

<http://researchcommons.waikato.ac.nz/>

Research Commons at the University of Waikato

Copyright Statement:

The digital copy of this thesis is protected by the Copyright Act 1994 (New Zealand).

The thesis may be consulted by you, provided you comply with the provisions of the Act and the following conditions of use:

- Any use you make of these documents or images must be for research or private study purposes only, and you may not make them available to any other person.
- Authors control the copyright of their thesis. You will recognise the author's right to be identified as the author of the thesis, and due acknowledgement will be made to the author where appropriate.
- You will obtain the author's permission before publishing any material from the thesis.

Incorporation of environmental issues into banks' lending decisions

A thesis submitted in fulfilment
of the requirements for the degree of

Doctor of Philosophy

in

Finance

at

The University of Waikato

by

Basman Mazahrih



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

2011

ABSTRACT

This thesis examines commercial banks' practice pertaining to the integration of environmental issues into their lending activities. There is evidence that over the last few decades some banks have considered the environmental impact of borrower activities as part of credit risk assessment and management. A number of academic surveys have identified a positive correlation between the environmental and financial performance of companies. These developments influence the level of bank support for responsible environmental management.

For most commercial banks loans are a large percentage of assets. Hence appropriate management of loans is a priority for bank management, shareholders and other interested people. Traditionally, banks use financial instruments to measure the efficiency of their lending decisions and to ensure that payments are made on time. However, each lending operation may involve environmental risks. Adverse environmental outcomes may result in a reduction in the borrowers' repayment capacity, a decline in the value of the collateral, a direct bank liability for environmental damage caused by its borrowing clients and potential risks to the bank's reputation. For each of these risks the bank can determine the likelihood, extent, cost and impact should the damage actually occur.

Bank lending occurs in a wider economic and social context of strategic importance for banks. Society's quest for sustainable development involves the creation of new financing markets, such as markets for sustainable energy, water purification equipment, products for the financing of companies' climate policies and groundbreaking technology. Banks can fulfil the role of a traditional financial intermediary or can step into this growing market to develop specific new products such as environmental loans. This market is rich in challenges and opportunities. Hence, it is crucial that banks have appropriate indicators to help them and stakeholders monitor performance.

Against this background, this study investigates the practice of incorporating environmental issues into banks' lending decisions, utilizing Westpac¹ as a case

¹ The term Westpac refers to the bank, Westpac New Zealand

study. Qualitative and quantitative research approaches were adopted. A mixed method of data collection was used, consisting of an analysis of annual reports, semi-structured interview and a survey questionnaire. The Westpac study is used to develop and test an environmental sustainability framework to analyse the incorporation of environmental issues into lending decisions by financial institutions.

The results from the research provide some evidence that Westpac incorporates environmental issues into lending decisions and is aware of environmental risks and opportunities. At the operational level, the bank assesses environmental risks before approving loans and finances projects with high environmental benefits. With regard to motivational drivers, the findings indicate that the bank's incorporation of environmental issues into lending decisions is motivated by multiple reasons: managerial, financial and environmental. However, the environmental information reported was not consistently and sufficiently communicated to stakeholders.

Further, the results from the research reveal that bank management should effectively consider environmental issues when making lending decisions and that they should take specific actions to have such issues effectively implemented. Although banks are motivated by a variety of factors, financial issues were considered the most important factor when banks are making lending decisions. This study also reveals that respondents did not know about bank effectiveness in addressing environmental issues when making lending decisions. Moreover, people who are likely to be better informed or knowledgeable about environmental issues were also found to have a low level of knowledge in this regard. Furthermore, the majority of respondents tend not to be satisfied with the interaction between banks and both the public and the New Zealand government. The literature to date suggests there is increasing stakeholder pressure on businesses to act with environmental responsibility, but this result suggests challenges still remain.

A comparison of Westpac and HSBC stakeholder reports revealed that HSBC provided more appropriate environmental information than Westpac regarding

their lending activities. The comparison reveals that there is a shift in how banks view the consideration of environmental performance as material to users of the annual reports. However, there is a gap in the information provided probably due to the voluntary nature of sustainability disclosures in annual reports. Thus, there is a need for improvement relating to the content and quality of environmental reporting.

This research proposes an environmental sustainability framework, with specific focus on the lending process as a guideline for bank management, policy makers and other interested people. It facilitates effective measurement of environmental performance in two major areas: management and operations, and motivations. The framework includes indicators and processes to improve bank financial and environmental performance.

The key findings of this study are instructive. Consideration of environmental issues when making lending decisions is important to banks, borrowers, the environment and stakeholders in general. Environmental risks, opportunities and the positive relationship between the environmental performance and financial performance give motivation to integrate environmental issues into lending activities. This study identified that Westpac and commercial banks more generally have an opportunity to provide further and consistent evidence concerning their managerial and operational performance and drivers when making lending decisions. Such actions would provide stakeholders with more accurate views on the bank's environmental performance. It would also facilitate the bank's ability to respond sufficiently and transparently to the international agreements and initiatives the bank is signatory to and/or a member of.

ACKNOWLEDGMENT

I am grateful to Almighty God, for his blessing and giving me countless opportunities to grow.

I would like to express sincere thanks to my supervisors, Professor Frank Scrimgeour and Dr. Dan Marsh, for their continuous help, advice, insightful criticism and encouragement.

I would like to express gratitude to all of the staff and colleagues of the University of Waikato and New Zealand community for their help, friendship and support. Thanks to Kim Barclay for switching the light on to start my PhD studies.

I would like to acknowledge Brian Williams and Janet Curran who read many drafts and were always willing to spend extra time listening to my ideas and gave me excellent feedback on my expression of them whenever needed.

To my wife, Tagred, and my children, Wael and Waseem, I owe a great deal for their understanding, sacrifices, unwavering support and motivation to enable me to complete this thesis.

Finally, this thesis is dedicated to my parents, who have been extremely patient and understanding throughout my entire academic journey thus far. I am thankful for their immeasurable love and sacrifices through my long years away from home. Also, I am very indebted to my family, brothers and sisters, nephews and nieces, aunts and uncles, and relatives who stood by me through the hard and troubled times.

TABLE OF CONTENTS

ABSTRACT	ii
ACKNOWLEDGMENT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	xii
LIST OF BOXES	xv
LIST OF ABBREVIATIONS	xvi
CHAPTER 1 - INTRODUCTION TO THESIS.....	17
1.1 Introduction.....	17
1.2 Background.....	18
1.3 Problem statement.....	19
1.4 The research question and objective	20
1.5 Methodology and method	20
1.6 The contribution of the research	21
1.7 Outline of thesis	22
1.8 Scope and limitation	23
1.8.1 <i>Scope</i>	23
1.8.2 <i>Limitations</i>	24
CHAPTER 2 - LITERATURE REVIEW	25
2.1 Introduction.....	25
2.2 Sustainability as a concept	25
2.2.1 <i>Sustainable development: events and initiatives</i>	30
2.2.2 <i>Sustainability of business</i>	39
2.2.3 <i>Measuring sustainability</i>	46
2.3 Sustainability and the banking sector.....	54
2.3.1 <i>History of sustainable development and the banking sector</i>	55
2.3.2 <i>The role of banks in a sustainable environment</i>	61
2.4 Environmental risks facing the banking sector	65
2.4.1 <i>What is environmental risk?</i>	65
2.4.2 <i>Types of environmental risks facing the banking sector</i>	66
2.5 Management of environmental risks and the lending process	72
2.5.1 <i>What is environmental risk management?</i>	73
2.5.2 <i>The importance of environmental risk management</i>	75
2.5.3 <i>Procedures and tools for environmental risk management</i>	79

2.6	Motivation for integration of environmental aspects	81
2.7	Conclusion	87

CHAPTER 3 - EMERGING APPROACHES TO ENVIRONMENTAL MANAGEMENT BY BANKS 90

3.1	Introduction.....	90
3.2	Environmental management by banks	91
3.3	The role of indicators in improving bank environmental performance	96
3.4	Indicators of management performance.....	101
3.4.1	<i>Definitions of environmental management performance indicators.....</i>	<i>105</i>
3.4.2	<i>Implications of management performance indicators.....</i>	<i>109</i>
3.4.3	<i>Corporate governance: environmental roles and responsibilities.....</i>	<i>111</i>
3.5	Indicators of operational performance	127
3.5.1	<i>Definitions of operational performance indicators.....</i>	<i>127</i>
3.5.2	<i>Implications of operational performance indicators</i>	<i>131</i>
3.6	Indicators of motivational drivers	134
3.6.1	<i>Indicators for managerial drivers.....</i>	<i>136</i>
3.6.2	<i>Indicators for financial drivers</i>	<i>136</i>
3.6.3	<i>Indicators for environmental drivers</i>	<i>136</i>
3.7	An environmental sustainability framework for banks	137
3.7.1	<i>Environmental sustainability levels</i>	<i>138</i>
3.7.2	<i>Environmental sustainability framework.....</i>	<i>141</i>
3.8	Conclusion	144

CHAPTER 4 - RESEARCH METHODOLOGY..... 146

4.1	Introduction.....	146
4.2	The research problem, questions and study objectives	146
4.3	Research approach	147
4.4	Triangulation.....	150
4.5	Case study	152
4.5.1	<i>A case study strategy.....</i>	<i>153</i>
4.5.2	<i>Questionnaire.....</i>	<i>158</i>
4.5.3	<i>Limitations of using case study research</i>	<i>163</i>
4.6	Document analysis and interview	165
4.6.1	<i>Reliability and validity of qualitative research.....</i>	<i>167</i>
4.6.2	<i>Data preparation for analysis.....</i>	<i>169</i>
4.7	Surveys and analysis	172
4.7.1	<i>Questionnaire design and development</i>	<i>174</i>
4.7.2	<i>Reliability and validity of research questionnaire</i>	<i>176</i>
4.7.3	<i>Hypothesis testing</i>	<i>177</i>
4.8	Comparison and integration of quantitative and qualitative data.....	177
4.9	Conclusion	177

CHAPTER 5 - DOCUMENT AND INTERVIEW ANALYSIS	179
5.1 Introduction.....	179
5.2 Analysis of Westpac's annual reports from 2004 to 2006	179
5.3 Interpretation of management performance category	179
5.3.1 Findings of management performance.....	197
5.4 Interpretation of motivational drivers	198
5.4.1 Findings of motivational drivers.....	205
5.5 Analysis of Westpac and HSBC stakeholders Annual Reports from 2007 to 2008	205
5.5.1 Interpretation of management performance	206
5.5.2 Findings of management performance.....	207
5.6 Interview analysis	209
5.6.1 Interpretation of management performance	209
5.6.2 Interpretation of motivational drivers.....	214
5.7 Key findings from the analysis	216
5.8 Conclusion	218
CHAPTER 6 - SURVEY ANALYSIS AND HYPOTHESIS TESTING	221
6.1 Introduction.....	221
6.2 Descriptive statistics and interpretations.....	222
6.2.1 Management performance	222
6.2.2 Operational performance.....	228
6.2.3 Motivations and outcomes	233
6.2.4 The government and public performance	240
6.2.5 The effectiveness of banks in New Zealand.....	245
6.3 Parametric data and hypotheses testing	250
6.3.1 Management performance	251
6.3.2 Operational performance.....	255
6.3.3 Motivations and outcomes	257
6.3.4 The government and public performance	261
6.3.5 The effectiveness of banks in New Zealand.....	264
6.4 Conclusion	267
CHAPTER 7 - A NEW FRAMEWORK FOR BANKING AND THE ENVIRONMENT.....	270
7.1 Introduction.....	270
7.2 The need for an environmental sustainability framework.....	271
7.3 Key elements of the new framework and implications for bank strategy	272
7.4 The new framework and sustainable lending.....	276
7.5 Guidelines for implementation of the new framework	281
7.5.1 Implications of the new framework.....	285
7.6 Conclusion	288

CHAPTER 8 - DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS.. 290

8.1	Introduction.....	290
8.2	Discussion.....	290
8.2.1	<i>How does Westpac address environmental issues when making lending decisions?.....</i>	<i>290</i>
8.2.2	<i>Why does Westpac incorporate environmental issues into its lending decisions?.....</i>	<i>299</i>
8.3	Conclusions.....	304
8.4	Recommendations.....	306
8.4.1	<i>Senior management.....</i>	<i>306</i>
8.4.2	<i>Training and auditing</i>	<i>307</i>
8.4.3	<i>Government's role.....</i>	<i>308</i>
8.4.4	<i>Future research and research methodology</i>	<i>308</i>
	References.....	311
	Appendices.....	330
	Appendix A: Indicator definitions	330
	Appendix B: Data from annual reports.....	336
	Appendix C: Interview questions	412
	Appendix D: Survey questionnaire.....	414
	Appendix E: Banks comparison data.....	421
	Appendix F: Interpretation of stakeholder reports.....	455
	Appendix G: Interview transcript	477
	Appendix H: Socio-demographic analysis	482
	Management performance	482
	Operational performance	484
	Motivational drivers	486
	Public and government performance	488
	Banks' effectiveness	490

LIST OF FIGURES

Figure 2.1	The interaction of the three pillars of sustainable development	28
Figure 2.2	The intersecting circles to illustrate utilizing sustainability metrics.....	29
Figure 2.3	The organizational process model	49
Figure 2.4	Metrics of sustainability and financial drivers.....	50
Figure 2.5	The role of financial markets in an economic system.....	61
Figure 2.6	Bank's internal and external stakeholders	62
Figure 2.7	The relationship between environmental risks and financial risks	71
Figure 2.8	ISO EMS standard for managing environmental risk.....	76
Figure 2.9	Conceptual model linking environmental management and performance with firm's financial value.....	76
Figure 3.1	Components for environmental performance evaluation.....	95
Figure 3.2	Environmental performance indicators according to ISO 14031.....	100
Figure 3.3	The structure of environmental performance indicators	103
Figure 3.4	Definition of indicator 1: environmentally relevant posts and environmental departments.....	106
Figure 3.5	Definition of indicator 2: environmental management training	107
Figure 3.6	Definition of indicator 3: environmental management audits	108
Figure 3.7	Management performance indicators.....	110
Figure 3.8	A typical organizational chart for a bank.....	118
Figure 3.9	Definition of indicator 4 of commercial banking: environmental aspects of the core business	128
Figure 3.10	Definition of indicator 5 of commercial banking: pioneers and innovations	129
Figure 3.11	Environmental areas of action in the design of financial service products	131
Figure 3.12	The credit appraisal process.....	132
Figure 3.13	Environmental sustainability framework for banks	142
Figure 4.1	Holistic approach for case study strategy	158

Figure 5.1	The governance structure for the board committees and their responsibilities	181
Figure 5.2	Corporate social responsibility/governance structure.....	184
Figure 6.1	Respondents views on management performance indicators (in mean score)	226
Figure 6.2	Respondents views on the operational performance (in mean score).....	231
Figure 6.3	Respondents views on motivational drivers' performance (in mean score)	238
Figure 6.4	Respondents views on satisfaction regarding government and public performance (in mean score)	243
Figure 6.5	Respondents views on the effectiveness of banks in addressing environmental issues (in mean score).....	248
Figure 6.6	Level of satisfaction of public and informed respondents in New Zealand	267
Figure 7.1	Forces driving proactive environmental management.....	273
Figure 7.2	Elements of environmental performance	274

LIST OF TABLES

Table 3.1	An overview of environmental management models	92
Table 3.2	A corporate environmental performance matrix	93
Table 3.3	List of environmental performance indicators suggested by GRI – Supplement Report 2005	98
Table 3.4	Management and operational performance indicators.....	102
Table 3.5	Management and operation performance indicators	105
Table 3.6	Environmental literature in which categories and indicators are established	135
Table 3.7	Levels of environmental sustainability	139
Table 4.1	Differences between Positivism and Social Constructionism	149
Table 4.2	Reliability of the research survey questionnaire.....	176
Table 5.1	Management performance - BOD	180
Table 5.2	Management performance – CEO	183
Table 5.3	Management performance – Senior Management.....	186
Table 5.4	Management performance – Training	188
Table 5.5	Management performance - Auditing	190
Table 5.6	Management performance – operational management: integration of environmental issues	193
Table 5.7	Management performance- operational management: environmental pioneering projects	196
Table 5.8	Motivational drivers – managerial drivers	199
Table 5.9	Motivational drivers – financial drivers	201
Table 5.10	Motivational drivers – environmental drivers	203
Table 5.11	Environmental reporting performance for Westpac’s and HSBC’s stakeholder reports 2007 and 2008.....	206
Table 5.12	Disclosure of environmental information from Westpac’s stakeholder reports from 2004 to 2008 and from the interview.....	217
Table 6.1.a	Public views regarding management performance indicators	222

Table 6.1.b	Informed people views regarding management performance indicators....	223
Table 6.2	Respondents' views on management performance according to their socio-demographic characteristics	226
Table 6.3.a	Public respondents' views regarding operational performance indicators .	229
Table 6.3.b	Informed respondents' views regarding operational performance indicators	229
Table 6.4	Respondents' views on operational performance according to their socio-demographic characteristics	232
Table 6.5.a	Public respondents' views regarding motivational drivers' indicators.....	234
Table 6.5.b	Informed respondents' views regarding motivational drivers indicators ...	234
Table 6.6	Respondents' views on motivational drivers' performance according to their socio-demographic characteristics.....	239
Table 6.7.a	Public respondents' views regarding government and public performance indicators	240
Table 6.7.b	Informed respondents' views regarding government and public performance indicators	241
Table 6.8	Respondents' views on government and public performance according to their socio-demographic characteristics	243
Table 6.9.a	Public respondents' views regarding the effectiveness of banks in New Zealand in addressing environmental issues	245
Table 6.9.b	Informed respondents' views regarding the effectiveness of banks in New Zealand in addressing environmental issues	245
Table 6.10	Respondents' views on banks' effectiveness according to their socio-demographic characteristics	249
Table 6.11	T-test of mean difference between the public and informed respondents regarding management performance	252
Table 6.12	T-test of mean difference between the public and informed respondents regarding management performance indicators	253
Table 6.13	Analysis of management performance by means of F and Bartlett tests....	254
Table 6.14	T-test of mean difference between the public and informed respondents regarding operational performance group	255
Table 6.15	T-test of mean difference between the public and informed respondents for operational performance indicators	256

Table 6.16	Analysis of operational performance by means of F and Bartlett tests	257
Table 6.17	T-test of mean difference between the public and informed respondents regarding motivations and outcomes.....	258
Table 6.18	T-test of mean difference between the public and informed respondents regarding motivations and outcomes indicators	259
Table 6.19	Analysis of motivational performance by means of F and Bartlett tests	260
Table 6.20	T-test of mean difference between the public and informed respondents regarding government and public performance.....	261
Table 6.21	T-test on mean difference between the public and informed respondents regarding government and public performance indicators	262
Table 6.22	Analysis of government and public performance by means of F and Bartlett tests	263
Table 6.23	T-test on mean difference between public and informed respondents regarding banks' effectiveness	264
Table 6.24	T-test on mean difference between the public and informed people regarding banks' effectiveness for each bank.....	265
Table 6.25	Analysis of banks effectiveness by means of F and Bartlett tests	266
Table 6.26	Influence of socio-demographic characteristics on people's attitudes	269
Table 7.1.a	Management performance indicators – BOD, CEO, senior management..	282
Table 7.1.b	Management performance indicators – training.....	282
Table 7.1.c	Management performance indicators – auditing	283
Table 7.1.d	Management performance indicators: operational integration.....	283
Table 7.1.e	Management performance indicators – environmental pioneering projects	284
Table 7.2. a	Motivational performance indicators - managerial drivers	284
Table 7.2.b	Motivational performance indicators – financial drivers	284
Table 7.2.c	Motivational performance indicators – environmental drivers	285
Table 7.3	Framework for environmental sustainability in the commercial banking sector	286

LIST OF BOXES

Box 2.1	The GRI reporting framework.....	37
---------	----------------------------------	----

LIST OF ABBREVIATIONS

SD	Sustainable Development
UN	United Nations
FI	Financial institutions
UNEP	United Nations Environmental Program
EPI	Environmental Performance Indicators
GRI	Global reporting Initiative
WCED	World Commission on Environment and Development
CEO	Chief Executive Officer
ISO	International Organization for standardisation
EMS	Environmental Management System
EFQM	European Foundation for Quality Management
EMAS	Eco-Management and Audit Scheme
SA 8000	Social Accountability 8000
AA1000	Assurance Standard 1000
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
EPs	Equator Principles
IFC	International Finance Corporation
NGOs	Non-Governmental Organizations
WBCSD	World Business Council for Sustainable Development
EBRD	European Bank for Reconstruction and Development
CRSC	Corporate Responsibility and Sustainability Committee

CHAPTER 1 - INTRODUCTION TO THESIS

1.1 Introduction

This thesis examines commercial banks' integration of environmental issues into their lending decisions. For a long time, these issues were regarded as hardly relevant to the financial sector. Within the last few decades this view has changed, and banks have recognized that the sector is increasingly affecting, and is affected by, environmental issues (Kiernan, 2001; McKenzie and Wolfe, 2004). However, even a casual reading of the literature shows there are major challenges facing banks with a serious interest in acting sustainably. It is not always clear how banks can and should implement improved practice.

To date, a number of banks have adopted proactive strategies such as environmental management systems (EMS) and environmental impact assessments in order to mitigate environmental risks, respond to environmental legislation and meet stakeholders' expectations, thereby realizing long-term profitability by financing environmentally-friendly projects (Thompson, 1998; Jeucken, 2001).

Banks in New Zealand face challenges associated with the country's economy. For instance forest and agriculture industries cause significant water pollution, and bank financial economic activities have environmental costs. This study, with a focus on Westpac, examines one bank's approach to integrating environmental issues into their lending decisions by analyzing disclosure of environmental issues in the bank's annual financial and stakeholders' impact reports. Further, it analyses responses to an interview with bank staff and surveys of the New Zealand public.

This chapter includes a brief introduction to the concept of environmentally sustainable development. It presents the problem statement and research questions and objectives. The research methodology and method are introduced, followed

by the contributions of the study and an outline of the thesis. The chapter concludes by presenting the scope and limitations of the research.

1.2 Background

Over the last few decades environmental issues have gained more attention from the commercial community, as a result of increasing concern by various stakeholders about the negative impact of environmentally unfriendly business activities (White, 1996; Lundgren and Catasus, 2000). Environmental crises, such as global warming, the greenhouse effect and deforestation, pose a major threat to human survival (Gray, Owen and Maunders, 1987; Hackston and Milne, 1996). Environmental damage is no longer only a national issue. The degradation being inflicted on human health, ecosystems and businesses' financial position has resulted in pressure on international governmental and non-governmental organizations, including financial institutions, to respond to environmental risks and reduce the impact of environmental damage (Missbach, 2004; White, 1996).

A comprehensive approach to global development was first expressed in the Brundtland Commission report in 1987 through the goal of 'sustainable development' (SD). The concept of SD, as widely quoted, is defined as the 'the ability of current generations to meet their needs without compromising the ability of future generations to meet theirs'. Creating a sustainable economy is one strategy employed to achieve SD. The Brundtland Commission report, 1987 and the outcomes of the UN Conference on Human Environment in Stockholm in 1972, the Rio Summit 1992, the Earth Summits 1997 and 2002, and the Climate Change Summit 2009 are considered by many as wake-up calls for businesses to integrate environmental issues into their business policies, procedures and practices. Arguably, it makes good business sense as well, since an environmentally friendly business may, in turn, be expected to enjoy a competitive advantage in terms of an improved financial position, positive pressure-group relations, improved media coverage, assuring present and future compliance and providing an ethical image (Elkington, 1994; Peeters, 2003; Thompson and Cowton, 2004; Bouma et al., 2001; Fenchel, Scholz and Weber, 2003; Feldman, Soyka and Ameer, 1997).

Aspirations for environmental sustainability provide a challenge to commercial banks to measure their environmental performance and investigate whether integration of environmental aspects into their lending processes improves their financial performance. In this regard, two significant reports were prepared by financial institutions (FI) and the United Nations Environmental Program (UNEP) to facilitate measuring environmental performance. First, the Environmental Performance Indicators for the Financial Industry (EPI-Finance 2000) report are a set of management and operational performance indicators. These indicators are important tools for effective management decision-making and serve banks by measuring progress against targets and reporting such progress to stakeholders. Second, the Global Reporting Initiative (GRI) - Financial Services Sector Supplement: Environmental Performance, 2005 was developed by the UNEP FI and GRI Working Group to understand the impact of environmental considerations on financial performance. The indirect environmental impacts are an area of intense interest to many stakeholders, as they represent the areas of greatest risk and opportunity to the institution. Financial institutions seek to manage the indirect environmental impacts through the development of policies, systems and processes that help enhance the quality of a bank's environmental risk management and assessment (Jeucken, 2001).

Given the lack of scholarly literature that concerns measuring a bank's environmental performance with regard to lending decisions, two professional documents, the EPI-Finance 2000 and the Supplement 2005, provide the backdrop to this research. It is also the foundation for developing a framework for the analysis of bank lending from an environmental perspective.

1.3 Problem statement

Despite significant research interest in the field of sustainability and specifically in the environmental arena, an extensive review of the literature revealed no substantive evidence of attention being paid to the incorporation of environmental issues into lending decision-making by commercial banks in New Zealand. Even at an international level, there has been little work done to satisfy banks' needs for environmental information (Scholtens, 2006; Thompson and Cowton, 2004), and,

most importantly, no studies suggest strategies and processes for implementing environmental management in the banking sector.

Given this lack, this thesis makes several valuable contributions. First, it provides a framework which considers strategies for the incorporation of environmental issues into lending decisions. This has not been investigated previously with this intensity, and currently no available framework has been suggested by scholars or professionals. Second, this thesis is the first to explore how Westpac integrates environmental aspects into its lending decisions, via its stakeholders' impact reports from 2004 to 2008 and by the interview method. Third, this study includes a comparison of two years' annual stakeholder reports of two international banks, Westpac and HSBC. Finally, central to this contribution to the gap in current information, this research explored the views of New Zealand people on how banks should consider environmental issues in their lending decisions.

All this is brought together in the conceptualization of a new framework for analysis of bank lending in an age of environmental concerns and aspirations for sustainability.

1.4 The research question and objective

The objective of the research is to answer the following two research questions:

1. How does Westpac address environmental issues when making lending decisions, i.e., what actions does the bank take to incorporate environmental issues into its lending process?
2. Why does the bank integrate environmental issues into lending decisions?

By answering these questions it is anticipated that sufficient insight will be obtained to shape a new approach for banks seeking to respond credibly to the challenges of environmental management.

1.5 Methodology and method

In order to address the above questions and achieve the objective of the thesis, qualitative and quantitative research approaches were applied during the study.

The thesis focuses on the significant role of commercial banks in environmental sustainability, as well as reviewing the theoretical foundation of a bank's approach to environmental concerns. Based on the theoretical framework presented in Chapter Three and the findings from the case study, it becomes possible to propose a new framework to facilitate bank practice. The environmental performance of a bank's lending activity can be judged on its performance relative to each indicator outlined in the proposed framework.

The Westpac case study included four approaches. First, this thesis examined Westpac's stakeholder impact reports from 2004 to 2006 using qualitative thematic analysis. Second, a similar analysis approach was used to compare the environmental performance for Westpac and HSBC through analysis of their stakeholder reports for 2007 and 2008. Third, an interview with Westpac staff was conducted and thematic analysis was undertaken. Finally, two national surveys were conducted to explore New Zealanders' views regarding integrating environmental issues into banks' lending decisions.

