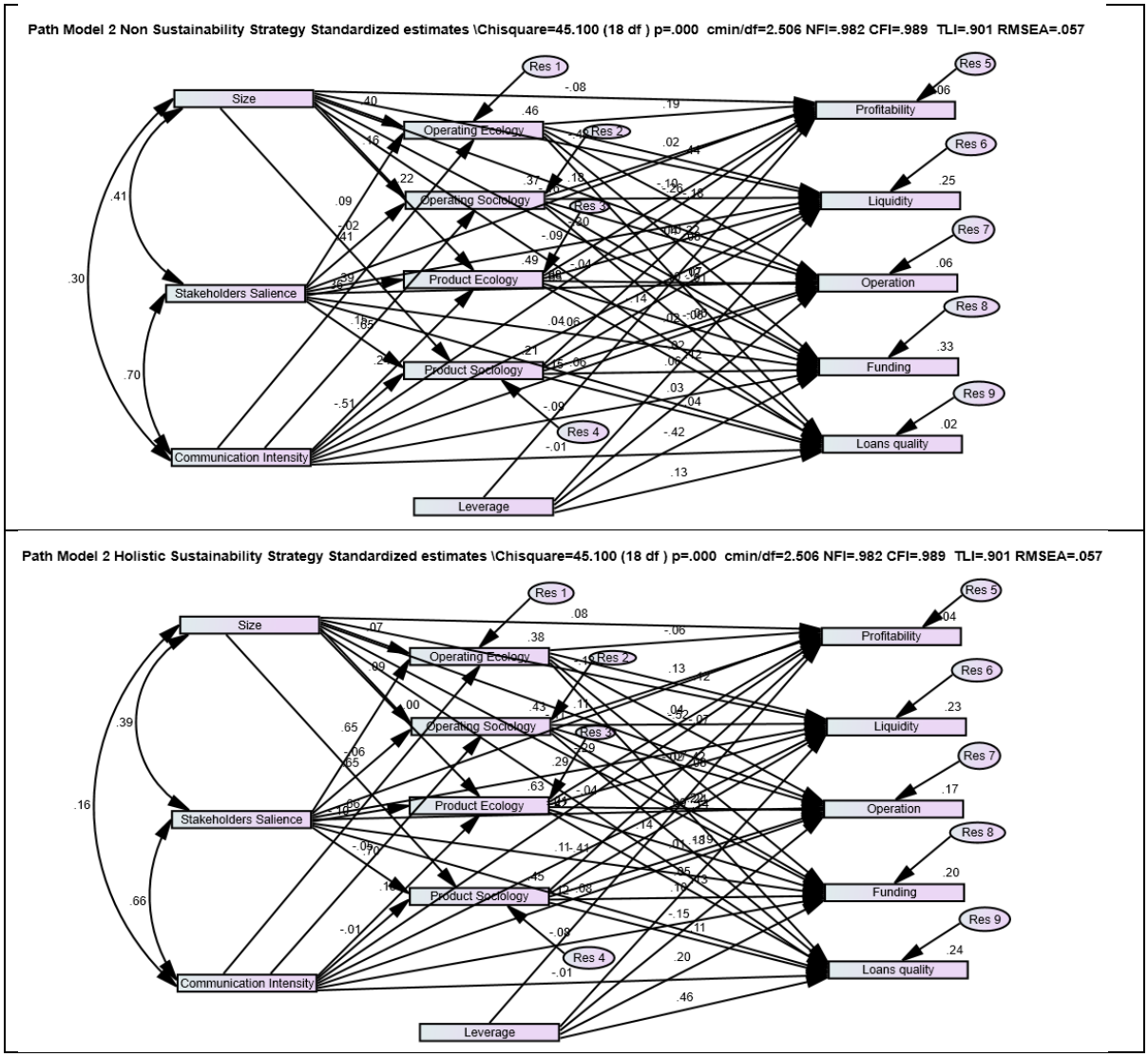


Figure 6.5: Path Model 2: Sustainability Strategies

The results in Table 6.10 indicate that sustainability strategy moderates the relationship between stakeholder salience and sustainability variables, communication and sustainability variables, and size and sustainability variables. Hypotheses H1a.1, H1a.2, H1a.3, H2a.1, H2a.4, H3a.1 and H3a.3 are significantly different from 0 at the p=0.05 between banks with a non-sustainability strategy and banks with a holistic sustainability strategy. The effect of stakeholder salience on sustainability is significant in banks pursuing holistic strategies while communication intensity and size are significant in banks with non-sustainability strategies.

Table 6.10: Moderation effects of sustainability strategy on H1a to H3a

Regression Weights: Path Model 2 Sustainability Strategy -								
			Non-sustainability Strategy		**Holistic Sustainability Strategy**			
			Beta	***P***	**Beta**	***P***	**C.R**	**Hypotheses**
Operating Ecology			**SMC=46%**		**SMC=38%**			
	<---	Stakeholders Salience	**0.09**	**0.21**	**0.65**	**	4.91**	H1a.1
		Communication	0.36	**	-0.10	0.12	-4.69**	H2a.1
		Size	0.40	**	0.07	0.19	-4.69**	H3a.1
Operating Sociology			**SMC=37%**		**SMC=43%**			
	<---	Stakeholders Salience	0.41	**	0.65	**	3.03**	H1a.2
		Communication	0.15	0.06	-0.05	0.41		
		Size	0.16	**	0.09	0.08		
Product Ecology			**SMC=49%**		**SMC=63%**			
	<---	Stakeholders Salience	**0.39**	**	**0.66**	**	3.49**	H1a.3
		Communication	0.24	**	0.18	**		
		Size	**0.22**	**	**0.00**	**0.95**	-3.13*	H3a.3
Product Sociology			**SMC=21%**		**SMC=45%**			
	<---	Stakeholders Salience	0.65	**	0.70	**		
		Communication	**-0.51**	**	**-0.01**	**0.89**	5.11**	H2a.4
		Size	-0.02	0.78	-0.06	0.20		
. Beta is significant at the 0.01 level (2-tailed). *. Beta is significant at the 0.05 level (2-tailed). **SMC-Squared Multiple Correlations(variance explained)								

6.4.3.2 The Influence of Sustainability Strategy on the Relationship between Sustainability and Banks' Performance

The results in Table 6.11 indicate that the sustainability strategy moderates the relationship between operating ecology and liquidity (H4a.2) and operating sociology and liquidity (H5a.2). Hypotheses H4a.2 and H5a.2 are significantly different from 0 at p=0.05 between banks with a non-sustainability strategy and banks with a holistic sustainability strategy. The effect of operating ecology on liquidity is significant in banks pursuing non-sustainability strategies while the effect of operation sociology is significant on liquidity in banks pursuing holistic sustainability strategies.

Table 6.11: Moderation effect of sustainability strategy on H4a to H7a

Regression Weights: Path Model 2 Sustainability Strategy								
			Non-sustainability Strategy		**Holistic Sustainability Strategy**		**C.R.**	**Hypotheses**
			Beta	***p***	**Beta**	***p***		
Profitability			**SMC=6%**		**SMC=4%**			
	<---	Operating Ecology	0.19	0.17	-0.06	0.49		
		Operating Sociology	0.02	0.83	0.13	0.11		
		Product Ecology	-0.10	0.38	0.07	0.44		
		Product Sociology	0.04	0.73	-0.02	0.84		
Liquidity			**SMC=25%**		**SMC=23%**			
	<---	Operating Ecology	**0.44**	**	**-0.12**	**0.12**	-3.48**	H4a.2
		Operating Sociology	-0.26	**	-0.52	**	**-3.45****	**H5a.2**
		Product Ecology	-0.10	0.43	0.04	0.69		
		Product Sociology	0.10	0.34	0.09	0.25		
Operation			**SMC=6%**		**SMC=17%**			
	<---	Operating Ecology	-0.18	0.19	-0.07	0.4		
		Operating Sociology	0.22	*	0.42	**		
		Product Ecology	**-0.07**	**0.57**	**0.22**	*		
		Product Sociology	-0.02	0.87	0.01	0.93		
Funding			**SMC=33%**		**R^2=20%**			
	<---	Operating Ecology	0.08	0.49	0.08	0.32		
		Operating Sociology	**0.12**	**0.16**	**0.24**	**		
		Product Ecology	-0.06	0.54	0.18	0.06		
		Product Sociology	0.06	0.58	0.10	0.19		
Loan quality			**SMC=2%**		**SMC=24%**			
	<---	Operating Ecology	-0.01	0.94	0.14	0.05		
		Operating Sociology	**-0.06**	**0.59**	**-0.19**	*		
		Product Ecology	0.12	0.37	0.13	0.16		

		Product Sociology	0.04	0.75	0.11	0.14		
**. Beta is significant at the 0.01 level (2-tailed). *. Beta is significant at the 0.05 level (2-tailed).								

6.4.3.3 The Influence of Region on the Relationship between Stakeholder Salience, Communication Intensity and Bank's Sustainability

Second, a multi group model for the EU and USA regions were specified in Path Model 3. The results in Figure 6.6 indicate that the overall fit of the model was acceptable, with $\chi 2$ of 38.10 (df=18, p=0.01), Relative Chi square ($\chi 2$/df ratio) of 2.11, CFI of 0.99, NFI of 0.98 and TLI of 0.93, IFI of 0.90 and RMSEA of 0.049.

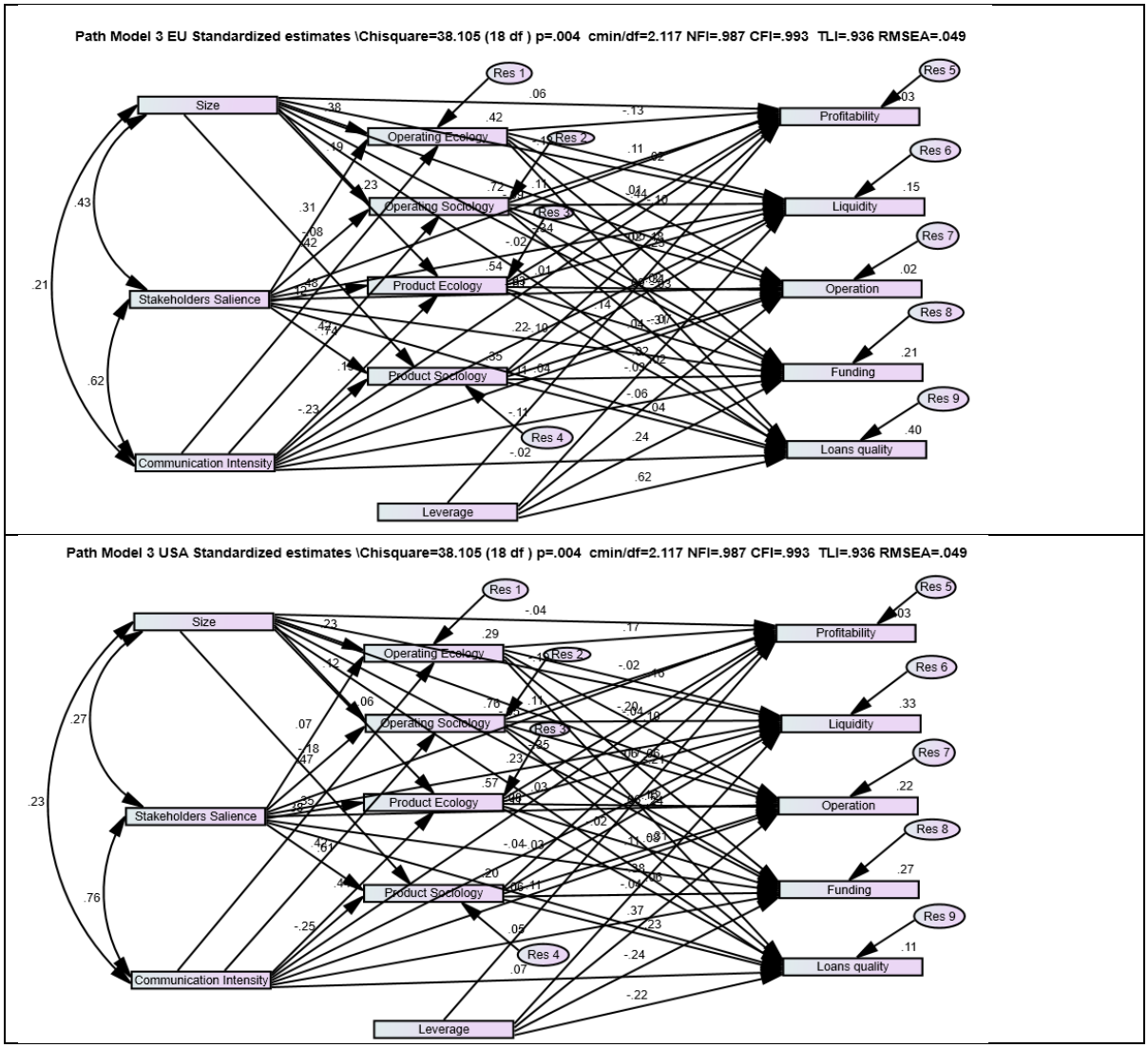


Figure 6.6: Path Model 3: Regions

The results in Table 6.12 indicate that the regional context moderates the relationship between stakeholders' salience and both operating sociology and product sociology. It also moderates the relationship between communication and operating ecology, operating

sociology and product ecology. No moderating effect for region on the relationship between size and sustainability was found. Hypotheses H2b.1, H2b.2, H2b.3, H1b.2 and H1b.4 are significantly different from 0 at the *p*=0.05 between banks in the EU and banks in the USA. The effect of stakeholder salience on sustainability is more significant in banks in the EU than those in the USA while communication intensity is significant in banks in the USA.

Table 6.12: Moderation effect of region on H1b to H3b

			EU Region		**USA Region**		**C.R**	**Hypotheses**
			Beta	***P***	**Beta**	***P***		
Operating Ecology			**SMC=42%**		**SMC=29%**			
	<---	Stakeholders' Salience	0.31	***	0.07	0.48		
		Communication	0.12	*	0.38	***	2.94***	H2b.1
		Size	0.38	***	0.23	***		
Operating Sociology			**SMC=72%**		**SMC=76%**			
	<---	Stakeholders' Salience	0.42	***	0.47	***	2.45**	H1b.2
		Communication	0.42	***	0.42	***	2.55**	H2b.2
		Size	0.19	***	0.12	0		
Product Ecology			**SMC=54%**		**SMC=57%**			
	<---	Stakeholders' Salience	0.48	***	0.35	***		
		Communication	0.19	***	0.44	***	3.88***	H2b.3
		Size	0.23	***	0.06	0.26		
Product Sociology			**SMC=35%**		**SMC=20%**			
	<---	Stakeholders Salience	0.74	***	0.61	***	2.24**	H1b.4
		Communication	-0.23	***	-0.25	**		
		Size	-0.08	0.12	-0.18	**		
**. Beta is significant at the 0.01 level (2-tailed). *. Beta is significant at the 0.05 level (2-tailed).								

6.4.3.4 The Influence of Region on the Relationship between Sustainability and Banks' Performance

The results in Table 6.13 indicate that the regional context moderates the effect of operating ecology and product sociology on funding. Operating ecology has a significant positive effect in the EU while there was no significant effect in the USA. In the EU, product ecology has a negative effect on funding while, in the USA, it has no effect.

Hypotheses H4b.4 and H6b.4 are significantly different from 0 at the p=0.05 between banks in the EU and those in the USA.

Table 6.13: Moderation effect of region on H4b to H7b

			EU Region		**USA Region**		**C.R**	**Hypotheses**
			Beta	***P***	**Beta**	***P***		
Profitability			**SMC=3%**		**SMC=3%**			
	<---	Operating Ecology	-0.13	0.18	0.17	0.24		
		Operating Sociology	0.11	0.4	-0.02	0.9		
		Product Ecology	0.01	0.93	-0.2	0.12		
		Product Sociology	0.02	0.83	0.06	0.66		
Liquidity			**SMC=15%**		**SMC=33%**			
	<---	Operating Ecology	0.02	0.8	-0.16	0.17		
		Operating Sociology	**-0.44**	*******	**-0.04**	**0.75**		
		Product Ecology	-0.05	0.63	-0.17	0.11		
		Product Sociology	0.09	0.23	0.06	0.61		
Operation			**SMC=2%**		**SMC=22%**			
	<---	Operating Ecology	-0.1	0.27	0.1	0.41		
		Operating Sociology	0.18	0.18	0.06	0.68		
		Product Ecology	0.02	0.83	0.15	0.18		
		Product Sociology	-0.04	0.59	0.11	0.36		
Funding			**SMC=21%**		**SMC=27%**			
	<---	Operating Ecology	0.23	**	-0.21	0.09	-2.74***	H4b.4
		Operating Sociology	0.31	**	0.12			
		Product Ecology	**-0.31**	*******	**0.08**	**0.46**	2.47**	**H6b.4**
		Product Sociology	-0.03	0.67	-0.04	0.75		
Loan quality			**SMC=40%**		**SMC=11%**			
	<---	Operating Ecology	-0.03	0.71	0.24	0.07		
		Operating Sociology	-0.07	0.5	-0.31	*		
		Product Ecology	0.02	0.82	0.06	0.62		
		Product Sociology	0.04	0.52	0.23	0.06		

**. Beta is significant at the 0.01 level (2-tailed).
*. Beta is significant at the 0.05 level (2-tailed).

6.5 Conclusions

This chapter has analysed the data and tested the proposed hypotheses in the sustainability model. First, data scanning was undertaken to treat the missing values, ensure that the data were normally distributed, and to test the reliability. Then, factor analysis was conducted to calculate the composite score for the main sustainability variables. Thirdly, the model

was tested by path analysis using IBM/SPSS (AMOS) 20 software. Finally, the proposed hypotheses were tested.

Chapter 7: Discussion

7.1 Introduction

The aim of this chapter is to interpret and discuss the results reported in the previous two chapters. This helps to fulfil the objectives of this research by addressing the research questions and testing the proposed relationships in the theoretical framework. The objectives, as stated in Chapter 1, are:

1. To examine how banks engage with their stakeholders (identifying the target groups, how communication is made with them, and mapping their expectations).
2. To identify the current sustainability practices in the banking sector.
3. To investigate empirically (validate) a proposed sustainability model that explains the relationships among stakeholders' management, sustainability and performance, and whether the sustainability strategy has an influence on these relations in the banking sector.

These objectives are achieved through addressing the following research questions:

RQ1 Which stakeholder groups are presented by banks as the main targets of their sustainability practices?

RQ2 What communication methods do banks use in their reports to communicate the sustainability information?

RQ3 To what extent does the sustainability information disclosed by banks meet their stakeholders' expectations?

RQ4 To what extent, and through which dimensions, do banks report on their sustainability practices?

RQ5 Does stakeholders' salience have an effect on sustainability? If so, does sustainability strategy have a moderating effect on this relationship?

RQ6 Does the intensity of communication with stakeholders have an effect on sustainability? If so, does sustainability strategy have a moderating effect on this relationship?

RQ7 Is there a relationship between sustainability and performance in the banks? If so, does sustainability strategy influence this relationship?

The chapter is organised into three main sections according to the groups of objectives of this study, in addition to offering introductory and summary sections. The second section discusses the EU and USA banks' relationships with stakeholders answering the first 3 RQs. The third section discusses and compares the sustainability practices within EU and USA banks answering the 4th RQ. The fourth section discusses relationships between the conceptual model's constructs and the results of the related hypotheses, answering the last three RQs. The final section provides a summary of the chapter.

7.2 EU and USA Banks' Relationships with Stakeholders

This section discusses the findings related to the first research objective: that is, to examine how the European and American banks engage with their stakeholders (identifying the target groups and how banks communicate with them, and mapping stakeholders' expectations).

To collect the necessary data on stakeholders' relations (stakeholder engagement, communication efforts to stakeholders, stakeholders' needs), content analysis was employed. For this purpose, 483 reports for EU & USA banks covering the years 2006 to 2012 were analysed using NVivo 10 (64 bits). Content analysis helped in transferring the qualitative data into a quantitative form. The results were divided by the number of pages in each report to arrive at the relative weight of the variable in the report rather than an abstract number. Then, to summarise the data, IBM SPSS (20) statistics software was used to elicit descriptive statistics for the whole sample and for EU and USA banks separately. The independent sample *t*-test was used to compare the results between the EU and USA banks. The following sub-sections are organised according to the three research questions they are discussing.