1.6 The contribution of the research

This study contributes to knowledge concerning the incorporation of environmental issues into banks' lending decisions. It does this by improving understanding of bank roles and responsibilities and how this intersects with stakeholder expectations. As such, it contributes to a better understanding of how bank management perceives environmental issues and responds to stakeholder pressure and/ or expectations.

This study contributes to the financial industry, as it provides a framework for developing a more viable strategy to address environmental issues when making lending decisions. Further, it will assist policy makers and regulatory authorities in choosing suitable responses to address environmental issues impacting the New Zealand banking industry. This derives from a better understanding of existing practices and opportunities to improve them.

This study has strategic implications for the banking industry, as environmentally beneficial practices can be used for competitive advantage in both national and

international markets. By addressing environmental issues, banks mitigate potential environmental risks. Further, an increasing number of environmentally friendly pioneer projects provide a promising potential market for the industry.

1.7 Outline of thesis

The thesis is divided into eight chapters.

Chapter 1 is the introduction to the thesis. It introduces the research, including the background, presentation of problem statement, thesis research questions and objective, the methodology and method, the contribution of the research, as well as the scope and limitations.

Chapter 2 consists of a literature review that provides an overview of sustainable banking. It begins with the presentation of sustainability as a concept, followed by an outline of sustainability and the banking sector with specific focus on sustainability measurement and challenges. Environmental risks facing the banking sector, management of environmental risks and motivation for integration of environmental aspects are then discussed. Finally, a conclusion is made.

Chapter 3 introduces the concept of environmental management by commercial banks. It starts by providing information about the role of indicators in improving bank environmental performance, then, describes the indicators of management and operational performance, definitions and implications. It also explores the indicators of motivational drivers in order to understand what motivates banks to integrate environmental issues into lending decisions. The chapter then presents an environmental sustainability framework for banks' lending before concluding.

Chapter 4 outlines the methodology adopted in this research. It presents the research questions and objective, followed by the research approach. The use of triangulation method and the case study are explained. Details of the data collection, analysis, reliability and validity of methods are also included. Comparison and integration of quantitative and qualitative data are outlined and a conclusion is made.

Chapter 5 presents the analysis of Westpac's stakeholder reports, an analysis of the comparison of two international banks' stakeholder reports, as well as the analysis of the interview. Finally, the chapter outlines the key findings from the analysis before concluding.

Chapter 6 presents the analysis of two surveys regarding people's attitude to bank lending and the environment. The chapter provides a description of statistics and interpretations and outlines the parametric data and hypotheses testing before a conclusion is made.

Chapter 7 develops a new environmental sustainability framework. The chapter explains the need for the framework, the key elements of the framework and the implications for bank strategy. It provides an overview of the new framework and sustainable lending, and guidelines for implementation. Finally, a conclusion is made.

Chapter 8 presents a final discussion, conclusions and recommendations.

1.8 Scope and limitation

1.8.1 Scope

There are a range of financial institutions playing various roles in economic life, such as central banks, commercial banks, and investment banks. Because there is a close relationship between commercial banks and industrial and agricultural businesses which directly and indirectly are a source of environmental issues, the focus is, accordingly, on commercial banks.

The geographic scope of this research is New Zealand. With New Zealand's growth in primary and related industries a number of environmental concerns have arisen that are both risks and opportunities affecting the banks' lending portfolios. Thus, as banks play an intermediate role in the economy, it is important they strengthen their EMS in order to reduce their own operational risk while seeking new market opportunities. Banks can play an important role in minimizing their indirect impact on the environment when making lending decisions.

The thesis focuses only on the indirect environmental impact of banks' activities with regard to lending decisions. The direct impact of banks' operations resulting from using paper, energy, and water, are not investigated, as these issues are much less significant than lending activities in their impact on banks' financial and environmental performance.

The research focuses on Westpac and its annual reports. This is due to the fact that it is the only bank operating in New Zealand that issues stakeholder impact reports and discloses its environmental performance.

1.8.2 Limitations

Detailed information about the environmental policies, procedures, practices and regulations of commercial banks is considered commercially confidential and is, in fact, difficult to obtain. Therefore, it was possible to conduct only one interview, which, furthermore, took several months to be arranged. Accordingly, most material about the bank's environmental performance had to be gained from annual reports and a survey questionnaire.

Any theory or framework should be connected to a specific bank's contexts. Uncertainties exist. Political, economical, environmental and market factors change through time. The proposed framework should develop and adapt to the ever-changing conditions facing New Zealand banks.

CHAPTER 2 - LITERATURE REVIEW

2.1 Introduction

This chapter reviews the concept of sustainability to provide a foundation for the study. During the last three decades the relationship between sustainability and the banking sector has evolved through applications of this concept leading to operational reforms. Sustainability and the measurement of sustainability are also discussed, with specific focus on challenges for management. In addition, this chapter investigates the role of banks in promoting a sustainable environment, the three types of environmental risks facing the banking sector, and the related concept of environmental risk management. Finally, it explores the literature concerning what motivates banks to integrate environmental matters into their lending decision processes and identifies the opportunities banks may exploit as a result of incorporating environmental concerns into their core business.

2.2 Sustainability as a concept

There is a critical link between economic development and the environment. Development activities often require exploitation of natural resources, but these resources are limited. With the remarkable growth in the global economy over the last few decades, there are a number of pressing constraints on development, and entrenched problems, such as, economic disparity and poverty, over-consumption of resources and environmental deterioration, pollution and contamination (Fenchel et al., 2003; Coulson and Monks, 1999; Jeucken, 2001). These issues prompted people to carefully rethink how to protect this unique planet - the Earth - and led to the recent development of the concepts of sustainability and SD.

Sustainability and SD are often used interchangeably, but sometimes as different concepts. Therefore, it is essential to clarify the two concepts. This study aligns with Bebbington and Gray (2000) in distinguishing between the two terms. Sustainability is conceptualized as a state or, according to Sikdar (2004), as a goal, while SD is a process of human actions to achieve and maintain that state or goal. However, from a business perspective and application, Isaksson and Garvare

(2003) argue that SD represents a modified version of the triple bottom line concept. This concept is often used to indicate different types of organizational performance measures, including the three dimensions, namely, financial, environmental and social performance (Elkington, 1998).

Widespread use of the term SD began in the early 1970s in association with the UN Conference on Human Environment in Stockholm in 1972. The most enduring definition of SD was formulated in 1987, in what is called the Brundtland Report, by the UN World Commission on Environment and Development (WCED) led by Gro Harlem Brundtland of Norway. This report defined SD as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”². Thus, the wisdom of SD is to restrain the rate of use of natural resources in order to keep enough for future generations and fulfil their needs (Sikdar, 2004). In addition, this definition, if adopted by business, offers a way of reconciling economic and environmental objectives by incorporation of environmental concerns into business operations. Since 1987, scholars and corporate management have been asking why and how corporations should incorporate environmental concerns into strategic decision making (Sharma and Vredenburg, 1998). Thus, the Brundtland Report postulates a positive role for corporations in furthering the cause of environmental protection and raises the management of environmental concerns to a strategic issue (Sharma and Vredenburg, 1998).

Furthermore, this thesis is informed by two other relevant definitions of SD that are commonly used. They are:

“Creating long-term shareholder value by embracing opportunities and managing risks derived from economic, environmental and social developments” (Environmental Law Advisory, 2004); and

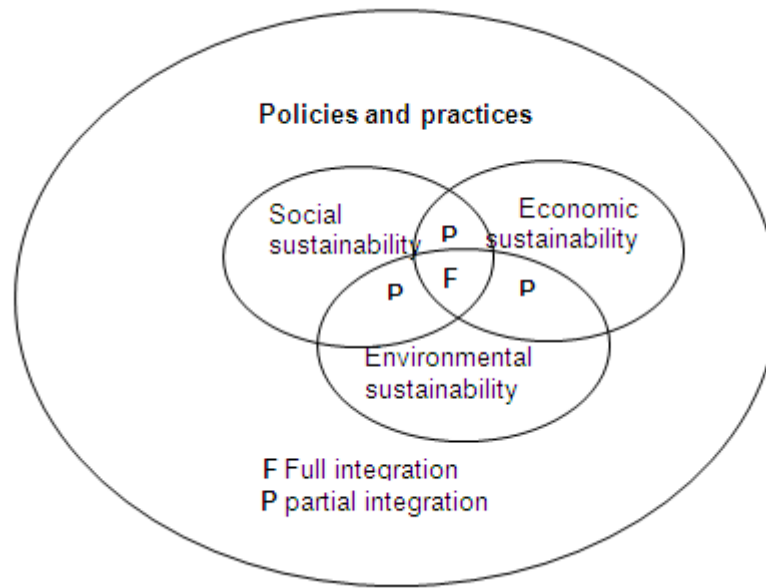
“Evaluating business from a triple bottom line perspective - incorporating economic, environmental and social value issues into decision-making” (Environmental Law Advisory, 2004).

² <http://www.un-documents.net/ocf-02.htm>.

These definitions have created interest and generated debate. Many agree that defining SD is difficult and does not provide sufficient information for implementation (Callens and Wolters, 1998; Sikdar, 2004; Epstein and Roy, 2003). For example, Ekins and Vanner (2007) are of the opinion that no one form of sustainability strategy suits all sectors. In addition, Callens and Wolters (1998) argue that although definitions of SD are still vague and incomplete, what is important is to understand and observe the underlying determinants of sustainability. In their opinion this vagueness is often due to using general terms and the discipline (or lack of it) of the researchers. In addition, Epstein and Roy (2003) criticize Brundtland's definition describing it as 'macroeconomic' and saying it does not provide sufficient information on how this concept should be operationalized at the company level. They also point out that managers still question how to implement, improve and measure corporate progress towards sustainability.

Difficulties with definitions and precision have led to scholarly debate. Consequently, two major advances were developed to address the criticism of SD definitions. First, attempts have been made to make SD more specific. In trying to solve this dilemma of general terminology, some authors (Dyllick and Hockerts, 2002; Sikdar, 2004) try to select precise consensual elements to give some direction by identifying the indicators of sustainability and disclosing them. This view has been expressed as an illustration of the overlapping ellipses indicating that the three pillars can be mutually reinforcing (Figure 2.1).

Figure 2.1 The interaction of the three pillars of sustainable development



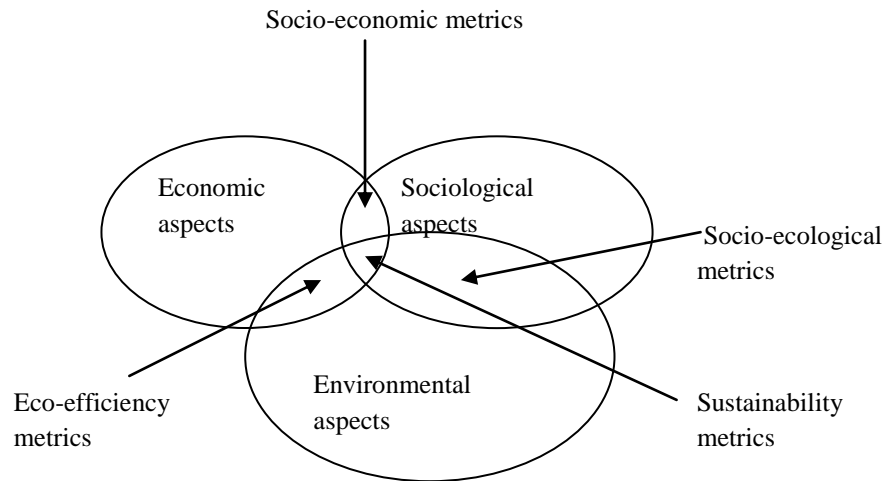
Source: Adapted from Dyllick and Hockerts, 2002; Sikdar, 2004

Figure 2.1 presents the concept of SD as the integration of social, economic and environmental objectives as that they are complementary and interdependent. A sustainable business seeks a better quality of life for its stakeholders while maintaining nature's ability to function over time by minimizing waste, preventing pollution, promoting efficiency and developing resources to revitalize the economy. Decision-making in a sustainable business stems from shared information among stakeholders. A sustainable business resembles a living system in which human, natural and economic elements are interdependent and draw strength from each other. This suggests that the three pillars of SD should be integrated wherever possible and mutually supported by sustainable policies and practices (Sharma and Vredenburg, 1998; Elkington, 1998). SD has been articulated by some authors as a balance between economic prosperity, environmental protection and social equity (Elkington, 1998; Pearce and Warford, 1993; Lynn, 1994).

Sustainability requires decision-makers to consider the needs of future generations and integrate economic, environmental and social dimensions into business operations. The decision-making process requires identifying the

elements in each of the three pillars to effectively assess their contribution to sustainability (Figure 2.2).

Figure 2.2 The intersecting circles to illustrate utilizing sustainability metrics



Source: Sikdar, 2004

Therefore, some scholars suggest sustainability metrics to facilitate the integration process, measure the value for sustainability, and characterize progress towards sustainability (Morse et al., 2001; Sikdar, 2004). Sikdar (2004) supports using metrics to identify specific indicators to minimize the uncertainty of the broad applications of SD aspects. Each metric contains a number of indicators to measure the behaviour of a system or an entity or an organization.

The challenge for implementing SD is not only integration and measurement of indicators but also the belief in sustainability as a beneficial goal for the business. Sharma and Vredenburg (1998) contend there are three streams of literature regarding the concept of implementing and measuring SD, and the belief in sustainability as a useful target. The first stream has focused on redefining the broad meaning of the concept SD, but, in fact, the literature says little about how a SD model can affect a firm's competitiveness. The second stream of writers has cautioned that the implementation of SD may be hazardous for financial performance, but useful for engaging in environmental protection, as long as environmental practices have paybacks within an economic timeframe. Finally,

the third stream of literature attempts to demonstrate how firms adopting an environmental strategy might gain a competitive advantage (Dowell, Hart and Yeung, 2000; King and Lenox, 2001; Klassen and Mclaughlin, 1996). The third stream relies primarily on case studies and academic surveys to support their arguments. Sharma and Vredenburg (1998) noted that the validity of the hypothesized linkages between the financial and environmental performance were seen to have implications for a firm's competitiveness. The fundamental requirement for implementing SD in this regard is that effective sustainability measurement should consider the complete triple bottom line of economic, environmental, and societal performance (Bennett and James, 1998). These aspects need to be integrated and balanced, in order to obtain a comprehensive understanding of a sustainable product or service from the perspective of different stakeholders (Dyllick and Hockerts, 2002).

2.2.1 Sustainable development: events and initiatives

Several studies have indicated that there is a relationship between integrating sustainable business practices and financial performance (Lassen and Mclaughlin, 1996; Weber et al., 2010; McDermott et al., 2005). It is appropriate to highlight the main events, programs and initiatives of SD that attracted the financial institutions' attention during the last few decades.

The major events from 1972 to 1991: one of the first modern initiatives by states to consider sustainability was the United Nations Conference on Human Environment in Stockholm in 1972. At this conference two major events took place: first, the relationship between environmental degradation and economic development was placed on the international agenda and, second, the birth of the United Nations Environment Program (UNEP), which was established as a global catalyst to protect the environment³. The conference considered "the need for a common outlook and for common principles to inspire and guide the peoples of the world in the preservation and enhancement of the human environment"⁴. The Conference generated 26 principles which aim to improve the human environment by adopting adequate policies and measures for the common good of mankind.

³ <http://www.un.org/geninfo/bp/envirp2.html>

⁴ <http://www.unnngocsd.org/documents/stockholm1972.pdf>

In 1983 the UN, motivated by the impact industrial nations have on both the environment and developing countries' economies⁵, set up the World Commission on Environment and Development (UNWCED). In 1987, the Commission put forward a definition of SD that considers the environmental and social dimensions as well as economic growth. In addition, the commission wrote the Brundtland Report, "Our Common Future". The report states that "critical global environmental problems are primarily the result of the enormous poverty of the South and the non-sustainable patterns of consumption and production in the North. It called for a strategy that united development and the environment – described by the now common term 'sustainable development'⁶. The foundation of the three pillars of SD was the subject of the UNWCED meetings during the period 1988 to 1992. More discussion took place about the report and led to the Earth Summit in Rio de Janeiro in 1992.

The primary goal of the **Rio Summit** in 1992 was to better understand the term "development", to "prevent the continued deterioration of the environment" and "to lay a foundation for a global partnership between the developing and the more industrialized countries, based on mutual needs and common interests that would ensure a healthy future for the planet"⁷.

In Rio, 108 governments adopted policies for SD and made it their target to develop the traditional approach of SD within three major agreements: Agenda 21; the Rio Declaration on Environment and Development; and the Statement of Forest Principles⁸.

Agenda 21 recognized that humanity confronts social, environmental and economic problems, including "perpetuation of disparities between and within nations, a worsening of poverty, hunger, ill health and illiteracy, and the continuing deterioration of the ecosystems on which we depend for our well-being"⁹. Agenda 21 argued that mankind stands at a crucial moment in history and

⁵ <http://www.un.org/geninfo/bp/envirp2.html>

⁶ http://www.are.admin.ch/are/en/nachhaltig/international_uno/unterseite02330/

⁷ <http://www.un.org/geninfo/bp/envirp2.html>

⁸ <http://www.un.org/geninfo/bp/envirp2.html>

⁹ <http://www.un.org/esa/sustdev/documents/agenda21/english/agenda21chapter1.htm>

the integration of environmental and developmental concerns will lead to the prosperity of present and future nations, and better protected and safer ecosystems¹⁰. Agenda 21 aimed to highlight the problems which humanity faced at that time in order to prepare them for future challenges. It proposed action to integrate environmental concerns into government and non-governmental organizations policies, plans and processes¹¹.

The second agreement at the 1992 Summit was *The Rio Declaration on Environment and Development*. The Declaration is a set of principles defining the rights and responsibilities of states¹² and supporting Agenda 21. Most of the principles are similar to the 26 principles agreed upon in the Stockholm Conference 1972. The other notable points were: that the Declaration ensures that scientific uncertainty should not be used to justify damage to the environment and to delay measures to prevent environmental degradation; and recognition of the significance of the environmental impact assessment as an instrument to be used for determining activities that are likely to constitute threats of serious or irreversible damage to the environment¹³.

The third agreement is *The Statement of Forest Principles*. It is a non-legally-binding statement, but the first global consensus to sustain, conserve and manage the world's forests¹⁴.

After the 1992 Summit, (1992-1997), the UN was given the authority to follow up, implement and integrate concepts of SD into relevant policies and programs, and, as a result, the UN Commission on SD was established to encourage governments and non-governmental organizations to achieve SD worldwide and to review the overall progress following the Rio Summit 1992¹⁵. As a result of these efforts, more than 100 governments and 2000 municipal and town governments

¹⁰ <http://www.un.org/esa/sustdev/documents/agenda21/english/agenda21chapter1.htm>

¹¹ <http://www.un.org/geninfo/bp/envirp2.html>

¹² <http://www.un.org/geninfo/bp/envirp2.html>

¹³ <http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm>

¹⁴ <http://www.un.org/documents/ga/conf151/aconf15126-3annex3.htm>

¹⁵ <http://www.un.org/geninfo/bp/envirp3.html>

established national SD councils have each formulated a local Agenda 21 of its own¹⁶.

In 1997 the Second Earth Summit was held in New York to review progress and identify the changes governments had undertaken over the previous five years¹⁷. The evaluation of progress revealed growing international debt, a decrease in official development assistance, and “failures to improve technology transfer, capacity building for participation and development and institutional coordination, and to reduce excessive levels of production and consumption”¹⁸. This was a disappointment. The 1997 Earth Summit concluded by emphasizing the necessity to implement and commit to the established international agreements.

After the 1997 Earth Summit, further efforts were made to prepare for the next Earth Summit held in Johannesburg, South Africa, in 2002. The prime objective of this Summit was to obtain governments’ global commitment on SD issues¹⁹. Similar to other Earth Summits, its agenda included: a review of progress from the previous Earth Summits, supplemented by UN bodies’ reports; identifying the SD issues that governments face; requesting donor countries to support developing countries; requesting ratification of outstanding agreements, such as the Kyoto and Biosafety Protocols, Persistent Organic Pollutants and Migratory and Straddling Fish Stocks; making commitments towards progressing the Millennium Development Goals²⁰. However, Peeters (2003) points out that despite the slow progress in SD, the 2002 Summit observed the growing impact and the potential responsibilities of the financial institutions in SD.

The Summits were at best a partial success. However, making the necessary changes would not be easy. It would take place at different rates and in different places, and it would require considerable funds to implement the principles agreed in the summits. It was noted that implementing Agenda 21 would require US\$600

¹⁶ <http://www.un.org/geninfo/bp/envirp3.html>

¹⁷ <http://www.un.org/geninfo/bp/envirp4.html>

¹⁸ <http://www.earthsummit2002.org/Es2002.pdf>

¹⁹ http://www.johannesburgsummit.org/html/whats_new/feature_story41.html

²⁰ <http://www.earthsummit2002.org/Es2002.pdf>

billion annually for developing countries²¹, and an additional US\$40 to US\$60 billion is needed yearly to reach the Millennium Development Goals (Peeters, 2003). The UN is constrained by donor countries. Achieving the Millennium Development Goals requires changes in economic behaviour in developing and developed countries. This challenge strikes at the heart of business ethics and decisions. Furthermore, The Economist (2002) adopts a similar view to Peeters and states that “little headway has been made with environmental problems such as climate change and loss of biodiversity”. It points out that the reasons for that disappointment were the lack of political consensus concerning SD and, the actions needed to address both the environmental and economic goals. The UN admitted, as well, that not enough was done to achieve Summit 1992 goals²².

Private sector involvement: during the last decade the focus has shifted towards business as a major player in SD (Thompson, 1998; Jeucken, 2001; Davidson and Worrell, 2001; Willman, 2007). The UN agreements and conferences made it clear that SD is not only the responsibility of governments. The UN Conference 1972 and the three Summits, 1972, 1992 and 2002, emphasized the responsibility of all government and non-governmental organizations - and there was even more emphasis on Agenda 21- to protect and improve the human environment²³. Accordingly, the private sector was affected by UN agreements and events, and various organizations have begun to integrate the SD concept into business transactions and are reporting on social and environmental issues voluntarily²⁴ to show their commitment to SD.

However, the successful integration of sustainability thinking into commerce requires satisfactory answers to three questions:

- why would a business incorporate the sustainability concept into its activities? This dimension will be considered in Section 2.2.2 - Sustainability of businesses; and

²¹ <http://www.un.org/geninfo/bp/envirp4.html>

²² <http://www.un.org/geninfo/bp/envirp4.html>

²³ <http://www.un.org/esa/sustdev/documents/agenda21/english/agenda21chapter1.htm>

²⁴ In Britain and most of the western countries social and environmental disclosures are voluntarily (Campbell et al., 2003).

- how should a business integrate the concept? The integration of sustainability into business operations forms a challenge for business as to how to implement the sustainability concept and how to measure the sustainability performance; this will be discussed in Section 2.2.3 - Measuring sustainability.
- what issues should a business consider when implementing the concept and reporting on it? This dimension deals with the quality of reporting on sustainability issues, which is addressed below.

The problem which the private sector faces is that the voluntary nature of implementing and reporting social and environmental activities and performance leads to the question of why such information should be disclosed. In the absence of social and environmental reporting standards regarding whether to disclose, why to disclose and how much to disclose, many environmental organizations and other interest groups worked together to advance environmental stewardship. As a result of cooperation between the Coalition for Environmentally Responsible Economies and UN Environment Program (UNEP), the GRI was established in late 1997 with a mission to provide guidelines for reporting on economic, social, and environmental performance and the impact of corporations, governments and non-governmental organizations activities, products and services²⁵.

The GRI framework: in 2002, the GRI was established as a permanent, independent, international body with a multi-stakeholder governance structure²⁶. “Its core mission is maintenance, enhancement, and dissemination of the guidelines through a process of ongoing consultation and stakeholder engagement”²⁷. At that time, and in addition to their being voluntarily adopted, a drawback of the GRI guidelines was that they were not applicable to all business sectors, e.g., the banking sector, and so the need for other or supplementary reporting guidelines was raised. In responding to financial sector concerns, two significant initiatives were developed: first, the EPI-Finance 2000, which assists financial institutions to measure environmental performance progress against targets; and later, in 2005, a pilot version named ‘Financial Services Sector Supplement: Environmental Performance’, developed in collaboration with the

²⁵ <http://www.ceres.org/sustreporting/gri.php>

²⁶ <http://www.ceres.org/sustreporting/gri.php>

²⁷ <http://www.ceres.org/sustreporting/gri.php>

UNEP Finance Initiative (UNEP FI)²⁸ to provide reporting guidelines on measuring environmental performance. Therefore, it became crucial to examine and shed light on the reporting framework and the Financial Services Sector Supplement: Environmental Performance and EPI-Finance 2000. These guidelines are of fundamental importance given over six hundred organizations, including Westpac Group, report using the GRI guidelines²⁹ and complying with the Supplement.

Identifying the characteristics of disclosure is essential, to enable comparison between the reporting frameworks and what the bank implements, and, importantly also, to identify some indicators which assist in measuring the bank's environmental performance. Therefore, it is also essential to understand the proposed GRI reporting framework which covers the four areas described in Box 2.1:

²⁸ UNEP FI is a global partnership between UNEP and the financial sector to understand the impacts of environmental and social considerations on financial performance (www.unepfi.org)

²⁹ <http://www.ceres.org/sustreporting/gri.php>

Box 2.1 The GRI reporting framework

1- Defining report content³⁰: the report should cover the following aspects:

- materiality: reflecting the organization's significant economic, social and environmental impacts that would influence the stakeholders' decisions;
- stakeholder inclusiveness: identifying the organization's stakeholders and how it responds to their expectations;
- sustainability context: presenting the organization's performance in the wider context of sustainability; and
- completeness: covering economic, social and environmental topics to enable stakeholders to assess the organization's performance and take appropriate action.

2- Defining report quality³¹: this section ensures the reported information is presented properly and is associated with the following qualities:

- reliability: information reported should be prepared in a way that can be subject to examination;
- clarity: information disclosed should be understandable by stakeholders;
- balance: reflecting the positive and negative aspects of performance;
- comparability: ability to analyze the reported information over time;
- accuracy: reporting should be accurate to enable stakeholders to assess the organization's performance; and
- timeliness: disclosing information on a regular basis and making it available in time to make informed decisions.

3- Reporting guidance for boundary setting³²: this part of the framework should include the performance of entities that the organization exercises control of, or has a significant influence on, which generate significant sustainability impacts.

4- Profile disclosures³³: this part of the reporting framework contains the main parts of the sustainability report. The three different types of disclosures are:

- profile: this part reflects how the organization perceives the sustainability concept, including impacts, risks and opportunities by the most senior decision-makers (e.g. CEO, chair). Disclosures include the organization strategy, profile and governance;
- management approach: this approach covers how management addresses the economic, environmental and social aspects to understand the organization's performance; and
- performance indicators: indicators that provide comparable information about the organization's economic, environmental and social performance.

Source: <http://www.globalreporting.org/ReportingFramework/G3Online>

Following the GRI, the Secretary-General of the United Nations, Kofi Annan, in the World Economic Forum 1999, challenged business leaders to support

³⁰ <http://www.globalreporting.org/ReportingFramework/G3Online/DefiningReportContent/>

³¹ <http://www.globalreporting.org/ReportingFramework/G3Online/DefiningReportQuality/>

³² <http://www.globalreporting.org/ReportingFramework/G3Online/SettingReportBoundary/>

³³ <http://www.globalreporting.org/ReportingFramework/G3Online/Profile/>

universal environmental and social principles to meet the challenge of globalization³⁴. The result was that the Global Compact, which is a voluntary international corporate citizenship network, was launched in 2000, consisting of ten principles in the areas of human rights, labour, the environment and anti-corruption. Significantly, the principles encourage businesses to support the development and diffusion of environmentally friendly technologies that address environmental challenges. So far, the Global Compact Initiative pledges companies to embrace and promote, support and enact, and improve good corporate practices in the social and environmental arenas.

Sustainability Indices: other business initiatives have also been taken such as these associated with the ethical investment movement. In 1990, the Domini 400 Social Index was established as “an index of 400 primarily large-capital U.S corporations, roughly comparable to the S&P 500, selected based on a wide range of social and environmental standards”³⁵. Their conclusion was that the long-term record of the Index showed that “social and environmental standards have led to strong individual stock selection and potentially higher returns”³⁶.

As environmental concerns and SD gained more momentum within the private sector, other indices were established. The best known are: The Dow Jones Sustainability Indices, the FTSE4GOOD Indices Series, ASPI Eurozone and the Ethibel Sustainability Index which were established in 1999, 2000, 2001, and 2002 respectively. Inclusion in these indices is recognition of companies’ commitment to combining economic development with social and environmental responsibilities, and implementing an efficient action plan in support of the principles of the UN initiatives. The indices have since been heralded as a benchmark for companies and investors wishing to become involved in SD, especially with respect to environmental care and community involvement (Deegan, 2002).

³⁴ <http://www.unglobalcompact.org/AboutTheGC/index.html>

³⁵ <http://www.domini.com/about-domini/The-Domini-Story/index.htm>

³⁶ <http://www.domini.com/about-domini/The-Domini-Story/index.htm>

In scoring the banks' environmental performance in these indices, the challenge is to consider the direct and indirect environmental impact of the banks on both their operations and the environment. A bank's compliance with a specific reporting environmental format is not the end of the story. A critical issue is how well it integrates environmental objectives into its operations and, as a result, impacts its own performance and environmental outcomes. Kolk and Mausewyr (2001) indicate the variability in formulating the rankings of banks, which is often based upon reputation, but not the exact performance. Also, Gray and Milne (2002) emphasize that there is lot of talk but very little action, and, moreover, social and environmental accountability remains a 'nice idea' until substantive legislation takes place and it is implemented in large organizations.

A conclusion from the previous discussion is that the climate for companies' interest in SD has generally strengthened, and some of this progress can be attributed to UN initiatives and some to private actors and NGOs. The reluctance to become fully engaged with this concept could be attributed to the traditional focus on economic benefits and increasing shareholders' value, which are still dominant factors characterizing businesses (Gray and Milne, 2002; The Economist, 2002; Jayne, 2002; Roper, 2004; Evans, 2005). Nevertheless, there is ongoing debate about the relationship between environmental and financial performance, how businesses utilize the sustainability concept, and how sustainability performance is measured.

2.2.2 Sustainability of business

Since the 1990s, many leading companies in the USA, Europe and Japan have responded to the challenges of social and environmental pressures by adopting a commitment to sustainability (Hart, 1997). This commitment has included launching proactive programs and a variety of initiatives. The following sections explain how businesses address sustainability challenges.

Definition of sustainability of business

Drawing on the Brundtland definition of SD, Dyllick and Hockerts (2002) defined sustainability of business as "meeting the needs of a firm's direct and indirect

stakeholders (such as shareholders, employees, clients, pressure groups, communities, etc), without compromising its ability to meet the needs of future stakeholders as well” (p.131). The International Institute for Sustainable Development defines sustainability for business as “adopting business strategies and activities that meet the need of the enterprise and its stakeholders today while protecting, sustaining and enhancing the human and natural resources that will be needed in the future” (Lynn, 1994).

In addition to business managers being required to respond to sustainability issues, the growing concern of stakeholders about the state of the environment has also put pressure on management to become more concerned about environmental issues. This had led to greater management efforts to introduce the value of the environment into the decision-making process (Rondinelli and Vastag, 1996; Solaiman and Belal, 1999). Therefore, the next section explores the philosophy of business sustainability.

Theoretical frameworks of sustainability of business

When transposing the idea of sustainability to the business level, many businesses and academic scholars have tended to focus on the business case for SD, and ask how firms can further their economic sustainability by paying attention to social and environmental issues (Dyllick and Hockerts, 2002). This led to consideration of three dimensions of sustainability associated with the types of capital suggested by Dyllick and Hockerts (2002). They point to three types of capital associated with the triple bottom line: economic, natural and social sustainability. Each type requires a different management response. The economically sustainable business requires managing several types of economic capital: financial capital (i.e., equity, debt), tangible capital (i.e., machinery, land, stocks) and intangible capital (i.e., reputation, inventions). Therefore, a company ceases to exist once there is no economic capital left, and it becomes economically unsustainable. The natural capital is based on the realization that on a finite Earth the depreciation of natural capital cannot go on endlessly. So, if a business consumes energy and materials and, as a result, creates undesired output in the form of products and services, then the business becomes ecologically unsustainable. Thus, it is accountable to society

for the discharge of undesired outcomes and other environmental fall-out arising from its activities. The socially sustainable business also needs to consider human capital and societal capital. Human capital is concerned primarily with skills, motivation and loyalty of employees. Societal capital includes internalizing social costs, the quality of services offered by the business, and meeting the stakeholders' expectations. Accordingly, sustainable business is achieved by the delivery of competitive services and products that satisfy human needs and bring quality of life, while progressively reducing ecological impacts and resource intensity.

Several theoretical frameworks describing the relationship between social and environmental performance and financial performance have emerged over the years. Steger, Somers and Salzmänn (2007) classified these studies into three groups:

- the trade-off approach, which was originally explained by Friedman (1962). It states that an increase in social and environmental performance leads to increased costs and reduced profitability;
- the supply and demand theory (McWilliams and Siegel, 2001). Companies determine a level of environmental performance to maximize their profits. The level of environmental or social performance will vary, but profitability will be maximized. Therefore, there is no link between financial, environmental and social performance; and
- the social impact hypothesis (Cornell and Shapiro, 1987). Improvements in social or environmental performance improve financial performance, as potential benefits outweigh costs.

However, Steger, Somers and Salzmänn (2007) also postulated that the frameworks could indicate linear or non-linear relationships between the different dimensions of corporate performance. The relationship could well change, depending on performance levels. This means that the three categories could be found over time in a single business case. In other words, improvements in environmental performance may only pay off financially at the start when "picking the low hanging fruit". For example, a zero emission goal is more costly to achieve than slight emission reductions.

Walton and Galea (2005) referred to two perspectives in the literature which brings tension between business and social and environmental initiatives. The first view derives from economic theory, which argues that the only aim of business is to maximize profits and, thus, the shareholder value. A basic assumption of the theory, is that, automatically, the invisible hand of the market allocates the resources efficiently. Letting the market sort matters out is the way to solve the problems of the world. This view is consistent with a recent study by Steger et al. (2007) of nine industries, including financial services, which found that it is difficult to build sustainable business, due to: limited connections between social and environmental risks and opportunities within companies' core business; the numerous stakeholders' demands; and the organizational capacity to obtain the relevant information. They claim that, despite companies taking into account social and environmental concerns, this practice is seen as only a cosmetic measure. While it is still within the bounds of sustainability rhetoric, the economic bottom line continues to dominate corporate decision-making. Many business executives still often see only the potential threats of rising costs, decreasing competitiveness, and increasing legal challenges (Rondinelli and Vastag, 1996).

Epstein and Roy (2003) reflect on common setbacks when implementing SD. Managers often find that sustainability guidelines and standards are not adapted to their particular needs, and do not necessarily reflect the company's values. These guidelines and standards often only help in the formulation of the commitment toward stakeholders, and do not incorporate stakeholders' expectations into specific policies, programs and systems that provide direction and boundaries for decision-making, and help move the entire company towards its sustainability goals. Many of the current guidelines and standards concentrate only on external disclosure and external accountability rather than internal improvements of sustainability performance.

The second perspective implies that there are profit gains as a result of adopting social and environmental agendas. However, SD means many things to many people. Some ask: can SD improve the shareholder value? Walton and Galea (2005) pointed out that Margolis and Walsh reviewed 127 studies in USA-based

journals to look at the relationship between socially and environmentally responsible actions and financial performance. They found that 70 of the 127 studies supported the existence of a positive relationship. Walton and Galea mention many positive examples of this type.

In addition, Kennedy (1998) undertook studies that showed that companies which commit to SD recognize positive financial value, and Kiernan (2001) identified evidence that there is a robust, positive relationship between environmental and financial performance. Dyllick and Hockerts (2002) indicate that a single-minded focus on economic sustainability can succeed in the short run. However, in the long run, sustainability requires all three dimensions to be satisfied simultaneously, and therefore, economic sustainability alone is not sufficient for the overall sustainability of a corporation.

A recent study by DeBono (2004) emphasizes the environmental performance and sustainability practices of many industries and investors who recognize the positive relationship between sustainability practices and financial performance. She noted that the financial impacts of environmental issues continue to increase, due to increased regulatory requirements and stakeholders' concerns and demands. Her study revealed that the integration of sustainability practices into business operations resulted in reducing environmental costs, impacts and liability, led to compliance improvements, and improved the business position.

Walton and Galea (2005) also noted that many Western businesses have shifted their views from considering sustainability as a cost, to a potential source of competitive advantage and market opportunity through managing the natural environment. They have begun to actively pursue pollution prevention, waste stream reduction, resource conservation, energy efficiency and eco-friendly products. Epstein and Roy (2003) also reflect on the advantages of SD implementation. They draw attention to the fact that some leading companies have recognized that sustainability is important for long term corporate profitability. Therefore, these companies integrate consideration of stakeholders' interests into day-to-day management decisions and strive to balance these interests. Further, some organizations have established guidelines and standards to help managers

better understand their roles and responsibilities toward stakeholders. These guidelines vary widely, in terms of focus and goal. Some of them address specific social responsibility issues (e.g. OECD Guidelines for Multinational Enterprises, ICC's Business Charter for Sustainable Development). Others have a narrower focus (e.g., Responsible Care focuses on environmental issues and the Fair Labour Association's guidelines focus on labour rights). Yet others focus on particular aspects of implementation, such as external reporting (e.g., Global Reporting Initiatives). Epstein and Roy (2003) note a considerable effort being invested to integrate social and environmental aspects into business practice, and many corporate companies issue sustainability reports. Some social and environmental activists criticize companies for the content of these reports, and describe them as 'green-washing'. This issue raises the bar for adopting particular formats and for considering specific contents to be reported to facilitate a measurement of sustainability (Walton and Galea, 2005).

Obstacles to implementing sustainability business practices

Two perspectives have arisen that are inconsistent with the previous section with regard to SD implementation. Environmental concerns have become a challenge for executive management. A balance between the three dimensions of sustainability is essential. Business could not survive without using material, natural resources and the skills provided by society. Therefore, a trade-off between the needs of different stakeholders becomes necessary as there is almost a tension between economical, social and environmental aspects. Kennedy (1998) points out that SD is seen as a cost of doing business. She writes "no major business decision is being made without first considering its environmental implications. And, likewise, no major environmental expenditure is approved without first considering its economic impact". By implication, therefore, a balanced view should be maintained.

Lynn (1994) emphasizes that being sustainable and incurring real change is not easy. First, because of business' inability to accept responsibility for social and environmental damage; the results of this can mean fines and legal costs which can impact the bottom line. Second business needs to be supportive of innovation,

which requires exposure to new knowledge, skills and attitude education and training; third, as Epstein and Roy (2003) argue, translating a strategy into action and driving it through complex organizations is a substantial challenge. Without organizational structure and management systems, a company may not be able to gauge its sustainability performance. Managers encounter a proliferation of management systems such as quality management (e.g., ISO 9000, EFQM), environmental management (e.g., ISO 14000, EMAS), and corporate social responsibility (e.g., SA 8000, AA1000). Such approaches often form a challenge to business to be systematically linked to the core traditional management system.

Therefore, Lynn (1994) suggests that it is important for a company to initiate change to manage its affairs in a more responsible manner. Managers who are assigned responsibilities to manage SD issues are to be supported with the right resources, e.g., education and training, and by those highly skilled in strategic functions that could provide a significant return to the organization.

Despite obstacles encountered implementing SD, theoretical and practical interest abounds. Walton and Galea (2005) report, from the research side, business and sustainability has become a growth industry. There are now specialized academic journals that publish only papers that consider the impact of business on the environment (e.g. *Strategy and the Environment*, *Greener Management International*). Practically, contemporary SD process includes laws that set standards for the social and environmental behaviour of companies in an effort to ‘internalize externalities’ (Steger, Somers and Salzmann, 2007). Their view is that regulations which force companies to comply with social and environmental policies and roles are economically relevant.

While it is acknowledged that sustainability can deliver positive outcomes for business, there is still debate about how sustainability aspirations can be translated into action and how its performance is to be measured. This will be addressed in the next section.

2.2.3 Measuring sustainability

This section reviews the progress made in the attempt to measure sustainability. Different questions arise while considering the measurement issue. One of the challenges faced by companies is how to track their progress towards sustainability and communicate it to both internal and external stakeholders. After that, there is a need to respond definitively to the question of whether a firm's services, products, processes and facilities are sustainable.

There have been attempts to address SD measurement. For instance, Morse et al. (2001) distinguished between two fundamental, distinct and broad visions of sustainability: sustainability as an approach and sustainability as a system property. With regard to sustainability as an approach, people can see whether one organization's practices are sustainable and others are not. The progress towards sustainability can be monitored by noting implementation of good practices. On the other hand, sustainability as a system property implies seeking to define and measure the ability of the system to exist in a preferred state. This poses challenges to identify and measure the boundaries of the system, rather than just to list good or bad practices.

Answering the above-mentioned questions requires the ability to measure sustainability in a quantitative and/or qualitative fashion. However, measuring sustainability differs from measuring other dimensions of business performance in several important aspects. First, this practice is relatively new, so there is a lack of commonly accepted or mandated measurement standards (Darby and Jenkins, 2006). Second, sustainability is complex and multi-faceted, covering a broad spectrum of topics from social and environmental aspects to financial matters (Morse et al., 2001). Finally, measurement of sustainability extends beyond the boundaries of a single company, and typically addresses the performance of many stakeholders who are directly or indirectly affected by, and involved in, the company's activities (Isaksson and Garvare, 2003). Such complexity demands considering sustainability performance measurement as a systematic business process, in order to integrate it effectively into a company's strategic planning, day-to-day operations and review process.

While companies are beginning to address these challenges, to date the focus has been on the choice of appropriate performance indicators (Sikdar, 2004; Morse et al., 2001; Darby and Jenkins, 2006). The starting point of international work on measuring SD was Agenda 21 at the Rio Earth Summit in 1992. The action plan of Agenda 21 suggested identifying and developing indicators for measuring SD by considering the different dimensions needed to be included within such indicators. One of the reasons for developing specific indicators is the need to monitor and to assess SD progress (Gallopín, 1996). Therefore, indicators are an integral component in measuring sustainability performance.

Studies reveal a variety of definitions for an indicator. Gallopín (1996) found that an indicator has been defined in publications on environmental indicators as a variable, a statistical measure, a proxy of measure. Darby and Jenkins (2006) defined indicators as “tools that measure, simplify and communicate important issues and trends” (p. 414).

The functions of indicators are: to translate and communicate complex information into easily understandable units in order to enable businesses, in decision-making, to measure the current performance; and to be set as benchmarks for future improvements. In addition, Gallopín (1996) mentioned the major functions of indicators, which include assessing conditions and trends; comparing across places and situations; assessing conditions and trends in relation to goals and targets; providing early warning information; and anticipating future conditions and trends. Also, Isaksson and Garvare (2003) argue that an indicator provides useful information about a unit; describes the state of a unit; detects a change, and reflects the cause-and-effect relationships. They stated that, in this sense, when attempting to measure sustainability performance, the indicators should be relevant, understandable, limited in numbers, and adaptable to future developments.

Moreover, indicators are particularly useful tools to measure progress, and are also good at measuring what is sustainable or not and, thus, what needs to be improved, reduced or minimized (Dahl, 2000). Therefore, indicators signal to decision-makers where to concentrate their efforts to achieve a suitable practice;

once one factor is corrected, the indicators should signal where priorities should be shifted (Dahl, 2000).

Progress can be achieved where indicators are assigned for particular sectors or issues (Dahl, 2000). Most of the literature on SD indicators focuses on economic, social and environmental categories (Epstein and Roy, 2003; Walton and Galea, 2005). Other studies, such as Bossel (1999), include technological, political and psychological aspects. For example, technology could arguably be a sound technical solution for improving performance for all three categories (Isaksson and Garvare, 2003).

Research aims to build consensus and reduce doubt about the effectiveness of sustainability performance measurement. Therefore, some studies (Darby and Jenkins, 2006; Isaksson and Garvare, 2003) suggest utilizing sustainability models to identify specific indicators relevant to a specific area.

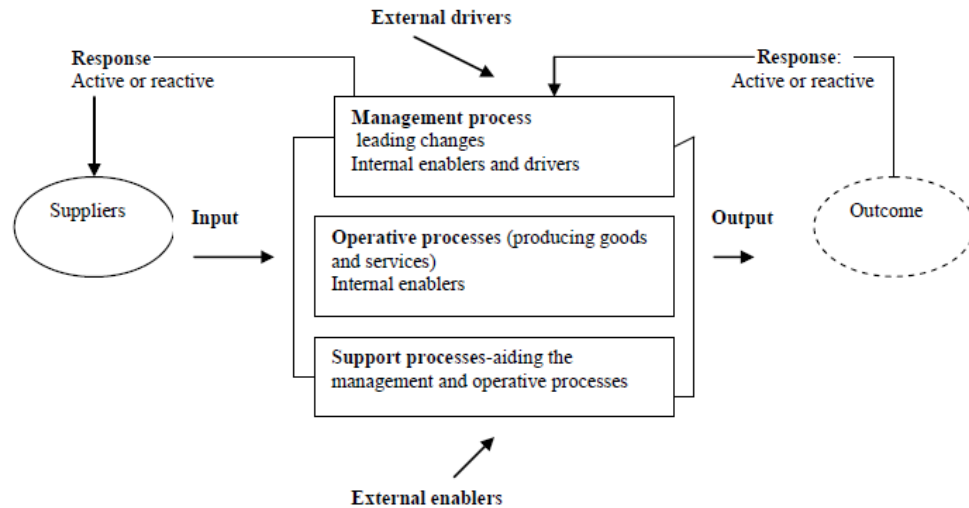
Sustainability models

A central point in making significant progress in measuring sustainability is to identify suitable indicators in each specific area of economic, social and environmental aspects. Darby and Jenkins (2006) pointed out that some sustainability indicators are straightforward to measure, but others are difficult. They are of the opinion that no one method of measuring sustainability has been universally accepted, due to difficulties arising from organizational requirements and the process of developing and implementing indicators.

In an attempt to minimize the difficulties, Epstein and Roy (2001, 2003) and Isaksson and Garvare (2003) suggest using sustainability models which employ metrics to monitor and assess the value and effectiveness of sustainability actions undertaken in a specific area. Their concern was that many companies have not focused on identifying the relationship between sustainability actions and financial performance. Their studies revealed that the process of developing indicators considers a number of dimensions to measure organizational performance. Isaksson and Garvare (2003) put forward an organizational process model, which illustrates five different types of measurements: drivers, input,

enablers, output, and process outcome, which is stakeholder satisfaction (Figure 2.3). This model, they contend, combines most business models, with the idea of dividing indicators into: driving force, state and response.

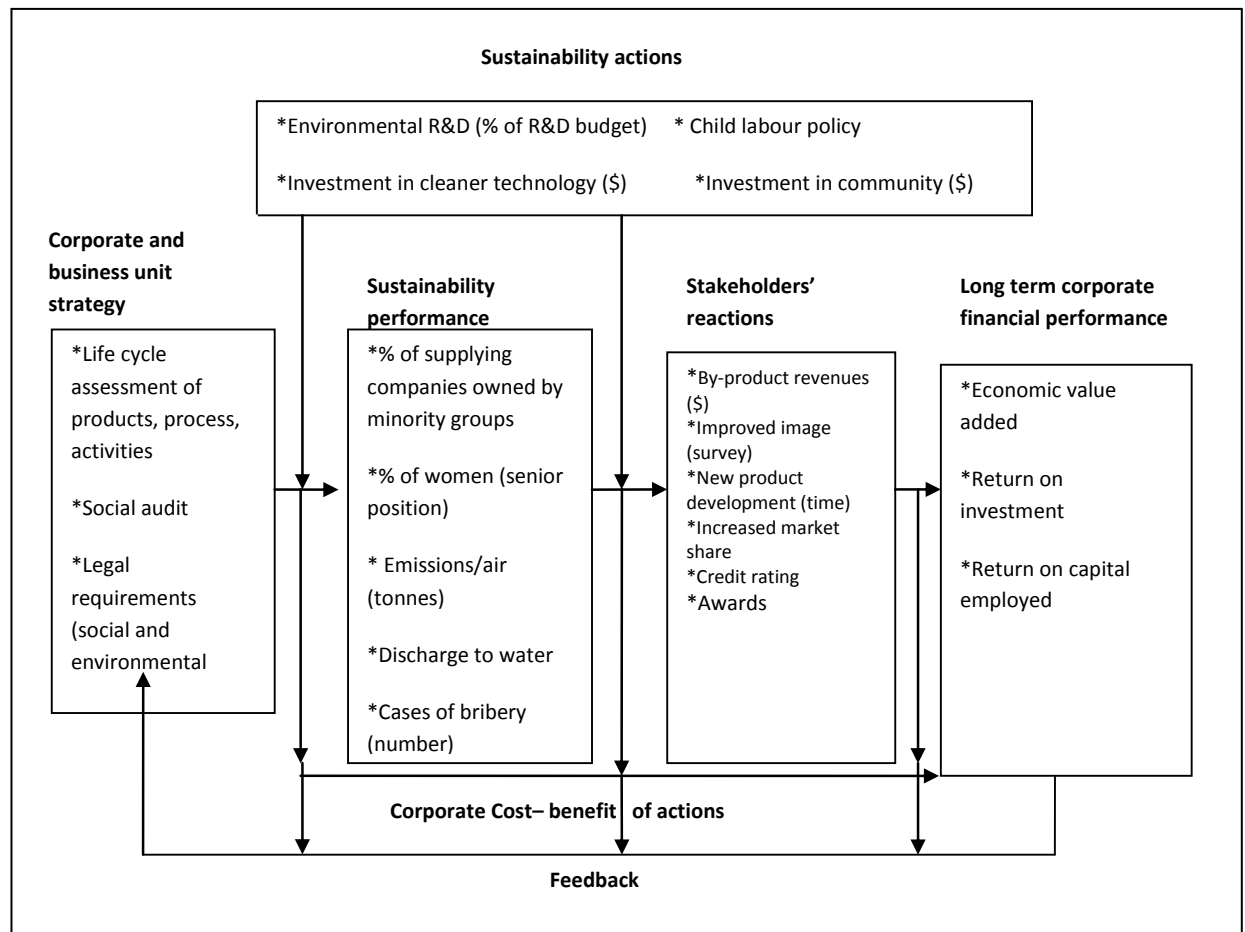
Figure 2.3 The organizational process model



Source: Isaksson and Garvare, 2003

Furthermore, another study by Epstein and Roy (2001) illustrates an organizational model to evaluate the performance of sustainability actions, starting by identifying the social and environmental issues, which are comprised of leading and lagging indicators and are expressed in both financial and non-financial terms (Figure 2.4). Once indicators have been identified, analyses need to be undertaken.

Figure 2.4 Metrics of sustainability and financial drivers



Source: Epstein and Roy, 2001

Epstein and Roy (2003) set up indicators that may be used to define goals and targets and, then, to compare them to actual performance, in order to support performance evaluation systems and measure success. In order to facilitate performance measurement, they established descriptive metrics indicators - some of the metrics presented are measured in monetary terms (e.g., number and amount). Such measurements help to translate sustainability issues into business language and relate more to issues of long-term profitability, rather than to emotional discussions of social and environmental issues. Isaksson and Garvare (2003) contended that sustainability models which employ metrics and indicators can be used as tools for measuring the transition towards SD, to test the relevance, quality and quantity of business activities which are aligned with SD.

After identifying the indicators, the challenge is, then, to find ways to integrate SD practices into business operations. For example, Searcy et al. (2006) showed that the largest electric utility in Canada has developed a system of ninety-eight SD indicators, which were clustered according to three specific key themes. Under each theme a number of key areas were organized, relevant to internal and external dimensions. Another study by Ekins and Vanner (2007) also reported that Arthur D. Little had developed an assessment methodology to provide a method for project managers to measure project performance. The method included assigning 69 indicators under four pillars: economic, social, environmental and use of natural resources. Scoring for each indicator was done by using a scale from 1 to 5 where 1 represents weak, and 5 represents strong alignment with the principles of SD. In addition, with more specific attention to environmental performance, Thompson and Cowton (2004) studied the policies and procedures of a sample of banks with regard to their response to including environmental issues in their operations. The study of 86 items determined as indicators that environmental criteria was incorporated into lending decisions used Likert five point scales (ordinal data) running from zero (indicating no importance) to four (very important). After that, statistical tools are used; for example the mean to describe the central trend of results or the average of all indicators, and the standard deviation to show how close to or far away the data is spread around the mean. These studies agreed in the sense of disaggregating the broad concept, SD, into indicators that assess data gathered from items which take external and internal dimensions into account and, as a consequence, assist in a sound decision-making process. In addition, Hardi and DeSouza-Huletey (2000) concluded that detailed data analysis of the indicators is important for allowing decision-makers to gain an understanding of the state of the environment and thus to integrate the goals and principles of SD into policy and practice, and, in particular, to measure SD strategies in progress. Consequently, they suggested using statistical techniques and analysis to measure SD components.

Obstacles to successful development and use of indicators

While the importance of employing sustainability models, including indicators for effectively measuring an organization's sustainability performance is acknowledged, in fact, there are challenges that hinder the implementation of indicators. Dahl (2000) contends that there has been a particular emphasis on developing indicators of the driving forces that affect the ecological balance, because these relate to human activities and are often susceptible to management actions. Moreover, he concludes that it is harder to define the ideal SD and, thus, the need for indicators to be developed to capture the sense of ecological balance in a dynamic system is also a major challenge. In addition, Dahl (2000) reveals another challenge, viz., the difficulty of adequately calculating and quantifying all the indicators identified. Also, he concludes that, while it is generally accepted that it may be possible to generalize categories, there is also a need for indicators to be specific to particular uses, both in scale and content. For example, each indicator would have to be constructed differently for different sectors of different regions. In this regard, Searcy et al. (2006) conclude that no system of indicators is comprehensive and measures everything; rather, it is to be acknowledged that something may be missed, and details of each indicator will be specific to the unique context of each organization.

In addition, and despite a surge in international action, it was noticed that the process of sustainability measurement is still far from achieving a consensus, due mainly to the different dimensions of SD (Dahl, 2000). Isaksson and Garvare (2003) state that "creating a single figure effectively covering all aspects of SD-performance could prove extremely challenging. Using three sets of indicators of economic, environmental and social performance should make the task easier, even if adding up each area is a challenge in itself" (p. 651).