7.2.1 RQ1: Stakeholder Groups

The first phase of the data analysis highlighted the importance of the different stakeholder groups and how much attention various stakeholder groups received. As expected, the results first revealed that primary stakeholders are of greater importance than secondary stakeholders to banks in both the EU and the USA. This outcome is supported by previous studies (Carroll, 1989; Clarkson, 1995). Those studies considered primary stakeholders to

have a greater impact on the survival of the company (here the banks) and hence, should receive greater attention.

When comparing the interests of primary and secondary stakeholders between EU and USA banks, the results showed that European banks in general cared more about both groups of stakeholders (primary and secondary) than American banks. These results may suggest that European banks are more stakeholder-oriented than the American banks.

In the next stage of stakeholder analysis, the sub-groups of the primary and secondary stakeholders were analysed. The results revealed that in the EU, banks in general prioritised their stakeholder groups in the following order: *customers, others, employees, community, investors and government.* In the USA, the priorities were *customers, others, employees, community, government and investors*. This is consistent with the argument of stakeholder theory that banks must consider their relationship, not only with their shareholders, but also with employees, clients, suppliers, public authorities, local (or national) communities and civil society in general (Perrini and Tencati, 2006).

Moreover, previous studies revealed that companies in general direct their reports towards key stakeholders who are important to them and have an influence on their activities (Preston *et al*., 1999; Epstein and Birchard, 2000; Core, 2001; Smith *et al*., 2005; Thomson and Bebbington, 2005; GRI, 2006). Also, "the greater the salience associated with a stakeholder group, the higher will be the level of interaction between the firm and the stakeholder group" (Boesso and Kumar, 2009, p. 165). This means that customers, others, employees and communities have the most salience for both the EU and USA banks. Boesso and Kumar (2009) stated that the prioritisation of various stakeholder groups is based on a company's perceptions about this stakeholder group's power. So, because power has the most effect on salience (Van der Laan Smith *et al*., 2005; Parent and Deephouse, 2007), it can be concluded that the most powerful group in both settings is the "customers" followed by "others" (the public, the media, rating agencies, financial advisors, suppliers and the press) and then "employees".

The interest in customers was evidenced in the banks' reports. For example, in Barclays bank's (UK) annual report (2010, p.4) it was stated that "Our customers and clients are at the centre of our strategy and business model. Putting their needs first is essential to develop a long term sustainable business". Similarly, in Lloyds bank's sustainability report (2010, p. 2), it states: "Our vision is to be recognised as the best bank for customers. Our

strategy is to create value for shareholders by investing where we can make a real difference for customers, communities and colleagues." In the USA, "Wells Fargo's vision is to satisfy all our customers' financial needs and help them succeed financially" (Wells Fargo sustainability report, 2012, p.1).

Banks care about their employees as they form an influential group for banks. Furthermore, the achievement of the bank is highly dependent on employees' satisfaction and knowledge. Therefore, it is important to engage the bank's employees in the process. Investors and shareholders have received less priority because, arguably, they are more interested in short-term profit than in sustainability activities. These results come mainly from analysing sustainability reports.

European banks have a significantly higher level of interaction with all three sub-primary stakeholder groups (investors & shareholders, customers and employees) and one of the sub-secondary stakeholder groups (community) than American banks. No significant difference was found for the remaining two groups, government and others (the public, the media, rating agencies, financial advisors, suppliers and the press).

This is unexpected as Boesso and Kumar (2009) concluded that the orientation in the USA was towards stakeholders, meaning primarily managing stakeholders' relationships and increasing their value; in the EU, on the other hand, the orientation is directed largely towards shareholders. Moreover, American banks have tougher legislation than European banks so they are expected to care more about the government than EU banks. The former Financial Services Authority (FSA)[8] in the UK allows a more self-regulated market for banks and applies sanctions if this does not work. For example, UK banks paid out £1.9bn in compensation for the mis-selling of payment protection insurance in 2011(BBC News, 2012).

To discover if the banks' priorities regarding stakeholder groups differed between the years 2006 and 2012, the paired *t*-test was used (Appendix 6). No significant differences were found either for the whole sample or for EU and USA banks separately. This means that banks are consistent in their priorities and the choices they make are not affected by time.

[8] Now replaced by the Financial Conduct Authority (FCA).

After exploring banks' stakeholder priorities (the stakeholders groups banks care about the most), the next step involves examining how banks communicate with these stakeholders. This is discussed in the next section.

7.2.2 RQ2: Communications with Stakeholders

This section elaborates on what communication methods European and American banks use in their reports to communicate their sustainability information and explores whether there are any differences between the two regions. The results revealed that European banks communicate significantly more with their stakeholders than banks in the USA. Also, the results showed that European banks use all three methods of communication significantly more than American banks to communicate with their stakeholders. These results are consistent with the results of the first RQ where it was confirmed that European banks care significantly more about their stakeholders' relations than American banks.

When checking for the three types of communication, the results showed that two-way communication (consultation or dialogue) was the dominant method overall with which banks communicated with their stakeholders in the sample. One-way channels of communication are fading and have almost disappeared, while the partnership method of communication did not receive great attention among all the methods of communication mentioned in the sample. When checking for the individual regions, the results remained the same with two-way channels of communication (consultation and dialog) being dominant in both the EU and the USA, while the use of one-way channels of communication had almost ended in both regions.

The demise of the one-way channels of communication was expected as in this stage stakeholders were the "receivers" of messages sent by the managers of the organisations (Foster and Jonker, 2005). Stakeholders did not have any voice in this stage and it is not considered as an appropriate way of engaging stakeholders; rather, it is only a way to deliver the information that companies wish to reveal to them. Also, it is a relatively old method of communication (starting in the 1980s). Moreover, such one-way channels of communication are considered to be relatively weak forms of engagement (Burchell and Cook, 2006).

The dominance of the two-way (consultation and dialogue) channels of communication found in this study is contrary to the results of Belal (2002) who studied 17 UK companies producing stand-alone sustainability reports and found little evidence of dialogue, the majority using one-way communication. The author stated that a meaningful engagement "requires that there should be a dialogue, not a one-way information feeding exercise" (Belal, 2002, p.16). These differences could be attributed to the ways in which information was obtained. In the current study, the classification was based on a content analysis of what was included in the banks' reports while, in Belal's study, he tried to interpret the results and then check if the company was telling the truth. For example, one of his conclusions was that NatWest did not involve itself in any stakeholder dialogue but, at the same time, he quoted NatWest as stating it did use dialogue: "NatWest notes that '...To create understanding, we must establish and sustain dialogue. To start talking, there must be information. This is why we have prepared this, our first Social Impact Review'..." (Belal, 2002, p. 16).

Even though, the partnership method of communication is still in its early stages, the results indicate that banks have started to move to a third phase of engagement with their stakeholders by beginning to engage them in decision-making procedures. What is notable in this result is that the EU had a significantly higher mean (0.34) than the USA with a mean of 0.22. However, the mean for the two-way channels of communication in the EU was 1.89 while in the USA it was 1.06. This means that the American banks are moving toward a partnership form of communication faster than the European banks. Moreover, in 2001, using twenty-nine interviews in multiple-industries, Cummings (2001, p. 49) found that "it is apparent that current methods of stakeholder engagement are not generally intended to give stakeholders control or even delegated power in decisions regarding corporate social responsibility". Based on the author's conclusion, this means that there has been improvement in ways of engaging stakeholders since then.

To discover if ways of communicating with stakeholders differed between the years 2006 and 2012, paired *t*-tests were conducted (Appendix 6). The results revealed that there are no significant differences for the ways of communicating either in the whole sample or in the EU and USA. This means that banks are improving their methods of communication but not significantly so. More efforts are needed to improve the partnership way of

engaging stakeholders. In the next section, stakeholder issues presented by the EU and USA banks are discussed.

7.2.3 RQ3 Stakeholder Issues Presented by Banks in their Reports

This section seeks to address the third research question: to what extent does the sustainability information disclosed by European and American banks meet their stakeholders' expectations? And are there any differences between the two regions? To answer this question, an index was developed based on the literature (Appendix 5) and coded against the reports. The results revealed that banks responded to different degrees to stakeholder issues in their sustainability reports.

7.2.3.1 Employees

The developed index showed that employees had 9 main needs. The needs most frequently addressed by the studied banks were "health and safety", and "diversity and social equity" in both regions. Each of those two needs had a mean at least double the other 7 in both regions. This interest may be because of the potential that these issues might have in terms of extra costs to the banks as a result of employees' lawsuits accusing the banks of discrimination or as a result of work accidents. For example, in 2005, a female employee at Barclays won a nine-year legal battle for discrimination against her because the bank did not award her a pay rise of just over £200 during the period of her maternity (BBC, 3 May 2005). Other employee needs, such as community spirit, effective communication and leadership, will not have a direct effect on banks costs, and hence, profits. This is why these issues did not receive as much attention as those previously mentioned.

When comparing how EU and USA banks responded to employees' needs, the USA had a significantly higher mean in addressing employees' "health and safety" and "community spirit". On the other hand, the EU addressed all the other 7 employees' needs significantly more than the USA. This means that American banks are more cautious about their employees' health and safety than European banks. As a result of the nature of the activities of banks, they do not cause direct threats or risks to their employees. The main threat to the health and safety of bank employees is criminal activities, and because the crime rate in the USA is higher than in European countries, this explains the extra care taken with regards to employees' health and safety.

In this stakeholder group, it seems that the "*instrumental or managerial*" classification of stakeholder theory holds. This branch of theory assumes that a bank will care about stakeholders who can affect the bank's achievements (Berman *et al*., 1999). Therefore, the bank will try to manage those stakeholders in order to maximise profits. Berman (1999) supported this and stated that there are many theories and empirical evidence supporting the effect of employees' management on firms' financial performance.

7.2.3.2 Customers

In terms of customers' needs, "accessibility to financial services" was the need most cared about in both regions. In the USA, this was followed by "responsible products", and then "risks associated with products". The two needs, "satisfaction and privacy", and "marketing policies" were mentioned as significant by American banks. In the EU, however, the ranking was: "satisfaction and responsible products"," risks associated with products" and "marketing policies".

The EU outperformed the USA with regards to the following needs: "satisfaction and privacy", "consumer protection", and "communication" while the USA cared more than the EU about "marketing policies", "avoiding engagement in price fixing", "responsible products", "accessibility to financial services" and "financial literacy". However, in terms of "information that is truthful" and "risk associated with products", no significant difference was found between the two regions. Additionally, "accessibility to financial services" was noted as what banks in the EU and the USA cared about the most; this is again in support of the "*instrumental or managerial*" branch of stakeholder theory as this is a way of advertising in order to increase the bank's share in the market. To support this further, "financial literacy", for example, received only a mean of 0.03 in the EU and 0.04 in the USA as it would not yield direct income. "Customers' satisfaction and privacy" was ranked second in European banks in terms of the amount of attention given to it from among all the customers' needs, while in American banks it was ranked third. This is consistent with the results of the first RQ which revealed that European banks care significantly more about customers than American banks.

7.2.3.3 Government

It seems that banks in both regions care most about satisfying the government in terms of their taxes, lobbying and public policy in both the EU and the USA. Again, failing to pay

taxes (or even failing to demonstrate that they have been paid) incurs costs (or fines) to the banks.

7.2.3.4 Community, Environment and Society

The results revealed that banks in both countries care most about disclosing information about their "environmental and social commitment and policy" for this stakeholder group. The "environmental and social commitment and policy" section was defined in this study to include "environmental risks in business lines", "social risks of business lines", "environmental staff competency", "social staff competency", "products' and services' environment policies", and "products' and services' social policies". As a result, the considerable attention paid by banks to this group is explained thus: not to abide by those policies or for any staff to commit a breach of them would lead to the bank paying a great sum of money as a penalty. For example, the Dutch Rabobank has to pay 774 million euros to regulators in the United States, Britain and the Netherlands after 30 employees were involved in "inappropriate conduct" linked to interest rate manipulation (Webb and Bart, 2013).

7.2.3.5 Others (the public, the media, rating agencies, financial advisors, suppliers and the press)

The previous results revealed that "potential risk" was the most important item in the "others" group as it was mentioned with a mean of 4.19 in the EU and 4.49 in the USA. The "potential risk" item includes clients' environment and social risks; again, banks pay extra attention to their clients' risks as failures may incur extra costs to banks. It was indicated in the literature that, in some countries (especially the developed ones), a bank may be forced to pay the costs of cleaning up contamination that has been caused by a bankrupt borrower (Thompson, 1998; Capella, 2002). This is what happened to the Bank of America, for example, when the bank was identified by the USA Environmental Protection Agency (EPA) as a party potentially responsible for the contaminated soil and ground water at the White Swan Cleaners/Sun Cleaners Superfund site in Wall Township. Bank of America paid for an investigation and study of clean-up alternatives (Rodriguez, 2013). As a result, this confirms what was stated by Thompson (1998): that banks have a special interest in assessing environmental risk when taking lending decisions and deciding how best to protect a loan.

7.2.3.6 Investors and Shareholders

The results showed that banks in both regions cared most about revealing information about their performance to their investor and shareholder groups. It is again consistent with the previous results as performance is what investors and shareholders care about the most.

7.3 RQ4 Current Prioritisation in Terms of Sustainability Practices

Sustainability practices in the banking sector have received little attention and have only been addressed in recent years. Most previous studies focussed on only one dimension of sustainability (social or environment), and used deficient methods to evaluate social and/or environmental performance. Moreover, according to Branco and Rodrigues (2008a), little attention has been paid to the sustainability practices of companies belonging to industries with little direct environmental impact, such as banking. Consequently, this study chose to examine the current sustainability practices in European and American banks. In order to obtain information concerning the sustainability practices of banks in the sample, an index was developed for measuring sustainability. The developed sustainability index consists mainly of four categories: "operation ecology", "operation sociology" (the direct effects), "products' and services' ecology", and "products' and services' sociology" (the indirect effects), together with many sub-categories. This index helped in capturing the context (the areas and sub-areas of disclosure) and extent (the amount of disclosure in the different areas and sub-areas) of sustainability practices in different categories. Also, a comparison of the sustainability practices of EU and USA banks was made to see if there were any differences.

The results of the analysis of the four main groups revealed that both regions (the EU and USA) are interested in their *operation impacts on society* the most, followed by the *environmental impacts of their products and services,* then the *social impacts of their products and services;* their *operation impacts on the environment* came last. It is normal for *operation impacts* to come last because banks consider themselves to operate in an environmentally friendly industry (Jeucken, 2002). Additionally, compared to other sectors, banks have lower direct environmental impacts (Branco and Rodrigues, 2008a). Banks' operations do not pollute to any great extent while the major effect on the environment comes from their clients' business activities. Such impacts are considered

under *products' and services' environmental impacts* and *products' and services' social impacts.*

Previous studies in this field have arrived at different results. For example, Tarna (1999) noticed that most sustainability reports published by financial institutions concentrated on environmental issues. The same point was stressed by Sharma and Ruud (2003) who stated that the focus of sustainability reports was on environmental issues and did not generally reflect social issues. Similarly, Zadek (1999) illustrated that the social aspects of sustainability have been marginal in sustainability debates and practices. Also, Strandberg (2005) explained that social impacts did not receive the same attention as environmental ones, especially in European organisations. However, banks have started reporting on the social component of sustainability as well (Tarna, 1999).

The contradictory findings of the results may be because all previous studies did not distinguish between the "operational" and "products and services" aspects of social and environmental practices. Instead, they considered only two groups: "social" and "environmental". The orientation toward sustainable development is relatively new and the majority of previous empirical studies examined corporate social or/and environmental responsibility (Chang and Kuo, 2008). Furthermore, previous studies tested limited aspects of sustainability and these measures do not truly represent sustainability as they provide too limited a perspective on the company's sustainability (Waddock and Graves, 1997). To support this, in 2005, Parker surveyed social and environmental accountability research published in six accounting journals between 1988 and 2003. The author found that environmental issues were the focus of 66% of the papers, 25% of papers discussed social responsibility issues, and only 9% addressed both. Finally, most of the previous sustainability databases do not incorporate stakeholders' issues (Mishra and Suar, 2010). The index used in this study to measure sustainability practices considers the different groups of stakeholders with different social and environmental needs.

Further analysis was conducted to check the results for the sub-themes. The analysis revealed that they did not receive the same level of attention since two or three sub-themes in each category received around 50% or more of the total attention in that category. For example, in *operation ecology*, emission, transport and energy used were the three most important groups for the total sample for both EU and USA banks. Out of the eight sub-themes of operation ecology each of those three sub-themes (emission, transport and

energy used) had a mean of at least double the other 5 sub-themes. These results are explained by the increased attention to global warming and climate change issues and impacts. "The impacts of climate change are already resulting in economic losses around the world" (UNEP). UNEP added that "climate change is now widely recognised as the major environmental problem facing the globe". Every bank report includes a reference or more to this issue. For example, Wells Fargo bank in the USA was listed as receiving one of the 2012 awards and accolades as "Carbon Disclosure Project: named in Leadership Indexes for greenhouse gas emissions reduction and disclosure" (Sustainability report, 2012, p.3). Also, the Deutsch bank (2012) stated: "We set a target to make our operations carbon neutral by the end of 2012……We invested in energy efficiency projects to reduce energy use and costs, purchasing and generating on-site renewable electricity and offsetting our inevitable emissions by purchasing and retiring high-grade offset certificates (CER). Our broad basket of climate-change-related activities earned Deutsche Bank a place in the Carbon Disclosure Leadership Index as one of 33 companies worldwide for the first time" (Sustainability report, 2012, p.8). The United Nations Secretary General said; "It is the major, overriding environmental issue of our time, and the single greatest challenge facing environmental regulators. It is a growing crisis with economic, health and safety, food production, security, and other dimensions" (UNEP).

In term of *operation sociology*, both regions cared most about the health and safety of their labour force, the impacts of their operations on communities, and labour diversity and equal opportunities. In terms of *product ecology*, the dominants sub-themes were products' and services' environment policies, special products and services, environmental staff competency, and active environmental ownership which, out of the eight sub-themes, received over 84% of attention in the total sample and for both regions. In *product sociology*, five out of the 16 sub-themes received around 70% of the banks' attention. The five were: social policy, accessibility of financial services, customer satisfaction and privacy, social risks of business lines, and marketing communications.

Overall, the findings indicated that there were some differences in terms of the types of theme disclosed by EU and USA banks. The results showed that the differences were statistically significant in three out of the four groups (operation ecology, operation sociology, and product ecology). This implies that EU banks carried out more sustainability practices than USA banks in three out of the four sustainability groups, and

both EU and USA banks engaged in almost the same amount of sustainability practices in terms of the effect of their products on society. The results also revealed that EU banks outperformed USA banks in almost all the sub-themes. According to KPMG (2011), the EU has always been ahead of other countries and regions in reporting on sustainability; however, America is catching up.

For example, in terms of operation sociology, the EU outperformed the USA in almost all aspects (except labour force health and safety). This is consistent with the findings of Weaver (2001) who stated that codes of ethics in European firms tend to focus more on employees' responsibilities toward them than the American codes. With regards to product ecology, the USA performed better in terms of clients' environment risk, and special products and services. The exception to EU superiority was in products' sociology where the USA was better on 6 sub-themes (accessibility of financial services, anti -competitive behaviour, marketing communications, special social products, clients' social risk, and social staff competency) and equal on 5, while the EU outperformed the USA in 5 sub-themes. This is consistent with Maignan and Ralston's (2002) findings that European firms pay more attention to sustainability issues in general while USA firms are more concerned with issues not related directly to their activities than issues related to their operations. Also, Weaver (2001) stated that USA firms are ahead of other countries in formalising ethical (social) practices. Maignan and Ralston (2002) attributed these differences to the historical role of businesses in the USA and EU. Weaver (2001) attributed the variances to cultural differences between EU and USA and stated: "American and European corporate ethics programs differ in ways which reflect cultural and institutional variations (e.g., European hierarchy, conservatism and noblesse oblige vs. American liberal individualism and caveat emptor)" Weaver (2001, p.5). Similarly, Perrini (2006) attributed the reasons for the uniformity in social and environmental reporting processes between the EU and USA to the historical aim of those reports, as in the EU they were used as an internal communication while in the USA they were developed to manage external pressure groups.