Another challenge was raised by Walton and Galea (2005), who argued that many studies advocating the need for links between the financial performance and measurement of sustainability lack evidence that the findings are built upon firm structures, and suffer from a dubious methodological base. Their view is that the positive relationship, even if firmly established, may not lead to a conclusion that

social and environmental actions result in a better corporate performance. Furthermore, Epstein and Roy (2003) point out that the identification and measurement of sustainability strategies are difficult, due to the fact that they are linked to long time horizons, and have a high level of uncertainty, and because the environmental impacts are often difficult to measure quantitatively. Also, Morse et al. (2001) found a good reason for the weakness of the link between financial and sustainability performance, namely, that sustainability studies are usually found in anthropological or sociological literature and rarely refer to indicators, which tend to be employed by natural scientists and economists.

Furthermore, it was noticed from the work of Epstein and Roy (2001 and 2003); Sikdar (2004); Kennedy (1998); Dyllick and Hockerts (2002) that studies measuring SD included the three dimensions, but often excluded the segmenting of metrics into specific measurable indicators in a business context. In addition, Zoeteman (2001), Kolk and Mauser (2001), Rondinelli and Vastag (1996) suggested strategies to measure sustainability in businesses but often identified neither the area of sustainability (social, environmental and economic) nor the indicators or other measurement tools for measuring sustainability performance. The methodological approach used in such studies of SD performance measurement needs to establish the corporation's sustainability strategy as a first requirement, then identify the different aspects of sustainability under which specific indicators are applied.

Other papers by Weber (2010), Hodge (2011), Raiborn, Butler, Massoud (2011) show that companies have struggled to quantify in financial terms their exposure to sustainability costs and risks, and to disclose these.

To sum up, two challenges can be recognized from the research on measuring sustainability performance: first, the conceptual understanding by management that SD delivers positive outcomes both to the corporation and the environment; second, a technical challenge, which requires identifying adequate indicators that measure the firm's sustainability performance. The measurement of the indicators could be carried out qualitatively and/or quantitatively (Hardi and DeSouza-Huletey, 2000). However, these authors admit that data is difficult to quantify and

measure. In order to make sustainability information more applicable and understandable, some studies (Hardi and DeSouza-Huletey, 2000; Thompson and Cowton, 2004; Ekins and Vanner, 2007) suggest analyzing the indicators quantitatively; other studies (Aladwani, 2001; McKenzie and Wolfe, 2004) employ a combination of qualitative and quantitative analytical measures.

The next section aims at a closer understanding of the role of the banking sector in SD, with emphasis on the environmental dimension.

2.3 Sustainability and the banking sector

The banking sector has been slow to address SD (Lynch, 1994; Jeucken, 2001). This could be explained by the fact that banks themselves are a relatively clean sector and their products and services themselves do not pollute (Jeucken, 2001). This approach would be more applicable if only the direct impact of their energy use and material consumption on the environment is considered. Acknowledging such impacts is not a large burden, does not interfere with core bank business and is easy to disclose to stakeholders (Bouma et al., 2001; Cowton and Thompson, 2000). However, this thesis concentrates on the indirect primary impact of a bank's lending transactions on the natural environment, which has been on the agenda of government and non-government organizations for the last few decades.

Greater clarity concerning the relationship between the roles of banks and SD is important. At the micro level, banks affect the development and the direction of the economy through their intermediate roles between savings and investments by transforming money by place (e.g., a bank may allocate the money of a lender to a borrower in a different location), term (maturity intermediation - creditors in particular usually only have short-term surpluses of money, while debtors usually have long-term capital requirements), and risk (banks are generally in a better position to assess the risks than are individuals) (Jeucken, 2001). In this sense, banks through their financial policy, create opportunities for sustainable business and give customers investment advice with respect to the knowledge and information banks have about market development, market sectors and legislation. Banks play a different role from other industry sectors. Bouma et al. (2001) argue

that, since investments in fixed assets such as dams, transport and communications infrastructure constrain the development path for many years to come, it is important to get financial capital allocated correctly. This means that banks are a critical channel through which lending activities, environmental risk assessment, regulation, and community pressure can direct investments to more or less sustainable economic activities.

2.3.1 History of sustainable development and the banking sector

Acknowledging sustainability as an item on banks' agenda started in 1980 with the setting up of the 1980 Comprehensive Environmental Response Compensation and Liability Act (CERCLA) in the USA (Coulson and Monks, 1999). This Act, also known as Superfund, made owners of contaminated sites liable for their clean-up. Despite the Act's exempting lenders from ownership status, some banks were forced to enter into court procedures and some recorded financial losses (Fenchel et al., 2003; Boyer and Laffont, 1997). This made banks realize that their clients' poor environmental performance could affect their own financial success, and awoke them to the fact that they could become liable for their clients' transactions.

The role of financial institutions in stimulating SD was acknowledged and increased substantially during the 1990s. That was when principles, statements, standards and international programs were developed. The main initiatives that were designed over that decade were the UN Environment Program Financial Institutions Initiative on the Environment (UNEP FI), the EPI-Finance 2000, Wolfsburg Principles, London Principles, and the EPs.

UNEP FI, which was established in 1992 at the Rio Earth Summit, is a partnership between the UNEP and the private financial sector to improve and promote relationships between the environment, sustainability and financial performance³⁷. Another objective of the initiative was to encourage the financial sector to invest in environmentally sound technologies and services (Bouma et al., 2001). The initiative attracted 160 signatories, including Westpac Group. The concept of the

³⁷ <http://www.unepfi.org/about/index.html>

UNEP FI was launched in 1991 when Deutsche Bank, HSBC Holdings, Natwest, Royal Bank of Canada and Westpac Group catalyzed the banking industry's awareness of environmental issues³⁸. In order to become a signatory to UNEP FI, the financial institution needs to sign either one of the UNEP FI statements on SD, depending on the principal operations of the company.

Recently debate has arisen regarding whether signing the statement made a difference or not. Fenchel et al. (2003) conducted a survey of 50 European banks to examine the integration of environmental risks into the credit risk management process of banks. The findings indicated that banks which signed the UNEP statement tended to be more aware of environmental issues than those which did not sign it, and that they were less vulnerable to environmental risks and competitive disadvantages. Banks who do not realize the phases of environmental risks (rating, costing, pricing, monitoring, work out) are at risk of attracting bad borrowers with high environmental risk and, consequently, could have credit defaults.

The contents of the UNEP FI statements provide challenges to the financial sector concerning corporate governance, environmental regulations, the social and environmental impacts of operations and investments, and how the financial institutions support and interact with communities. The statements stress the importance of realizing the environmental risks and opportunities and the role of management in addressing environmental issues.

In addition to the UNEP statements, a group of 11 banks initiated the EPI-Finance 2000 Report, which proposed that financial institutions face the challenge of measuring and reporting the environmental performance of their business operations³⁹. The group promoted the report as a means of helping “build a full picture of a company’s sustainability performance, which allows for effective management decision-making and stakeholder interaction, as well as meaningful benchmarking”⁴⁰.

³⁸ <http://www.unepfi.org/about/background/index.html>

³⁹ <http://www.epifinance.com/www.epifinance.com/project.htm>

⁴⁰ <http://www.epifinance.com/www.epifinance.com/project.htm>

EPI-Finance 2000 was a pivotal point in shifting financial institutions consideration of the environment and SD from unclear concepts to measurable terms. These become applicable through constructing environmental performance indicators, which serve as important tools for effective management decision-making and as a means of enabling companies to make sustainability measurable (Kolk and Mauser, 2002). The indicators help companies to measure their performance against targets and report on their progress to stakeholders (Searcy, et al., 2007). In other words, the indicators may offer guidance internally, to measure the development of environmental management, and externally, to serve as a credible environmental communication to stakeholders (Isaksson and Garvare, 2003).

Significantly, this was the first real collaboration between the UN agencies and the financial sector to develop a partnership that considered environmental management. The indicators are designed for financial institutions, thereby helping to develop a standardized EMS.

Another initiative receiving banks' interest is the Wolfsburg Principles. The principles aim to "develop financial services industry standards, and related products, for know-your-customer, anti-money laundering and counter-terrorist financing policies"⁴¹. Ignorance of types of business activities known to be susceptible (such as having funds invested in environmentally inappropriate projects) could have a detrimental effect on the environment.

London Principles: a fourth initiative is the London Principles, which were established in 2002. The principles were the result of a study launched by the City of London Corporation, which represented the UK financial sector in the British government's response to the Johannesburg Earth Summit 2000. The Principles encourage reflection on the cost of environmental and social risks in the pricing of financial and risk management products, exercise equity ownership to promote efficient and sustainable asset use and risk management, and provide access to finance for the development of environmentally beneficial technologies.

⁴¹ <http://www.wolfsberg-principles.com/>

The London environmental principles, despite this interest, ignore a fundamental part of the managerial role in setting up environmental policy and other management tasks, such as training and auditing, which EPI-Finance 2000 has already covered. Also, the principles are repetitive of those of EPI-Finance 2000, in the sense of environmental procedures and investment in environmental technologies.

However, the environmental principles represent an increased awareness of the threat posed to the environment and financial institutions alike. The main thrust of the principles is environmental risks and environmental risk management, ownership rights and the financing of green technologies.

Overall, the London Principles were a further development in the cause of the environment and SD. Despite their repetition of former initiatives, they still provided an indication of environmental relevance to the core business of financial institutions.

Another initiative by financial institutions seeking to manage environmental risk is the Equator Principles (EPs). The Principles were established in 2003 by ten major banks, including Westpac Group, in co-operation with International Finance Corporation (IFC). The group was motivated by their own experiences - financial loss, increased awareness of the environmental risks, public pressure and damage to reputation. Together, they discussed ways to develop a common and coherent set of environmental and social policies and guidelines that could be applied across the financial sector, with the aim of assessing and managing environmental and social risks in project financing⁴². In accordance with the EPs, banks have undertaken not to finance any project with a total capital cost of US\$50 million or more unless the project can comply with a set of categorization, assessment and management standards designed to identify and address any potential environmental risks that a proposed project may present. In 2006 the Principles applied to all new projects with total project capital costs of US\$10

⁴² <http://www.equator-principles.com/faq.shtml>

million or more. As at June 2011, seventy-two financial institutions had adopted the EPs⁴³.

Equator Principles evaluation: there are two major impacts that diminish the EPs and make them less effective. First, the EPs can be interpreted in multiple ways. On the one hand, banks that adopt the EPs are able to implement its principles to the extent that they fit within their policies and operations, since they are voluntary agreements⁴⁴ acknowledging that the IFC has no authority to supervise or review the bank's compliance. Second, the principles have no formal mechanism for ensuring accountability (Ibars, 2004; Macve and Chen, 2010).

In addition, Missbach (2004) criticizes the EPs for having serious shortcomings and limited implications. First, the principles are applied only to a very small fraction of a bank's total activities, where the initiative is limited to project finance only. This means that the principles become limited only to direct lending and are not being applied to project finance deals, where a bank may be a financial advisor, underwriter, arranger or lead manager. Second, the present safeguarded policies of IFC which the EPs are based on do not represent the best practices, and the IFC's decisions are politically biased, especially since IFC is under pressure from the World Bank's largest shareholder, the USA. Third, evidence shows that, despite a number of banks having adopted EP, this has not stopped them becoming involved in, and agreeing to finance, controversial projects such as:

- The Baku Ceyhan oil pipeline, which runs through three countries (Azerbaijan to Turkey via Georgia). Despite the economic benefits, the NGOs and the peoples affected expressed concerns about the social and environmental impacts in the region. Citigroup, ABN AMRO, ING, WestLB and Credit Agricole are involved in financing the project (Sevastopulos, 2003); and
- The Three Gorges dam in China, which was financed through the Chinese government agency bonds. This dam forced the displacement of 1.9

⁴³ <http://www.equator-principles.com>

⁴⁴ 52 financial institutions have voluntarily adopted the EPs

million people⁴⁵. HSBC was one among other major banks to fundraise for the dam, which is scheduled to take 20 years, despite warnings and protests by Chinese citizens, public scrutiny and media attention⁴⁶.

However, fifty-two institutions have voluntarily adopted the EPs in Europe, North America, Asia, Australia and South America. Whether the principles' purpose is to establish good public relations, or to manage the risk to the bank's reputation with clients and stakeholders, or to manage and assess the environmental and social risks for both the banks and their stakeholders is still questionable. NGOs have complained that the EPs lack an accountability mechanism, and banks have funded controversial projects.

Nevertheless, the EPs are considered a remarkable footprint in a sustainable pathway for financial institutions. Implementing the principles requires a bank to address what policies, systems and procedures need to be put into place and evaluate what activities and staff are affected, in order to incorporate the EPs effectively into its operations (Ibars, 2004). This requires financial reporting, regular periodic compliance audits, and staff resources (Willman, 2007). Conley and Williams (2011) view the principles as an opportunity for financial institutions to improve their portfolio of projects. To implement the principles, one option is to require subscribing banks to commit to an annual report format that demonstrates implementation of the principles (Project Finance, 2004). In this way, stakeholders and investors can hold banks accountable for implementing the principles. According to Green (2005) banks should view the principles as an opportunity to take a self-initiated step towards a globally responsible agenda and to improve their financial portfolio of potential projects. She argues that banks should not use the principles to avoid public scrutiny and self-evaluation, but should employ them to create a viable and efficient implementation mechanism within everyday practices. In her view, Equator Banks will be judged on the real impacts they leave and the level of commitment displayed towards transparency and implementation; but they will not be judged on merely embracing the principles.

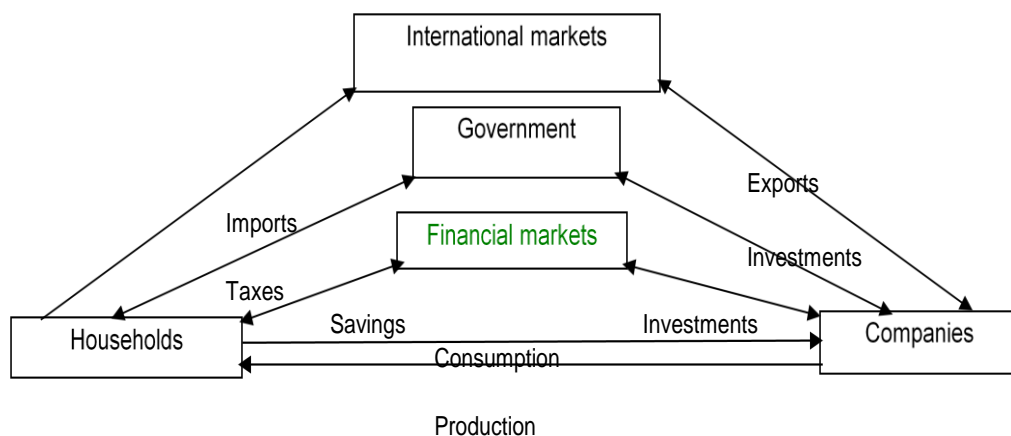
⁴⁵ http://www.foe.co.uk/resource/briefings/hsbc_ukplc.pdf

⁴⁶ http://www.foe.co.uk/resource/briefings/hsbc_ukplc.pdf

2.3.2 The role of banks in a sustainable environment

As indicated earlier, some banks have adopted voluntary environmental initiatives and integrated them into their day-to-day activities, as care for the environment has increasingly become a necessity due to the environmental risks that the banks themselves, the clients, the natural environment and other various stakeholders could incur (Bouma et al., 2001; Thompson, 1998a; Thompson and Cowton, 2004). Traditionally the role of banks (from an economic view) is to extend credit, resulting in money creation (Jeucken, 2001). This means the money supply in an economy is affected by, and consequently affects, the growth and direction of the economy. Thus, it can be noted that banks' lending influence is not merely quantitative but also qualitative. This can be realized when a bank creates risks and opportunities for sustainable business through its financial policy and by allocating money across different sectors of industry. The banks are institutions that match the supply with the demand for financial resources. Such capital flows are the mainstream of the banks' operations (Lundgren and Catusus 2000). The role of banks in an economy is illustrated in Figure 2.5.

Figure 2.5 The role of financial markets in an economic system

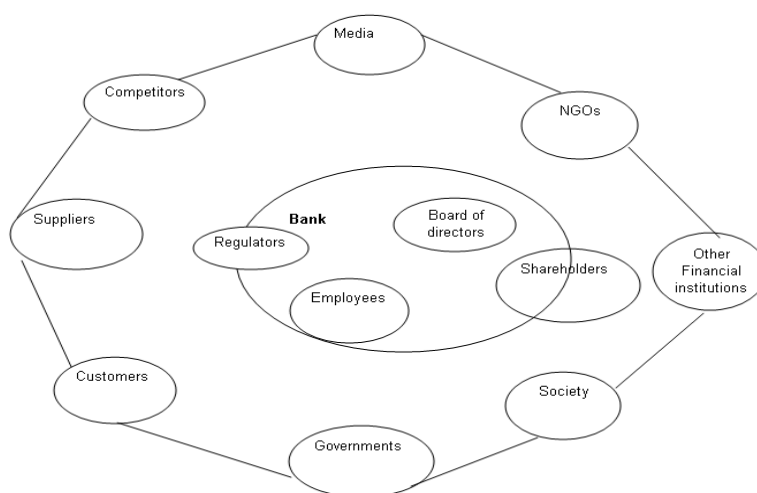


Source: Jeucken, 2001

As can be seen from Figure 2.5, the banking sector impacts on the economy and is important because of the way funds associated with the different industry sectors are channelled by financial transactions. Friction in capital markets arises when different sectors have a surplus or deficit of money and asymmetric information and insufficient knowledge is available (Jeucken, 2001). The intermediate role of banks is to reduce information asymmetry and to bring together the surpluses and deficits, savings and investments, and lenders and borrowers. The banks' shareholders and depositors confidently expect the banks to invest their money in the right portfolios. This means that banks are in a better position than individuals to make financial decisions, and have an enormous amount of knowledge and information, so they can assess the risks when allocating loans to a variety of sectors.

From a sustainability viewpoint, banks may choose to respond to SD through pressure applied by internal and/or external drivers. Internal drivers include shareholders, boards of directors, senior management and employees. External drivers include governments, shareholders, suppliers, competitors, media, NGOs, other financial institutions and society in general (Figure 2.6).

Figure 2.6 Bank's internal and external stakeholders



Source: Jeucken, 2001

As argued by Jeucken (2001) and Bouma et al. (2001) banks used to consider themselves as a clean sector. The environmental impact of their energy, water, and

paper is not severe if compared to other industrial sectors, and bank products themselves do not pollute. Furthermore, banks presume that caring for the external environment requires interfering with clients' activities, which make the banks very careful when dealing with corporate customers. For these reasons banks were reluctant to promote environmental concern as part of their operations.

However, in recent years, banks have begun to realize that their financial activities, including financing companies which cause an impact on the environment, are their responsibility (Thompson, 1998). The opinion of Thompson and Cowton (2004) is that banks are considered as facilitators of industrial activities which may harm the environment. As Jeucken (2001) posits, "customer risks are also bank risks and can affect their own continuity", and, in the same vein, "customer opportunities are also opportunities for banks" (p. 64). This means that the role of banks is to realize the customers' risks, which may reduce the customers' viability. For example, new environmental regulations and enforced government policies can, in turn, become risks for banks. Within their broader responsibility, the banks' role is to ensure that their operations consider the actual and potential environmental damage arising from the borrower's activities, and the effects of such activities on society (McKenzie and Wolfe, 2004). Jeucken (2001) points out that businesses acting irresponsibly are threatened by client backlash and boycotts, and people are encouraged by the media to engage in actions against such businesses.

Within the same context, Jeucken (2001), and Thompson and Cowton (2004) suggest that the banks' role is to pay attention to SD opportunities in many ways, viz.:

- lending to environmental friendly and social projects, and accepting the challenge of developing new products that customers need in response to market demand, for example, wind energy;
- reinforcing communications with stakeholders and signing environmental declarations and statements;
- denying finance for controversial projects;

- interacting with different players who promote SD, especially NGOs, who can have a supportive role by sharing knowledge and experience in caring for the environment; and
- promoting sustainability issues internally and externally. Catusus and Lundgren (2000) observed that banks promote green values to their employees, customers and stakeholders by signing policy documents which UNEP supports, presenting policy declarations and advertisements stating the importance of environmental causes, and encouraging employees' participation in courses dealing with environmental knowledge. They noted that banks have large networks of contact at all levels of society where important lending decisions are made, which affect different agents in and outside the supply chain. In other words, banks interact with the environment in a number of ways:
 - as valuers, pricing environmental risks and estimating returns;
 - as lenders for environmental pioneering projects;
 - as powerful stakeholders, influencing governments and the managements of companies as lenders to, and shareholders of, companies.

This thesis does not explore philanthropic activity or generic CSR or environmental protection roles. Rather, it focuses on real risks and opportunities that may impact a bank's financial and environmental performance. The literature has provided cases where banks incurred environmental liabilities. It also reports opportunities gained from lending to environmentally-friendly projects (examples are available in Westpac stakeholder reports 2004 – 2008; Jeucken, 2001). These risks and opportunities provide evidence against the claims by those who perceive that the role of banks is maximising the shareholder value and/ or maximising shareholder value subject to a generic CSR constraint. Considering environmental issues when making lending decisions has potential to improve both financial and environmental performance.

Banks may wish to stimulate the achievement of a sustainable environment or ignore much environmental reality. The latter approach has risks which will be identified in section 2.4.

2.4 Environmental risks facing the banking sector

This section identifies what environmental risk is and the types of environmental risk facing the banking sector.

2.4.1 What is environmental risk?

At a global level, risk can be described as “a hazard that exhibits scientific uncertainty, irreversibility, latency of effect, and low probability of a catastrophic outcome” (Gillroy, 1992, cited by Thompson, 1998). Of more relevance to this study is to identify what credit risk is. Fenchel et al. (2005) defined it as the probability that a borrower will pay back a loan and the accrued interest within the contracted period of time. Logically, a borrower will repay the loan from the return on the invested loan and not from the capital stock. This means banks may face various risks resulting from mismanaging borrowers’ activities, such as credit risk, liquidity risk, insolvency risk and operational risk (Jeucken, 2001).

The importance of acknowledging these risks is that certain of them are related to environmental risks; for instance, liquidity, credit and insolvency risks. This relationship is clarified at the end of Section 2.4.2, Figure 2.7, after elaborating on the types of environmental risks facing the banking sector.

There is a lack of unanimity as to what constitutes environmental risk, and, thus, it is hard to get a universal definition, but the starting point is to define what environmental risks means in the context of lending (Thompson, 1998). Banks tend to define environmental risk in terms of the financial risks as the risks “that may affect the present value of their loan portfolio” (Thompson, 1998, p. 244). Fenchel et al. (2005) denote such risks as non-financial factors that can be a source of risk in credit management. They set out four typical environmental risks, which are basically similar to those that Thompson (1998) and Jeucken (2001) addressed. These kinds of environmental risk are:

- sites that are contaminated used as collateral: the contamination of a site affects the value of the collateral in a significant way, because decontamination is costly;

- regulatory-driven investments: a firm can be obliged to invest in environmental technologies because of regulations, and suffers financial problems because of that;
- market changes: environmental attitudes of consumers or industries may change, so that some products cannot be sold anymore. The same could happen when regulations are changed; and
- reputation risk: banks get bad reputations if they are doing business with firms that are in trouble because of environmental problems, or if they finance projects that are seen as environmentally problematic by stakeholders.

Banks have realized that not maintaining a sustainable environment poses risks to their business, in the form of having to allow a significant portion of resources to handle the associated uncertainty (Harbers et al., 1994; Pilko, 2004). Section 2.4.2 identifies three major ways in which environmental risk can affect the borrower's and the bank's performance.

2.4.2 Types of environmental risks facing the banking sector

Banks through their lending practices are linked to commercial activity that degrades the natural environment (Thompson, 1998; McKenzie and Wolfe, 2004). In this sense, they can be seen as facilitators of, if not direct contributors to, industrial activity which causes environmental damage (Cowton and Thompson, 2000 and Thompson and Cowton, 2004). This indirect involvement in environmental degradation has led to changes in environmental regulations, which can pose a threat to the loan portfolio and make banks become liable for their clients' environmental impacts (McKenzie and Wolfe, 2004). Many academics have proposed that banks, as lenders, are confronted with three types of environmental risk: direct, indirect and reputational (Thompson, 1998; Coulson and Monks, 1999; Jeucken, 2001; Cowton and Thompson, 2000 and 2004).

Direct risk

Banks have direct risk from potential liability resulting from borrowers' activities. It is generally accepted that whoever pollutes pays, in compliance with legislation

(Thompson, 1998). However, this is not always the case. In certain developed countries, banks become directly responsible for the polluting activities of their borrowers. Environmental risks associated with clients may include ground contamination of industrial or housing real estate, and environmentally-damaging production processes and products, resulting in negative environmental impacts through to the end user. These can become credit-worthiness risks for banks and may lead to, depending on the legal situation, loss and devaluation of collateral and paying for the damage caused to the environment. This can occur where a bank exercises operational control over a business or, in some cases, where a bank takes possession of contaminated land or housing real estate held as security for a loan. In such cases, the bank may not only lose the outstanding loan and/or the original security value but also be held legally liable for cleaning up contamination by an insolvent borrower.

In the USA regulators established legislation to recover clean-up costs from liable parties. The CERCLA, based on a 'polluter pays' principle, specifies that parties responsible for clean-up costs following an environmental accident may include, among others, the current and past owners and operators of the site. When the bank is involved in the management, supervision or monitoring of a company's operations, the court may consider the bank as an operator and, therefore, liable for clean-up of the borrower's site. The implementation of CERCLA has resulted in a number of cases where banks became responsible to the court for liabilities attached to the property, as the owner or operator of the site (Coulson and Monks, 1999). A landmark case is that of Fleet Factors in 1990. In that case, a bank was held liable for the clean-up of the borrower's site, as the bank was deemed a participant in the financial management of the firm in a way that influenced the overall management, even though it had no direct influence on the company's activities. Another case highlighted was that of the Midland Bank in 1995. Under the UK Environmental Protection Act 1990, the bank was prosecuted as mortgagee in possession and occupier of a site used as a dump for old tires which were contaminated with oil. The local waste regulation authority issued a notice of duty requiring removal of waste, which cost the bank tens of thousands of pounds (Coulson and Monks, 1999).

Banks reacted defensively to exempt themselves from such liabilities. Between 1992 and 1995 in the USA, there was an attempt to minimize the direct liability of banks. It took until 1996 to pass legislation defining them as liable to the extent that the bank was actually involved in the environmental activities of the borrower. However, differences of interpretations of legislation still exist and the banks continue to be wary. A good example mentioned earlier is that of the Midland Bank, which was held liable for removing the disposal, despite the liability regime (Environment Act 1995) in the UK, which excludes lenders from liability. The banks recognize that they still might be liable, not because of the environmental regulations but because of legal precedent. Thus, their challenge is their ability to put a price on such risks in the presence of uncertainty and the lack of a correlation between environmental damage and financing.

Another area of interest is the environmental risk linked to real estate collateral. If real estate collateral is accepted as loan security and the site or the building is found to be contaminated, then the market value could be less than the security value. Thus, Fenchel et al. (2005) observe that it is in the interests of banks to consider environmental risk as part of credit appraisal and to examine whether the collateral should be reduced to account for contamination.