The results showed that no significant differences were found for the four themes between 2006 and 2012, either in the whole sample or in the EU and USA separately. This means that the sustainability practices of these banks did not improve between 2006 and 2012. This result may be because the sustainability practices improved in some sub-themes but

declined in others with negative results offsetting the positive ones. Moreover, the sample is relatively small (39 banks in the EU and 29 banks in the USA) which might give misleading results.

7.4 Relationships between Variables

This section discusses the relationships between variables representing stakeholders' management, sustainability strategy, sustainability, size, and performance. Each group of hypotheses is discussed in a sub-section.

7.4.1 Effect of Stakeholder Salience, Communication Intensity and Size on Sustainability

As expected, the results indicated a significant positive relationship between stakeholder salience and the four groups of sustainability: operating ecology, operating sociology, product ecology and product sociology. This means that as stakeholder salience increases in banks, there is increased emphasis on sustainability practices. Almost all previous studies have supported this position. They emphasised that sustainability is unachievable without stakeholder engagement as the two concepts are closely interrelated (Strand, 2008) and sustainability is influenced by a bank's stakeholders (Schaltegger and Wagner, 2006a). Also, Post *et al*. (2002, P. 8-9) emphasised that "the capacity of a firm to generate sustainable wealth over time, and hence its long-term value, is determined by its relationships with critical stakeholders".

These results are consistent with stakeholder theory and indicate that banks engage in sustainability practices as a result of pressure from their stakeholders. Stakeholders exert pressure on banks to be socially and environmentally responsible (Epstein, 2008; Eweje, 2011); they do this in order for the banks to move towards sustainable development (Harris and Crane, 2002). Additionally, banks need to be more proactive in engaging with stakeholders in order to achieve sustainability (Gordon and Lacy, 2011). When the stakeholder group has more salience it means that it has more power, legitimacy and urgency (as proposed by Mitchell *et al*., 1997) so this group can exercise more pressure on banks to meet its needs. This positive relationship explains that banks respond to stakeholders' pressures by increasing sustainability practices but it is still not clear whether the real incentive for banks is to increase profitability or whether this is merely a moral obligation towards their stakeholders.

The results indicated that the intensity of communications with stakeholders' has a positive impact on sustainability. The results suggest that communication intensity has a positive impact on operating ecology and product ecology; while it has a negative impact on product sociology and is not related to operating sociology in the banks in this study. When banks tend to communicate more with their stakeholders, it means that they are doing better in terms of the environmental aspects of sustainability (internal and external). This also indicates that banks try to decrease the information released about the social efforts of their products and services (indirect social effects). This may be because the public will be sceptical about banks' true motives for engaging in and publishing social activities. As a result, banks hesitate to publicise their social activities. Operation sociology, which is related mainly to the labour of the bank, is not affected by the intensity of banks' communications with their stakeholders because banks will engage in these social activities regardless of public opinion. Furthermore, operation sociology is related mainly to the labour force of the banks.

It was hypothesised that a bank's size has a positive impact on its sustainability. The results reveal that the size of the bank positively predicts operating ecology, operating sociology and product ecology but negatively predicts product sociology. Thus, small banks are likely to focus more on product sociology. The positive impact of a bank's size on operating ecology, operating sociology and product ecology is expected and is explained by the tendency of larger banks to engage in and report on more sustainability activities as a result of public scrutiny, larger numbers of interested stakeholders, extra available resources to spend on sustainability activities, and lower costs for generating information. However, the negative relationship between bank size and product sociology could be explained thus; larger banks are perhaps trying to hide this information to avoid public scepticism or to avoid tougher regulations.

As indicated earlier, previous studies about the relationship between size and sustainability provided mixed results. Most previous studies found a positive relation between size and sustainability (e.g. Trotman and Bradley, 1981; Belkaoui and Karpik, 1989; Patten, 1992; Wallace *et al*., 1994; Gray *et al*., 1995a; Hackston and Milne, 1996; Deegan and Gordon, 1996; Moore, 2001; Arcay and Vazquez, 2005, Branco and Rodrigues, 2008b). However, some studies (e.g. Freedman and Jaggi, 1988; Roberts, 1992; Lynn, 1992; Xiaowen, 2012) found no relationship and some other studies found a negative relationship (e.g. Jensen and

Meckling, 1976; Cowen *et al*., 1987). This variation in results is normal, and can be explained by the use of a wide variety of ways of measuring company size (such as number of employees, total assets, sales volume, an index rank or a mix of many measures), a wide variety of sustainability measures, and the different settings of studies (multi-industries). In addition, previous sustainability studies did not distinguish between the "operational" and "products and services" aspects of sustainability; they considered only "social" and/or "environmental" aspects. Furthermore, previous studies tested limited aspects of sustainability (such as the use of a one-dimensional measure) and these measures do not truly represent sustainability as they provide too limited a perspective of the company's sustainability (Waddock and Graves, 1997). As a result, the outcomes of this research are more precise.

7.4.2 Effect of Sustainability on Banks' Performance

The second group of hypotheses were related to the effect of sustainability on banks' performance. The results revealed that in both operating ecology and product ecology no significant relationships were found with any of the performance measures (profitability, loan quality, operation, liquidity and funding). However, for the social part of sustainability, there was a positive relationship between operating sociology and profitability, operation, and funding, but a negative relationship with liquidity and loan quality. Also, this study found a significantly positive relationship between product sociology and liquidity and loan quality, but no relationship with profitability, operation, and funding.

The first part of the results revealed that no relationship was found between the environmental aspects of sustainability and performance. This means that when banks engage in environmental activities (internal and external) they are not looking to increase their profitability. From the earlier discussion, it was clear that banks increase the ecological activities of their operations and of their products and services with an increase in stakeholders' salience. This group of hypotheses proved that this increase in ecological activities is not likely to be matched by an increase in any financial performance. This means that the motive behind the environmental part of sustainability might truly be a moral or ethical one which, in turn, supports the normative or ethical branch of stakeholder theory. The normative form of stakeholder theory implies that businesses have true

responsibilities and that they will engage with stakeholders regardless of whether or not this leads to improved financial performance (Hasnas, 1998).

The second part of the results revealed a positive relationship between operating sociology and profitability, operation, and funding, but a negative relationship with liquidity and loan quality. The negative relationship with liquidity might be because greater engagement in operating sociology increases the amount of money spent. On the other hand, the negative relationship with loan quality (growth of gross loans) might be because operating sociology cares about the internal effects of a bank's activities on society. The previous results revealed that operating sociology is mainly measured by issues linked to employees' training practices, labour training and education. As a result, a more highly trained employee will not issue loans unless they meet all the criteria the employee was trained to check.

Products' and services' sociology, on the other hand, have a positive impact on liquidity and loan quality; this might be as a result of improved customer satisfaction. The increase in loan quality, together with the increase in product and service sociology, is expected. Banks' products do not have significant social impact; rather, it is the users of these products. Furthermore, products' and services' sociology is mainly explained by considering the social risks of business lines and clients' social risk. As a result, when banks take those into consideration they will issue loans only to more responsible businesses. The lack of effect of products' and services' sociology on the other performance measures could be because the expenses of sustainability activities are offset by the reduction in other costs which accompany them.

Previous studies have produced mixed results. In the banking sector, few studies have been conducted on the relationships between sustainability and financial performance. Simpson and Kohers (2002) found a positive relationship between banks' social performance and their financial performance (ROA and loan losses to total loans) while Chih *et al*. (2010) found the relationship between banks' financial performance (ROA) and sustainability to be insignificant. Similarly, Wu and Shen (2013) found that sustainability positively affects (Net interest income/(Net interest income + Non-interest income), (Non-interest income/(Net interest income + Non-interest income), Return on Assets (ROA), and Return on Equity (ROE), while it negatively affects (Non-Performing Loan/Total Loan). No conclusion could be drawn from those studies because of the different measures used, both

for sustainability and performance. Similarly, studies in other types of company have produced mixed results on the relationship between firms' sustainability behaviour and financial performance.

Stakeholder theory offers an explanation why companies should work toward sustainable development; the theory proposes that it is in the company's best economic interest to work toward sustainability as the company will be able to meet its business objectives by improving its relationship with stakeholders (Wilson, 2003). This was partially the case in this study as five of the studied relationships between the different sustainability components and performance measures were positive, two negative and the rest had no effect. As before, the normative form of stakeholder theory gives the best explanation of those results. This form of the theory proposes that managers have a moral obligation to stakeholders, regardless of whether managing for stakeholders leads to improved financial performance (Hasnas, 1998). Accordingly, the essential obligation of management is "not to maximize the firm's financial success, but to ensure its survival by balancing the conflicting claims of multiple stakeholders" (Hasnas, 1998, p. 26).

When examining the relationship between sustainability and performance, some studies (McGuire *et al*., 1988; Freedman and Jaggi, 1988; Roberts, 1992; Gray *et al*., 1995a; Pava and Krausz, 1996; Moore, 2001; Chang and Kuo, 2008) used a time lag. These studies examined whether there is an association between prior period sustainability and subsequent period financial performance. Further analysis was conducted in this study to test if a one-year time lag would make any difference to the results. This lag in time was justified because: "sustainability is normally perceived to be a long-term strategy" (Chang and Kuo, 2008, p. 370) and "the focus of stakeholder theory is on meeting the long-term interests of stakeholders" (Roberts, 1992, p. 599).

Table 7.1: Time Lag Model Squared Multiple Correlations (banks' performance) and Regression Weights (sustainability) (H4-H7)

Dependent Variable (SMC)		**Independent Variable**	**Est**	**S.E.**	**C.R.**	**Beta**	***P***	**Label**
Profitability (0.03)	<---	Operating Ecology	-0.02	0.01	-1.28	-0.11	0.20	H4a
Liquidity (0.18)	<---	Operating Ecology	-0.01	0.06	-0.12	-0.01	0.90	H4b
Operation (0.06)	<---	Operating Ecology	0	0.02	0.09	-0.11	0.93	H4c
Funding (0.25)	<---	Operating Ecology	-0.02	0.03	-0.45	0.03	0.65	H4d
Loan quality (0.03)	<---	Operating Ecology	0.04	0.03	1.13	0.10	0.26	H4e
Profitability (0.03)	<---	Operating Sociology	0.02	0.01	2.15	**0.15**	*	H5a

Liquidity (0.18)	<---	Operating Sociology	-0.30	0.05	-6.67	**-0.43**	**	H5b
Operation (0.06)	<---	Operating Sociology	0.06	0.02	3.09	**0.22**	**	H5c
Funding (0.25)	<---	Operating Sociology	0.11	0.03	3.93	**0.24**	**	H5d
Loan quality (0.03)	<---	Operating Sociology	-0.04	0.03	-1.31	**-0.09**	**0.19**	H5e
Profitability (0.03)	<---	Product Ecology	-0.01	0.01	-1.10	-0.07	0.27	H6a
Liquidity (0.18)	<---	Product Ecology	0.06	0.05	1.03	-0.06	0.30	H6b
Operation (0.06)	<---	Product Ecology	-0.01	0.03	-0.55	0.04	0.58	H6c
Funding (0.25)	<---	Product Ecology	0.01	0.03	0.20	-0.04	0.84	H6d
Loan quality (0.03)	<---	Product Ecology	0.05	0.03	1.45	0.08	0.15	H6e
Profitability (0.03)	<---	Product Sociology	0.00	0.01	-0.38	-0.09	0.70	H7a
Liquidity (0.18)	<---	Product Sociology	0.07	0.05	1.59	**0.08**	**0.11**	H7b
Operation (0.06)	<---	Product Sociology	0.00	0.02	0.20	-0.04	0.84	H7c
Funding (0.25)	<---	Product Sociology	0.03	0.03	1.13	0.01	0.26	H7d
Loan quality (0.03)	<---	Product Sociology	0.04	0.03	1.38	**0.12**	**17**	H7e
. Beta is significant at the 0.01 level (2-tailed). *. Beta is significant at the 0.05 level (2-tailed). **SMC-Squared Multiple Correlations(variance explained)								

The only changes in the results were in H5e, H7b and H7e as these were significant in the same year relationship but were found to be not significant when a one-year lag was considered. This is consistent with the results of Chang and Kuo (2008) who found that sustainability had an influence on profitability at a later period of time and was therefore weaker than the influence on profitability in the same year. Pava and Krausz (1996) found some supporting evidence for the positive relationship between sustainability and financial performance in a latter period. This means that sustainability activities are likely to affect same year results significantly more than performance in a subsequent year[9].

Furthermore, the indirect effects of stakeholders' salience and communication intensity on the banks' performance through sustainability were tested (Appendix 8). The results indicated that stakeholder salience has a positive indirect effect on operation and funding performance through sustainability while communication intensity with stakeholders does not have any significant relationship with banks' performance. This indirect effect confirmed that sustainability practices mediated the relationships between stakeholders' salience and the financial performance of the banks. This is consistent with stakeholder

[9] The effect of performance on the next year's sustainability activities was examined in Appendix 7. However, the results did not support this relation.

theory since the basic proposition of stakeholder theory is that a bank's success is dependent upon the successful management of all the relationships a bank has with its stakeholders (Elijido-Ten, 2007). Proponents of stakeholder theory argue that firms can achieve higher financial performance from responding to their stakeholders' concerns (Freeman, 1984). Similarly, Orlitzky *et al*. (2003, p. 405) noted that "the satisfaction of various stakeholder groups is instrumental for organisational financial performance". If stakeholders' relations are well managed, their rights are ensured and they participate in decisions that considerably affect their welfare; consequently, the corporation's profitability improves (Rausch, 2011).

However, few empirical studies have been conducted on the effect of stakeholder management on corporate performance (Berman *et al*., 1999). According to Ayuso *et al*. (2012), KLD's (Kinder, Lydenberg, Domini and Company) database has been used in most previous studies to measure stakeholder management, particularly the following five dimensions: community relationships, employee relationships, diversity issues, product issues, and environment issues. All of those previous studies have found that relationships with primary and secondary stakeholders positively affect firms' financial performance (Ayuso *et al*., 2012).

7.4.3 Moderating Effect of Strategy

This study examined the influence of sustainability strategy on the sustainability model. Ullmann (1985) suggested that strategy was the missing element in the previous models on social responsibility and, if included, would help in explaining the relationships.

Sustainability strategy moderates the relationship between stakeholders' salience and operation ecology, operation sociology, and product ecology. It also moderates the relationship between communication, size, and operation ecology and product ecology. The effect of stakeholder salience on sustainability is significant in banks pursuing holistic sustainability strategies. These results are expected as stakeholders' engagement provides input into business strategy (Strandberg, 2005) and when banks pursue sustainability strategies, they take into consideration their stakeholders (Buysse and Verbeke, 2003; Neu *et al*., 1998). Hence, when those stakeholders have a higher salience, they will affect and be more affected by the strategic orientation of the bank. In cases where banks have a sustainability strategy, stakeholders will have a stronger position and a more powerful

effect on banks' sustainability activities than banks that do not have a sustainability strategy (i.e. they are not taking their stakeholders into consideration). The results support the notion that banks' sustainability strategies consider their stakeholders. The effects of communication intensity and size on sustainability are significant in banks with non-sustainability strategies as when banks with no sustainability strategy choose to communicate with their stakeholders this means that they are intending to take them into consideration.

Moreover, sustainability strategy moderates the relationship between operating ecology operating sociology and liquidity. However, the effect of operating ecology on liquidity is significant in banks pursuing a non-sustainability strategy while the effect of operation sociology is significant on liquidity in banks pursuing a holistic sustainability strategy. A similar result was found by Wagner (2005) who discovered that, in firms with a pollution prevention strategy, the relationship between environmental and economic performance was more positive.

7.4.4 Moderating Effect of Region

The results indicated that regional context moderates the relationship between stakeholder's salience and operating sociology, and product sociology. It also moderates the relationship between communication and operating ecology, operating sociology, and product ecology. No moderating effect for region was found on the relationship between size and sustainability. The effect of stakeholder salience on the social aspects of sustainability was more significant in banks in the EU than those in the USA. This may be related to the previous results where European banks take their stakeholder groups into consideration more than American banks; hence, they have a stronger effect on the sustainability practices (the social ones). The effects of communication intensity on operating ecology, operating sociology, and product ecology are more significant in banks in the USA. This might be related to the original goals of the sustainability reports in the two regions. In the EU, sustainability reports were initially created as an internal communication method between the company and mainly the trade unions while, in the USA, sustainability reports were created to help in managing external pressure groups (Perrini, 2005).

The results also indicated that the regional context moderates the effect of operating ecology and product sociology on funding. Operating ecology has a significant positive

effect on funding in the EU while, in the USA, there is no significant effect. In the EU, product ecology has a negative effect on funding while in the USA it has no effect at all.

7.5 Conclusions

This chapter has discussed in details the results of the statistical and hypothesis testing. It has also related the results to the previous literature and to stakeholder theory. This chapter discussed European and American banks' relationship with their stakeholders and their sustainability practices, as well as examining the relationships among stakeholders' management, sustainability and performance, and the moderating effect of sustainability strategy on these relationships.

Chapter 8: Conclusions

8.1 Introduction

Sustainability in the banking sector has gained considerable interest in the last two decades. However, it is not clear whether sustainable banks would be more profitable than non-sustainable (or less sustainable) banks. Additionally, what is the role of stakeholders' pressure on this relationship? This study was conducted to develop a sustainability model that explains the relationships among stakeholders' management (engagement), sustainability strategy and sustainability; and whether sustainability leads to better performance in a group of EU and USA banks. To achieve this, the research started by investigating how banks engage with their stakeholders and then examined the current sustainability practices within EU and USA banks. Finally, this research validated the proposed sustainability model that explains the relationships among stakeholders' management, sustainability and financial performance, and whether the sustainability strategy has an influence on these relations in European and American banking sector.

This study adopted a positivistic research approach. The data necessary for this research were obtained by carrying out a content analysis of 483 bank reports in the EU and the USA. This technique helped to transfer the qualitative data into a quantitative form. The analysis of sustainability data was conducted by developing a sustainability index based on the GRI 2011, GRI-FSSS and VFU (1996). Performance data were obtained from the Bankscope database. Then, the data were analysed using descriptive statistics, an independent sample *t*-test and a paired sample *t*-test. Further, path analysis using SEM was used to test the proposed hypotheses in the sustainability model. Stakeholder theory was used as the lens that shaped the framework, the questions and the explanations.

The next section restates the main findings of this research while the third section restates the research questions and hypotheses to emphasise their answers. The fourth section presents the main contribution of this study and the fifth section outlines the limitations of this study and offers suggestions for future research.

8.2 Main Findings

The first part of this study examined how banks engage with their stakeholders and identified the current sustainability practices within EU and USA banks. This examination revealed the following results:

- Primary stakeholders are of more importance than secondary stakeholders to banks in both the EU and the USA. When comparing banks' interest in primary and secondary stakeholders between the EU and the USA, the results showed that European banks in general care more about both groups of stakeholders (primary and secondary) than American banks.
- In the sub-groups of primary and secondary stakeholders, the results revealed that, in the EU, banks in general prioritise their stakeholder groups in the following order: *customers, others, employees, community, investors and government.* In the USA, the priorities are *customers, others, employees, community, government and investors*. European banks have a significantly higher level of interaction than American banks with all three sub-primary stakeholder groups (i.e. investors & shareholders, customers and employees) and one of the sub-secondary stakeholder groups (i.e. community). No significant difference was found for the remaining two groups, government and others (the public, the media, rating agencies, financial advisors, suppliers and the press).
- European banks communicate significantly more with their stakeholders than banks in the USA. Also, the results showed that European banks use all three methods of communication significantly more than American banks to communicate with their stakeholders. Two-way communication (consultation or dialogue) was the dominant method of communication between both EU and USA banks and their stakeholders in the sample.
- Banks respond to different degrees to stakeholder issues in their sustainability reports. The employees' needs that were the most addressed by banks in both regions were: for employees, health and safety, and diversity and social equity. In terms of customers' needs, accessibility to financial services was noted as what banks in the EU and the USA cared about the most. Moreover, EU banks outperformed USA banks in the following areas: satisfaction and privacy, consumer protection, and communication, while USA banks cared more than the EU banks about: marketing policies, avoiding engagement in price fixing, responsible products, accessibility to financial services

and financial literacy. For government, banks in both regions cared most about satisfying the government with regards to their taxes, and lobbying and public policy. In terms of community, environment and society, banks in both regions cared most about disclosing information about their "environmental and social commitment and policy" for this stakeholder group. For the "others" group (the public, the media, rating agencies, financial advisors, suppliers and the press), "potential risk" was the most important item while banks in both regions cared to reveal information about their performance to their investors' and shareholders' group.

- For sustainability practices, the results revealed that both regions (EU and USA) were interested in their *operations' impact on society* the most, followed by the *environmental impact* of their *products and services*, then their *products' and services' social impacts*, and lastly, their *operations' impact on the environment*.
- The sustainability sub-themes did not all receive the same level of attention, as two or three sub-themes in each category received around 50% or more of the total attention given to that category. For example, in *operation ecology*, emission, transport and energy used were the three most important groups for the total sample for both the EU and USA banks. In term of *operation sociology*, both regions most cared about the health and safety of their labour force, the impacts of their operations on communities, and labour diversity and equal opportunity. In *product ecology*, the dominants sub-themes were products and services, environment policies, special products and services, and environmental staff competency. In *products sociology*, five out of the 16 sub-themes received most of the banks' attentions in this group. These were: social policy, accessibility of financial services, customer satisfaction and privacy, social risks of business lines, and marketing communication.
- The results showed that EU banks carried out more sustainability practices than USA banks in three out of the four sustainability groups (operation ecology, operation sociology, products ecology), and both the EU and the USA engaged in almost the same amount of sustainability practices in terms of the effects of their products on society. The results also revealed that EU banks outperformed USA banks in almost all the sub-themes.
- The study found no significant difference between 2006 and 2012 in terms of sustainability, stakeholders' engagement and communication either in the whole sample or in the EU and USA samples separately.

Testing the proposed model's relationships among stakeholders' salience, communication intensity, size, strategy, sustainability and performance provided the following results:

- The results indicated a significant positive relationship between stakeholders' salience and the four main groups of sustainability: operating ecology, operating sociology, product ecology and product sociology.
- The intensity of communications with stakeholders had a positive impact on operating ecology and product ecology while it had a negative impact on product sociology and was not related to operating sociology in the banks studied.
- The size of the bank positively predicted operating ecology, operating sociology and product ecology but negatively predicted product sociology.
- The results revealed that in both operating ecology and product ecology, no significant relationships were found with any of the performance measures (profitability, loan quality, operation, liquidity and funding) while for the social part of sustainability, there was a positive relationship between operating sociology and profitability, operation, and funding, but a negative relationship with liquidity and loan quality. Also, this study found a significant positive relationship between product sociology and liquidity and loan quality, but no relationship between product sociology and profitability, operation, and funding.
- Stakeholders' salience had a positive indirect effect on operation and funding performance through sustainability but the intensity of stakeholders' communication did not have any significant relationship with banks' performance.
- Sustainability strategy moderated the relationships between stakeholders' salience and operation ecology, operation sociology and product ecology. The effect of stakeholders' salience on sustainability was significant in banks pursuing holistic sustainability strategies.
- Sustainability strategy moderated the relationships between communication and operation ecology and product ecology. The effects of communication intensity and size on sustainability were significant in banks with a non-sustainability strategy.
- Sustainability strategy also moderated the relationships between size and operation ecology and product ecology.
- Sustainability strategy moderated the relationships between operating ecology and liquidity, and operating sociology and liquidity. The effect of operating ecology on liquidity was significant in banks pursuing a non-sustainability strategy while the

effect of operating sociology was significant on operation in banks pursuing a holistic sustainability strategy.

- The regional context moderated the relationship between stakeholders' salience and operating sociology, and product sociology. The effect of stakeholders' salience on sustainability was more significant in banks in the EU than those in the USA, while communication intensity was significant in banks in the USA.
- The regional context moderated the relationship between communication and operating ecology, operating sociology and product ecology.
- No moderating effect was found for the region on the relationship between size and sustainability.
- The results also indicated that the regional context moderated the effect of operating ecology, and product sociology on funding. Operating ecology had a significant positive effect on funding in EU banks while in the USA's there was no significant effect. In EU banks, product ecology had a negative effect on funding while in the US it had no effect.

8.3 Restating the Research Questions and Hypotheses

8.3.1 Banks' Engagement with their Stakeholders

The first objective of this study was to examine how banks engage with their stakeholders: i.e. identifying the target groups, communicating with them, and mapping their expectations. To fulfil this objective, three research questions were addressed (RQ1, RQ2 and RQ3). Data that were collected via the content analysis from the EU and USA banks' reports from 2006 to 2012 were summarized using descriptive statistics and compared using the independent sample *t*-test.

8.3.1.1 RQ1-Which Stakeholder Groups are the Main Target of Banks?

The results revealed that in both regions primary stakeholders are of more importance than secondary stakeholders. This is expected as primary stakeholders have a greater impact on the survival of the bank and hence, should receive greater attention. However, European banks in general cared more about both groups of stakeholders (primary and secondary) than American banks.

The results also showed that European banks prioritised their stakeholder groups in the following order: *customers, others, employees, community, investors and government.* In the USA, the priorities were *customers, others, employees, community, government and investors*. This is consistent with the argument of stakeholder theory that banks must consider their relationship not only with their shareholders, but also with employees, clients, suppliers, public authorities, local (or national) communities and civil society in general (Perrini and Tencati, 2006).

European banks talked significantly more about investors & shareholders, customers, employees and community than American banks while no significant difference was found for the remaining two groups, government and others (the public, the media, rating agencies, financial advisors, suppliers and the press). This means that customers, others, employees and the community have the most salience in both the EU and the USA.

8.3.1.2 RQ2- What Communication Methods do Banks Use in their Reports to Communicate Sustainability Information?

Stakeholder management must identify and communicate with key stakeholders through stakeholder engagement. Since the mid-1980s, stakeholder engagement has developed from communication and dialogue with the key stakeholders using traditional methods into a more comprehensive set of approaches to help companies understand and succeed (Stakeholder Engagement Manual, Vol. 1, 2005). Zollinger (2009) and Manetti (2011) described three phases in the development of stakeholder engagement over the last thirty years: 1) Stakeholder mapping (1980s). In this phase, organisations communicated with their stakeholders through one-way channels designed to spread information and so, in this stage, stakeholders were the "receivers" of messages sent by the managers of the organisation (Foster and Jonker, 2005). 2) Stakeholder management (1990s). According to Stakeholder Engagement Manual Vol. 1 (2005), the engagement methods in this phase were consultation and dialogue via interactive channels. 3) Stakeholder engagement. More recently, companies have started to involve their stakeholders in decision-making procedures. The engagement method in this phase is partnerships (Stakeholder Engagement Manual, Vol. 1, 2005).

The results indicated that European banks communicated significantly more with their stakeholders than banks in the USA. European banks used all three ways of

communicating significantly more than American banks to communicate with their stakeholders. Two-way communication (consultation or dialogue) was the dominant form of communication in the sample, for both the EU and USA banks, followed by partnership and finally one-way communication. These results are consistent with the results of the first RQ where it was confirmed that European banks care about their relations with stakeholders significantly more than American banks.

8.3.1.3 RQ3-To What Extent Does the Sustainability Information Disclosed by Banks Meet their Stakeholders' Expectations?

To address this question, an index was developed based on the literature (Appendix 5) and coded against the reports. The results revealed that banks responded to different degrees to stakeholder issues in their sustainability reports.

The *employees'* needs that were most addressed by banks in both regions were: "health and safety", and "diversity and social equity". However, the USA had a significantly higher mean with regard to addressing employees' "health and safety" and "community spirit". On the other hand, the EU addressed all the other seven employees' needs significantly more than the USA banks. In terms of *customers'* needs, accessibility to financial services was noted as what banks in EU and the USA cared about the most. The EU outperformed the USA in the following needs: "satisfaction and privacy", "consumer protection", and "communication" while the USA cared more than the EU about: "marketing policies", "avoiding engagement in price fixing", "responsible products", "accessibility to financial services" and "financial literacy". For *governments*, banks in both regions were most concerned to satisfy the government about their taxes, lobbying and public policy but no significant difference was found in "taxes, lobbying and public policy" between the two regions. In *community, environment and society*, banks in both regions cared the most about disclosing information about their "environmental and social commitment and policy" for this stakeholder group while in *others* (the public, the media, rating agencies, financial advisors, suppliers and the press), "potential risk" was the most important item. Finally, for *investors and shareholders*, banks in both regions cared about revealing information concerning their performance to their investors and shareholders.

The overall results in this question supported to a great extent the instrumental or managerial form of stakeholder theory. This branch of the theory assumes that a bank will

care about stakeholders who can affect the achievements of the bank (Berman *et al*., 1999). Therefore, the bank will try to manage those stakeholders in order to maximise profits.

8.3.2 The Sustainability Practices in EU and USA Banks (RQ4).

The second objective of this study was to identify the current sustainability practices within the European and American banks. This was addressed through RQ4: To what extent and in which dimensions do European and American banks report on their sustainability practices? To address this question an index for sustainability was developed to help capture the context and extent of sustainability practices. The index consisted of four main categories: "operation ecology" and "operation sociology" (the direct effects), "products and services ecology" and "products and services sociology" (the indirect effects), and many sub-categories. Data were collected via content analysis from the EU and USA banks' reports from 2006 to 2012.

The results revealed that both regions (EU and USA) were most interested in the *impact of their operations on society;* this was followed by the *environmental impacts of their products and services*, then their *products and services social impacts;* their *operation impacts on the environment* came last. The results showed that EU banks carried out more sustainability practices than USA banks. Furthermore, the sustainability sub-themes did not all receive the same level of attention as two or three sub-themes in each category received 50% or more of the total attention paid to that category. For example, emission, transport and energy used were the three most important groups in *operation ecology* for the total sample, and for both EU and USA banks. The health and safety of the banks' labour force, the impacts of banks' operations on communities, and labour diversity and equal opportunity, were what banks in both regions cared about the most in terms of their *operation sociology*. With regards to *product ecology*, the dominants sub-themes were products and services environment policies, special products and services, and environmental staff competency. In *product sociology*, five out of the 16 sub-themes received most of the banks' attention in this group. These were: social policy, accessibility of financial services, customer satisfaction and privacy, social risks of business lines, and marketing communication. The results also revealed that EU banks outperformed USA banks in almost all the sub-themes.

8.3.3 Empirically Validating the Proposed Sustainability Model

The third objective of this study was to investigate (validate) empirically the proposed sustainability model that explains the relationships among stakeholders' management, sustainability and performance, and whether the sustainability strategy has an influence on these relations in the European and American banking sector. To achieve this objective, three research questions were formulated:

RQ5- Does stakeholders' salience has an effect on sustainability? If so, does sustainability strategy have a moderating effect on this relationship?

RQ6- Does the intensity of communication with stakeholders have an effect on sustainability? If so, does sustainability strategy have a moderating effect on this relationship?

RQ7- Is there a relationship between sustainability and performance in the banks? If so, does sustainability strategy influence this relationship?

To address these questions, hypotheses were proposed and tested. SEM- path analysis was used to analyse the data and test the proposed hypotheses. The models were evaluated using some goodness of fit tests. Once the model was accepted, composite factor scores were obtained for the composite variables and used in the SEM path analysis. The results regarding the significance of the hypothesised relationships are reported next.

8.3.3.1 RQ5- The Effect of Stakeholders' Salience on Sustainability

Three groups of hypotheses related to the effect of stakeholders' salience on sustainability, the moderating effect of strategy on this relationship, as well as the moderating effect of region. Table 8.1 revealed that the results supported and accepted hypotheses H1.1 to H1.4 which related to the positive effect of stakeholders' salience on sustainability. Also, the results supported the moderating effect of strategy on the relationship between stakeholders' salience and operating ecology, operating sociology and product ecology, while rejecting the moderating effect of strategy on the relationship between stakeholders' salience and product sociology. Finally, the results supported the moderating effect of the region on the relationship between stakeholders' salience and operating sociology and product sociology but rejected it on operating ecology and product ecology.

Table 8.1: Summary of the results of hypotheses related to stakeholders' salience

	Hypothesis	**Decision**
H1	***Stakeholders' salience has a positive impact on sustainability.***	
H1.1	Stakeholders' salience has a positive impact on operating ecology.	Supported
H1.2	Stakeholders' salience has a positive impact on operating sociology.	Supported
H1.3	Stakeholders' salience has a positive impact on product ecology.	Supported
H1.4	Stakeholders' salience has a positive impact on product sociology.	Supported
H1a	***Sustainability strategy moderates the relationship between stakeholders' salience and sustainability.***	
H1a.1	Sustainability strategy moderates the relationship between stakeholders' salience and operating ecology.	Supported
H1a.2	Sustainability strategy moderates the relationship between stakeholders' salience and operating sociology.	Supported
H1a.3	Sustainability strategy moderates the relationship between stakeholders' salience and product ecology.	Supported
H1a.4	Sustainability strategy moderates the relationship between stakeholders' salience and product sociology.	**Rejected**
H1b	***The region moderates the relationship between stakeholders' salience and sustainability.***	
H1b.1	The region moderates the relationship between stakeholders' salience and operating ecology.	**Rejected**
H1b.2	The region moderates the relationship between stakeholders' salience and operating sociology.	Supported
H1b.3	The region moderates the relationship between stakeholders' salience and product ecology.	**Rejected**
H1b.4	The region moderates the relationship between stakeholders' salience and product sociology.	Supported

Sustainability has been closely related to stakeholders, as banks will not be able to achieve sustainability without taking stakeholders' needs into account. Almost all previous studies supported this position. They emphasised that sustainability is unachievable without stakeholder engagement as the two concepts are closely interrelated (Strand, 2008); thus, sustainability is influenced by a bank's stakeholders (Schaltegger and Wagner, 2006a). These results are consistence with stakeholder theory and indicate that banks engage in sustainability practices as a result of pressure from their stakeholders. Banks need to be more proactive in engaging with stakeholders in order to achieve sustainability (Gordon and Lacy, 2011).

The second group of hypotheses supported the idea that sustainability strategy moderates the relationship between stakeholders' salience and operating ecology, operating sociology

and product ecology. This supports the notion that banks' sustainability strategy takes into consideration the stakeholders while the region moderates the relationship between stakeholders' salience and social aspects only (i.e. operating sociology and product sociology). The effect of stakeholder salience on the social aspects of sustainability is more significant in banks in the EU than those in USA. This may be related to the previous results where European banks took their stakeholder groups into consideration more than American banks; hence, they had a stronger effect on the sustainability practices (the social ones).

8.3.3.2 RQ6- Effect of Stakeholders' Communications on Sustainability

First, three groups of hypotheses related to the effect of stakeholders' communication on sustainability, the moderating effect of strategy on this relationship, as well as the moderating effect of region were summarised. Table 8.2 reveals that the results supported and accepted hypotheses H2.1 and H2.3 which related to the positive effect of stakeholders' communication on sustainability. Also, the results supported H2a.1 relating to the moderating effect of strategy on the relationship between stakeholders' communication and sustainability. Finally, the results supported H2b.1, H2b.2 and H2b.3 which related to the moderated effect of the region on the relationship between stakeholders' communication and sustainability.

Table 8.): Summary for the results of hypotheses related to stakeholders' communications

	Hypothesis	**Decision**
H2	***The intensity of stakeholders' communications has a positive impact on sustainability***	
H2.1	The intensity of stakeholders' communication has a positive impact on operating ecology.	Supported
H2.2	The intensity of stakeholders' communication has a positive impact on operating sociology.	**Rejected**
H2.3	The intensity of stakeholders' communication has a positive impact on product ecology.	Supported
H2.4	The intensity of stakeholders' communication has a positive impact on product sociology.	**Rejected***
H2a	***Sustainability strategy moderates the relationship between the intensity of stakeholders' communications and sustainability***	
H2a.1	Sustainability strategy moderates the relationship between the intensity of stakeholders' communications and operating ecology.	Supported*****
H2a.2	Sustainability strategy moderates the relationship between the intensity of stakeholders' communications and operating sociology.	**Rejected**
H2a.3	Sustainability strategy moderates the relationship between the	**Rejected**

	intensity of stakeholders' communications and product ecology.	
H2a.4	Sustainability strategy moderates the relationship between the intensity of stakeholders' communications and product sociology.	**Rejected**
H2b	***The region moderates the relationship between the intensity of stakeholders' communications and sustainability.***	
H2b.1	The region moderates the relationship between the intensity of stakeholders' communications and operating ecology.	Supported
H2b.2	The region moderates the relationship between the intensity of stakeholders' communications and operating sociology.	Supported
H2b.3	The region moderates the relationship between the intensity of stakeholders' communications and product ecology.	Supported
H2b.4	The region moderates the relationship between the intensity of stakeholders' communications and product sociology.	**Rejected**

Secondly, the results of the three groups of hypotheses related to the effect of size on sustainability, the moderating effect of strategy, and the moderating effect of region, were summarised in Table 8.3. The results supported hypotheses H3.1, H3.2, H3.3, H3a.1 and H3a.3. Hypotheses related to the moderating effect of region on the relationship between size and sustainability were all rejected.

Table 8.3: Summary for the results of hypotheses related to size

	Hypothesis	**Decision**
H3	***Size has a positive impact on sustainability.***	
H3.1	Size has a positive impact on operating ecology.	Supported
H3.2	Size has a positive impact on operating sociology.	Supported
H3.3	Size has a positive impact on product ecology.	Supported
H3.4	Size has a positive impact on product sociology.	**Rejected***
H3a	***Sustainability strategy moderates the relationship between size and sustainability.***	
H3a.1	Sustainability strategy moderates the relationship between size and operating ecology.	Supported*
H3a.2	Sustainability strategy moderates the relationship between size and operating sociology.	**Rejected**
H3a.3	Sustainability strategy moderates the relationship between size and product ecology.	Supported*
H3a.4	Sustainability strategy moderates the relationship between size and product sociology.	**Rejected**
H3b	***The region moderates the relationship between size and sustainability.***	
H3b.1	The region moderates the relationship between size and operating ecology.	**Rejected**
H3b.2	The region moderates the relationship between size and operating	**Rejected**

	sociology.	
H3b.3	The region moderates the relationship between size and product ecology.	**Rejected**
H3b.4	The region moderates the relationship between size and product sociology.	**Rejected**

8.3.3.3 RQ7- The Relationship between Sustainability and Performance

This section addresses the results of the group of hypotheses related to the effect of sustainability on banks' performance, together with the moderating effect of sustainability and region on this relationship. The results revealed that in both operating ecology and product ecology no significant relationships were found with any of the performance measures (profitability, loan quality, operation, liquidity and funding). Hence, H4 and H6 were all rejected. For the social part of sustainability, there was a positive relationship between operating sociology and profitability, operation, and funding, but a negative relationship with liquidity and loan quality. Hence, H5.1, H5.3 and H5.4 were accepted and H5.2 and H5.5 were rejected. Also, this study found support for hypotheses H7.2 and H7.5 where there were significant positive relationships between product sociology and liquidity and loan quality; however, there was no support for H7.1, H7.3 and H7.4 as no relationship to profitability, operation, and funding was found.

Table 8.4: Summary for the results of the hypotheses related to the effect of sustainability on performance

	Hypothesis	**Decision**
H4	***Operating ecology is positively associated with banks' performance.***	
H4.1	Operating ecology has a positive impact on profitability.	**Rejected**
H4.2	Operating ecology has a positive impact on liquidity.	**Rejected**
H4.3	Operating ecology has a positive impact on operation.	**Rejected**
H4.4	Operating ecology has a positive impact on funding.	**Rejected**
H4.5	Operating ecology has a positive impact on loan quality.	**Rejected**
H5	***Operating sociology is positively associated with banks' performance.***	
H5.1	Operating sociology has a positive impact on profitability.	Supported
H5.2	Operating sociology has a positive impact on liquidity.	**Rejected***
H5.3	Operating sociology has a positive impact on operation.	Supported
H5.4	Operating sociology has a positive impact on funding.	Supported
H5.5	Operating sociology has a positive impact on loan quality.	**Rejected***

H6	***Product ecology is positively associated with banks' performance.***	
H6.1	Product ecology has a positive impact on profitability.	**Rejected**
H6.2	Product ecology has a positive impact on liquidity.	**Rejected**
H6.3	Product ecology has a positive impact on operation.	**Rejected**
H6.4	Product ecology has a positive impact on funding.	**Rejected**
H6.5	Product ecology has a positive impact on loan quality.	**Rejected**
H7	***Product sociology is positively associated with banks' performance.***	
H7.1	Product sociology has a positive impact on profitability.	**Rejected**
H7.2	Product sociology has a positive impact on liquidity.	Supported
H7.3	Product sociology has a positive impact on operation.	**Rejected**
H7.4	Product sociology has a positive impact on funding.	**Rejected**
H7.5	Product sociology has a positive impact on loan quality.	Supported

For the hypotheses related to the moderation of sustainability strategy on the relationship between sustainability and performance, only H4a.2 was accepted. Sustainability strategy moderated the relationship between operating ecology and liquidity (H4a.2). The effect of operating ecology on liquidity was significant in banks pursuing a non-sustainability strategy.