As a result of these cases, banks realized that such environmental risks can affect the loan portfolio and failing to take account will incur direct liability. This is evidenced by a survey of USA banks, which found that banks had changed their lending policies. Loan transactions became subject to environmental assessment, and some banks rejected loan applications in an attempt to avoid the borrowers' environmental liability (Coulson and Monks, 1999). Jeucken (2001) refers to another study by the American Bankers' Association in the early 1990s, which revealed that 14 per cent of all commercial banks in the USA had incurred clean-up costs on a property held as security, and 46 percent had discontinued the extension of credit to extremely environmentally sensitive sectors, such as the chemical and agricultural sectors. He argues that banks can reduce risks by rejecting the application and/or adjusting the interest rate or the maturity of the loan, or/and inserting environmental compliance conditions in the loan agreement;

therefore, having an environmental risk management system in place, establishing auditing systems, and running environmental training programs becomes a necessity.

Indirect risks

This kind of risk occurs when legislatures tighten their environmental legislation, consumers change their preferences, the public increases pressure on businesses to be aware of their environmental impacts, and additional costs are required to maintain clean facilities and production processes. These issues may undermine a firm's revenues, elimination of one or more of its products leading it to place more pressure on the cash flow and, thus, endanger the payment of interest and principal, and increase the company's capital and operating expenses to comply with environmental regulations. Where borrowers do not comply with environmental regulations, they may face law-case fees and fines, business closure, disturbance in cash flow to repay the instalments and, clean-up costs, which may lead to loan default. For instance, in 1988, Shell's share of cleaning up the Rocky Mountains after pollution from the production of pesticides and herbicides was about US\$1 billion, since Shell was not successful in recovering the cost from the insurance underwriters (Jeucken, 2001). In addition to the financial liabilities, companies may incur negative publicity, e.g., Union Carbide Corp. In turn, banks may incur such indirect liabilities if found to be funding the companies' environmentally harmful activities.

Jeucken (2001) lists six factors that endanger the borrower's repayment capacity and, consequently, threaten business continuity:

- changing government requirements: this happens when the company's operations cannot fulfil the government requirement for a permit and, thus, threaten the company's continuity. A bank has an interest to ensure that the company has a permit and the ability to sustain it.
- changing market environment: this occurs when competitors produce more environmentally responsible products which compete with peers' products that do not meet environmental objectives.

- external environmental conditions: companies' activities and continuity could be affected by external environmental issues, for example, climate change.
- private liability: a company which is held liable for violating environmental regulations and permits should inform its bank of the risk of such liability and the company's ability to cover these risks.
- government sanctions: a company which does not comply with environmental regulations may be confronted with government sanctions in the form of a default fine or a closing order.
- criminal prosecution: this could happen when a businessperson commits an environmental offence leading to closure of the company, liability for payment of fines or imprisonment. The question the bank must ask is whether the company has sufficient reserves for such potential environmental risks.

Reputational risks

The corporate world faces problems in terms of credibility, accountability and transparency. The source of the environmental risk as part of these problems is the banks' stakeholders, who have increased expectations when providing financing to borrowers who have environmental impacts on social, health and economic issues. Failure to consider these impacts can damage a bank's reputation, result in negative publicity, and lead to its missing out on acquiring new clients, adverse media exposes, customer boycotts and having its existing clients leave (Thomson, 1998; Jeucken, 2001). Jeucken argues that such risks could develop to include the entire bank, the entire lending portfolio, and even its entrusted funds and other banks' activities.

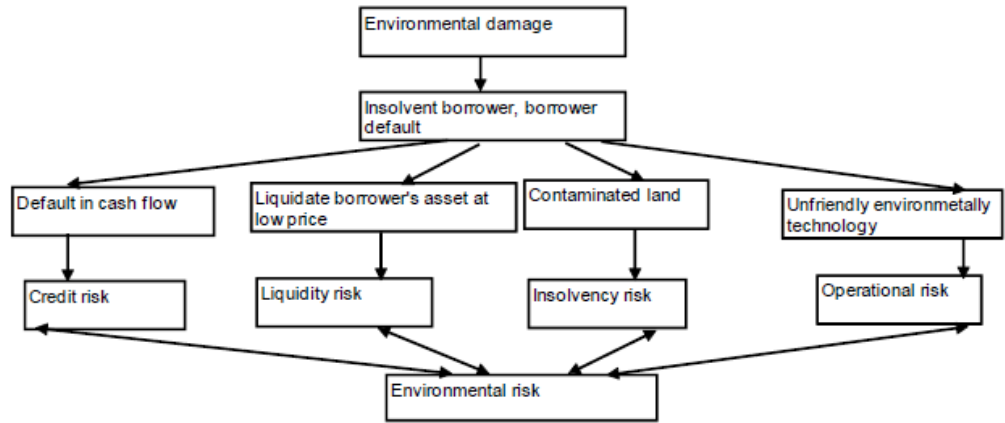
Also, this kind of risk is often associated with NGOs' actions. More pressure is applied by NGOs, who increasingly keep a close watch on a bank's environmental behaviour by tracking companies' records available from modern information technology (Jeucken, 2001). Jeucken reports three cases where some global banks felt the considerable pressure applied by NGOs, including that of ABN AMRO, which was targeted in 1998 for its financing of a company that threatened the

environment through its mining operations. Likewise, in 2000, major Dutch banks, and other international banks, such as HSBC, UBS, BNP, Citigroup, Commerzbank and Bank of Taiwan, were held accountable for their financing an environmentally damaging palm oil plantation project in tropical forests. Similarly, in 2000, NGOs called a boycott on Morgan Stanley Dean Witter and Credit Suisse for their involvement in the issues of government bonds for the Three Gorges Dam project in China. Jeucken is of the opinion that if such practices are considered serious enough for media and public action, then this can result in considerable damage to a bank's reputation and financial position.

For these reasons, simply monitoring the situation or requiring an environmental permit is not enough. A bank's perception of the environmental health and social feasibility of a project must be investigated before financing can be arranged.

As an illustration of the previous discussion regarding the various types of environmental risks, Figure 2.7 reflects the interrelations between different risks the bank faces and the influence of environmental risk on other types of financial risks.

Figure 2.7 The relationship between environmental risks and financial risks



Source: Author

Figure 2.7 shows that not only are financial risks the paramount risk for potential losses, but also that environmental risks are considered as significant, and have an

impact on the various other risks. It is in the interests of banks to assess borrowers' environmental activities as part of the credit assessment process, articulated in the environment management system as part of the credit appraisal process (Mckenzie and Wolfe, 2004; Fenchel et al., 2003 and Fenchel et al., 2005). This process will be presented in Section 2.5.

2.5 Management of environmental risks and the lending process

This section demonstrates what environmental risk management entails, why such risk management is vital, and the procedures and tools it requires.

In section 2.4, the importance of identifying the three types of environmental risks and their effects on the bank and the borrowers' activities have been presented. Because of these risks, a borrower's environmental assessment is a crucial factor in reducing or avoiding environmental liabilities. The financial provisions in the UNEP Declaration 1997 recognized that identifying environmental risks should be part of environmental assessment and risk management⁴⁷. In addition, other papers by Haberlen and Pollard (2009) and Walker (2009) show that environmental risk is an element of credit risk. A borrower's cash flow and resources are vulnerable to the liabilities of environmental pollution and degradation. This reinforces for banks the importance of assessing and managing environmental risk in a consistent and effective manner.

Regulatory context is important. Within New Zealand all registered banks are legally required to publish a quarterly disclosure statement (financial condition). These disclosure requirements are administered by the Reserve Bank of New Zealand in its capacity as prudential supervisor of registered banks. However, it does not guarantee that a bank will not fail or face problems. Banks are required to publish disclosure statements, which are subject to a full audit, for two reasons:

- to strengthen the incentives for banks to maintain sound banking practices;
- and

⁴⁷

http://www.ubs.com/1/e/about/corporate_responsibility/society/memberships/bankstatements.html

- to assist depositors and other investors to make well-informed decisions on where to put their money.

In New Zealand there are no institutional or regulatory requirements to adopt an EMS or be subject it to any environmental audit. A bank can develop its own EMS or it can use a recognised international standard to help it in doing so. The two main EMS standards are the international ISO14001 and the European Union EMAS - Eco-Management and Audit System.

The establishment of an EMS can result in extra cost to the bank, e.g., cost of environmental unit, external environmental audit, site visits, training, international standards fees. These costs can be offset by avoiding the risk of potential environmental damage by borrowers.

Risks are established by:

- screening transactions against any eligibility criteria (e.g. environmental exclusions) and determining the level of environmental risk;
- obtaining satisfactory assurance that all borrowers comply with environmental regulations and standards;
- undertaking further environmental due diligence on transactions above a specified environmental risk level;
- including environmental due diligence findings in overall loan decision making;
- using contractual requirements to ensure borrower compliance and other actions to be taken to mitigate environmental risk;
- monitoring of transactions with potential environmental impact;
- periodic reporting.

Without compliance with an EMS, which assesses the risks, there is potential risk to the bank's borrower, the environment and other stakeholders.

2.5.1 What is environmental risk management?

The Global Reporting Initiative Report (GRI, 2005) defines environmental risk management as “the process of evaluating the environmental impacts of

organizations’/ institutions’ clients, investee companies or transactions”. This definition also includes “an assessment of the risks posed to the financial institution (FI), e.g., financial, reputational, from clients, investee companies or transactions”. The term also includes “any specific environmental criteria, environmental standards or mitigation measures that FIs may apply to their clients/ investee companies or transactions as part of the screening and assessment process of environmental risk”. Three major aspects of these definitions are required for a bank to understand the purpose of environmental risk management they are:

- evaluating the client’s environmental impacts;
- assessing the bank’s environmental risks posed by the client; and
- adopting environmental criteria, standards, and measures to respond to environmental impacts and risks.

In other words, environmental risk management aims to provide a bank’s management with an assurance that the environmental risks are adequately assessed and well managed throughout the life of a loan.

Accordingly, an initial starting point in responding to and addressing environmental risks is to look for an efficient method to be used by banks’ management to implement environmental strategy, estimate environmental risks, and have information about the environmental sensitivity of borrowers. This can be accomplished by environmental risk management through implementing an EMS, which primarily aims “to limit the bank’s exposure to environment related financial, legal and reputational risk within operations, and to take advantage of new business opportunities which may arise where a customer is required to improve environmental performance, or where there is demand for products or services involving a higher standard of environmental performance”⁴⁸, and, according to DeBono (2004), to “effectively manage potential risk and to incorporate high-value sustainability practices”. Furthermore, Solaiman and Belal

⁴⁸ www.emrd.com/enviro/tools/fi.htm

(1999) state that the purpose of environmental risk management is to minimize the environmental damage arising from business operations.

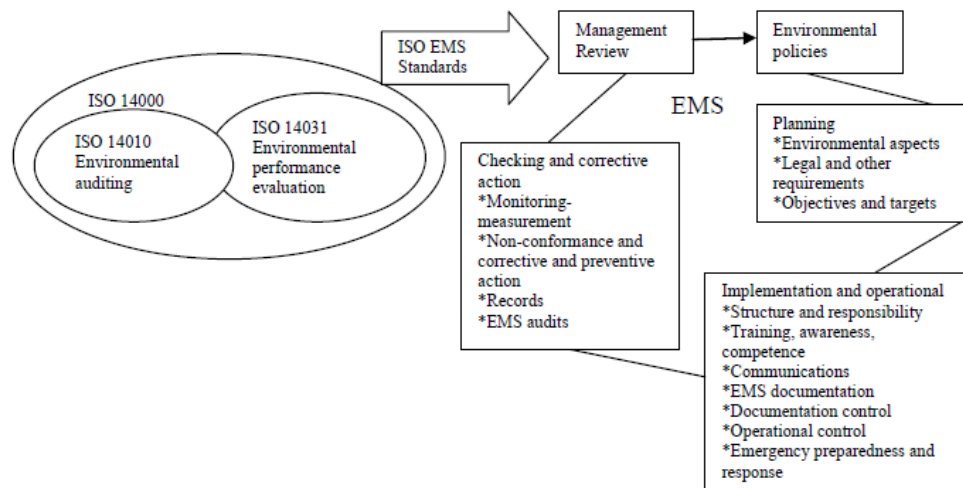
2.5.2 The importance of environmental risk management

Translating an environmental strategy into action and driving it through an organization is a challenge to a bank. Epstein and Roy (2003) advocate using EMS to provide guidance as the organization designs and implements its environmental strategy. They argue that an effective EMS enables a company to identify, manage and measure its environmental obligations and risks. The EMS assessment process includes:

- reviewing the bank's environmental goals;
- analysing its environmental impacts and legal requirements;
- setting environmental objectives and targets to reduce environmental impacts and to comply with legal requirements;
- establishing programs to meet these objectives and targets;
- monitoring and measuring progress in achieving the objectives;
- ensuring employees' environmental awareness and competence; and
- reviewing progress of the EMS and making improvements.

Rondinelli and Vastag (1996) suggest that, to effectively manage and measure such risks EMS include a series of procedures for setting environmental policy, planning, implementation and operation, checking and corrective action; and management review (Figure 2.8).

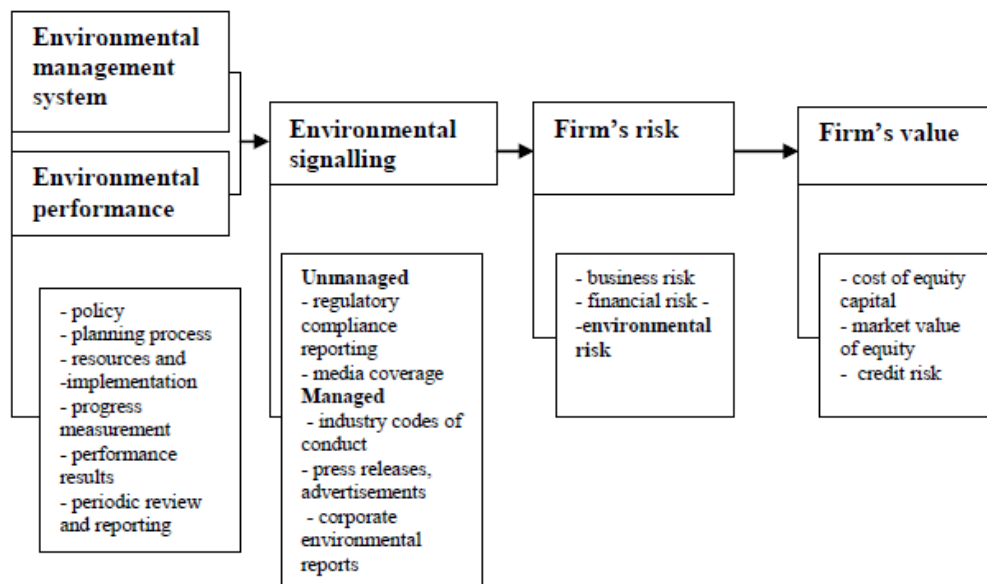
Figure 2.8 ISO EMS standard for managing environmental risk



Source: Rondinelli and Vastag, 1996

Also, Feldman et al. (1997) provide a conceptual framework that links the EMS and environmental performance to the financial value of a firm (Figure 2.9)

Figure 2.9 Conceptual model linking environmental management and performance with firm's financial value



Source: Feldman et al., 1997

This framework indicates that, in order to obtain the benefits of greater shareholder wealth gains, the firm must improve its EMS and/or its environmental

performance. Improvements are made available to stakeholders, including the financial community, who assess the extent to which the firm's environmental risk profile has improved. If the assessment is positive, then the firm will be accorded a lower cost of capital, because it is now less risky overall. Consequently, the investors are willing to pay more for the firm's future cash flows, its stock price will rise, and shareholder wealth will increase.

Another reason for managing environmental risk is that borrowers, especially industrial and agricultural enterprises, carry out activities that can cause health, social and environmental risks. For example, DeBono (2004) acknowledges that environmental issues are seen to have financial and environmental obligations affecting the electric utility sector performance, due to market challenges, regulations and other environmental requirements. In addition, a borrower's assets, especially property or land, may be contaminated as a result of past and current transactions. As a result, banks which deal with such borrowers face potential environmental risks, even if the latter comply, or appear to comply, with current environmental legislation (Thompson, 1998). Also, Fenchel et al. (2005) comment on the many findings by Salmon Brothers Inc in 1995, Hill et al. (1997) and Thompson (1998) that, because of these risks, banks adopted environmental loan assessment procedures as part of credit management practices. A recent paper by Campbell and Slack (2011) shows that banks themselves have recognised the importance of environmental filtration of loan decisions in the assessment of bank risk profile and valuation.

An example of the application of these risks, as illustrated by Fenchel et al. (2003), is that of Credit Suisse, who overlooked the environmental credit risk of Asian Pulp and Paper (APP). Credit Suisse was the bond creditor of APP, an Indonesian wood processing corporate group engaged in using Indonesian virgin forests in an unsustainable manner. The consequences of this case were:

- APP's share price fell from US\$ 7.50 in April 1999 to 0.12 in April 2001;
- UK NGOs called on buyers to boycott APP paper;
- APP had US\$ 13 billion of liabilities and its debts downgraded from B+ in 1997 to D in 2001;

- the US\$ 250 billion of Credit Suisse bonds indicated a credit risk default;
- APP were under pressure to change their logging practices to mill in a sustainable manner, which increased the production cost, consequently affecting the Credit Suisse credit portfolio.

However, traditional financial analysis may not be able to identify the unapparent environmental risks, resulting in financial loss and risk to the reputation of lending institutions, due to unexpected environmental, health and safety problems affecting their borrowers. For this reason, environmental aspects can become a substantial credit-worthiness risk (Fenchel et al., 2003 and Fenchel et al., 2005). Therefore, having environmental risk management measures in place becomes a necessity. Environmental risk management enhances the expansion of the lending process to take into account environmentally associated risks, and provides an evaluation of environmental products and services, the implications of which change over time, due to, for example, new scientific findings, changing legal situations and institutional learning processes. Moreover, with environmental risk management, environmental concerns worldwide become apparent and are publicized. Thus, there is increasing evidence that companies that do not consider the environmental impact in their operations suffer severe losses, which ultimately affect the bank's financial position (Harbers et al., 1994; Feldman et al., 1997; Fenchel et al., 2005).

It is important also to recognize that, as well as creating risk, environmental issues can provide banks with opportunities that improve their competitive position, operational performance and efficiency (see Section 2.6). A study by Feldman et al. (1997) showed that improving a firm's EMS and environmental performance results in a higher stock price and a substantial reduction in the perceived risk of the firm. Their work included an evaluation, using real-world data, of the 300 largest companies in the USA, in order to support the hypothesis that sound environmental management leads to reduced risk and a better short-term environmental performance, as well as to the prospect of further improvements in the future.

So, banks are in a position to influence whether development takes place in a healthy, opportunistic, sustainable and efficient fashion or whether the economy engages in wasting resources and storing up long term health, social and environmental problems, which, as a result, influence their financial and environmental performance. Fenchel et al. (2005) hold the view that increasing importance should be placed on environmental risk management in the lending process. A previous study by Coulson and Monks (1999) indicated that little environmental risk management had been put into practice, and this is one reason, among others, why the banking sector scored so low with respect to environment sustainability.

2.5.3 Procedures and tools for environmental risk management

Environmental risk management provides guidance in determining the likely outcome of financial decision-making with regard to environmental issues. Therefore, as environmental issues challenge banks' management, strict rules on capital adequacy and the rejection of traditional risk management methods are providing an opening for new procedures and tools of risk management. The credit management process is a chain, starting with assessment of a borrower's environmental risk and ending with the risk to the lender. Such risks influence the borrower's capital stock liquidity, and, therefore, must be rated by the lender (Fenchel et al., 2003). In other words, these risks affect the borrower's ability to repay the loan and, consequently, influence the bank's portfolio. Other studies, such as Derhake (2009), recognise the importance of environmental risk assessment as a condition of loans. Thus, credit risk management's role is to assess and manage the borrower's risk, by identifying the following factors (Fenchel et al., 2005):

- analyzing the balance sheet by using its quantitative indicators (such as, the debtor's earnings, the capital and its ratio to debt) and qualitative indicators (such as, management skills).;
- the value of collateral. The site used by the borrower as collateral could be contaminated and can be depreciated, thus increasing the credit risk for the bank to repay the loan;

- the borrower's reputation. A bank should not only concentrate on the borrower's securities but also on whether their environmental attitude creates a positive return on the loan; and
- repayment history provides practical evidence of borrower repayment on time. Banks usually obtain this document as an indicator of the borrower's credibility and solvency.

In addition, one successful environmental risk management strategy is to comply with a series of procedures to ensure environmental risks are adequately managed and the transaction costs and overheads are kept within an acceptable limit; for example, applying indicators to measure the environmental performance, which will be discussed in Chapter 3. Moreover, the applied procedures should not only ensure that the borrower is proactive and aware of environmental impacts, but should also endeavour to develop environmental measures which, in turn, shift a bank from preventive banking to sustainable banking. This research utilizes the guidelines for environmental risk management procedures, which include four major steps, screening, evaluation, control and monitoring⁴⁹. Further, Delamaide (2008) lists five stages in risk assessment. Similar stages were reported by Fenchel et al. (2005).

In this regard, as addressed above, Fenchel et al. (2005) observe five phases⁵⁰ of management of the counterparty risk, whereas prior research focused on only two phases, the security risks and the rating.

So far, two main themes can be concluded from this section. First, there is a logical sequence in addressing the environmental risk management procedures and, second, the effectiveness of such procedures requires internal and external communications. Understanding the environmental risks and how to manage such risks - which were the subjects of the two previous sections - are of vital importance in order to understand the rationale or motivation for banks to integrate environmental aspects into their lending decisions. Whether such integration is good for banks will be the next topic for discussion.

⁴⁹ www.emrd.com/enviro/tools/fi.htm

⁵⁰ Rating, costing, pricing, monitoring, and work-out phases.

2.6 Motivation for integration of environmental aspects

Despite the fact that various studies have shown the influence environmental risks can have on a firm (see Section 2.5), the argument about motivation behind a company's integrating social and environmental issues into its core business is still unclear (Coulson and Monks, 1999; Feldman et al, 1997; Fenchel et al, 2003). According to Feldman et al. (1997), some believe that improved environmental management practices and performance are good for both the company and society, and, therefore, many studies (Thompson, 1998; Jeucken, 2001; Tilley, 2002) contend that banks have the additional role of promoting environmental sustainability.

On the contrary, others believe that environmental improvements create costs which drag on the bottom line and should be minimized. Many authors point out that the primary role of companies is to provide services to customers and increase their owners' shareholder value (Lundgren and Catasus, 2000; Deegan and Rankin, 1997). According to this view, the role of banks is not to take responsibility for the environmental protection normally associated with government agencies (Sharma and Vredenburg, 1998). Feldman et al. (1997) note that the traditional view is that expenditures on environmental aspects represent costs that generally confer no corresponding benefits. Therefore, managers need, first, to minimize environmental costs so as to reduce their impact on the bottom line; second, to uphold their fiduciary duty by seeking to maximize shareholder wealth.

To gain insight into the questions raised, this section, therefore, addresses these issues by presenting the motivation behind integrating environmental aspects into the core business of banks, and then takes into account the potential opportunities that may be gained by incorporating environmental considerations into business policies and practices.

The debate around involving businesses in caring for social and environmental issues has been ongoing since the sixties (Bouma et al., 2001). Two main stances a bank may consider are: whether to stimulate the drive towards achieving a SD or

to impede it where firm's policies and practices are driven by profit maximization that ignores much environmental reality. Friedman (1978) contends that being responsible is not the best long-term strategy for an organization, as the best long-term strategy is profit maximization. But he does note, at least, that being responsible can help to prevent government intervention and regulation. Also, Lundgren and Catasus (2000) point out that credit managers are required, often by law, to exclude non-financial factors from lending decisions, and they are against the proposition to provide better rates of interest for certain environmental leaders. Their response is that it is not the role of banks to promote such values in their core lending process, and, they believe that investments which improve the environmental performance reduce the financial performance.

However, Jeucken (2001) indicates that this issue is open to debate, and whether the financial sector promotes or inhibits SD is an important question. With more emphasis on sustainability than Jeucken, other proponents argue that environmental risks and opportunities are major incentives inducing banks to be involved in environmental aspects. The major impact of banks on SD is not their own environmental footprint, but their role in allocating financial capital amongst different economic activities. Specifically, Jeucken contends that such allocation, through the lending process, affects, and is affected by, the environment, consequently stimulating the demand to involve banks in raising environmental standards. He argues that stricter environmental regulations by governments and rising public concern have two major effects: first, they force companies to invest in environmentally friendly technologies and pollution control measures, and, second, they protect the state of the natural environment, the spoiling of which poses risks for banks' lending portfolios. So, even if the banks are not directly or indirectly involved in degrading the environment, they still have an incentive to understand the environmental opportunities inherent in their lending decisions.

Campbell et al. (2003) point to society's negative perceptions about businesses, and claim they therefore stimulate sustainability to avoid the effects of factors threatening to companies' viability. Likewise, Deegan (2002) provides broader

reasons than Campbell for why companies choose to involve themselves in social and environmental aspects. These include:

- to comply with legislation, industry requirements and/or codes of conduct;
- to obtain economic advantage as a key motivational driver, rather than any social or environmental considerations;
- to exploit investment opportunities arising from the eco-industrial revolution;
- to be accountable to people who have the right to information, and to meet community expectations.
- to provide lending institutions with the company's social and environmental policies and performance as part of risk management policies;
- to respond to stakeholders' negative perceptions, including environmental incidents or poor rating provided by rating agencies;
- to avoid further government regulations;
- to compete to win sustainability awards offered by international organizations, resulting in improving publicity and reputation; and
- to protect their own profitability by incorporating checkpoints regarding environmental risk (Lundgren and Catasus, 2000).

Deegan (2002) and Campbell et al. (2003) agree that one major motivation behind social and environmental integration into companies' activities is to legitimize the organization's operations. When an organization considers that there is a threat to its survival, then it pursues policies and strategies to defend its existence and continuity. A study by Davidson and Worrell (2001) found that 97% of the companies surveyed which have environmental strategies were driven by a wide array of stakeholders, including competitors, customers, employees and governments, but the most important source of pressure was found to be government environmental regulation; evidence has shown that firms suffer significant losses in market value because of environmental violations.

Furthermore, Azzone and Bertele (1994) identified four leading forces necessitating banks to be aware of environmental issues:

- green consumers: consumers who acknowledge the value of environmentally-friendly products; one of the key determinants of their buying behaviour is the environmental compatibility of products or services;
- pressure groups who support businesses consistent with environmental protection;
- insurance companies whose interest in environmental issues derives from the stricter liability concerning clean-up costs and environmental damages; and
- green investors, who invest only in corporations with good environmental performance.

Berry and Rondinell (1998) noticed a shift to proactive environmental management, which is driven by accelerated pressure from governments, customers, investors, employees and competitors. These stakeholders are starting to see more clearly the relationship between the business performance and the environmental outcome. Those firms who adopt proactive environmental management strategies become more efficient and competitive.

More specifically, Fenchel et al. (2005) justify banks' motivation to integrate environmental issues into their lending process, first, for financial reasons. This is because environmental risks have a negative impact on the current value of their loan portfolio and cause credit defaults. According to their 2005 study there is a relevance between environmental risks and the loan portfolio. The study showed that 74% of the European banks in the survey received credit defaults because they did not consider environmental risks, especially in the costing phase. Moreover, a previous study by Fenchel et al. (2003) showed that assessing the borrower's environmental performance resulted in reducing, in the work-out phase, the workload caused by credit defaults and accomplishing cost benefit conditions. Another earlier study by Jeucken (2001) showed that in German banks 10% of credit defaults could be attributed to environmental risks. These examples

conclude that financial gains were the essential motivation for considering environmental risks in credit risk valuation procedures, thus improving the banks' financial performance.

Second, banks integrate environmental risks to legitimize their activities. In doing so, they do not lend money to borrowers who have negative impacts on the environment as they would to responsible corporate citizens. And, finally, banks integrate environmental risks into the credit risk management process to respond to requirements by various stakeholders such as investors, clients, shareholders and the public.

The observations made above indicate that there is evidence in the literature that explains why banks may have to act responsibly in this regard and what the financial payoff of these practices might be. Therefore, a bank's management may have an interest in improving environmental performance, and, more specifically, their systems and structures, to upgrade their overall sustainability performance. The management may have an interest in knowing how environmental issues impact on overall long-term profitability, how to communicate the importance of such impacts to all the levels of the bank's staff, and how they are to be considered and evaluated in day-to-day operating decisions. However, it can be noted that management's motivations tend, to a large extent, to consider banks' environmental and financial risks (Thompson, 1998, Cowton and Thompson, 2000) but also, to a lesser extent, are driven by external and internal forces, including their ecological stances (Bouma et al., 2001; Jeucken, 2001).

It has been acknowledged by many authors (Feldman et al., 1997; Thompson, 1998; Thompson and Cowton, 2004; Fenchel et al., 2003 and 2005; Weber, 2010) that integrating environmental standards, aspects and guidelines into banks' transactions provides banks with a better understanding of their role and obligations towards stakeholders, positively influencing long-term profitability and, therefore, linking the financial performance with environmental performance. The risks a bank may face, which were mentioned earlier in this chapter, provide evidence not only for the skepticism about requiring banks to take responsibility for their organizational behaviour in society, but also for the supposition that the

impacts of their products and services on the environment is to the banks' advantage (McKenzie and Wolfe, 2004). Added to this, is the recognition of the competitive approach, which entitles businesses to compete to maximize their profit, and banks to patently maximize their profit to be competitive (Walton and Galea, 2005). If their peers have competitive advantages which satisfy stakeholders' environmental requirements, this may constrain the banks' profit margins and threaten the continuity of businesses which their operations support, when those businesses are not compatible with stakeholders' attitudes (Sharma and Vredenburg, 1998; Deegan, 2002). This shows that a delicate and stable balance between the inevitable economic growth and a sustainable environment is a preferable option.

Thus, incorporating environmental issues into banks' operations is good for business and contributes to the improvement of both the quality of the physical environment and financial performance (Feldman et al., 1997; Pilko, 2004). Many academic studies and surveys identified a positive correlation between environmental and financial performance (Thompson, 1998; Fenchel et al., 2003 and 2005; Feldman et al., 1997). Moreover, the appearance of the concept that the polluter pays, the establishment of an EMS to internalize the external costs, and environmental incidents cases brought to court in the USA and Europe add further evidence to support the positive correlation (Harbers et al., 1994; Irvin, 1994; Green, 2005; Luzkow, 2004; Mckenzie and Wolfe, 2004).

Fenchel et al. (2005) indicate that many analyses and academic surveys have also found a positive correlation between a company's financial performance and environmental performance, and show that firms fined for environmental violations consequently suffer significant losses in market value. Thompson and Cowton (2004) observe that The Co-operative Bank in the UK has been very successful in building profitability and market share because of its environmental stance, and Triodos significantly expanded its base because its environmental investments increased. Davidson and Worrell (2001) argue that creating such a positive relationship requires efficient environmental management that supports the long-term positive benefits of a proactive environmental policy.

In this regard, Bouma et al. (2001) point to the growing interest in market developments for energy and wind, and, as Deland (1992) revealed, more jobs are created as efficient technologies are phased in and, in turn, merge, and then meet environmental and economic goals. The growing market for an environmental investment fund is a good example of this trend. The deputy head of HSBC's sustainable development group declared "If we could understand the risk involved in unsustainable building, we could also identify opportunities that were sustainable" (Willman, 2007). He then added that the bank had established a business development unit to look at opportunities in carbon finance, water projects, and waste management.

To sum up, the arguments about motivational drivers for banks to incorporate environmental issues into their lending policies and practices and perceptions of opportunities and risk are still being debated, ranging from risk reduction to profit generation and from purely business reasons to ideological stances. However, despite the ongoing debate that considering environmental issues in a company's activities costs the business, the literature reveals that, in practice, there is also a positive relationship between a bank's financial performance and its environmental performance.

2.7 Conclusion

The UN agencies, with support from the financial sector, established a number of initiatives, principles and statements, with the aim of integrating environmental issues into the sector's policies and operations. Disappointment has been expressed about outcomes. This has been attributed to not having a formal mechanism for ensuring accountability, and to the ideological stances of management (Dahl, 2000; Morse et al., 2001; Ibars, 2004; Missbach, 2004).

There is ongoing debate about the validity of the hypothesized relationship between the financial and environmental performance, how businesses utilise the sustainability concept, and how sustainability performance is measured. Many case studies have indicated that there is a relationship between integrating sustainable business practices and financial performance (Dowell, Hart and Yeung,

2000; King and Lenox, 2001; Klassen and McLaughlin, 1996). Also, there have been attempts to prove a positive relationship using firm or sector level data (Dyllick and Hockerts, 2002; Sikdar, 2004). These attempts disaggregated the sustainability concept into three major areas: social, economic and environmental, and then developed indicators to facilitate measurement.

Despite the fact that these efforts contributed to advancing the measurement of sustainability, these models have some limitations, and more work is needed. First, some of these models are applicable to a whole country or a whole industry (Zoeteman, 2001; Zoeteman and Harkink, 2003). Second, even within a business itself, there is still a need for more specification to gain greater clarity about the implementation of sustainability. Effective implementation of sustainability policies requires detailed plans, procedures and indicators that facilitate measuring sustainability against environmental and financial targets.

Banks face two major challenges posed by the environment, the first of which is concerned with the effect of environmental risk on a bank's credit portfolio, and the second, the effect of lending decisions on the natural environment. The first caught the interest of many scholars who supported the integration of environmental issues into business transactions to avoid environmental risks and to exploit opportunities resulting from lending to environmentally friendly projects. Further evidence includes studies and surveys which provide examples of banks incurring liabilities while not taking into account environmental issues in lending decisions. At the same time, however, these studies indicated that exploiting opportunities for lending to environmentally friendly projects improved the banks' financial performance.

The second challenge includes programs and initiatives to bring about an awareness that financial institutions can affect SD in many ways. The UN and the private sector played a key role in promoting the integration of SD practices into business activities. On many occasions, this challenged the political consensus, which claimed such commitment hinders economic progress, and the opponents of SD, who argued that the only goal of business is to maximize shareholders' value (Deegan and Rankin, 1997; Feldman et al., 1997).

Attempts to incorporate sustainability into decision-making and bank practice have generated much debate. Banks have an incentive to understand the environmental risks and opportunities inherent in their lending decisions. Therefore, integrating environmental issues into bank's lending decision has the potential to improve both environmental and financial performance.

CHAPTER 3 - EMERGING APPROACHES TO ENVIRONMENTAL MANAGEMENT BY BANKS

3.1 Introduction

The road to environmentally credible lending practices may require organizational change and/or modification of managerial policies and procedures. This depends on the strategy banks adopt with regard to a sustainable environment. Management responses to environmental concerns have been described as ignorant, reactive, proactive, sustainable or beyond sustainable (Zoeteman, 2001). These issues will be discussed in Section 3.7, concerning a bank's environmental sustainability framework.

In the last two decades banks have responded to environmental issues. This has included policy declarations, marketing of products with a green edge, and staff training (Lundgren and Catusus, 2000). Pilko (1989) argues that a prudent business is that which is proactive in environmental management, in reducing environmental liabilities, and in taking actions whether required by regulatory bodies or not. Most often, bad credit is associated with poor management oversight, policies and controls (Scranton, 1992). Therefore, a proactive management who can foresee potential risks and enhance a bank's environmental performance is regarded as essential to the bank's core business (McKenzie and Wolfe, 2004).

Accordingly, there is a need for environmental performance indicators as a metric to describe the extent to which the bank's lending practices are environmentally sustainable. It will be demonstrated that proper use of indicators can play a key role in improving environmental performance. Relevant performance indicators require a framework to sustain them. Hence, this chapter starts with a general discussion of environmental management by banks and the role of indicators in improving bank environmental performance. This is followed by a detailed description of three indicator categories with regard to management, operational

and motivational drivers. The chapter concludes with an outline of the bank's environmental sustainability framework.

3.2 Environmental management by banks

To date no environmental management framework has been developed for the banking sector. Most studies have developed general business environmental models/ frameworks without targeting a specific business sector. These models lack a comprehensive analysis of the banking sector that measures specific indicators related to managerial, operational and motivational categories.

Academics and practitioners have attempted to improve the understanding of environmental management, behaviour and performance (Kolk and Mauser, 2001). These attempts have resulted in a range of typologies or models as tools to deal with organizational and strategic complexities and to overcome problems of operationalization and sector specificity.

The Kolk and Mauser (2001) approach is designed to categorize the social and organizational phenomena in order to understand organizational structures and strategies, and to describe the increasing importance of environmental concerns for business policy. For 10 existing models Table 3.1 below includes the title of the model, designation of stages and the number of levels or strategies, the nature of the criteria and the empirical background.

The titles of the models describe the models' purpose and indicate the underlying paradigm and author's perception of environmental issues. These models range from an identification of responses to environmental challenges, environmental strategies and stages of environmental management to the measurement of environmental performance, levels of sustainability and classification of policies. A wide diversity of titles can be observed, reflecting the confusion surrounding definitions, concepts and the construct of environmental sustainable development, and lack of clarity about how to arrive at more sustainable business practices. However, the models generally remain within the environmental management paradigm, which implies that the environment can be managed.

The third and fourth columns show how the author specifies the model's stages or positions, and the number of stages. A wide diversity of stages and variation in the number of stages or categories can be observed. Most of them have between three and five stages. However, many of the designations recur in different models, although not necessarily with exactly the same meaning.

Table 3.1 An overview of environmental management models

	Title of the model	Designation of stages/positions	Number of stages	Criteria	Empirical basis - country, sector, method
Hunt and Auster, 1990	Stages of environmental management	Beginner; fire fighter; concerned citizen; pragmatist; proactivist	5	Internal	USA, Industry wide, general observations
Azzone and Bertele, 1994	Environmental contexts	Stable; reactive; anticipatory; proactive creative	5	Internal/ External	EU, automotive, method unclear
Elkington, 1994	Stages of response to environmental problems	Ignorance; awakening; denial; guilt reduction/displacement behaviour/tokenism; conversion; integration	6	-	Worldwide, industry wide, case studies and own experience
Crosbie and Knight, 1995	Strategic options for management	Do nothing; defensive posture; social responsibility; strategic opportunity; sustainable business	5	Internal/ External	Conceptual
Rondinelli and Vastag, 1996	Classification of environmental policies	Reactive; proactive; crisis preventive; strategic	4	Internal/ External	Conceptual
Hart, 1997	Environmental strategy	Pollution prevention; product stewardship; clean technology	3	Internal/ External	Conceptual
Berry and Rondinelli, 1998	Stages of corporate EM	Non-compliance; compliance; beyond compliance	3	Internal/ external	Worldwide, industry wide, survey senior executives
Callens and Wolters, 1998	Stages of sustainable development	Unsustainability; not taking sustainable development into account; active/ proactive; sustainable	4	Internal/ External	Conceptual
Brokhoff et al., 1999	Environmental business strategy	Defender; escapist; dormant; activist	4	Internal/ External	USA and Germany, chemical industry, 106 firms, survey
Zoeteman, 2001	Levels of sustainability	Very unsustainable; unsustainable; nearly sustainable; sustainable; beyond sustainable	5	Internal/ External	Worldwide, business, government, NGO

Source: Adapted from Kolk and Mauser, 2001.

The fifth column assesses the rigour of a model by considering the criteria used to delineate the positions or stages and whether the nature of criteria is based on internal processes and/or on the business environment. The sixth column

identifies the empirical evidence on which the models are based. It reveals whether it is conceptual or based on empirical research, and whether it is based on practical experience or one's own experience or intuition.

These models were intended to serve as tools for managers to improve the understanding and practice of environmental management. Such typologies help to identify the different reactions to environmental challenges. However, Kolk and Mauser (2001) indicate that the models which were studied cannot be easily applied to organizations' actual behaviour unless they are adapted by further specifying the criteria to suit particular purposes and to fit with business reality. Furthermore, they have a limited suitability for specific situations, and their focus is on environmental management rather than on environmental performance, which, in turn, underlies the deficiency in operationalization.

However, Brockhoff et al. (1999) contend that what makes a firm choose one approach instead of others depends on its strategic orientation and perception of environmental concerns and its ability to understand the opportunities and the constraints under which it has to operate. For example, small firms with limited resources often adopt an escapist strategy for survival, while large firms with more resources can take a different approach. Within each context, environmental concerns assume a different importance and require different strategic and organizational answers. Therefore, in addition to identifying the environmental strategies which were discussed earlier, and in order to measure the environmental performance, Kolk and Mauser (2001) developed a framework to categorize the large variety of possible external and internal environmental indicators, as illustrated in Table 3.2.

Table 3.2 A corporate environmental performance matrix

	Internal	External
Process	organizational systems	stakeholder relations
Outcome	regulatory compliance	environmental impacts

Source: Kolk and Mauser (2001)

This two-by-two matrix distinguishes between internal and external dimensions on the one hand, and process and outcome variables on the other. Examples of the process component include audits, number of environmental staff, mission statements, and communications, whereas the outcome variable often includes quantitative data such as toxic releases, spills, violations of regulatory standards, and penalties. Process indicators are easier to understand than outcome indicators, which require contextual information provided by the company itself and may be subject to window-dressing, especially in the absence of legal requirements. The process indicators, which are also called leading indicators, give information about internal practices that may improve the future performance, whereas the outcome indicators, which are called lagging indicators, are measures of the results that are attributable to an improvement of the business's process. Therefore, the challenge for business is not only to present results from the past and improve the environmental performance, but also to predict and give an insight into future performance.

A major attribute of studies of environmental models is the consideration of internal and external environmental factors when measuring the environmental performance. However, the tools or indicators to measure such factors at the various levels of business are still to be more specifically developed.

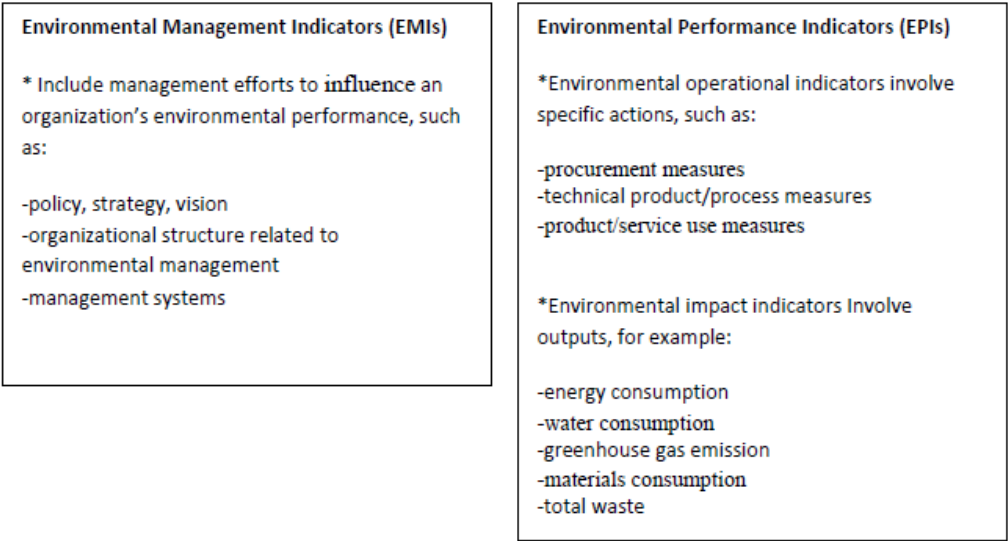
Although measuring or evaluating environmental performance has been the subject of a few isolated efforts, recent initiatives have started practices designed to more accurately reflect interrelations between the company's performance and its effect on the stakeholders in general. These initiatives include: ISO14031; Environmental Performance Indicators for the Financial Industry (EPI-Finance 2000); and the GRI - Financial Services Sector Supplement: Environmental Performance, 2005. The latter is for use with the GRI 2002 - Sustainability Reporting Guidelines.

Both professional reports, the *EPI – Finance* and the *Supplement 2005*, contribute to environmental management within the banking sector and within a bank's levels of management and operations, an aspect which is not visible in the academic literature. However, no further development of the *EPI – Finance 2000*

has taken place since its inception. On the other hand, the *Supplement 2005* was revised in 2008. This later version (*Supplement 2008*) does not cover the information required as sufficiently as the *Supplement 2005* version did. Specifically, the latest version does not provide information regarding commercial banks and indicators. The environmental part of *Supplement 2008* provided information pertaining to the direct impact of financial institutions on the environment such as that of materials, energy, and water. However, the thesis requires information regarding the indirect impact on the environment in such areas as lending decisions.

ISO14031 established generic categories of environmental performance indicators, which are subdivided into management performance indicators and operational performance indicators - inputs and outputs (Figure 3.1).

Figure 3.1 Components for environmental performance evaluation



Source: Adapted from Kolk and Mauser (2001)

A criticism of the ISO14031 standard is that it focuses on the provision of internal information and does not cover communication with stakeholders. In addition, there is no specific criterion for applying the standard to the financial sector. In contrast, the input and output indicators are addressed by EPI-Finance 2000 and GRI, which both concentrate on the collection and categorization of data for

stakeholders regarding a company's environmental, social and economic performance, and attempt to measure the managerial and operational performance. However, the view of Kolk and Mauser (2001) is that environmental models need to be adapted to consider the peculiarities of each sector. This is to admit that financial institutions need to also consider whether a bank's performance measures commercial banking, investment banking, assets management or insurance. Each of these areas includes policies, procedures and practices that are different in their aspects and therefore need different indicators to measure precisely the level of sustainability performance. However, since this particular study is concerned with commercial banking from a lending perspective only, and concentrates on the indirect impact of a bank's operations, it is unique because other environmental models have considered extensively only the direct impact of organizations' activities, e.g., energy and water consumption, waste. In fact, the direct impact of banks' operations is not substantially connected to the bank's transactions (Lundgren and Catasus, 2000). Therefore, this study adapts the environmental information and indicators available in the environmental literature (e.g., environmental models, EPI-Finance-2000, GRI Supplement) to fit with the purpose of this research.

3.3 The role of indicators in improving bank environmental performance

Kolk and Mauser (2001) emphasize the role of indicators for measuring environmental performance. As mentioned in Chapter Two and further discussed in this chapter, the authors of some studies and the UN agencies, with the collaboration of financial institutions, established initiatives and principles which aimed to measure the businesses' environmental performance within the financial services and other sectors, e.g., loans and investments. The indirect impacts of financial services have caused the financial institutions to seek policies, systems and procedures that help enhance the quality of risk management and the institutions' environmental performance (Coulson and Monks, 1999). It was considered by UNEP FI, EPI-FI and GRI that environmental performance indicators reflect a consensus of most of the major financial institutions. Each indicator in this study is to be built on a logic developed by a careful review of the

environmental literature, the EPI-Finance 2000 Report and the GRI-Supplement Report 2005.

Indicators are used to define goals and targets, especially when managers implement new programs to improve their sustainability performance, and are effective tools when compared with actual performance then used in order to measure success. Epstein and Roy (2003) advocate considering the two types of indicators mentioned earlier by Kolk and Mauser (2001): leading indicators, which help managers monitor their progress towards achieving their sustainability objectives; and, in contrast, lagging indicators, which are measures of the results or outcomes that are attributable to improvements in a company's business processes. Most companies use lagging indicators to report results, and they are preferred by the general public and regulators, because they are meaningful and easy to understand. However, lagging indicators represent a retrospective view of performance and do not provide managers with foresight about future performance expectations. Epstein and Roy view such indicators as a continuum or as a complex flow of causes and effects. In addition, Darby and Jenkins (2006) claim that the process of developing indicators assists in improving the internal strategy and in setting goals and objectives; continues the process of developing the indicators to cover more aspects of the organization; improves training and development provisions for staff; satisfies the investors' need for further information to make sound investment decisions; and involves stakeholders in future strategy development.

Consequently, this study endeavours to relate such indicators to the two research questions, in the sense of their relevance to: top management, who set up and develop the environmental policy and procedures; the operational staff, who are responsible for their implementation, and the drivers that motivate a bank to incorporate environmental considerations into its lending activities. These indicators enable the researcher to identify the characteristics most relevant to the banking sector and to then establish an initial model, which can be developed later, along with the empirical study of Westpac's environmental practices from a lending perspective. Therefore, a starting point is to identify the environmental

performance indicators⁵¹ suggested for use by the financial sector in conjunction with the GRI 2002 Sustainability Reporting Guidelines, which are depicted below in Table 3.3.

Table 3.3 List of environmental performance indicators suggested by GRI – Supplement Report 2005

Indicators reference	Description
F1	describes the environmental policies applied to core business lines
F2	describes the process(es) for assessing and screening environmental risks in core business lines
F3	states the threshold(s) at which environmental risk assessment procedures are applied to each core business line
F4	describes the processes for monitoring clients' implementation of and compliance with environmental aspects raised in risk assessment process(es)
F5	describes the process(es) for improving staff competency in addressing environmental risks and opportunities
F6	represents the number and frequency of audits that include the examination of environmental risk systems and procedures related to core business lines
F7	describes the interactions with clients/investee companies/business partners regarding environmental risks and opportunities
F8	reflects the percentage and number of companies held in the institution's portfolio with which the reporting organization has engaged on environmental issues
F9	indicates the percentage of assets subjected to positive, negative and best-in-class environmental screening
F10	describes the voting policy on environmental issues for shares over which the reporting organization holds the right to vote shares or advise on voting
F11	refers to percentage of assets under management where the reporting organization holds the right to vote shares or advise on voting
F12	represents the total monetary value of specific environmental products and services broken down according to the core business lines
F13	describes the value of portfolio for each core business line broken down by specific region and by sector

Source: GRI (2005)

For the purpose of this research, these indicators will be structured into three groups to facilitate answering the two research questions:

Group 1: F1 relates specifically to the environmental policies applied to the design and delivery of products and services;

⁵¹ <http://www.globalreporting.org/ReportingFramework/G3Online/SectorSupplements/>

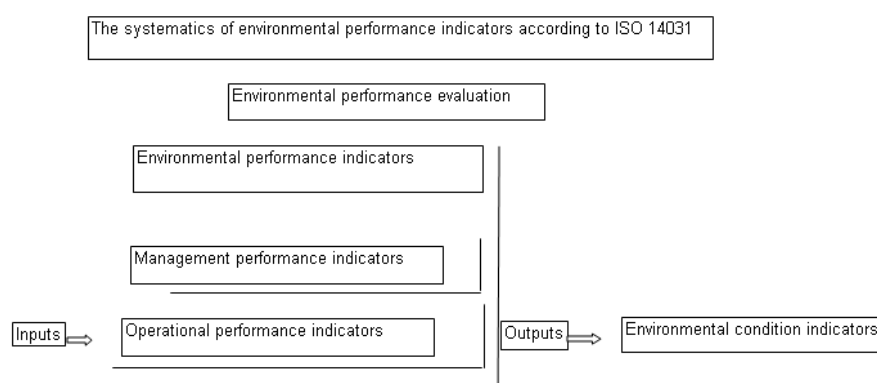
Group 2: F2 – F6 illustrates the procedures in implementing policy; and

Group 3: F7 – F13 describes the implementation of policies and procedures. Indicators F9, F10 and F11 will be excluded because of their relevance to the bank's investment and asset management, which are not the subject of this thesis.

In this sense, the indicators were designed to provide a better understanding of how top management - the board of directors (BOD), the chief executive officer (CEO) and senior management - incorporates environmental aspects into lending decisions, and of what practices need to be implemented.

However, Kolk and Mauser (2001) argue that no single approach addresses common dimensions to measure environmental performance. Therefore, this study will utilize the management and operational environmental performance indicators available from the EPI-Finance 2000 Report, the GRI - Financial Services Sector Supplement 2005, and other environmental studies vital for environmental performance measurements. The EPI-Finance 2000 proposed utilizing the ISO 14031 guidelines as a standard for environmental performance evaluation (Figure 3.2). ISO 14031 distinguishes between environmental performance indicators within the institution and environmental condition indicators outside of the institution. The environmental performance indicators are further divided into indicators measuring the management performance within the EMS and operational performance indicators describing the actual environmental performance. In other words, management performance indicators focus on the drivers, whilst the operational indicators concentrate on the results.

Figure 3.2 Environmental performance indicators according to ISO 14031



Source: EPI-Finance 2000 Report

In utilizing both the EPI-Finance 2000 and the Supplement, the indicators within the Supplement require additional information, which is broadly presented in the EPI-Finance 2000. These proposed indicators do not claim to be complete in the sense of content and methodology. They are presented as an initial practical proposal for increasing critical discussion resulting from the needs of financial institutions' external financial requirements and stakeholders' aspirations. Thus, this study utilizes both the management and operational performance indicators in an endeavour to answer the first research question: How does Westpac address environmental issues? e.g., what environmental issues does the bank address? This first research question will concentrate on the professional applications of EPI-Finance 2000 and the Supplement. In responding to the second research question, Why does Westpac integrate environmental issues into lending decisions? or, in other words, What motivates a bank to do so? the motivational environmental indicators will consider the theoretical literature and, therefore, be developed from the existing studies (e.g., Thompson, 1998; Jeucken, 2001; Thompson and Cowton, 2004) to explore the motivational drivers behind concerns about environmental aspects in lending processes. This acknowledges that the theoretical concept of integration of environmental aspects into business operations has received the interest of many scholars who advocate the integration process. Therefore, the second research question measures the extent of the application of this concept and its usefulness in the empirical study. The overall

theme in considering these indicators is to form a concrete base of indicators that can be used in the empirical study and also in the initial and final bank's environmental framework.

3.4 Indicators of management performance

As stated previously, developing these management and operational performance indicators relies on two major sources of information: the EPI-Finance 2000 and the Supplement. First, a group of 11 financial institutions, with the collaboration of UNEP and World Business Council for Sustainable Development (WBCSD), developed the EPI-Finance 2000 Report, which contains a set of environmental performance indicators - management and operational - for the financial industry. The aim was to display the environmental performance of FI with regards to (Table 3.4):

- the performance of environmental management on the basis of management indicators; and
- the environmental performance resulting from the institution's financial services on the basis of operational indicators.