Table 8.5: Summary for the results of hypotheses related to the effect of strategy on the relationship between sustainability and performance

	Hypothesis	**Decision**
H4a	***Sustainability strategy moderates the relationship between operating ecology and a bank's performance.***	
H4a.1	Sustainability strategy moderates the relationship between operating ecology and profitability.	**Rejected**
H4a.2	Sustainability strategy moderates the relationship between operating ecology and liquidity.	Supported*
H4a.3	Sustainability strategy moderates the relationship between operating ecology and operation.	**Rejected**
H4a.4	Sustainability strategy moderates the relationship between operating ecology and funding.	**Rejected**
H4a.5	Sustainability strategy moderates the relationship between operating ecology and loan quality.	**Rejected**
H5a	***Sustainability strategy moderates the relationship between operating sociology and a bank's performance.***	
H5a.1	Sustainability strategy moderates the relationship between operating sociology and profitability.	**Rejected**

H5a.2	Sustainability strategy moderates the relationship between operating sociology and liquidity.	**Rejected**
H5a.3	Sustainability strategy moderates the relationship between operating sociology and operation.	**Rejected**
H5a.4	Sustainability strategy moderates the relationship between operating sociology and funding.	**Rejected**
H5a.5	Sustainability strategy moderates the relationship between operating sociology and loan quality.	**Rejected**
H6a	***Sustainability strategy moderates the relationship between product ecology and a bank's performance.***	
H6a.1	Sustainability strategy moderates the relationship between product ecology and profitability.	**Rejected**
H6a.2	Sustainability strategy moderates the relationship between product ecology and liquidity.	**Rejected**
H6a.3	Sustainability strategy moderates the relationship between product ecology and operation.	**Rejected**
H6a.4	Sustainability strategy moderates the relationship between product ecology and funding.	**Rejected**
H6a.5	Sustainability strategy moderates the relationship between product ecology and loan quality.	**Rejected**
H7a	***Sustainability strategy moderates the relationship between product sociology and a bank's performance.***	
H7a.1	Sustainability strategy moderates the relationship between product sociology and profitability.	**Rejected**
H7a.2	Sustainability strategy moderates the relationship between product sociology and liquidity.	**Rejected**
H7a.3	Sustainability strategy moderates the relationship between product sociology and operation.	**Rejected**
H7a.4	Sustainability strategy moderates the relationship between product sociology and funding.	**Rejected**
H7a.5	Sustainability strategy moderates the relationship between product sociology and loan quality.	**Rejected**

For the moderating effect of region on the relationship between sustainability and performance, an only hypotheses H4b.4 was accepted. Operating ecology had a significant positive effect in the EU, while in the USA there was no significant effect.

Table 8.6: Summary for the results of hypotheses related to the effect of region on the relationship between sustainability and performance

	Hypothesis	**Decision**
H4b	***The region moderates the relationship between operating ecology and a bank's performance.***	
H4b.1	The region moderates the relationship between operating ecology and profitability.	**Rejected**
H4b.2	The region moderates the relationship between operating ecology and liquidity.	**Rejected**

H4b.3	The region moderates the relationship between operating ecology and operation.	**Rejected**
H4b.4	The region moderates the relationship between operating ecology and funding.	Supported*
H4b.5	The region moderates the relationship between ecology and loan quality.	**Rejected**
H5b	***The region moderates the relationship between operating sociology and a bank's performance.***	
H5b.1	The region moderates the relationship between operating sociology and profitability.	**Rejected**
H5b.2	The region moderates the relationship between operating sociology and liquidity.	**Rejected**
H5b.3	The region moderates the relationship between operating sociology and operation.	**Rejected**
H5b.4	The region moderates the relationship between operating sociology and funding.	**Rejected**
H5b.5	The region moderates the relationship between operating sociology and loan quality.	**Rejected**
H6b	***The region moderates the relationship between product ecology and a bank's performance.***	
H6b.1	The region moderates the relationship between product ecology and profitability.	**Rejected**
H6b.2	The region moderates the relationship between product ecology and liquidity.	**Rejected**
H6b.3	The region moderates the relationship between product ecology and operation.	**Rejected**
H6b.4	The region moderates the relationship between product ecology and funding.	**Rejected**
H6b.5	The region moderates the relationship between product ecology and loan quality.	**Rejected**
H7b	***The region moderates the relationship between product sociology and a bank's performance***	
H7b.1	The region moderates the relationship between product sociology and profitability.	**Rejected**
H7b.2	The region moderates the relationship between product sociology and liquidity.	**Rejected**
H7b.3	The region moderates the relationship between product sociology and operation.	**Rejected**
H7b.4	The region moderates the relationship between product sociology and funding.	**Rejected**
H7b.5	The region moderates the relationship between product sociology and loan quality.	**Rejected**

In general, the relationship between sustainability and performance is not supported to a great extent as, from the 20 different relationships, only five were significant. Based on these results, the sustainability strategy and region are unlikely to affect the relationship of sustainability with performance.

8.4 Critically Reviewing the Results

One of the most fundamental issues in the relation between sustainability and financial performance is the direction of the causality (i.e. which one affects the other) (Preston and O'Bannon, 1997; Allouche and Laroche, 2005; Makni *et al*., 2009; Endrikat *et al*., 2014). Preston and O'Bannon (1997) examined the direction of the relationship (i.e. positive, negative or neutral) and the direction of causality (i.e. which one follows the other or whether they are synergistic). Preston and O'Bannon (1997) assumed the relationship between sustainability and financial performance to be a lead-lag relationship and proposed six possible causal and directional hypotheses: social impact, trade-off, available funding, managerial opportunism, and positive or negative synergies. The *social impact hypothesis* proposes that sustainability affects financial performance positively; the explanation is that when a corporate entity meets the needs of its stakeholders, the corporate reputation, employee loyalty and productivity, as well as customer satisfaction, will be enhanced; this, in turn, will lead to an increase in financial performance (Moskowitz, 1972; Preston and O'Bannon, 1997). On the other hand, the effect of sustainability on financial performance is negative in the *trade-off hypothesis.* The justification for this is that if a corporate body wants to take an action that benefits stakeholders, it will incur costs which will put it at an economic disadvantage compared with firms that ignore stakeholders' claims; thus, it will be distracted from focusing on profit-making (Ullmann, 1985; McWilliams and Siegel, 2001; Preston and O'Bannon, 1997; Scholtens and Zhou, 2008). *The available funding hypothesis* proposes that performance has a positive effect on sustainability. The reason for the positive effect is that "profitability in one time period may increase a firm's ability to fund discretionary projects subsequently" (Preston and O'Bannon, 1997; p. 423). The *opportunism hypothesis*, on the other hand, proposes a negative relationship between performance and sustainability. Preston and O'Bannon (1997) explained that managers are always trying to increase their gain in the form of compensation; as a result, when financial performance is strong, managers will decrease expenditure on sustainability in order to increase their personal compensation. Conversely, when financial performance is low, managers will try to justify this by engaging in sustainability activities. When sustainability and financial performance are synergetic, the *positive or negative synergies' hypotheses* hold (Preston & O'Bannon, 1997; Waddock and Graves, 1997).

However, the results of this study did not confirm a strong cause and effect relationship between sustainability and financial performance; this may be because the relationship is not a simple linear one. Some authors (i.e., Bowman and Haire, 1975; Ullmann, 1985; Moore, 2001) took a middle position and proposed an optimal level of sustainability and corresponding resource allocations which lead to an inverted U-shaped correlation. Yet, some other authors (i.e., McWilliams and Siegel, 2001; Allouche and Laroche, 2005) suggest that many variables intervene in the direct relationship between sustainability and financial performance. Hence, the correlation between sustainability and financial performance might be caused by a third set of variables influencing both which has led to calls to include potential contingency factors and the determinants of sustainability and financial performance relationship into the analysis (Ingram, 1978; Aragon-Correa & Sharma, 2003; Orlitzky *et al*., 2011). Furthermore, some authors (O'Dwyer, 2003; Delmas and Toffel, 2004; Adams and Frost, 2008) suggested that sustainability might be affected by the organisational management systems, good leadership and management capability. For example, Adams and Frost (2008) stated that some organisations are using the data used to prepare sustainability reports to monitor performance and reward managers. Moreover, Sharma (2000) found evidence for the links between the way managers interpret environmental issues and corporate choice of environmental strategy. Egri and Herman 2000 supported the role that leadership personal and environmental values play in shaping their visions for the future (sustainability). Furthermore, "Sustainable performance requires good leadership and management capability at all levels of the organisation" (Department for Business Innovation and Skills, 2012, p.23). Future studies may take such factors into consideration when studying the relationship between sustainability and financial performance. Finally, as stated earlier, the way in which sustainability was measured might not truly represent the actual sustainability activities of the studied banks, especially since the period in which this study covered (2006-2012) was the period during which the financial sector experienced first the financial crisis and then in its way to recover from it. According to Delmas and Toffel (2004), companies rearrange their organisational structure after major events or accidents to prevent a recurrence and to facilitate faster responses, in this case the financial crisis. Similarly, Patten (1992) stated that, in the years subsequent to the Exxon Valdez oil spill, oil companies significantly increased their disclosure of environmental information in their annual reports.

8.5 Ex-post Review of the Model

The purpose of this section is to provide an ex-post review of the model in the light of hypotheses testing. The results of hypotheses testing provided three types of results: 1) hypotheses that were rejected for the lack of relationship, 2) hypotheses that were rejected as a result of opposite direction of relationship and, 3) hypotheses that were confirmed and accepted.

The following hypotheses belong to the first type, hypotheses that were rejected for the lack of relationship. The results suggest that communication intensity is not related to operating sociology (H2.2). For the relationships between sustainability dimensions and performance aspects, no relationship was found between the environmental aspects of sustainability (i.e. operation ecology and products ecology) and performance (i.e. profitability, liquidity, operation, funding and loan quality) (H4.1, H4.2, H4.3, H4.4, H4.5, H6.1, H6.2, H6.3, H6.4 and H6.5); also, no effect was fond of products' and services' sociology on profitability, operation and funding (H7.1, H7.3 and H7.4).

No moderating effect of sustainability strategy on the relationship between: stakeholders' salience and product sociology (H1a.4); the intensity of stakeholders' communications and, operating sociology and products sociology (H2a.2 and H2a.3) and; size and, operation sociology and product sociology (H3a.2 and H3a.4). Likewise, no moderating effect of the region on the relationships between: stakeholders' salience and, operating ecology and product ecology (H1b.1 and H1b.3) and; size and all sustainability aspects (operation ecology, operation sociology, products ecology and product sociology) (H3b.1, H3b.2, H3b.3 and H3b.4). Moreover, no moderating effect of both sustainability strategy and the region on the relationships between all sustainability dimensions and all performance aspects (H4a, H5a, H6a, H7a, H4b, H5b, H6b and H7b).

Operation sociology, which is related mainly to the labour of the bank, is not affected by the intensity of banks' communications with their stakeholders because banks will engage in these social activities regardless of public opinion. The lack of relationships between sustainability dimensions and performance aspects mean that when banks engage in environmental activities (internal and external) they are not looking to increase their profitability and the motive behind the environmental part of sustainability might truly be a moral or ethical one which, in turn, supports the normative or ethical branch of stakeholder

theory. In addition, the lack of effect of products' and services' sociology on the other performance measures could be because the expenses of sustainability activities are offset by the reduction in other costs which accompany them. In general, no significant moderating effects for both sustainability strategy and regions were found on the models relationships. Those relationships may be affected by other factors not included in this study such as, ownership structure, risk, and organisational management systems.

The following hypotheses belong to the second type of hypotheses, which were rejected as a result of opposite direction of relationship:

The results suggest that communication intensity has a negative impact on product sociology (H2.4) and also, size has a negative impact on product sociology (H3.4); finally, operating sociology has negative relationships with liquidity and loan quality (H5.2 and H5.5).

This may be because the public will be sceptical about banks' true motives for engaging in and publishing social activities. As a result, banks hesitate to publicise their social activities. Resulting in a decrease in the information released about the social efforts of their products and services (indirect social effects). Similarly, the negative relationship between bank size and product sociology could be explained thus; larger banks are perhaps trying to hide this information to avoid public scepticism or to avoid tougher regulations. Finally, the negative relationship of operating sociology with liquidity might be because greater engagement in operating sociology increases the amount of money spent. On the other hand, the negative relationship with loan quality (growth of gross loans) might be because operating sociology is mainly measured by issues linked to employees' training practices, labour training and education, and a highly trained employee will not issue loans unless they meet all the criteria the employee was trained to check.

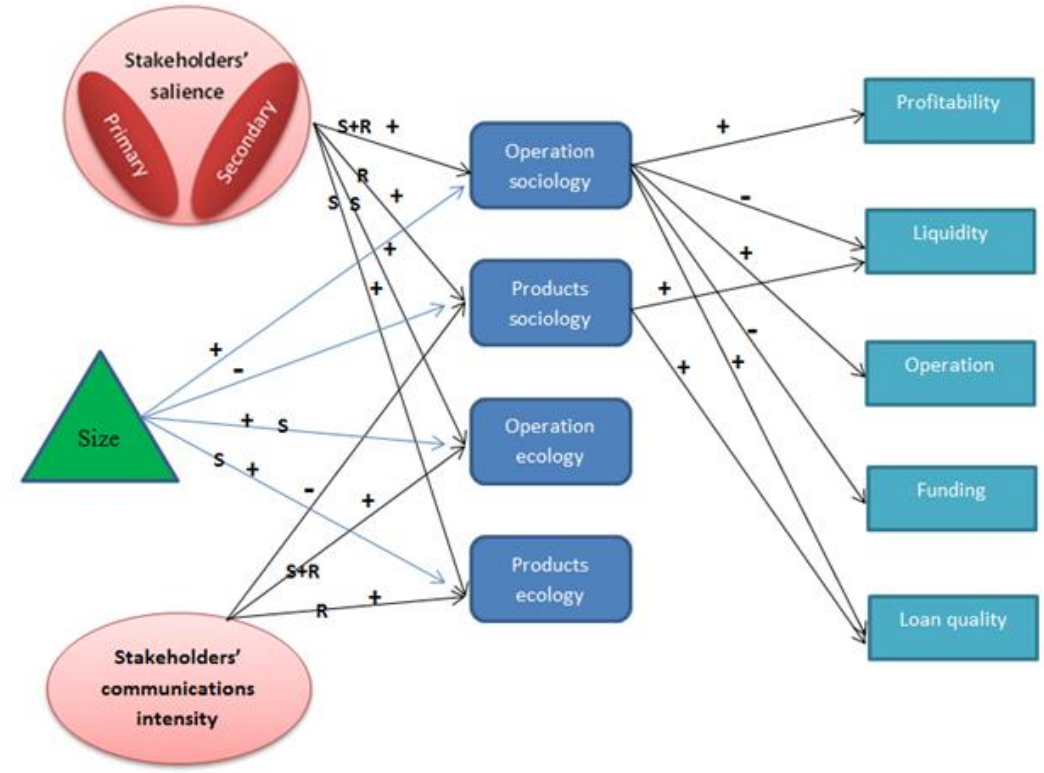
The third, and final, type of hypotheses, that were confirmed and accepted are presented below:

The first group of hypotheses related to the direct effects of stakeholder salience, communication intensity and size on sustainability. The results indicated a significant positive relationship between stakeholder salience and the four groups of sustainability: operating ecology, operating sociology, product ecology and product sociology. Also, a significant positive relationship was found between communication intensity and operating

ecology and product ecology, while it had a negative impact on product sociology and was not related to operating sociology in the banks in this study. The results further revealed that the size of the bank positively predicted operating ecology, operating sociology and product ecology but negatively predicted product sociology.

In the moderation group of hypotheses, sustainability strategy positively moderated the relationship between stakeholders' salience and operation ecology, operation sociology and product ecology. However, it negatively moderated the relationship between communication, and operation ecology and product ecology, as well as the relationship between size and operation ecology. The results further indicated that regional context moderated the relationship between stakeholder's salience, and operating sociology and product sociology. It also moderated the relationship between communication and operating ecology, operating sociology and product ecology. No moderating effect for region was found on the relationship between size and sustainability.

In the group of hypotheses regarding the effect of sustainability on banks' performance, the results revealed that in terms of both operating ecology and product ecology, no significant relationships were found with any of the performance measures (profitability, loan quality, operation, liquidity and funding). However, for the social part of sustainability, there was a positive relationship between operating sociology and profitability, operation, and funding, but a negative relationship with liquidity and loan quality. Also, this study found a significantly positive relationship between product sociology and liquidity and loan quality, but no relationship with profitability, operation, and funding. In the confirmed relationships, no moderating effect for both sustainability strategy and regional context was found.



S: Moderating effect of sustainability strategy
R: Moderating effect of region

Figure 8.1: Ex-post model

8.6 Contribution

This thesis contributes to knowledge in two ways, namely through its theoretical and empirical contributions.

8.6.1 Theoretical Contribution

This study has developed a theoretical model that explains the relationships between stakeholders' management and communication on one side and sustainability practices on the other side. Also, this model addresses the relationship between different sustainability dimensions and different performance measures. This was the first study to develop a sustainability model for the banking sector.

This study examined the influence of sustainability strategy on the sustainability model. Ullmann (1985) suggested that strategy was the missing element in the previous models on social responsibility which, if included, would help in explaining the relationships. A few examples in the literature could be found for sustainability being linked to strategic alignment (Adams and Frost, 2008). This study adds to this literature.

There is a little research into how companies manage diverse stakeholder groups and how they engage them and communicate with them about sustainability activities. Moreover, one of the main reasons for the inconclusive findings concerning the relationship between sustainability and performance is the lack of theory (Ullmann, 1985; McWilliams and Siegel, 2001; Ruf *et al*., 2001; Moore, 2001; Barnett, 2007; Lee *et al*., 2013). As a result, this study contributes to the literature by using stakeholder theory as a basis for explaining the relationship between sustainability and financial performance.

An important theoretical implication of this thesis is the development of an index for measuring sustainability practices. This index was specially developed for the current study in order to capture all of the sustainability dimensions in the banking sector rather than depending on the indices that are already available. Furthermore, the developed index, which could be used in similar future studies, is based on two of the most recognised indices in the sustainability area. This thesis also makes a contribution to stakeholder literature (i.e. stakeholders' management, communications, and needs).

8.6.2 Empirical Contribution

Previous studies suffered from a lack of methodological consistency (Griffin and Mahon, 1997; Simpson and Kohers, 2002; Lee, *et al*., 2013). Rowley and Berman (2000, p. 405) described it thus: "Researchers have combined various mishmashes of uncorrelated variables, which render correlation and ordinary least squares regression results indiscernible". Thus, previous management accounting research had been dominated by multiple regression analysis for decades (Smith and Langfield-Smith, 2004). There have been many calls to use SEM in management accounting researches. In the current study, IBM/SPSS AMOS 20 software was used to perform the SEM analysis; this analysis employs path analysis. The models were evaluated using some goodness of fit tests. Once the model was accepted, composite factor scores were obtained for the composite variables and used in the SEM path analysis. To test the structural model and hypothesised relationships, path analysis was used while, in order to determine the significance of the hypothesised relationships between the unobserved (latent) variables, critical ratio values (i.e., *t*-values) were used. Finally, to evaluate the fit of the model, a set of measures was used. Performing the path analysis using SEM instead of using traditional regression procedures, offered certain advantages. These included allowing the measurement of model fit, modification indices, measuring error and latent variables to be considered (Hair

et al., 1998; Savalei and Bentler, 2006; Garson, 2012a). Hence, validating the proposed model using SEM made a methodological contribution of this research. Similar procedures could be used in future studies.

One of the main limitations of the previous studies was the use of a wide variety of methods to measure performance and sustainability. There are no universal measures and this has led to measurement bias (see, for example, Chang and Kuo, 2008; Perrini *et al*., 2009; Callan and Thomas, 2009; Samy *et al*., 2010). Thus, Griffin and Mahon (1997) argued that multiple accounting measures of performance should be used. In this study, in order to eliminate any measurement bias, multi measures of performance were used rather than relying on one measure as some of the previous studies have done. On the other hand, despite the need for multiple sources to measure corporate sustainability, a single measure has been used in many studies (Griffin and Mahon, 1997; Moore, 2001). Moreover, the sustainability measures used may not be fully relevant to today's standards of sustainability practices, meaning that published studies are dated (Callan and Thomas, 2009). There are quite few frameworks for sustainability evaluation and performance (Dias-Sardinha and Reijnders, 2001) but, in this research, the analysis of sustainability information was conducted using the developed sustainability index.

Other empirical contributions made by this research are the data collection method and the data itself. Content analysis was the research method employed to collect the necessary data on sustainability and stakeholders' engagement from EU and USA bank reports. Content analysis has been commonly used for examining sustainability disclosure (e.g. Ernst & Ernst, 1978; Guthrie and Parker, 1990; Hackston and Milne, 1996; Buhr, 1998; Neu *et al*., 1998; Campbell, 2003; Beck *et al*., 2010). Furthermore, the procedures and approaches for processing the data, including the coding schedule and the coding manual used in the content analysis in this study, can be used in future research.

Many studies present theoretical models without offering empirical evidence (Callan and Thomas, 2009) while this study presented a theoretical model then empirically tested it.

Most previous studies have used samples from multiple industries (Griffin and Mahon, 1997; Moore, 2001). For example, 78% of the studies reviewed by Griffin and Mahon (1997) used samples from multiple industries. Such studies are problematic as the specific context of a particular industry and its unique characteristics will go unobserved (Griffin

and Mahon, 1997; Rowley and Berman, 2000; Moore, 2001, Simpson and Kohers, 2002). This will lead to conflicting findings depending on the industries included in the sample and on the measures used in the analysis. Also, it will "weaken the richness of understanding that might be obtained from a single industry study with multiple social variables" (Moore, 2001, p. 299). Moreover, Griffin and Mahon (1997) stated that focusing on a single industry enhances internal validity rather than the external validity of multiple industry analyses. In addition, using a single industry leads the econometric specification of the financial performance function to be more complete by adding the unique characteristics of the specific industry (Simpson and Kohers, 2002). Even when some studies focused on a single industry, they used small samples (Simpson and Kohers, 2002). Furthermore, despite the enormous interest in various aspects of sustainability by academics, very few studies have been conducted in the financial sector in general, and in the banking sector specifically. Therefore, this study contributes to this field of research by focusing on the banking sector.

The sustainability literature says little about what companies gain from moving to sustainable development and previous studies have produced mixed results. This thesis therefore contributes to the debate regarding the relationship of sustainability with performance in the banking sector.

Despite the large amount of attention sustainability has received, researches on sustainability practices in the banking sector have only been addressed in recent years and previous sustainability literature was dominated by studies examining the issue in the USA (Van der Laan Smith *et al*., 2005). This study investigated sustainability practices in both the EU and the USA.

The results of this study can help EU and USA banks to direct their efforts to areas that improve their performance and their stakeholder engagement as the data used in this study are actual data collected from banks' reports. Thus, they reflect what is actually happening in those banks, unlike surveys and interviews which might be directed or affected by respondents' thoughts or opinions.

The current study offers a better understanding of different dimensions of sustainability, how they are affected by different stakeholders, and how they affect the performance of banks.

Previous studies have suffered from problems in sampling, such as: inadequate sampling techniques focusing mainly on large, pan-sector samples (Salzmann *et al*., 2005); sample size and composition limitations (Ruf *et al.*, 2001); and deficiencies in the empirical data bases currently available (Ullmann, 1985). The sampling techniques used in this study are robust.

It seems clear from the previous discussion that, in order to achieve a successful study, multiple dimensions of sustainability and multi financial measures have to be used; also, the study must be based on a single industry. These will give a better understanding of the nature of the inter-relationships between sustainability and financial performance. The empirical work of this study was carried out on a single industrial sector (the banking sector in the EU and the USA) using a relatively large sample. This study tested the relationship between sustainability and financial performance in the banking sector, taking stakeholder theory as a framework; it also examined the influence of sustainability strategy on the sustainability model. Along with the relationship, the qualitative (positive or negative) relationship between sustainability and financial performance was also investigated (i.e. whether sustainability affects corporate financial performance positively or negatively). However, as with any research, this study is subject to some limitations and these, limitations along with suggestions for future research, are explained in the next section.

8.7 Limitations and Suggestions for Future Research

This section outlines the main limitations of this thesis and will suggest ways to address them in future research. In terms of the data used, the data were collected using content analysis method. This method suffers from the following limitations.

First, content analysis is subjective (Guthrie and Abeysekera, 2006) and it involves "working on documents which have been written for some purpose other than for the research" (Robson, 2002; p.358). This study collected data on sustainability practices only from bank reports and these data represent what banks communicate about their sustainability practices, which may differ from their actual practices. To overcome this limitation, some other data sources such as interviews can be used to check the reported practices (Robson, 2002).

Second, content analysis captures only the quantity rather than the quality of disclosure (Gray *et al*., 1995b; Milne and Adler, 1999; Unerman, 2000) and then "seeks to capture meaning from narrative in a coded 'numerical' form" (Beck *et al*., 2010; p. 218). Therefore, the results of this study may not necessarily give the "true" motivation for banks undertaking and communicating sustainability activities. Hence, this could be verified by gathering evidence from primary sources, such as interviews with bank managers, to understand some motivations that may be behind the sustainability practices. Some of the previous studies collected the necessary information from the end users as the interpretation of the information would be incomplete without the view of the users included in the analysis (Beck *et al*., 2010).

Third, both the instruments used and the data collected must be reliable in order to draw replicable and valid inferences from data (Milne and Adler, 1999). To ensure the reliability of the instruments used, they should be constructed using well specified decision categories and rules (Milne and Adler, 1999). Therefore, a well specified coding schedule and a coding manual were developed. The coding schedule in this study was developed based on the Global Reporting Initiative's (GRI) 2011 Sustainability Reporting Guidelines (Version 3.1), Sustainability Reporting Guidelines & Financial Services Sector Supplement (Version 3.0) and VFU (1996). The Global Reporting Initiative (GRI) provides "a trusted and credible framework for sustainability reporting that can be used by organizations of any size, sector, or location" (GRI, 2011, p. 5). Consequently, the resulting dataset could be used in future research. Further, to achieve validity of the coding manual, it was constructed manually on a pilot sample of 28 reports; then, random reports were added and they were scanned for any additional phrases until no additional phrases were found. The resultant coding manual was reviewed by the research supervisor who confirmed it. The reliability of the data could be ensured by using multiple coders, or alternatively a single coder who had undergone a sufficient period of training (Milne and Adler, 1999). In this research, the coding process was carried out using NVivo so that the coding process was consistent along the whole study. In terms of validity, in the pilot study, reports were added and scanned until the categories reached saturation; these were then approved by the supervisor of this research. To enhance the research's validity, well-defined coding schedule and coding manual were developed, as stated earlier. However, even though the coding manual was developed with a great care and made as reliable as possible, it was still subject to some personal judgement and interpretation; hence,

researcher's bias could not be avoided (Weber, 1990). Future studies could benefit from using more than one researcher to develop or validate the coding manual.

This study treated the 15 EU member states as a unified unit, which leaves scope for future studies to compare the results between individual jurisdictions. As a result of studying the 15 EU countries as a unified context, no account was taken for the number of banks in each country in the sample.

Regarding measurement, this study utilised accounting-based measures only for measuring banks' performance. Future research could extend the study (i.e., use the same model and sustainability data) by including market-based performance measures or a mixture of both. Also, when examining stakeholders' needs, the thesis focused on an index developed from the literature and used the perceptions of the banks (in their reports) rather than the actual demands of stakeholders. Therefore, it would be useful to examine the perception of stakeholders with regards to the fulfilment of their needs.

One of the measurement limitations of this study was the limited number of control variables. In the future, studies could add more variables (i.e. ownership structure, risk, etc.). Moreover, this study considered the effect of strategy on the model as a moderating effect when other studies could consider strategy as a mediating variable or even as an independent variable. Further clarification is needed on this point.

At the level of generalisability, the strategy used in this study only distinguished between sustainability or non-sustainability strategies. However, many other classifications could exist so this might be unrepresentative for some banks (i.e. those "in the middle of the road" with regard to sustainability strategy). Future studies could classify banks' strategies into more than those two types. In addition, this study used two classifications of bank (commercial, and bank holdings and holding companies); future studies could extend this to include other types of bank (such as the co-operatives). Moreover, the study was conducted on publicly listed commercial, and bank holdings and holding companies which produce sustainability reports; hence, it missed other types of bank such as investment banks, cooperative banks and Islamic banks. Further research should seek to examine the sustainability practices of those bank types. Also, a comparison between the sustainability practices of two or more bank types is desirable. In this regard, the developed sustainability index for capturing sustainability dimensions in the banking sector could be

used in future studies. Furthermore, because the sustainability index was developed based on two of the most recognised indices in the sustainability area, one of which is the GRI that "can be used by organizations of any size, sector, or location" (GRI, 2011, p. 5), the setting of this study could be repeated for banks in other countries.

Despite the above limitations, the thesis provides a better understanding of different dimensions of sustainability, how they are affected by different stakeholders and strategic orientations, and how they affect the performance of banks. The results of this study can help EU and USA banks to direct their efforts to areas that improve stakeholder engagement and financial performance.

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Appendices

Appendix 1: 2007 Crisis

Since 2007, many countries in the world, has experienced what could possibly be called the worst economic crisis in history. It is considered by many economists (Petrov, 2008; Hilsenrath *et al*., 2008, Blundell-Wignall and Atkinson, 2009) to be the worst financial crisis since the Great Depression of the 1930s. In 2009 the Economist wrote that the financial crisis has hit nearly every bank and financial institution and is now pervading to the economy as a whole (The Economist, 2009, Chambers, 2009). Chambers (2009) added that many jobs are lost, lives disrupted and the future is insecure and uncertain.

"At the beginning of 2008 it was clear that something unexpected and unanticipated was happening in financial markets" Roberts and Jones (2009, p. 856). On 9 December 2008, Glenn Stevens, Governor of the Reserve Bank of Australia, comment on the international financial turmoil "I do not know anyone who predicted this course of events" quoted in Bezemer (2010). Similarly, Queen Elizabeth II asked, during a visit to London School of Economics in November 2008, "Why did nobody notice it?" (See for example the telegraph 05 Nov 2008).

Crisis roots (the USA)

Dabrowski (2010) stated that the crisis erupted in the summer of 2007 at the core of the world economy (the USA-based transnational financial institutions) and spread quickly beyond the US. It was first spread to other developed economies in the first half of 2008, and then to emerging markets in the second half of 2008 and early 2009. Even though, in the early of 1980 and early 1990 similar crises happened, each one larger than its predecessor, the lessons were not learned (Blundell-Wignall and Atkinson, 2009). According to Blundell-Wignall and Atkinson (2009, p. 9) "In essence it is a solvency crisis, and that has led to liquidity problems and deleveraging that is bearing down on the economy".

This crisis, according to Dabrowski (2010) was caused by an overheating of the world economy, which led to the build-up and subsequent burst of several assets bubbles. According to the author (p. 39) the three most important assets bubbles which resulted from a build-up in:

1. The housing and commercial property market in the USA and several European countries.
2. The stock market in the US and over the world.
3. The global commodity markets starting with oil, followed by metals, agriculture commodities and food products.

Similarly, Petrov (2008) noted that the global economy (at that time) had many bubbles. He added that the credit crisis had escalate since 2007 "a steady constriction of credit markets, starting with subprime mortgage-backed securities, spreading to commercial paper, then to interbank credit, and then to CDOs (Collateralized debt obligations), CLOs (Collateralized Loan Obligation), jumbo mortgages, home equity lines of credit, LBOs (Leverage Buyout) and private equity markets, and then generally to the bond and securities markets." According to the author the problem is not of illiquidity and confidence as it might be described, however, it is caused by the misallocation, poor investment and wasting of scarce capital.

The Security and Exchange Commission (SEC, 2008a, p. 5) explained the root cause of the current financial crisis as "*Beginning around late 2004, lenders offered mortgages to individuals who did not meet the normal qualifications (e.g., income or credit history). Many of these loans had teaser rates and/or were interest only. These more risky loans are referred to as "subprime mortgages." The theory behind approving these risky loans was that the homeowner would be able to refinance the loan in a few years because of the increased growth in home values and the individual's improved credit rating. Banks converted these loans into securities and sold the securities to other firms (known as the securitization process). Once home values began to decrease, mortgage loan defaults started to increase, causing the market value of the mortgage securities to decrease. In the ensuing months, the financial services industry wrote-down billions of dollars in the value of all types of mortgage securities*".

The same conclusion was reached by Burton and Folsom (2008). The author explained that from January 2001 to June 2004, the Fed sharply lowered the interest rate for federal funds. As a result of this mortgage rates plummeted from almost 8% in 2002 to 4-6% in 2006 and banks started to issue mortgages left and right to all kinds of buyers, even without putting down any collateral for risky home loans. So it was only a matter of time

before the defaulting began to topple the more fragile lending institutions (Burton and Folsom, 2008).

Hilsenrath *et al*. (2008) stated that Fed and Treasury officials have identified the cause of the crisis which is "deleveraging, or the unwinding of debt". The authors explained that American financial institute and households took too much debt during the credit boom; many of them can't pay back the loans, after the collapse in housing prices. Similarly, Blundell-Wignall and Atkinson (2009) explained that in the financial stress banks were forced towards deleverage as a result of the inadequate capital and the strain in lending standards. The authors explained that banks were forced to cut lending, even to sound businesses and credit-worthy consumers, and because people were losing their jobs they are unable to meet their financial obligations, which led to further loan deterioration and drops in asset prices. "Deleveraging accelerates. The vicious circle turning through falling asset prices, the economy and the financial system will continue to worsen. The impact on the real economy from a credit crunch is rapid and powerful." (Blundell-Wignall and Atkinson, 2009, p. 11)

Kirkpatrick (2009) separated his explanation of the crisis roots to macroeconomic and microeconomic dimensions. From the **macroeconomic** perspective, Kirkpatrick (2009) explained that after 2000 the interest rates was low, this was followed by assets price boom (mainly in the housing sector where lending expanded rapidly). He added, the low interest rates encouraged investors to search for revenue neglecting the risk, which had been spread throughout the financial system via new financial instruments. In 2006, rates on subprime mortgages in the US began to rise, house prices started to slow and some home owners' interest rates changed from the low initial rates ("teaser" rates) to a higher level (Kirkpatrick, 2009). The author continues to demonstrate that at the end of 2006 and at the beginning of 2007, a number of institutions started to issue warnings (such as OECD, Bank of England and the FSA). In June 2007, Kirkpatrick (2009) noted that there was an increase spread of credit in some of the world's major financial markets and major credit rating agencies announced significant downgrades. The author goes on and illustrate that by August 2007, it was clear that the subprime home mortgage market in the US could be blamed for a large part of this new risk aversion. By mid-2008, it was clear that the US subprime market crisis is having major impact on financial institutions and banks in many countries. In the third quarter of 2008, the crisis intensified with a number of collapses

(especially Lehman Brothers) and a generalised loss (Kirkpatrick, 2009). Schich (2009) added that after the collapse of the large investment bank Lehman Brothers the confidence in banking system were lost rapidly, which in turn lead to the collapse of risky assets' prices and the rise in assets with explicit insurance prices. The previous position had led to the inability of private financial institutions of providing financial insurance of the high demanded as many of them are struggling for their own survival (Schich, 2009). As a result, Kirkpatrick (2009) stated that towards the end of 2008, several banks, in Europe and USA, failed while others received government recapitalisation.

From the **microeconomic** (or market environment) level, financial institutions management faced challenging competitive conditions and also a regulatory environment (Kirkpatrick, 2009). Hitchins *et al*. (2001) stated that banks are operating in a competitive market. The authors explained that British banks face many competitive challenges: many companies, organizations, and charities offering some financial services which banks provide. Moreover, they added that the acquisition of UK banks by foreign entities trying to increase their share in the market brings new competitive challenge. These competition factors have reduced many banks' market share (Munir *et al*., 2011). The increased competition in the banking sector has facilitated the ability of non-financial companies to enjoying access to other sources of finance which forced banks to develop new sources of revenue (for example creation of new financial assets such as CDO's) (Kirkpatrick, 2009). "The regulatory framework and accounting standards (as well as strong investor demand) encouraged them not to hold such assets on their balance sheet" (Kirkpatrick, 2009, p. 5). As a result, some of the financial assets were positioned as off-balance sheet entities. This last point was mentioned previously by Blundell-Wignall (2007) as the one important difference between the current turmoil and previous crises (i.e. 1989-1991). The author stated that the use of off-balance sheet conduits spreads the pressures through different channels.

In the UK

The UK banking industry has been hugely influenced by the US sector. The starting point in the UK was the collapse of the nationalised bank "Northern Rock" in 2007, the first in 150 years, then it create a small-scale banking crisis with many customers demanding their money back from the bank (Chambers, 2009). The author stated that since then the banking sector in the UK has been pulled into an economic crisis unlike any for over a century.

In the third quarter of 2008, the crisis intensified with a number of collapses (especially Lehman Brothers) and a generalised loss (Kirkpatrick, 2009). Towards the end of 2008, several banks, in Europe and USA, failed while others received government recapitalisation. As a result of the crisis some banks needed tailor-made recapitalisation and "as a result of a failure to recapitalise with private investors, the government had to intervene" (Singh and LaBrosse, 2011, p. 17). The intervention by government and central banks to face the crisis, or as Wehinger (2009) called it "bold actions", had led to sustainable rebound in the financial sector. In the UK some banks (Royal Bank of Scotland "RBS", Halifax Bank of Scotland "HBOS" and Lloyds TSB) were unable to access the markets at that particular time (failed to recapitalise with private investors) so the government had to intervene and they participated in the recapitalisation scheme (Singh and LaBrosse, 2011). "The assistance provided to RBS and Lloyds Banking Group could broadly be referred to as open bank assistance, which includes support through loans or the purchase of troubled assets" (Singh, 2011, p. 8). Singh and LaBrosse (2011) explained that 58% stake in RBS and a 43% stake in Lloyds TSB were undertaken by the government. The authors continued to explain that the objective of the government help was to ensure the survival of the banks and avoided bankruptcy as the consequences of their collapse would be dramatic for the world markets and could be equal to the Lehman collapse as a result of these banks' position in the UK financial market.

Causes and the underlying reason

Many authors (such as: Hilsenrath *et al*., 2008; Jordan and Jain, 2009; Blinder, 2009) tried to analyse the causes and the underlying reason for the financial crisis of 2007-2009 and the problems connected to it. They found that irresponsible lending (Jordan and Jain, 2009), excess risk taking (Blinder, 2009) and the short-termist pressure placed by shareholder on directors for unsustainable ever-increasing earnings growth which forced managers to take excessive risk (Keay, 2010) are some of the reasons behind this crisis.

Others (e.g., Blundell-Wignall and Atkinson, 2009; Akerlof and Shiller, 2009; Jenkinson *et al*., 2008; Haldane, 2009) had focused on behaviour within the financial sector, such as irrational behaviour, non-profit maximizing incentives, the development of new products that lack transparency which could decompose and transfer risks to match user needs and the lack in the banks' ability to manage their exposures to risk depending on risk models. Rajan (2005) has focused on the spread of risk throughout the economy as a result of the new development in the financial sector. Similarly, Buchheit (2008) identified the

complexity of the finance products as a key reason for the crisis. Others, such as the Security and Exchange Commission (SEC, 2008b), examined the accuracy and the integrity of the ratings process of the credit rating agencies in rating the finance products and the role they played in providing inputs to risk models, the group found that the agencies improperly managed conflicts of interest (Keay, 2010).