Table 3.4 Management and operational performance indicators

Indicators	Commercial Banking	Investment Banking	Asset Management	Insurance
------------	-----------------------	-----------------------	---------------------	-----------

Management**Performance****(MPI)**

1: Know-how	Environmentally relevant posts and environmental departments			
2: Training	Environmental management training			
3: Auditing	Environmental management audits			

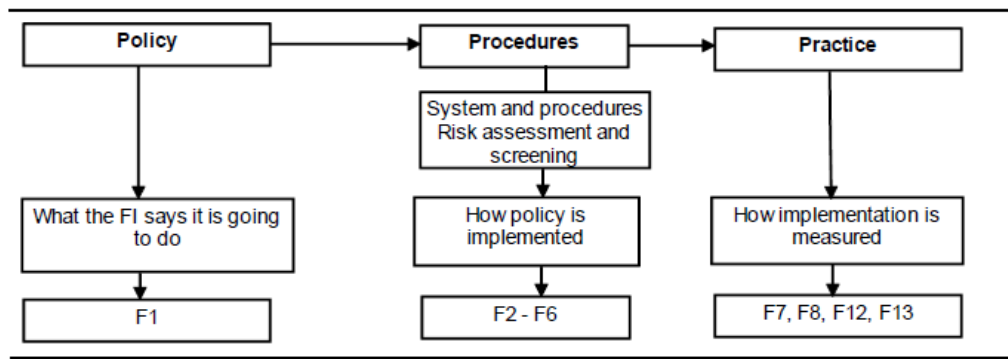
Operational**Performance****(OPI)**

4: Integration into the core business	Environmental risk check	Environmental risk check	Assets under green management	Environmental risk coverage
5: Environmentally oriented services	Financing environmentally oriented pioneers	Transactions with environmentally oriented pioneers	Investments in environmentally oriented pioneers	Environmentally innovative policies

Source: EPI-Finance 2000 Report

Second, in this study, more clarification is needed to answer the first research question. This can be achieved by encompassing a structure which considers the bank's organizational policy, procedures and practices. It was found that the Supplement, which was developed in a collaboration of GRI and UNEP FI, accomplishes this purpose. This structure is depicted in Figure 3.3:

Figure 3.3 The structure of environmental performance indicators



Source: Supplement Report 2005

The view of the FI is that the indicators are to be used primarily for both internal environmental performance measurements and for a credible external environmental communication with stakeholders such as rating agencies and media, who are interested in an objective and standardized comparison across the industry. The FI argued that such standardized indicators fulfill different functions: first, they act as a tool enabling management to measure the continuous improvement of environmental management, the EMS and environmental performance; second, they aid in measuring the benefits associated with the environmental optimization of business processes and/or the reduction of environmental financial risks, as well as providing employees and management with concrete evidence of these benefits⁵².

Despite the lack of theoretical perspectives in measuring a bank's environmental performance, especially for developing performance indicators, some studies indicated the importance of the complementary nature of both the management and the operational performance indicators. Lundgren and Catusus (2000) point out that banks cause three kinds of impact on the environment: physical, immaterial and financial. The physical impact concerns the direct impact of the bank's operations on the environment, such as, the use of electricity, water and

⁵² <http://www.epifinance.com/www.epifinance.com/project.htm>

other materials vital for running the bank's transactions. This impact is not likely to have a great deal of influence on the natural environment. Furthermore, this is not the subject of this study. The immaterial impact is the indirect impact that information, knowledge, culture, policies and environmental training have on the environment. This aspect concerns the managerial roles regarding the knowledge, training and auditing within the various levels of the bank's operation. The financial impact bridges the in-flow and out-flow of financial resources and accounts for the indirect impact of the bank's lending decisions on the natural environment. This impact concerns the operational aspect regarding the environmental risk and the financing of environmentally oriented pioneers. Other studies explain the indirect impact of the bank's operations on the environment and on its own performance, but place no emphasis on the roles of management and environmental performance measurements (Thompson, 1998; Cowton and Thompson, 2000; McKenzie and Wolfe, 2004; Thompson and Cowton, 2004; Weber et al., 2008).

Accordingly, this chapter addresses the use of environmental performance indicators which enable a bank to make environmental performance measurable and progress more transparent to stakeholders, and to provide tools for effective management decision-making. Moreover, such indicators of and reporting on, the bank's environmental performance are important elements on the agenda of the WBCSD and UNEP, which cooperate with financial institutions as important players in promoting effective environmental policies and practices.

In order to interpret and measure the environmental performance of a bank's management and operations more easily, EPI-FI proposes definitions of indicators which can be specified as absolute or relative (numbers and percentages) indicators. This allows the bank's EMS to evaluate the environmental performance, as well as compare the bank's environmental performance with that of its peers. This study will utilize the environmental performance indicators available in the EPI-FI 2000 Report, specifically those indicators which are designed for commercial banking (Table 3.5), and the Supplement 2005 Report (see Figure 3.3).

Table 3.5 Management and operation performance indicators

Indicator	Commercial banking
Management performance (MP)	
1. Know-how	Environmentally relevant posts and environmental departments
2. Training	Environmental management training
3. Auditing	Environmental management audits
Operational performance (OP)	
4. Integration into the core business	Environmental risk check
5. Environmentally oriented services	Financing environmentally oriented pioneers

Source: EPI-FI 2000 Report

3.4.1 Definitions of environmental management performance indicators

This section identifies three management performance indicators regarding the environmentally relevant posts and environmental departments, environmental management training and, finally, environmental management audits. For each indicator this research utilizes the descriptions provided by the EPI-FI 2000 Report and the Supplement 2005. It was found that both reports are complementary, and there was, therefore, a need to consider both in order to effectively identify the indicators.

1. Definition of indicator 1: environmentally relevant posts and environmental departments

Indicator 1 achieves the following goals:

- indicator 1a describes the total number of posts in the business sector (e.g., the number of employees in the lending department). This allows the reader to determine the scope of the lending sector within the institution;
- indicator 1b describes the number of employees who deal with environmental issues on a daily basis and who are in full-time positions. The larger the percentage 1b/1a, the larger the scope of EMS; and

- indicator 1c describes the number of specialized environmental personnel in full-time positions.

The definition of indicator 1 is depicted in Figure 3.4:

Figure 3.4 Definition of indicator 1: environmentally relevant posts and environmental departments

No	Definition of the indicator	Relative indicators
1a	Number of posts in the business sector	1a/ number of posts within the entire bank= relative scope of the lending department
1b	Number of posts dealing with environmental aspects	1b/ 1a = coverage of the EMS within the lending department
1c	Number of specialized environmental posts	1c/ 1a = percentage of full-time environmental posts

Source: EPI-Finance 2000

The Supplement indicators provide further measures of environmental management performance. The EPI-Finance 2000 describes only the number of posts; however, the Supplement provides more specific indicators for measuring the environmental performance. These include:

Indicator F1, which describes the environmental policy applied to the core business lines:

- the environmental policies applied to environmental credit risk assessment, whether they have been formally adopted by the bank and if so, at what level within the organization (e.g. board level, executive level);
- which products and services are covered by the policy;
- objectives, targets and timetables pertaining to the implementation of the policy;
- frequency with which the policy is reviewed; and
- whether the policy is publicly available.

Indicators F2 to F4, which describe the environmental procedures articulated by the top management:

- F2 addresses the process and procedures that the bank uses to assess and mitigate the environmental impacts of clients (e.g., establishing environmental risk management);
- F3 indicates the degree to which environmental risk assessment is applied across the bank and its portfolio (involvement of major departments); and
- F4 describes the processes for monitoring a client's implementation of, and compliance with, environmental aspects raised in risk assessment process(es) after the risk assessment process has been completed and a contract for a transaction is in place.


2. Definition of indicator 2: environmental management training

Indicator 2 aims at portraying the level of environmental management training:

- indicator 2a describes the number of employees trained. The scope of training becomes apparent when indicator 2a is compared to indicator 1b, which describes the employees in the EMS ; and
- indicator 2b quantifies training in terms of person-hours and allows for the calculation of the intensity of the training.

The definition of indicator 2 is depicted in Figure 3.5:

Figure 3.5 Definition of indicator 2: environmental management training

No	Definition of the indicator	Relative indicators
2a	Number of employees trained in EM	$2a / 1b = \text{scope of training}$
2b	Training time in person-hours	

Source: EPI-Finance 2000

The Supplement notes that the aim of its relevant indicator, F5, is to ensure the competency of staff in addressing environmental risks and opportunities. The nature of training by a bank includes:

- levels of staff and departments involved in training;
- the content of the training and the competencies that are being developed;
- frequency of training; and
- whether environmental performance is included in staff's annual appraisals or not.

3. Definition of indicator 3: environmental management audits

Indicator 3 describes the internal and external audits as a control for an EMS:

- indicator 3a describes the number of environmental management audits carried out;
- indicator 3b specifies the time expended for carrying out the audits. This qualifies the value of indicator 3a and allows for the intensity of the audits to be determined. This indicator can be compared with indicator 1b in order to determine the average intensity of the audits in the form of minutes per employee; and
- indicator 3c provides the number of employees audited. The percentage of employees audited from the relevant target groups can be determined when indicator 3c is related to indicator 1b.

The definition of indicator 3 is depicted in Figure 3.6:

Figure 3.6 Definition of indicator 3: environmental management audits

No	Definition of the indicator	Relative indicators
3a	Number of environmental management audits	////////////////////
3b	Auditor time in hours	3b/ 1b = Audit intensity per employee in the target group
3c	Number of employees audited	3c/ 1b = Audit coverage in %, calculated through the employees audited within the relevant target

Source: EPI-Finance 2000

The Supplement states that its relevant indicator, F6, aims to assess how regularly environmental policies and procedures set by top management are applied within the core business and across the departments. The scope of the audits includes:

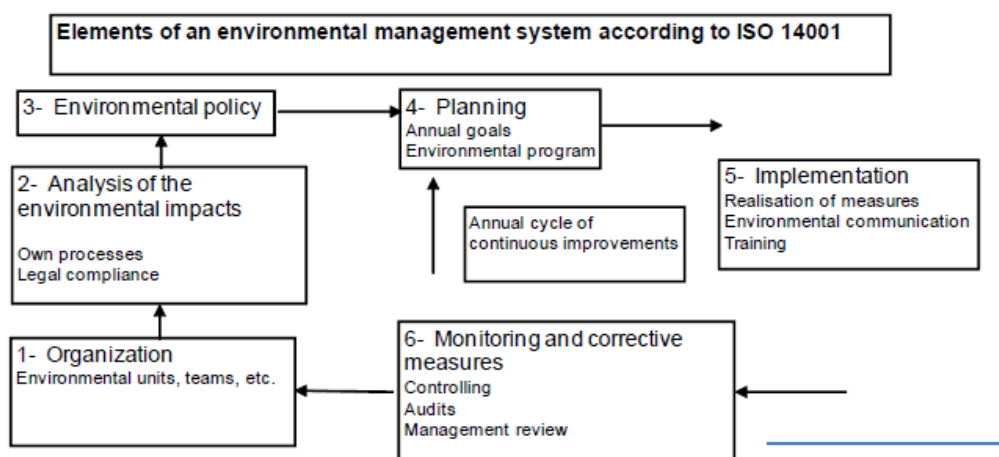
- identifying the type of audit (e.g. specialized audits for policy only, EMS audits, legislative compliance audits or routine business audits, etc.);
- which business lines and departments the auditing program covers;
- whether the auditing program is carried out by external/ internal auditor(s) or both; and
- the standards utilized for the audits.

To sum up, the three management performance indicators which are identified by EPI-2000 and the Supplement are important, in the sense that they define the status of environmental management and reflect the various traditions and structures of a bank. Bearing this in mind, the set of indicators describes the ability of the management and operational performance to improve the quality of communication with interested stakeholders, and allows comparison of the environmental performance across the financial industry. The EPI-FI 2000 Report suggested that further possible indicators can be developed, for example, the cost of internal and external environmental analysis and credit failures resulting from environmental risks. As stated earlier, the indicators were established as guidelines for financial institutions, but not in a standardized format.

3.4.2 Implications of management performance indicators

This set of indicators aims to measure and assess the environmental performance of the policies and procedures at the board of directors and the senior management levels and consequently, endeavours to answer the first research question. A presentation of the flow of the managerial process, according to ISO 14001, is depicted in Figure 3.7:

Figure 3.7 Management performance indicators



Source: EPI-Finance 2000 report

Figure 3.7 describes how the bank's management addresses environmental issues. This process starts with establishing an environmental unit and teams. Within the environmental unit the environmental issues are analyzed by considering regulations, stakeholders' attitudes and communication, and the internal processes. This results in setting environmental policy which encompasses the environmental programs and goals. The management's responsibility is then to approve the environmental policy to be implemented. Implementation requires environmental management training and communication in the bank, in order to recognize the risks and to be aware of opportunities associated with environmental concerns. The last stage in the environmental management cycle is to audit and review the environmental performance in the light of the proposed goals and targets, and, if necessary, make corrections and improvements.

Accordingly, an initial stage in understanding how the bank's management addresses environmental issues is to explore its roles and responsibilities, by considering the two main parts of corporate governance, the board of directors and the senior management, which are represented by the CEO and the major senior divisions respectively.

3.4.3 Corporate governance: environmental roles and responsibilities

Epstein and Roy (2003) encourage managers to consider specific steps for sustainability performance, viz.: formulate a specific strategy; establish and document policies; develop capability-building programs; design supporting management systems; and identify appropriate measures. Such steps contain measurable objectives, and allow progress towards those objectives to be monitored and reported to senior management. Identifying explicit targets improves performance as management focuses attention on areas of concern and priority. However, Callens and Wolters (1998) emphasize the challenge of transposing SD objectives into adequate strategies, as the obstacles are presented not only in the context of SD, but also in the creation and implementation of organizational conditions for the integration of the environmental function and other functions involved in the business strategy. They identified three groups of obstacles; structural, allocative and behavioural. Often, the structural challenges are in the form of specialization of employees who are assigned specific environmental tasks, lack of knowledge of environmental technologies, insufficient formal responsibilities, and integrating communication systems on both sides upstream and downstream of an enterprise. The obstacles stemming from the allocation of resources explains: the willingness to make funds and personnel available; the lack of person(s) to manage, control and implement the sustainable program; and the reluctance to implement personnel education and training in environmental matters. The third obstacle is relevant to resistance or acceptance of change: a company limits its action in compliance with legal requirements; managers consider that SD has cost implications and are unaware of potential benefits.

However, the challenge, then, for managers is to translate the strategy into action (Epstein and Roy, 2001). They argue that by identifying the drivers of sustainability performance and measuring that performance, managers can contribute significantly to both their company and society. As a result, this understanding permits better integration and institutionalization of stakeholders' concerns into day-to-day operations and throughout the organization.

As environmental aspects constitute a major part of the SD process, Azzone and Bertele (1994) pointed out that environmental issues are widely considered as strategic in a growing number of industries. This shift is to take advantage of environmental-based business opportunities and to reduce the risk involved in the management of environmental problems. Acknowledging environmental concerns or problems which form a threat or an opportunity in the banking industry requires defining managerial and operational roles and responsibilities to be carried out by those responsible for protecting the bank's assets and reducing risks and liabilities.

Ratnatunga and Alam (2007) argue that the governance process is about accountability and value creation; therefore, the roles of the board of directors and managers, in terms of strategic decision-making, are to achieve the company objectives and manage risk. Pilko (1989) argues that proactive environmental management is widely misunderstood by many business executives. This study will attempt to identify the roles and responsibilities of the board of directors, the CEO and the major divisions of banks by adapting the managerial responsibilities available in the corporate governance literature. In contrast with their financial roles and responsibilities, top management's environmental roles and responsibilities are not supported by robust and relevant research. This may be due to the traditional legacy of shareholder and agency theories, where managers pursue sales and short-term profitability growth (Field, 2007). Identifying such roles and responsibilities serves to reduce environmental liabilities and responds to environmental stakeholders' requirements of transparent and open communication (Irvin, 1994; Sevastopulos, 2003; Thompson and Cowton, 2004). Environmental concerns have increased business risk as stakeholders raise concerns about the impact of business operations on the environment (Lundgren and Catusus, 2000). Therefore, the objective of this study is to expand the bank's corporate governance roles to encompass environmental roles and responsibilities that uphold the formal environmental policy, procedures and implementation. Accordingly, identifying environmental roles and responsibilities for top management becomes a necessity.

The board of directors

It is generally accepted that the BOD is assumed to act in the best interests of the company and set up strategy to be translated into supporting policies and programs that improve transparency and accountability. Policies provide guidance for decision-making to managers and employees about, first, the implementation process and what behaviour and outcome is expected (Epstein and Roy, 2003) and, second, how environmental management deals with environmental risks and opportunities, as this approach recognizes that a company's activities resulting in environmental mismanagement could destroy it as quickly as bad financial management, and may cost more than the legal liabilities (Rondinelli and Vastag, 1996).

In addition, the board provides direction and oversight of management for the benefit of the company's stakeholders, and enhances and protects the company's value (Ratnatunga and Alam, 2007). Failure to operate in this manner opens directors to legal action, which carries a substantial risk (Mulliken and Vaughan, 2007). Nadler (1993) referred to a suit where four directors were sued US\$ 15 million, as they recklessly abandoned their obligation to review and exercise control over the bank's problematic lending practices. Furthermore, Epstein and Roy (2003) bring attention to the fact that a company's board must be informed about the impact of the company's products and services on its stakeholders, while, at the same time, evaluating CEO and senior management performance against the achievement of financial and non-financial performance factors.

Therefore, corporate governance is an organization's strategic response to risks and opportunities. Banks face risks and opportunities from many different areas; competitive, legislative, reputational, environmental litigation, and technology-related. Kassinis and Panayiotou (2006) noted that the strategic importance of environmental problems has increased as a result of strict regulations and stakeholders' pressure, placing the environment on the firm's agenda and changing the directors' structure and roles.

Furthermore, Pilko (1989) argues that the board's role is to reduce environmental risks by taking proactive steps and encouraging the CEO to develop an environmental policy and, in turn, to communicate it to the whole organization, and motivate employees to achieve organizational objectives. Moreover, Fields (2007) argues that a board's role is to guide organizational change while protecting the interests of the organization's stakeholders. Many studies indicate the general roles and responsibilities of directors (Davidson and Weller, 1997; Scranton, 1992; Hemraj, 2003; Sherony, 2007; Epstein and Roy, 2003), which include:

- leadership: developing a clear and forward vision, strategic thinking and communicating this throughout the organization;
- organizational structure: designing an appropriate organizational structure;
- stewardship: establishing accountability, and monitoring stewardship and managerial performance of the organization's assets;
- risk management: minimizing all risks associated with the organization; and
- compliance: directing the bank to comply with regulatory requirements and account to bank regulators, and arrange for audits of performance to be carried out.

It can be seen that the board's fundamental roles and responsibilities are to produce better performance, and manage risks for a bank and its stakeholders when formulating policies and procedures.

The CEO

In addition to the vital roles and responsibilities of the board in directing the organization, the roles and responsibilities of the CEO are another key factor in the success or failure of a business entity. The CEO is much more than just another upper-level manager who has been promoted due to experience or standard performance. A CEO functions as the main artery between board members and the various levels of the organization itself. According to Berry and

Rondinelli (1998), the CEO is considered as the driving force in moving a corporation towards a sustainable environmental strategy. The CEO is often held solely responsible for the success or failure of the bank's actions, even though the actual events are beyond his or her understanding or not the result of his or her actions (Nadler, 1993). Rondinelli and Vastag (1996) note that in North America and Europe individual executives are being held responsible under laws for their companies' environmental damages or environmental mismanagement, which, in turn, makes customers react negatively and shareholders abandon companies caught in an environmental crisis. Moreover, it is the CEO's responsibility to maintain and implement the corporate objectives established by board members.

Other major responsibilities of a CEO, which are included in the work of (Treadwell, 2006; Pilko, 1989), are:

- strategic planning: developing and implementing detailed action plans from the strategic plan, and reporting back to the board of directors on the implementation progress;
- leadership: communicating and monitoring adherence to the vision articulated by directors;
- bank's structure: monitoring and reporting back on the appropriateness and effectiveness of the corporate structure;
- stewardship: measuring and reporting on the use and performance of the business. For example, Pilko (1989) points out that a CEO should obtain a periodic environmental risk assessment report for the firm's transactions; and
- risk management: reporting on any new risks identified, and ensuring that the day-to-day operation of the organization conforms to risk management policies.

Accordingly, the CEO's job is to implement and maintain the corporation's objectives through unexpected as well as foreseen threats and opportunities (Field, 2007; Rondinelli and Vastag, 1996). The CEO is the key point that keeps the corporation in focus. With high global environmental concerns and the fast-paced growth of technology, the environmental risks and opportunities are more

challenging, and CEOs are faced with increasing requirements to achieve success by considering potential risks and opportunities (Pilko, 1989).

Kassinis and Panayiotou (2006) make clear that the CEO's role is not only to abide by laws and regulations, but also to promote environmental responsibility and the advancement of stakeholder management. Based on their work using data on a US Fortune 500 company, the study showed that a positive relationship was found between the CEO's perceptions, which consider stakeholders (shareholders, regulators, communities and employees) in environmental decision-making, and a firm's environmental performance. The result of the study highlighted the power of the effect of the CEO's perceptions on the business outcomes. Also Pilko (1989) lays the responsibility on executives to put their companies in a proactive mode if they realize the magnitude of environmental risks and their impacts on the company and the natural environment. He pointed out that the environmental clean-up costs in the USA for the next 10 years could reach US\$100 billion, and executives would be shocked to find that the largest environmental expenditures would be on the clean-up of soil and building site contamination to deal with toxic materials which have an impact on residents and environment, and coping with costs resulting from regulatory changes. This argument supports what Jeucken (2001) emphasized, namely, that changing environmental requirements can have serious adverse effects on a bank's financial performance.

In summary, boards and CEOs have to take a more active role in realizing environmental risks and opportunities, communicating green values to stakeholders, expressing green values at shareholders' meetings, and promoting culture change within a bank (Lundgren and Catasus, 2000), as well as anticipating future changes in environmental regulations, technology, and stakeholders' opinion (Jeucken, 2001; Rondinelli and Vastag, 1996). The latter propose that top management have the role of expressing value statements; such statements are not merely a bank's intellectual exercise, but rather a sincere belief in their own worth. In addition, careful attention to directors' and CEOs' responsibilities provides sound and safe management and limits the risks (Scranton, 1992; Kassinis and Panayiotou, 2006).

Major departments

Because of the lack of studies regarding the roles and responsibilities of the departments constituting a bank's corporate structure, this research relies on the work of the EPI-Finance 2000 Report, EBRD⁵³ and the GRI - Supplement 2005 as important sources of obtaining information in this area. This can be justified, as the reports represent some of the financial institutions' roles and responsibilities in collaboration with UN programs, the UNEP and the WBCSD. Also, investigating the major departments of banks is in keeping with a response to the research questions (what and how) regarding the opportunities and risks associated with practising environmental lending policies, the integration of such policies in the day-to-day operations, and the bank's communication and interaction with stakeholders.

Major departments are accountable to the CEO for matters relating to the management of their departments and associated activities and the effective performance of their duties. It is required that these departments are responsive to, and regularly communicate with, staff.

Major departments demonstrate vision, transformational management skills and the development of continuous improvement initiatives, the ability to acquire resources, and the skills to empower and influence others to contribute to getting the job done. It is recognized that these departments empower others and ensure that, through monitoring and follow-up, effective arrangements are in place and are working well. Accordingly, the following major departments⁵⁴ will be discussed (Figure 3.8):

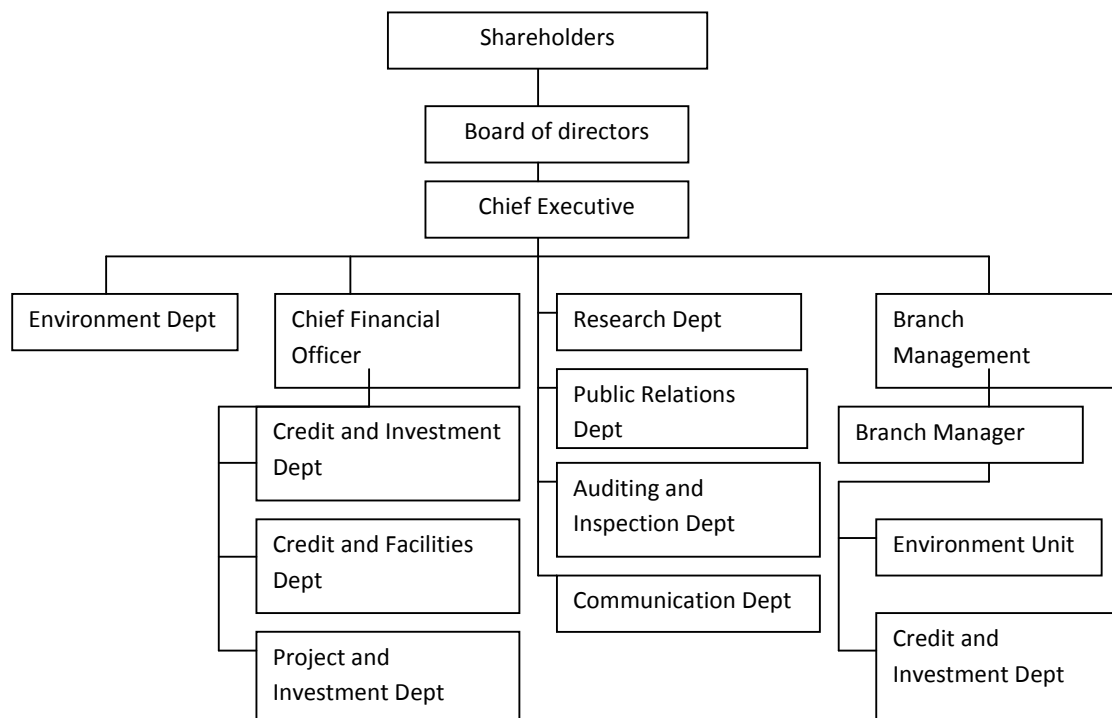
- Environmental Department;
- Training Department;
- Financial Department;
- Branch Management Department;
- Public Relations Department;

⁵³ The European Bank for Reconstruction and Development

⁵⁴ It is recognised not all banks will be structured in this way but all will have these functions

- Research Department; and
- Audit/ Inspection Department.

Figure 3.8 A typical organizational chart for a bank



Source: Adapted from different sources⁵⁵

Environmental Department

In practice, larger financial institutions may have environmental departments with the following responsibilities⁵⁶:

- maintaining and developing the EMS, e.g., issuing detailed guidelines with respect to the criteria for, and methodology employed in, the assessment of environmental risk;
- examining environmentally relevant risks and opportunities;

⁵⁵ <http://www.kaupthing.com/About/Organization/Board-of-Directors>;
<http://www.ifc.ro/ro/IFC/structure.pdf> ;<http://www.scib.co.th/download/annualrepor/Organization%20Chart%20&%20Senior%20Officers.pdf>; <http://www.icbc-ltd.com/icbc/html/download/nb/2002nbe-5.pdf>

⁵⁶ <http://www.epifinance.com/www.epifinance.com/project.htm>

- risk analysis: using sound risk management practices to identify, evaluate and monitor environmental impacts in business decisions;
- taking reasonable precautions to ensure dealing with environmentally responsible borrowers in a manner that respects sound environmental management and SD;
- training: how to recognize environmental risks as part of credit risk skills;
- accountability: taking responsibility for environmental performance; and
- stewardship: promoting environmental stewardship across the business, and supporting business relationships with stakeholders who share a commitment to respect and protect the environment.

The roles and responsibilities of the environmental department are of importance to the extent that they affect the credit portfolio of the bank and stakeholders' attitudes. The department ensures that the approved environmental policy by the board of directors and the appropriate accountabilities for the policy are in place.

Training Department

Environmental training is an important activity in the continuous improvement and development of any environmental management. It is related to raising awareness of environmental risks and opportunities in the bank. ISO 14001 explicitly requires training concerning the environmental policy and the EMS of an organization, as well as the environmental relevance of business processes⁵⁷.