Some authors (such as: Blinder, 2009, Chambers, 2009 and Kirkpatrick, 2009) have attributed the excess risk taking behaviour to the CEOs compensation schemes in the financial sector. Similarly, Kirkpatrick (2009) declared that remuneration and incentive systems have played a key role in the sensitivity of financial institutions to the current crisis and also in causing the development of unsustainable balance sheet positions. The author went on to wonder whether the rewarding system lead to excessive short term management actions and to "rewards for failure" as the CEO remuneration has not closely followed company performance. He draws attention to the danger of incentive systems that might encourage excessive risk and concluded that linking the executive remuneration to performance will lead to less risk taking. The current financial crisis has raised new issues in the executive compensation, as its structure (compensation was very high) led to risk taking strategies (OECD, 2009). The OECD (2009) gave an example for this the top five executives at Bear Stearns earned on average $28 million in 2006.

However, many writers (Kirkpatrick, 2009; Kenny 2009; Adams, 2009, Chambers, 2009 and Mulbert, 2010) have attributed the crisis to failures in the corporate governance of financial institutions. Others argued that the failures in risk management are indeed failures in corporate governance (Rose, 2010). Seal *et al*. (2009) stated that one cause for the recent collapse of some banks is due to regulatory failure. They added that the general problem seemed to be related to the measurement and management of risk. So the authors suggested that risk management to be a part of corporate governance.

On the contrary, Bainbridge (2010) saw that "The problem thus was not that the mechanisms of corporate governance were flawed, but rather that the ends to which those mechanisms were directed were wrong." And the core problem was "not the incentive of managements to produce competitive returns, but the incentive of bank creditors to oversupply leverage because they believe government will make them whole whether or not a bank's bets pay off." According to him the problem was in the belief that some banks

are “too big to fail” meaning that the risk could be externalize to the taxpayer, and if CEOs and boards did that is not evidence that corporate governance failed.

Appendix 2: Summary of previous articles on the relation between sustainability and performance

Author	Sustainability	Performance	Controlled V	Sample	Result
Pava and Krausz (1996)	CSR	16 variables divided between Market-based, Accounting-based, and Other Characteristics		Two groups of 53 firms matched by size and industry	+ with traditional financial performance + with market-based measures + with size + with one risk measure
Hackston and Milne (1996)	Disclosures	Return on equity return on assets five-year averages ROE five-year averages ROA Size Industry type		The 50 largest companies listed in New Zealand	size and industry are significantly associated with amount of disclosure, while profitability is not
Sarkis and Cordeiro (2001)	environmental proactivism	1-and 5-year earnings-per-share performance forecasts		523 USA firms in 1992	a significant negative relationship
Waddock and Grave (1997)	KLD	lagged variables ROA ROE ROS	size, risk, and industry	S&P 500	+ CSP-FP
Preston and O'Bannon (1997)	Fortune Survey	return on assets, return on equity, and return on investment		67 large USA For 1982–1992	+ CSP-FP link
Moore (2001)	CSP	accounting-based growth in turnover, profitability, return	size, firm age and average gearing	UK Supermarket industry	+ with prior-period

		on capital employed, and earnings per share			financial performance + age and size - gearing
Hillman and Keim (2001)	CSP: stakeholder management and social issue participation	Market value-added	Size and industry	data from S&P 500 firms	+ stakeholder management – social issue participation
Simpson and Kohers (2002)	Social performance	return on assets (ROA) and loan losses to total loans	size, risk, asset portfolio composition, local economic environment, holding company affiliation, level of investment in branch offices, cost of funds, and overhead expenses constant	USA banks	+ social and financial performance
Lopez *et al* (2007)	CSR	growth of profit before tax (PBT), growth in revenue (REV), assets, capital , profit margin , return on earnings , return on assets and cost of capital	size, sector of activity and risk	two groups of 55 European firms	+ long term - short-term negative impact on performance
Chang, and Kuo, (2008)	sustainability	profitable indicators of return of equity (ROE), return of asset (ROA) and return of sales (ROS	size and industry	311 cases	No-firm size No-industry + sustainability & profitabilit

					y + profitabilit y & sustainabil ity
Ngwakwe (2008)	sustainab le practices	return on total assets (ROTA)		survey of sixty manufactur ing companies in Nigeria	+ sustainabil ity & performan ce
Rettab *et al.* (2009)	CSR	financial performance: market share and size, firm's performance relative to competitors return on investment, ROA, sales growth, and profit growth employee commitment: corporate reputation	Size, sector, age of the firm.	Survey data from 280 firms operating in Dubai	+ with all
Samy *et al.* (2010)	CSR reporting (GRI)	earnings per share		20 selected UK companies	+ Support stakeholde r theory
Buys *et al*. (2011)	sustainab ility disclosur e	investment return ROA, ROE residual income EVA, MVA		two groups of companies in South Africa	may experience better performan ce, but the statistical analysis could not confirm a definite positive relationshi p
Wagner (2010)	social responsi bility and environ mental	Tobin's Q	firm age, size, square of firm size, logarithmic values of age	panel data for a set of USA firms	+ if high level of advertising - otherwise

	manage ment		and size R&D expenditure divided by sales and sales growth		
Chih *et al*. (2010)	CSR	ROA, total assets (competition), Legal environment, Quality Of Management, Cooperation in Labor-Employer Relations Index, types of industry…		520 financial firms in 34 countries	firms with larger size are more CSR mind financial performan ce and CSR are not related
Uwuigbe and Egbide (2012)	Disclosu res	return on total assets financial leverage	the size of audit firm	41firms (both in the financial and non-financial firms) in Nigeria	+ financial performan ce and the size of audit firm with the level of disclosures
Lee *et al*. (2013)	CSR (operatio n and non-operation) dimensio n	Tobin's Q	firm size, capital structure (leverage), profitability ROA, dividend pay-out, and economic conditions	U.S. airlines	+ with operating + with non-operating

Appendix 3: Banks Used in This Research

	Bank name	Total Assets EUR
	USA Banks	
1	JP Morgan Chase & Co.	1,787,993,022
2	Bank of America Corporation	1,674,939,349
3	Citigroup Inc	1,413,225,860
4	Wells Fargo & Company	1,078,467,482
5	Goldman Sachs Group, Inc	711,330,858
6	Morgan Stanley	591,889,603
7	Prudential Financial Inc	537,576,972
8	Bank of New York Mellon Corporation	272,078,530
9	US Bancorp	268,186,713
10	PNC Financial Services Group Inc	231,240,603
11	State Street Corporation	168,694,903
12	American Express Company	116,064,810
13	Regions Financial Corporation	91,968,894
14	Northern Trust Corporation	73,867,851
15	KeyCorp	67,631,967
16	M&T Bank Corporation	62,912,372
17	Comerica Incorporated	49,535,588
18	Huntington Bancshares Inc	42,558,512
19	Commerce Bancshares, Inc.	16,807,808
20	First Interstate Bancsystem, Inc	5,849,084
21	1st Source Corporation	3,448,976
22	Mechanics Bank	2,412,017
23	CoBiz Financial Inc	2,011,195
24	DISCOVER	54,445,453
25	Rabobank	752,410,000
26	TD bank	165,916,927
27	Union bank	73,003,001
28	BMO	87,999,378
	EU Banks	
29	HSBC Holdings Plc	2,040,674,616
30	Deutsche Bank AG	2,012,329,000
31	BNP Paribas	1,907,290,000
32	Barclays Plc	1,782,411,784
33	Royal Bank of Scotland Group Plc (The)	1,569,494,137
34	Banco Santander SA	1,269,628,000
35	ING Groep NV	1,168,632,000
36	Lloyds Banking Group Plc	1,105,756,666
37	UniCredit SpA	926,827,500
38	Nordea Bank AB (publ)	677,309,000
39	Intesa Sanpaolo	673,472,000
40	Banco Bilbao Vizcaya Argentaria SA	637,785,000
41	Commerzbank AG	635,878,000
42	Standard Chartered Plc	482,417,008
43	Danske Bank A/S	466,724,894

44	Dexia	357,210,000
45	Skandinaviska Enskilda Banken AB	285,875,069
46	Svenska Handelsbanken	277,776,392
47	KBC Groep NV/ KBC Groupe SA-KBC Group	256,886,000
48	Banca Monte dei Paschi di Siena SpA-Gruppo Monte dei Paschi di Siena	218,882,200
49	Erste Group Bank AG	213,824,000
50	Deutsche Postbank AG	193,822,000
51	Banco de Sabadell SA	161,547,100
52	Raiffeisen Bank International AG	136,116,000
53	National Bank of Greece SA	104,798,800
54	Banco Espanol de Crédito SA, BANESTO	110,746,600
55	Banco Comercial Português, SA-Millennium bcp	89,744,000
56	Banco Espirito Santo SA	83,690,800
57	Delta Lloyd NV-Delta Lloyd Group	79,995,600
58	Piraeus Bank SA	70,406,200
59	Eurobank Ergasias SA	67,653,000
60	Alpha Bank AE	58,357,400
61	Bankinter SA	58,165,900
62	Banco BPI SA	44,564,600
63	Jyske Bank A/S (Group)	34,585,959
64	Schroders Plc	17,551,300
65	BANIF - Banco Internacional do Funchal, SA	13,992,300
66	Aktia Plc	10,215,800
67	Banca Generali SpA-Generbanca	7,317,300
68	Vestjysk Bank A/S	4,388,149
69	Ringkjoebing Landbobank	2,368,011
70	Sparekassen Faaborg A/S	847,523
71	Bank of Greenland-Gronlandsbanken A/S	645,911

Appendix 4: Developed Sustainability Index

I- Operating ecology (internal environmental performance indicators)

"In VFU's terminology, 'operating ecology' means environmental aspect caused directly by the operating business in the main administrative buildings and branches, such as the consumption of energy or resources, or the creation of emissions and waste" Bouma *et al*. (2001, p. 150). It also includes efforts to reduce the direct environmental effect of the company and the expenditures on the direct environmental issues.

	GRI	category	Description
SUS 1-	**EN1 EN2**	Materials Paper used	All forms of materials and components that are part of the final product; and materials for packaging purposes. +Recycled input materials (This Indicator seeks to identify the organization's ability to use recycled input materials).
SUS 2-	**EN3 EN4 EN5 EN7**	Energy used (electricity, fule, Heating ...)	The reporting organization's consumption of direct primary energy sources (Coal; Natural gas, Fuel…) and indirectly through the purchase of electricity, heat, or steam (electricity, Heating and Cooling). + This also includes energy saved due to conservation and efficiency improvements and initiatives to reduce energy consumption
SUS 3-	**EN8 EN9 EN21 EN25**	Water used	All water used and discharged by the reporting organization from all sources and water bodies significantly affected by this.
SUS 4-	**EN11, 13,14 15**	Biodiversity	The impact of operation on biodiversity + Strategies, current actions, and future plans for managing impacts on biodiversity.
SUS 5-	**EN16 17,18 19,20**	Emissions	from all sources owned or controlled by the reporting organization (Emission from energy used, transport...)
SUS 6-	**EN22 EN24**	Waste	Waste created by the organization's operations. For most financial institutions the primary types of waste streams will be paper and waste IT products. + Waste recycled
SUS 7-	**EN29**	Transport	Business travel, transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.
SUS 8-	**EN28**	compliance with operating Env laws & reg	Identify administrative or judicial sanctions for failure to comply with environmental laws and regulations and report significant fines and non-monetary sanctions.

II- Operating sociology (internal social performance indicators)

Similar to operating ecology, operating sociology could be defined as the social aspects caused directly by the operating business in the main administrative buildings and

branches such as child labour. It also includes efforts to reduce the direct social effect of the company and the expenditures on the direct social issues. It consists of three main groups:

1- Labour practices: this describes the impact of organisational activities (operation) on its human resources. This form of disclosure includes reporting on matters such as employee numbers, employee turnover, benefits and remuneration, health and safety at work place, equal opportunities, training, and any policy or practice affecting condition of work.

2- Human rights practices: organization should safeguarding human rights and respecting the dignity of every single human being. This theme addresses the human rights that are most relevant to organizations operations.

3- The impacts of operations on communities and compliance with operating social laws & regulations

	GRI	**category**	**Description**
Sus 9		**Labour Practices**	
SUS 9-1	**LA1 LA2**	Employee info	information regarding employees (such as Total workforce by employment type, employment contract, gender, and region); information about employee turnover and hired (by age group, gender, and region)
SUS 9-2	**LA3 LA15**	Employee benefits	Benefits provided to full-time employees that are not provided to temporary or part-time employees (Life insurance; Health care; Disability/invalidity coverage; Maternity/paternity leave; Retirement provision; Stock ownership). Return to work and retention rates after parental leave, by gender.
SUS 9-3	**LA4 LA5**	Labour /Management Relations	Information about employees covered by collective bargaining agreements and minimum notice period(s) regarding operational changes, including whether it is specified in collective agreements.
SUS 9-4	**LA6 LA7 LA8 LA9**	Labour health and safety	This includes the formal health and safety committees that help monitor and advice on occupational safety programs, the percentage of the total workforce represented and Health and safety topics covered in formal agreements with trade unions. - It also includes rates of injury, occupational diseases, lost days, and absenteeism, and number of work related fatalities by region and by gender. + Education, training, counselling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases. **For Financial Services Sector:** Financial institutions should report their policies and practices regarding

			threats and violence in place to assist workforce members, their families, or community members which might occur for example: • Attacks and aggressions by customers (verbal or physical) or others; • Bank robberies (e.g. kidnapping etc.); and • As a result of legal reporting requirements on criminal activities (e.g. money laundering, terrorism). Policies and practices include education, training, counselling, prevention, and risk-control programs.
SUS 9-5	**LA10 LA11 LA12**	Labour training and education	any disclosure related to employees (and managers) training, this includes average hours of training per year per employee by employee category and by gender; programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings; and percentage of employees receiving regular performance and career development reviews by gender.
SUS 9-6	**LA13 LA14**	Labour diversity and equal opportunity	This includes the measure of diversity and Equal Opportunity within an organization. This includes composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity. Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation.
Sus 10		**Human rights practices**	
SUS 10-1	**HR6 HR7**	Child and compulsory labour	Operations and significant suppliers identified as having significant risk for incidents of child labour, and measures taken to contribute to the elimination of child labour.(all persons under the age of 15 years or under the age of completion of compulsory schooling (whichever is higher). Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labour, and measures to contribute to the elimination of forced or compulsory labour.
SUS 10-2	HR3 HR8	Employee training & Security Practices on human rights	Employee training on policies and procedures concerning aspects of human rights that are relevant to operations. Security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.

SUS 10-3	HR2 HR4 HR5 HR9	Human rights policies	-Investment and Procurement Practices: how reporting organizations apply their human rights policies to their suppliers, contractors and other business partners. -Non –discrimination: relevant forms of discrimination involving internal and/or external stakeholders across operations in the reporting period and corrective actions taken -Freedom of Association and Collective Bargaining: This indicator aims to evaluate whether opportunities exist for workers to exercise their rights to freedom of association and collective bargaining. It also aims to reveal actions that have been taken to support these rights across the organization's range of operations and significant suppliers. -Indigenous Rights: 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.
SUS 10-4	**HR10** **HR11**	Human rights Assessment and Remediation	Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments. Number of grievances related to human rights filed, addressed, and resolved through formal grievance mechanisms.
SUS 11-	SO1 **SO9** **SO10**	the impacts of operations on communities	Percentage of operations with implemented local community engagement, impact assessments, and development programs. Any programs and practices that asses and manage the impacts of operations on communities, including entering, operating, and exiting. Operations with significant potential or actual negative impacts on local communities. Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities.
SUS 12-	SO8	compliance with operating social laws &regulations	The organization's overall record of compliance with the range of social laws under which it must operate. Monetary and non-monetary fines and sanctions for noncompliance with operating social laws and regulations (such as laws and regulations related to accounting fraud, workplace discrimination, etc).

III- Product ecology (indirect, external)

It represents the environmental impact of banks' products. There are two components of these impacts: the environmental impacts arising from the bank's products and services themselves; and the environmental impacts arising from the way in which the bank delivers its products and services (Bouma *et al*., 2001, p. 73). However, the products of the banks themselves do not have impact on environment; rather, it is the users of these products (Jeucken and Bouma, 1999). "Through credit and investment choices, and insurance policies, financial institutions play an important indirect role in negative and positive environmental activities of their clients" (KPMG and WIMM 1999 cited in Bouma *et al*., 2001, p. 158). Hence, banks' external activities have indirect impact on the environment. Product ecology can be divided into two categories: environmental risk management related to financial products; and specific environmental products (Bouma *et al*., 2001, p. 158).

GRI (2006) defined Environmental risk as "the probability and significance of an adverse environmental impact arising from the activities of either the financial institutions or its clients, investee companies, or transactions and consequently having some financial or non-financial impact on the company or its clients" (GRI3, p. 60). "Financial organization may also develop completely new environment-related products and services. These include green or ethical investment products, environmental insurance, financing of environmentally favourable projects and investments and environmental advisory services" (Bouma *et al*., 2001, p. 160).

	GRI	**category**	**Description**
		Environment risk management related to financial products	
SUS 13-	PR3 PR4	Products and Service labelling environment information	Information about the environmental impacts of products and services is necessary for customers and end users. This indicator provides an indication of the degree to which information and labelling addresses a product's or a service's impact on environment. -Total number of incidents of non-compliance with (environmental) regulations and voluntary codes concerning product and service information and labelling, by type of outcomes.
SUS 14-	FS3 FS5	Clients environment risk	The indirect impacts associated with the actions of clients may be more significant than the direct impacts of a financial institution. The environmental impacts of clients and business partners. Processes for monitoring clients' implementation of and compliance with environmental requirements included in agreements or transactions.

			Interactions with clients/investees/business partners regarding environmental risks and opportunities. Interactions may be aimed at examining clients' approaches to management of environmental risks.
SUS 15	FS2	environmental risks in business lines	Procedures for assessing environmental risks in business lines. This includes reporting organisations that incorporated assessment of environmental criteria into their risk management system. The process(es) and procedures that the organisation uses to assess the environmental impacts of its products and services and how this affects transaction decisions. Including those procedures used to implement environment policies.
SUS 16	FS4	Environmental staff competency	Process(es) for improving staff competency to implement the environmental policies and procedures as applied to business lines. The indicator enables assessment of the degree to which the reporting organisation has ensured the necessary competencies are in place to effectively address the environmental risks and opportunities associated with its products and services.
SUS 17	FS10 FS11 FS12	Active environmental Ownership	Percentage and number of companies held in the institution's portfolio with which the reporting organization has interacted on environmental issues. Percentage of assets subject to positive and negative environmental screening. Environmental Screening Investment strategies that involve selecting companies on the basis of set environmental criteria. Voting polic(ies) applied to environmental issues for shares over which the reporting organization holds the right to vote shares or advises on voting.
SUS 18	PR9	Products and service Compliance with environmental laws and regulations	Identify administrative or judicial sanctions levied against the organization for failure to comply with products environmental 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 and report significant fines and non-monetary sanctions.
		B- Specific environmental products	
SUS 19	FS1	Products and services Environment polices	This indicator is intended to provide an overview of the reporting organisation's intention to consider environmental criteria across design and delivery of core products and services (e.g., project finance, loans, mortgages, mutual funds, etc). Investment in countries or regions that are controversial
SUS	FS8	Special	Monetary value of products and services designed to

20		products and services	deliver a specific environmental benefit for each business line broken down by purpose.

* EN6 product energy and EN12, EN26 Products environmental impacts in GRI were deleted from this index as banks products do not consume energy and there is no direct impact of banks product on environment.
* EN27 Products recycle were deleted from this index as banks in general "do not generate significant volumes of products with recoverable material" (Santander report 2012).
* PR1-PR2 the impacts of products and services on Customer Health and Safety were deleted from this index as they do not apply to banking business.

IV- Product sociology (indirect, external)

It represents the social impact of banks' products. There are two components of these impacts: the social impacts arising from the bank's products and services themselves; the social impacts arising from the way in which the bank delivers its products and services (Bouma *et al*., 2001, p. 73). However, the products of the banks themselves do not have significant social impact; rather, it is the users of these products. Through financial products and services, financial institutions play an important indirect role in negative and positive social activities of their clients. Hence Product sociology contain: the social impacts arising from the bank's products and services, the social impacts arising from the way in which the bank delivers its products and services, and the social impacts of the users of these products. As well as any activities bank do to society in general.

GRI (2011, p. 39) defined society performance indicators as the indicators "focus attention on the impacts organizations have on the communities in which they operate, and disclosing how the risks that may arise from interactions with other social institutions are managed and mediated. In particular, information is sought on the risks associated with bribery and corruption, undue influence in public policy-making, and monopoly practices."

	GRI	**category**	**Description**
SUS 21-		**Community**	
21.1	FS13 FS14	Accessibility of financial service	Financial services should be reasonably accessible to all customers within the regions where the financial institution operates. So this indicator report on access points in low-populated or economically disadvantaged areas by type and on initiatives to improve access to financial services for disadvantaged people (People with disabilities or impairment, and people facing language, cultural, age or gender barriers).
21.2	FS16	Financial literacy	Initiatives to enhance financial literacy. For financial institutions, enhancing financial literacy represents an opportunity to improve the sophistication

			of their customer base, its ability to use products and services and to address issues of over indebtedness, social exclusion and other financial risks. This measure considers financial literacy initiatives to educate customers and other groups or communities on financial planning and management.
21.3	SO2 SO3 SO4	Corruption	(Efforts to manage reputational risks arising from corrupt practices by employees or business partners). This indicator report on the percentage and total number of business units analyzed for risks related to corruption; percentage of employees trained in organization's anti-corruption policies and procedures; and actions taken in response to incidents of corruption.
21.4	SO7	Anti - Competitive Behaviour	Total number of legal actions for anticompetitive behaviour, anti-trust, and monopoly practices and their outcomes.
21.5	PR6 PR7	Marketing Communications	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship. Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.
Sus 22		public policy	Report the significant issues that are the focus of the reporting organization's participation in public policy development and lobbying. Financial and in-kind contributions to political parties, politicians, and related institutions.
SUS 23-		**Products and services:**	
23.1	FS1 FS15	Social polices	This indicator is intended to provide an overview of the reporting organisation's intention to consider social criteria across design and delivery of core products and services (e.g., project finance, loans, mortgages, mutual funds, etc). -- Policies for the fair design and sale of financial products and services. This indicator is intended to identify how the reporting organisation manages potential conflicts of interest between the FI (financial institution) and the customer. It also identifies how the institution encourages use of products, services and advice in a fair and reasonable manner. It allows the reader to understand the extent to which the FI is ensuring appropriate, fair and responsible use of products, services and advice.
23.2	FS2	Social risks of business line	Procedures for assessing social risks in business lines. This includes reporting organisations that incorporated assessment of social criteria into their risk management

			system. The process(es) and procedures that the organisation uses to assess the social impacts of its products and services and how this affects transaction decisions. Including those procedures used to implement social policies.
23.3	PR3 PR4	Labelling social information	-Type of product and service information required by procedures and percentage of significant products and services subject to such information requirements. Providing appropriate information and labelling with respect to social impacts is directly linked to compliance with certain types of regulations and codes. This measure provides an indication of the degree to which information and labelling addresses a product's or a service's impact on society. -Information about the social impacts of products and services (positive and negative) is necessary for customers and end users. This indicator provides an indication of the degree to which information and labelling addresses a product's or a service's impact on society. Total number of incidents of non-compliance with (social) regulations and voluntary codes concerning product and service information and labelling, by type of outcomes.
23.4	FS7	Special social products	Monetary value of products and services designed to deliver a specific social benefit for each business line broken down by purpose.
SUS 24-		**Clients**	
24.1	FS3 FS5	Clients social risk	-manage social impacts of clients and business partners. Processes for monitoring clients' implementation of and compliance with social requirements included in agreements or transactions. -Interactions with clients/investees/business partners regarding social risks and opportunities. The indirect impacts associated with the actions of clients may be more significant than the direct impacts of a financial institution, and interactions are therefore one of the key opportunities for managing impacts. This indicator is intended to reflect an overview of interactions as a whole rather than a detailed catalogue of individual interactions. Interactions may be aimed at examining clients' approaches to management of social risks
24.2	PR5 PR8	Customer satisfaction and privacy	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction. Total number of substantiated complaints regarding breaches of customer privacy and losses of customer

			data.
24.3	HR1	Human rights investment agreements	Disclosure about investment agreements and contracts that include clauses incorporating human rights concerns or that have undergone human rights screening. For financial services, "investment agreements" refers to the range of financing agreements that include standard banking agreements such as loans agreements and underwriting contracts as well as insurance agreements.
SUS 25	FS4	Social staff competency	Process(es) for improving staff competency to implement the social policies and procedures as applied to business lines. The indicator enables assessment of the degree to which the reporting organisation has ensured the necessary competencies are in place to effectively address the social risks and opportunities associated with its products and services.
SUS 26-	FS10 FS11 FS12	active social Ownership	Percentage and number of companies held in the institution's portfolio with which the reporting organization has interacted on social issues. Percentage of assets subject to positive and negative social screening. Social screening Investment strategies that involve selecting companies on the basis of set social criteria. Voting polic(ies) applied to social issues for shares over which the reporting organization holds the right to vote shares or advises on voting.
SUS 27	PR9	Products and service Compliance with social laws and regulations	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with social laws and regulations concerning the provision and use of products and services. Identify administrative or judicial sanctions levied against the organization for failure to comply with social 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.

Appendix 5: Stakeholders' Needs

Employees	• **Family**: Work/life balance: Programs for employees to balance job demands with obligations to families and communities.- Wellbeing and satisfaction of worker. - provides a family friendly work environment. Provides child care support/paternity/maternity leave in addition to what is expected by law. • **Union relations**: Respect for union rights and the conventions of the International Labor Organization. • **Health and safety** at work/ Job security: A healthy and safe work environment • **Learning and development** opportunities/ Training and mentoring/ development of workers' skills: systematic investment in human capital.- Invests in employee development. • **Diversity**/ social **equity**: promotion of women and minorities./ Engages in employment diversity in hiring and promoting women, ethnic minorities and the physically Handicapped/ Promotes a dignified and fair treatment of all employees/ Equal employment opportunities • Community spirit/ Social mission integration • **Wages**, profit sharing and benefits/ Fair remuneration/ Monetary and non-monetary compensation • Effective communication Encourages freedom of speech and promotes employee rights to speak up and report their concerns at work. Engages in open and flexible communication with employees • Competent leadership
Customers	• **Customer** satisfaction and **Privacy** • marketing policies/ Avoids **false and misleading** advertising/ **Truthful promotion**: Avoids sales promotions that are deceptive/manipulative • Provides **information** that is truthful, honest and useful/ **Transparency** of consumer product information. • Avoids engagement in price fixing / Avoids manipulating the availability of a product for purpose of exploitation • Environmentally and socially responsible product composition • Consumer protection • Accessibility to financial service • Financial literacy • Discloses all substantial **risks** associated with product or service • Fair and non-discriminatory treatment and Respects the **rights** of consumers • Ongoing **communications**: innovative programs to

	communicate with customers
Government regulators	• Human rights: policies to address human rights concerns: • Taxes, lobbying and public policy: support for government by paying taxes and exercising restraint in influence over legislation. • Compliance with the law
Community, society & environment	• Community 1. Invests in communities in which corporation operates 2. Launches community development activities 3. Efficient and effective community activity 4. Generous financial donations 5. Innovative giving 6. Support for education and job training programs 7. Direct involvement in community projects and affairs 8. Support for the local community 9. Encourages employee participation in community projects 10. Community volunteer programs 11. Creation of added value to the community 12. Fosters reciprocal relationships between the corporation and community. • Environmental and social commitment and policy 1. Demonstrates a commitment to the environment and society. 2. Environmental and social policies • operation environment 1. Materials policy of reduction, reuse and recycling 2. Monitoring, minimizing and taking responsibility for releases to the environment 3. Waste management 4. Energy conservation • Environmental and social requirements for clients and companies
Others (Media/ the public+ Suppliers)	• Potential risk • Labour standards: Adequate monitoring of labour standards at its suppliers • Assist suppliers to improve their environmental/social performance/ Inclusion of environmental/social criteria in the suppliers' selection • Relationship with suppliers
Investors + Shareholders	• Performance • Corporate governance issues are well managed • Develop and Engages in fair and honest relationships with shareholders, which include Open communication, and clear information • legislation • Encourage staff ownership of shares • Clear dividend policy and payment of appropriate dividends

	• Access to company's directors and senior managers

Appendix 6: A Comparisons between 2006 and 2012

This section aims to compare primary stakeholder, secondary stakeholder, communication intensity, and the four main themes of sustainability between 2006 and 2012 to see if any improvement happened across the years. To this, paired *t*-test was used as it is generally used to compare two samples with matching cases (for example before and after experiment). To be able to perform this test a match between the banks in 2006 and 2012 was made which leaves only 62 matched cases (have both 2006 and 2012 data). The results are presented in the following tables A6.1.

Table A6.1 panel A shows that primary stakeholders mean increased from (m=5.26, SD=2.83) in 2006 to (m=5.39, SD=2.76) in 2012. Secondary stakeholder increased from (m=2.47, SD=1.16) in 2006 to (m=2.76, SD=1.38) in 2012. Communication intensity from (m=1.94, SD=1.21) in 2006 to (m=2.06, SD=1.04) in 2012. However, when checking Panel B it was clear that there is no statistically significant difference between the mean of primary stakeholders in 2006 and in 2012 [$t(61)=-0.312$, $p=0.75$], nor for the mean of secondary stakeholders in 2006 and in 2012[$t(61)=-1.42$, $p=0.15$], nor for the mean of communication intensity in 2006 and in 2012[$t(61)=-0.754$, $p=0.45$].

Table A6.1 paired t-test comparison for stakeholders and communication between 2006 and 2012.

Panel A **Paired Samples Statistics**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	2006 primary stakeholders	5.26	62.00	2.84	0.36
	2012 Primary stakeholders	5.39	62.00	2.77	0.35
Pair 2	2006 Secondary stakeholders	2.47	62.00	1.16	0.15
	2012 Secondary stakeholders	2.77	62.00	1.38	0.18
Pair 3	2006 Communication Intensity	1.94	62.00	1.21	0.15
	2012 Communication Intensity	2.07	62.00	1.05	0.13

Panel B **Paired Samples Test**

		Paired Differences					*t*	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	2006 Primary stakeholders - 2012 Primary stakeholders	-0.13	3.26	0.41	-0.96	0.70	-0.31	61.00	0.76

Pair 2	2006 Secondary stakeholders - 2012 Secondary stakeholders	-0.29	1.61	0.21	-0.70	0.12	-1.43	61.00	0.16
Pair 3	2006 Communication Intensity - 2012 Communication Intensity	-0.13	1.34	0.17	-0.47	0.21	-0.75	61.00	0.45

For sustainability (Table A6.2), no significant difference between 2006 and 2012 was found for the four themes, which means that the sustainability practices of these banks did not improve between 2006 and 2012.

Table A6.2 paired t-test comparison for sustainability between 2006 and 2012

Panel A **Paired Samples Statistics**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	2006 operation ecology	0.78	62.00	0.45	0.06
	2012 operation ecology	0.81	62.00	0.33	0.04
Pair 2	2006 operation sociology	2.39	62.00	1.11	0.14
	2012 operation sociology	2.55	62.00	0.92	0.12
Pair 3	2006 product ecology	1.56	62.00	0.59	0.07
	2012 products ecology	1.55	62.00	0.67	0.09
Pair 4	2006 products sociology	1.44	62.00	0.58	0.07
	2012 products sociology	1.38	62.00	0.55	0.07

Panel B **Paired Samples Test**

		Paired Differences					*t*	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	2006 operation ecology - 2012 operation ecology	-0.04	0.51	0.06	-0.16	0.09	-0.56	61.00	0.58
Pair 2	2006 operation sociology - 2012 operation sociology	-0.16	1.28	0.16	-0.48	0.17	-0.98	61.00	0.33
Pair 3	2006 product ecology - 2012 products ecology	0.01	0.82	0.10	-0.20	0.22	0.10	61.00	0.92
Pair 4	2006 products sociology - 2012 products sociology	0.07	0.76	0.10	-0.13	0.26	0.68	61.00	0.50

This test was repeated for only European banks in the years of 2006 and 2012 (39 bank), to see if the results differ. However, no significant difference was found for all the variables as in table A6.3.

Table A6.3 paired t-test comparison for European banks between 2006 and 2012

EU-Paired Samples Test

		Paired Differences					*t*	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	2006 Primary stakeholders - 2012Primarystakeholders	-0.10	3.82	0.61	-1.34	1.14	-0.16	38.00	0.87
Pair 2	2006 Secondary stakeholders - 2012 Secondary stakeholders	-0.42	1.76	0.28	-0.99	0.15	-1.48	38.00	0.15
Pair 3	2006 Communication Intensity - 2012 Communication Intensity	-0.13	1.64	0.26	-0.66	0.40	-0.49	38.00	0.63
Pair 4	2006 operation ecology - 2012 operation ecology	-0.05	0.54	0.09	-0.22	0.13	-0.55	38.00	0.59
Pair 5	2006 operation sociology - 2012 operation sociology	-0.15	1.48	0.24	-0.63	0.33	-0.64	38.00	0.53
Pair 6	2006 product ecology - 2012 products ecology	-0.08	0.81	0.13	-0.35	0.18	-0.64	38.00	0.53
Pair 7	2006 products sociology - 2012 products sociology	0.01	0.73	0.12	-0.23	0.24	0.04	38.00	0.97

Similarly, for American banks in the years of 2006 and 2012 (23 bank), no significant difference was found for all the variables as in table A6.4.

Table A6.4 paired t-test comparison for American banks between 2006 and 2012

USA-Paired Samples Test

		Paired Differences					*t*	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	2006 Primary stakeholders - 2012Primarystakeholders	-0.18	2.06	0.43	-1.07	0.71	-0.42	22.00	0.68
Pair 2	2006 Secondary stakeholders - 2012 Secondary stakeholders	-0.08	1.34	0.28	-0.66	0.50	-0.29	22.00	0.78
Pair 3	2006 Communication Intensity - 2012 Communication Intensity	-0.13	0.58	0.12	-0.38	0.12	-1.06	22.00	0.30
Pair 4	2006 operation ecology - 2012 operation ecology	-0.02	0.45	0.09	-0.21	0.18	-0.17	22.00	0.87
Pair 5	2006 operation sociology - 2012 operation sociology	-0.17	0.88	0.18	-0.55	0.21	-0.94	22.00	0.36
Pair 6	2006 product ecology - 2012 products ecology	0.17	0.83	0.17	-0.19	0.53	0.98	22.00	0.34
Pair 7	2006 products sociology - 2012 product sociology	0.17	0.82	0.17	-0.19	0.52	0.99	22.00	0.33

Appendix 7: The Effect of this Year Performance on next year Sustainability

The effect of this year performance on next year sustainability is tested for the group of banks in this study (see, Figure A7.1 and Table A7.1).

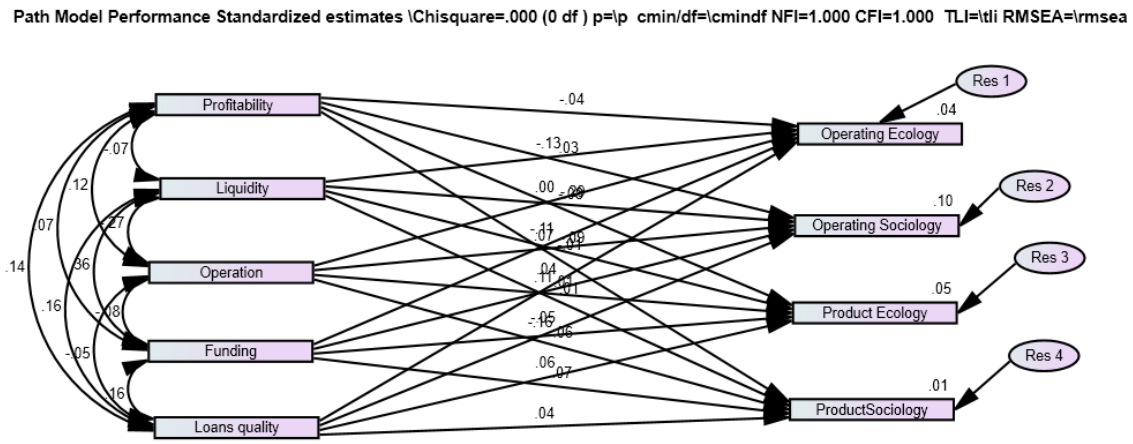

Figure A7.1 Banks performance and sustainability

Table A7.1 Regression Weights: (Path Model Performance)

			Estimate	S.E.	C.R.	Beta	*P*
Operating Ecology	<---	profitability	-0.21	0.3	-0.69	-0.04	0.49
Operating Sociology	<---	profitability	0.18	0.32	0.57	0.03	0.57
Product Ecology	<---	profitability	-0.5	0.32	-1.57	-0.08	0.12
Product Sociology	<---	profitability	-0.04	0.33	-0.13	-0.01	0.9
Operating Ecology	<---	liquidity	-0.16	0.07	-2.29	**-0.13**	*
Operating Sociology	<---	liquidity	-0.41	0.08	-5.41	**-0.29**	**
Product Ecology	<---	liquidity	-0.13	0.08	-1.71	-0.09	0.09
Product Sociology	<---	liquidity	0.01	0.08	0.15	0.01	0.88
Operating Ecology	<---	operation	-0.01	0.18	-0.04	0	0.97
Operating Sociology	<---	operation	0.28	0.19	1.43	0.07	0.15
Product Ecology	<---	operation	0.04	0.2	0.21	0.01	0.83
Product Sociology	<---	operation	0.24	0.2	1.23	0.06	0.22
Operating Ecology	<---	funding	-0.24	0.11	-2.13	**-0.11**	*
Operating Sociology	<---	funding	0.26	0.12	2.21	**0.11**	*
Product Ecology	<---	funding	-0.36	0.12	-2.96	**-0.16**	**
Product Sociology	<---	funding	0.17	0.12	1.35	0.07	0.18
Product Sociology	<---	Loan quality	0.1	0.13	0.77	0.04	0.44
Product Ecology	<---	Loan quality	0.15	0.13	1.17	0.06	0.24
Operating Sociology	<---	Loan quality	-0.12	0.12	-0.95	-0.05	0.34
Operating Ecology	<---	Loan quality	0.08	0.12	0.71	0.04	0.48

**. Beta is significant at the 0.01 level (2-tailed).

*. Beta is significant at the 0.05 level (2-tailed).

The results do not support the relationship between performance and sustainability. Out of the 20 relationships studied only 5 were found significant. The only significant positive effect found was between funding and operating sociology.

Appendix 8: Indirect Effects Testing

The indirect effects of stakeholders' salience and communication intensity on banks performance were investigated by reporting direct effects, indirect effects and total effects and associated two tailed significance levels at 0.05. The standardized significance levels were obtained from bootstrapping function of AMOS 20 (Garson, 2013) and correcting for sampling bias. AMOS uses the multiplication rule to partition overall effects automatically into direct and indirect effects for the endogenous variables. The results are presented in Table A8.1.

Table A8.1 Indirect effects of stakeholder salience, and communication intensity on performance

Stakeholder Salience						
	Direct effect		**Indirect effect**		**Total effect**	
	Beta	***P* level**	**Beta**	***P* level**	**Beta**	***P* level**
Profitability	-0.08	0.29	0.04	0.46	-0.05	0.53
Liquidity	0.11	0.16	-0.13	0.06	-0.01	0.93
Operation	-0.06	0.47	**0.10**	**0.03**	0.05	0.40
Funding	-0.16	0.07	**0.20**	**0.00**	0.05	0.42
Loan quality	-0.04	0.50	0.08	0.28	0.04	0.32
Communication Intensity						
	Beta	***P* level**	**Beta**	***P* level**	**Beta**	***P* level**
Profitability	0.01	0.78	-0.02	0.35	-0.01	0.92
Liquidity	0.14	0.04	-0.06	0.14	0.08	0.22
Operation	-0.13	0.04	0.00	0.95	-0.13	0.08
Funding	-0.10	0.06	-0.03	0.25	-0.13	0.02
Loan quality	0.01	0.74	-0.01	0.61	0.00	0.93

**. Beta is significant at the 0.01 level (2-tailed).
*. Beta is significant at the 0.05 level (2-tailed).

Indirect effects of Stakeholders salience on bank performance through Sustainability

The indirect effect of stakeholder's salience on bank performance through sustainability was tested. The results in Table A8.1 suggest that stakeholder salience has a positive indirect effect on operation and funding performance through sustainability at significance level 0.05.

Indirect effects of communication Intensity on bank performance through Sustainability

This study does not support the indirect effects of communication Intensity on bank performance through Sustainability as the results in Table A8.1 do not reveal any significant relationship between communication intensity and bank performance.