Environmental training activities should cover every level of an organization from the boardroom through all management levels to the workforce at the operational level in order to integrate environmentally relevant issues within their daily work routines. Training may cover environmental auditing, EMS, risk management and environmental awareness⁵⁸:

⁵⁷ <http://www.epifinance.com/www.epifinance.com/project.htm>

⁵⁸ <http://www.epifinance.com/www.epifinance.com/project.htm>;
www.ebrd.com/enviro/tools/fi.htm

Environmental auditing training prepares participants to conduct environmental audits, advise clients on environmental issues, and to commission and manage environmental audits. Staff who may be required to undertake internal environmental audits or inspections within the bank have to be knowledgeable in the following topics:

- environmental legislation;
- government requirements;
- ISO 14000 series and ISO 19011 guidelines on the development and implementation of EMS and the supporting audit program;
- other relevant environmental standards;
- environmental risk assessment;
- ecosystem principles;
- assessing the risk of borrowers within the EMS;
- assessing the effectiveness of methodologies to control environmental risks;
- assessing the EMS roles and responsibilities within the context of the organizational environment; and
- determining the adequacy and effectiveness of the EMS.

Environmental management training covers the key requirements for the development of an EMS, e.g., to the International Standard ISO 14001: EMS. Participants learn to:

- understand the importance of environmental management for the protection of the environment;
- understand the International Standard ISO 14000 series or similar EMS;
- apply ISO 14000 series within their organization;
- develop an environmental action plan;
- identify and locate relevant environmental legislation that will affect an EMS;
- understand the process for implementing an EMS within an organization; and

- appreciate the importance of continual improvement, auditing and review of an EMS within an organization.

Risk management training provides participants with the knowledge and confidence to conduct effective risk management assessments within the workplace. Topics include:

- what effective risk management is;
- what the benefits of risk management are;
- principles of risk management; and
- how to conduct risk management in the workplace.

Risk management provides a generic framework for identifying analyzing, evaluating, monitoring and communicating risk within an organization, in parallel with the standards for an EMS. This risk encompasses a range of factors that can impact on the achievement of a bank's objectives both positively and negatively. It includes external factors such as market and regulatory circumstances or climatic conditions, and internal factors such as environmental management.

Environmental awareness training involves establishing a comprehensive guide to environmental issues designed to meet the special needs of directors, senior managers and staff. Managements face an increasing range of pressures and obligations from governments, regulators, non-government organizations and the public in relation to their performance on environmental issues (Bouma et al., 2001; Boyer and Laffont, 1997). A proactive and practical training scheme provides a business-oriented overview, enabling businesses to establish or review policies and fulfill management's requirements for an environmental system, e.g., environmental due diligence requirements.

Furthermore, environmental training motivates management to get a concise overview of what has been happening with the environment - what the big issues are and how and why they affect the stakeholders; how the sustainable environment has guided law and policy makers, nationally and internationally, to

challenge the contemporary environmental issues; what is going on in the environmental movement and what the government and the financial industry reaction is; what the business needs to do to develop an EMS that is both compliant and workable.

Overall, environmental training is about preparing and educating the relevant personnel within all levels in the bank to be familiar with the environmental risks and opportunities that may have an impact on both the bank's performance and the stakeholders.

Financial Department

Part of the research question is to deal with opportunities that may be gained by implementing particular lending policies and assessing risks associated with them. The primary objective of the study of this department is to explore responsibilities and reveal a consistent framework for the definition, assessment, monitoring and control of risk throughout the bank's lending operations. The major roles of this department may involve:

- identifying and quantifying the organization's exposures to accidental loss;
- adopting proper financial protection measures through risk transfer (to outside parties), risk avoidance, and risk retention programs;
- developing and updating a complete system for recording, monitoring, and communicating the organization's risk management program components and costs to the executive staff and others as necessary; and
- establishing risk management policies and procedures.

Environmental risks are financial risks (Jeucken, 2001). Environmental risk appraisal increasingly becomes a major part of credit risk appraisal (Fenchel et al., 2003; Weber et al., 2008), and as reputable studies have reported, ignoring this process could expose a bank to environmental risks (Thompson and Cowton, 2004; Jeucken, 2001).

Operational Department

For policies to be successful they should be put into practice. Epstein and Roy (2003) indicate that alignment of strategy, structure and management systems are essential for companies to co-ordinate activities and motivate employees towards implementing the policies. In addition, the implementation process depends on the company's ability to define a set of measures for each action undertaken, then for these to be compared to clearly-defined goals and targets to measure the progress. The research questions seek to evaluate the translating of policies into day-to-day operations and to test the success of the implementation of such policies. The employees possess the knowledge of work processes that may be responsible for environmental performance and, thus, their participation is crucial in the successful implementation of an environmental policy (Kassinis and Panayiotou, 2006). By having the management objectives institutionalized through rigorously documented policies communicated to the operational level, employees have a clear vision of what the organization wants to accomplish and can then actively participate in the process (Epstein and Roy, 2003).

Key responsibilities for this department may include:

- achieving short and long term profit, growth and performance objectives of the branches;
- ensuring the provision of high quality customer service;
- ensuring motivated and skilled staff are attracted and retained, to meet short and long term business requirements;
- ensuring compliance with the policies, and that branches are not exposed to unnecessary risks or costs associated with non-compliance;
- ensuring assets are protected and expenditure is properly managed and contributing to a long term viable business; and
- ensuring the bank's policies' needs are met accurately and on time, and that there is consistency in the approach to managing risk.

The branch is as important as the corporate governance level. The policies and procedures which are articulated and developed within top management are

without meaning if they are not put into effective practice. This level reflects whether the environmental policy which is formulated at corporate governance level is implemented, and at the same time, whether the performance of environmental strategies is monitored and evaluated at head office level. Branches constitute the “shop front” of banks, in which opportunities and risk take place. They are also more immediate than head offices in recognizing and meeting their clients’ environmental expectations.

Public Relations Department

An integral part of the research questions is to identify the potential stakeholders who may form financial or reputational threats to the banks. A public relations department directs publicity programs to a targeted audience. The department uses available communication media to maintain the support of the specific group upon which their organization’s success depends, such as consumers, shareholders or the general public. A public relations department may clarify or justify the bank’s point of view on environmental issues to community or special-interest groups. For example, banks such as Lloyds TSB, Barclays, Royal Bank of Scotland and Midland have made their environmental policy available on request in the form of packs and leaflets; others like Co-operative and National Westminster banks have provided extensive, high profile publications of their environmental policies in the form of an annual environmental report (Coulson and Monks, 1999).

The public relations department also evaluates advertising and promotion programs for compatibility with public relations efforts, and serves as the eyes and ears of top management. It observes social, economic and environmental trends that might ultimately affect the firm, and makes recommendations to enhance the firm’s image on the basis of those trends.

The public relations department may confer with other departments to produce internal company communications such as newsletters about environmental relations, and with financial managers to produce company reports such as environmental reports. They assist company departments in drafting speeches, arranging interviews, and maintaining other forms of public contact; they oversee

company archives; and they respond to requests for information. In addition, this department handles special events, such as, the sponsorship of environmental events, social occasions introducing new services, or other activities that the firm supports in order to gain public attention through the press without advertising directly. A public relations department is responsible for disseminating information to the public and media via a range of publications and, in particular, on the bank's website. It is also responsible for the bank's document management systems, printing and publishing. Overall, the department protects and enhances the bank's brand and reputation.

Research Department

The research questions endeavour to find what potential opportunities and risks are associated with environmental lending policies. The fundamental role of the research department is to support other departments in making decisions through its research and investigations, within and outside of the organization. The research department may generally have the following responsibilities:

- gathering and analyzing data. For example, to assess future lending opportunities and lending risks;
- designing surveys to assess the bank's present and potential customers' preferences and attitudes on environmental issues and to guarantee or improve their satisfaction; and
- making recommendations to management on the basis of their findings.

Audit/ Inspection Department

Part of this research deals with the potential risks associated with lending decisions. Banks may be held liable for costs caused by a borrower. The audit department is responsible for conducting independent appraisals of the bank's activities, functions and operations to ensure that an adequate framework of internal and external controls has been established and is operating effectively. Moreover, audits play an important role in the necessary control, preventive and corrective measures and actions of an EMS, which is a requirement for obtaining

certification of the EMS according to ISO 14000 series or EMAS⁵⁹. Accordingly, the department's primary tasks may include:

- monitoring the bank's activities to ensure that they are conducted in accordance with environmental laws and regulations;
- auditing the bank's environmental annual report and other relevant statements;
- ensuring that the bank's operations and asset management are conducted in a sound and efficient manner and that appropriate management and internal audit systems have been established; and
- contributing to improvements and to strengthening the bank's ability to achieve its environmental objectives.

In conclusion, directors and senior managements are key strategic players in deciding the future of a corporation. Their different roles of leadership, planning, and communicating and implementing policies provide a comprehensive overview that enables them to foresee the appropriate policies and practices involved in the strategic plans for the banks. Pilko (1989) recommends that the board of directors and senior departments:

- develop a proactive environmental policy which is practised throughout all levels of the company;
- conduct a periodic environmental risk assessment which is designed to identify potential problems before they occur;
- conduct due diligence prior to acquisitions and divestitures, especially for real estate and land transactions; and
- develop positive ongoing relationships with regulatory agencies, customers and the general public.

The literature shows that the traditional role for a bank's management is to increase the value of shareholders' portfolios. The aim of this research is to understand the other dimensions of top management responsibilities regarding

⁵⁹ <http://www.epifinance.com/www.epifinance.com/project.htm>

environmental concerns, which may affect the shareholders and stakeholders alike. Specifically, this study expands the role of the bank's management to include an EMS which induces proactive environmental policies that take into consideration the environmental liabilities on both the bank and the counterparty. Successful planning and implementation of environmental policies and procedures requires top management's relationship with all stakeholders to be consistently harmonious rather than in conflict, and this perspective stresses working as a team to enhance both the financial and environmental performance.

In conclusion, a number of studies, mentioned earlier in Chapter Two, affirm that environmental concerns cost business if they are not well managed (Jeucken, 2001; Thompson, 1998; Green, 2005). The managerial actions to address environmental matters require a proactive environmental management, not only driven as a response to internal and external pressures, but also acknowledging innovative responses to risks and opportunities for both the bank and the environment. Moreover, corporate governance must have targets which ensure the environmental impact is assessed, managed and monitored effectively.

Now that the top management's environmental roles and responsibilities have been addressed, the next section explains the environmental management performance indicators of bank lending utilizing the EPI-FI 2000 Report and the Supplement 2005.

3.5 Indicators of operational performance

The set of indicators presented in this section demonstrate the environmental performance of bank with regard to its operational aspects.

3.5.1 Definitions of operational performance indicators

This section provides definitions of two operational performance indicators regarding the integration of environmental issues into the lending process and the financing of environmentally-oriented projects.


Definition of indicator 4: environmental aspects of the core business

Indicator 4 aims at documenting the examination of environmental lending within the bank:

- indicator 4a specifies the sum of lending according to the bank's balance sheet or the number of loans;
- indicator 4b describes the sum of lending or number of loans which are environmentally relevant;
- indicator 4c provides the sum of lending or number of loans which undergo a preliminary examination regarding environmental issues; and
- indicator 4d specifies the particularly environmentally relevant loans, which undergo a detailed examination by internal or external experts, since an in-depth examination of environmental risks led to a more positive environmental performance.

The definition of indicator 4 is depicted in Figure 3.9:

Figure 3.9 Definition of indicator 4 for commercial banking: environmental aspects of the core business

No	Definition of the indicator	Relative indicators
4a	Sum of lendings according to the bank balance sheet or the number of loans	
4b	Sum of lendings or number of loans with environmental relevance	$4b / 4a = \text{Percentage of environmentally relevant loans}$
4c	Sum of lendings or number of loans with a preliminary environmental examination	$4c / 4b = \text{Percentage of loans with a preliminary environmental examination}$
4d	Sum of lendings or number of loans with a detailed environmental examination	$4d / 4b = \text{Percentage of loans with detailed environmental examination}$

Source: EPI-Finance 2000

The Supplement covers performance measures regarding the interaction of environmental aspects within the lending process. Indicator F7 in the Supplement describes the proactive steps undertaken by a bank to raise awareness and improve the environmental performance of its clients regarding environmental risks and opportunities; this will be explained briefly in the information regarding credit appraisal process (see Figure 3.12). Indicator F8 in the Supplement describes the percentage and number of companies held in a bank's portfolio, with which the client has engaged on environmental issues. This gives an indication of how the client's environmental engagement is regarded as a priority in the bank's portfolio, and allows for year-by-year comparison.

It should be mentioned as a reminder that the Supplement includes the indicators F9, F10, F11, which are applied to asset management, which is not the focus of this study.

Definition of indicator 5: financing environmentally-oriented pioneers

Indicator 5 aims at portraying the bank's contribution through the financing of environmentally-oriented projects:

- indicator 5a describes the number of loans with high environmental benefits and innovative characteristics; and
- indicator 5b provides the volume of environmentally-oriented financing .

The definition of indicator 5 is depicted in Figure 3.10:

Figure 3.10 Definition of indicator 5 for commercial banking: pioneers and innovations

No	Definition of the indicator	Relative indicators
5a	Number of loans with both high environmental benefits and innovative characteristics	$5a/4a$ = Percentage of environmentally-oriented loans of pioneers and innovations
5b	Volume of financing within both 5a categories	$5b/4a$ = Percentage of environmentally-oriented financing

Source: EPI-Finance 2000

The Supplement defines the F12 indicator, environmental product and services, as “products and services designed with an explicit aim to address an environmental issue(s)”, for example, products designed to provide renewable energy, address water scarcity, enhance biodiversity, improve energy efficiency, etc. F12 also reports the total monetary value of environmental products, broken down according to the loan portfolio lines, and provides an explanation of why and how the products deliver an environmental benefit.

F13 in the Supplement is designed for the purpose of statistical activities, and describes the value of the portfolio for each core business line, broken down by specific regions and by sectors, e.g., agriculture sector. This serves further processes of engagement with stakeholders who have an interest in understanding where a bank has portfolio activity in regions or sectors with potentially high environmental impacts. This indicator provides the value of a portfolio as a percentage or as total monetary value, based on “on-balance sheet” assets, and highlights the regions and sectors that have high environmental impacts.

To sum up, indicator 4 specifically aims at measuring the integration of environmental issues into the core lending transactions, and describes its contribution to the reduction of environmental risks in the bank’s operations. Indicator 5 concentrates on identifying the active contribution of a bank to environmental protection through the financing of environmental opportunities. Since environmentally-oriented projects often have a long-term outlook, various financial institutions have developed so-called eco-loans, which provide favourable conditions for these projects.

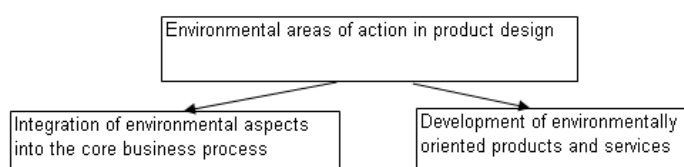
In general, management and operational performance indicators are essential tools for tracking environmental progress, supporting policy evaluation, and informing the public⁶⁰.

⁶⁰ www.oecd.org/dataoecd/20/40/37551205.pdf

3.5.2 Implications of operational performance indicators

Normally operational performance indicators describe past performances, whilst management performance indicators attempt to predict future performances. Accordingly, banks face two environmental areas of action in the design of financial products and services, which are depicted in Figure 3.11:

Figure 3.11 Environmental areas of action in the design of financial service products



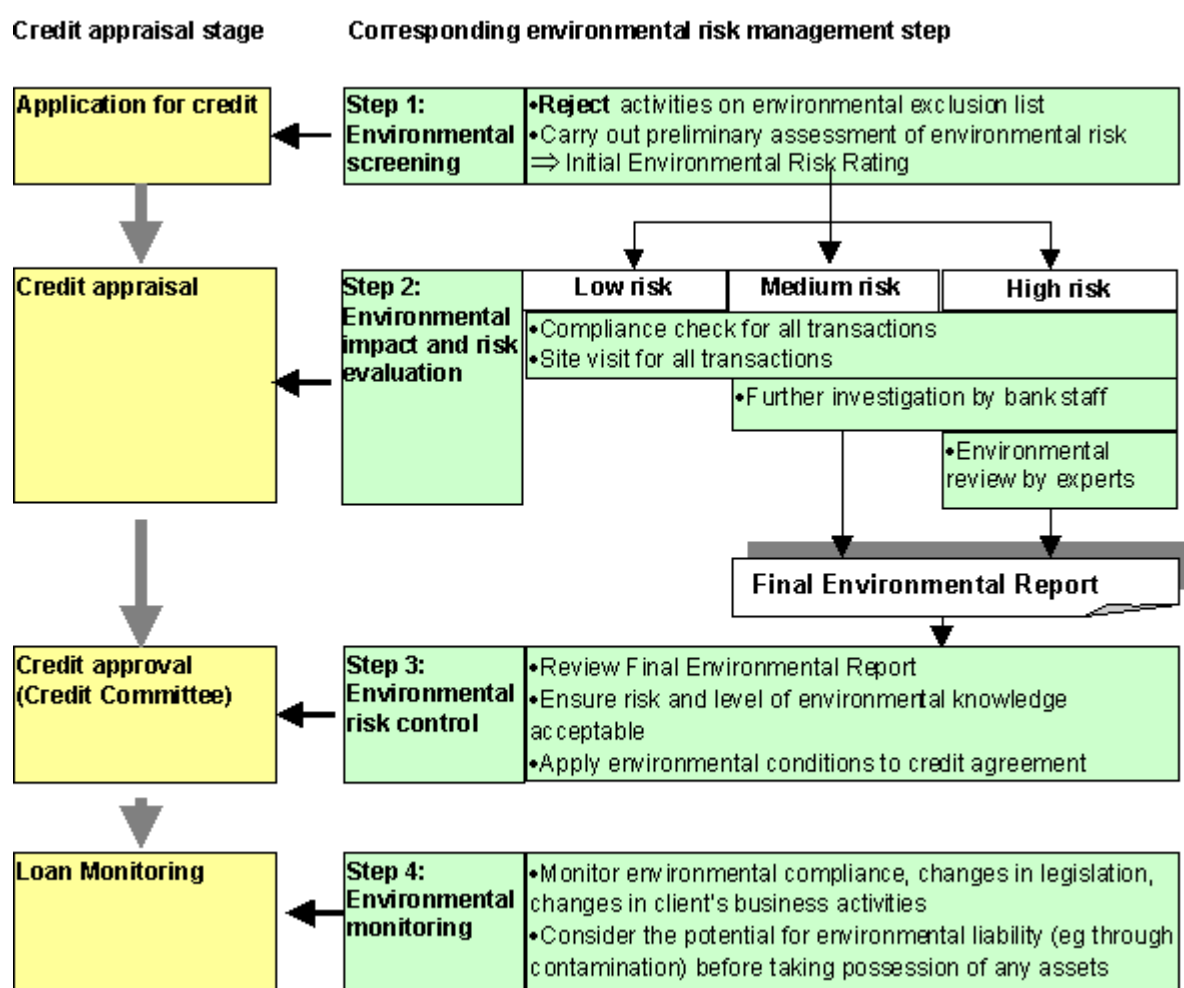
Source: EPI-Finance 2000

Within the core business process the first area of action involves integrating environmental aspects into the existing products and services (loans). This can be achieved through using risk management to examine the environmental risks and opportunities, e.g., risks for the bank resulting from land contamination. A bank which neglects these responsibilities within environmentally relevant business areas is at a higher risk in the long term and it is, therefore, against its own interests if no action takes place⁶¹. Figure 3.12 illustrates the credit appraisal process overview suggested by the EBRD⁶² in the Environmental Risk Management Manual. The driver behind including the EBRD model in this study is that the credit appraisal process expresses a similar consideration of environmental risks as part of the credit appraisal process by UNEP FI and is similar to studies by Fenchel et al. (2003) and Weber et al., (2010).

⁶¹ <http://www.epifinance.com/www.epifinance.com/project.htm>

⁶² www.ebrd.com/enviro/tools/fi.htm

Figure 3.12 The credit appraisal process



Source: The Environmental Risk Management Manual by the European Bank for Reconstruction and Development.

The EBRD model suggested four steps in the credit appraisal process. The initial step is environmental screening to investigate the borrower's activity against those on the environmental exclusion list. If not on the list, then the activity's level of risk is rated as low, medium or high; this is the second stage. Next is the environmental risk evaluation and reporting. The loan officer carries out risk evaluation and reporting based on the level of risk identified at the screening stage. This includes, for instance, carrying out a site visit, which involves a detailed regulatory check. The purpose of this risk evaluation is to ensure that the borrower will not default on the loan for environmentally-related reasons, and that the collateral is not undervalued due to environmental factors. The credit officer

should be qualified and able to get the required environmental information, e.g., capable of referring to environmental regulations and permits and site visit guidelines. In a case where the environmental risk is classified as high, the bank should consider the use of an environmental audit or other input from environmental experts. If the loan is to proceed, a due diligence report is to be prepared and submitted to the relevant committee for approval. The approval process depends on the level of environmental risk, i.e., whether environmental liabilities do not present a significant threat to the environment or to the company's viability, ability to repay loans or value of security, and whether the bank would not be exposed to risk arising from direct liability or reputational damage. This process is not only about evaluating risks; such transactions may also be associated with environmental opportunities for the bank to finance products which aim to cut costs or increase sales, such as, energy conservation and waste minimization products. Following the evaluation and reporting of environmental risk and approval of the loan, the bank implements the necessary procedures to control the environmental risk arising from the loan. As a means of controlling the loan, a condition in the covenant requires the borrower to provide the bank with up-to-date environmental information regarding the business operations. The final stage is the environmental risk monitoring, which requires the bank to check the progress of the borrower's environmental improvements, the borrower's ongoing compliance with environmental laws and regulations, the changes in the business activities or processes carried out by the borrower or brought about by any new environmental legislation coming into force, and to monitor the performance of the loan until it is fully repaid.

It is obvious that integrating environmental aspects into lending decisions is not only about the screening or rating phases; it is also about the environmental risks in every other phase of the credit risk management process, which was suggested also by Fenchel et al. (2003) as well as Weber et al. (2008). Thus, the environmental risks should be examined to foresee the environmental impact and any expected loss, and to consider the identified costs in the credit agreement. Moreover, environmental risks should be controlled and monitored.

The second environmental area of action in product design is the realization of market opportunities through developing and marketing environmentally-oriented products and services. Examples of this include loans for particular environmentally-oriented projects, e.g., eco-loans, the provision or mediation of venture capital and private equity for environmentally-oriented innovations, and providing capital for start-up firms with particularly environmentally-friendly product ideas. Thompson (1998) claims that banks which are not able to display such products and services may experience competitive disadvantages. Moreover, the EBRD indicates that the higher the lending in new environmentally-friendly technology within the market the less the associated credit risks.

Based on the previous interpretation of the environmental areas of action in product design, the next stage describes the applications of management policies and procedures at the operational level, utilizing the following environmental performance indicators which were proposed by the EPI-FI 2000 Report and the Supplement.

3.6 Indicators of motivational drivers

The second major part of this study is to investigate the impetus behind a bank's willingness to integrate environmental policies into its lending decisions, and consequently, it attempts to answer the second research question. After an extensive review of the literature, this research utilizes, in addition to other studies depicted in Table 3.6, sustainability studies, e.g., Isaksson and Garvare (2003); Epstein and Roy (2001 and 2003) and environmental studies, e.g., Thompson (1998), Jeucken (2001) and Thompson and Cowton (2004) which explored the interface between bank lending and the demand for environmental information. The selection of these studies is relevant to this thesis for different reasons. First, these studies recognized the effects of banks' lending operations which are affected by the state of the natural environment. Second, they reflected the risks the environment poses on a bank's lending portfolio, so the bank has an incentive to understand the environmental implications of its operations. Third, the studies reveal the importance of communicating with stakeholders on issues relevant to environmental aspects. Stakeholders provide impacts on banks, as reflected in

their roles in environmental legislation, consumer attitudes and public concern about the environment. Fourth, these studies assure the central importance of the annual reports as a source of information to various stakeholders on environmental issues, the bank's environmental ideology and its environmental performance.

Table 3.6 Environmental literature in which categories and indicators are established

Subject	Author
Environmental performance indicators	Schmid-Schonbein and Braunschweig (EPI-Finance 2000 Report)
Environmental performance indicators	UNEP FI – GRI Working Group (Financial Services Sector Supplement: Environmental Performance-GRI, March 2005)
Incorporation of environmental considerations into banks' lending decisions and environmental reporting	Cowton and Thompson, 2000 and 2004
Environmental assessment	Harbers, Southerland and Fambrough 1994
Opportunities and risks to banks	Thompson, 1998
Bank's responsibilities	Idowu and Towler, 2004; Green, 2005
Responsibilities of banks' top management toward stakeholders	Catusus and Lundgren, 2000
Managing environmental risks	McKenzie and Wolfe, 2004
The environmental policy gap in New Zealand putting at risk the 'clean and green' image	Barnett and Pauling, 2005
Funding for sustainable development	Peeters, 2003
Environmental performance reducing credit risk and a positive correlation between environmental performance and financial performance	Fenchel, Scholz and Weber, 2003, 2005
Sustainability: a business demonstrates influencing its creditworthiness as part of its financial performance	Weber, Scholz and Fenchel, 2010
Awareness of management of their environmental responsibilities	Coulson and Monks, 1999

Source: Author

In the light of these studies, environmental matters have financial, managerial and operational, and reputational impacts on both the bank and the environment. This research divides the motivational indicators into three major groups, the managerial drivers, the financial drivers and environmental drivers, in order to

facilitate understanding the reasons behind incorporating environmental issues into lending decisions.

3.6.1 Indicators for managerial drivers

These indicators explain why the bank's management incorporates environmental issues into lending activities. In other words, the indicators illustrate the management strategy in considering environmental aspects, whether it is proactive or reactive, defensive or preventive, offensive or sustainable. The indicator measures, more accurately, the management perspective, knowledge and values regarding the level of incorporating environmental aspects into lending decisions. These indicators include the following reasons:

- complies with legislation and regulatory requirements;
- forms part of the bank's top management ethical stance;
- shareholders and customers expect it;
- enhances bank's reputation and brand; and
- avoids pressure from public, media, NGOs and various stakeholders.

3.6.2 Indicators for financial drivers

These indicators include risks and opportunities for both the bank and the clients. An environmental risk or opportunity to a customer is also considered as a risk and opportunity for a bank. These indicators include the following reasons:

- avoids or mitigates environmental liabilities;
- manages environmental risk;
- prices credit to reflect underlying risk;
- protects customer deposits;
- gains market advantage and builds profitability; and
- exploits opportunities in financing environmental pioneers projects.

3.6.3 Indicators for environmental drivers

Much of the environmental literature within the financial institutions tends to describe the drivers behind integrating environmental issues into lending

decisions to the extent of avoiding the risks the bank may incur, but places less importance on those designed for environmental protection (Harbers et al., 1994; Thompson, 1998; Coulson and Monks, 1999; McKenzie and Wolfe, 2004; Fenchel et al., 2005, Green, 2005). These indicators test and explain the motives behind environmental care. Such motives may include:

- bank believes in pursuit of sustainable environment; and
- bank believes that its lending operations could have an impact on the environment.

To conclude, the motivational indicators are to be treated in conjunction with the management and operational performance indicators. In addition to their measuring environmental performance within EPI-Finance 2000 and the Supplement, there was a need to extend the indicators to include what motivates a bank to adopt environmental issues in lending decisions. This is an important part in the components of existing sustainability and environmental models and in the proposed environmental framework, which considers the motivational drivers in evaluating the bank's performance regarding environmental concerns (see, for example, the studies of Epstein and Roy, 2003; Isaksson and Garvare, 2003; Steger et al., 2007; Weber et al., 2005; Feldman et al., 1997; Hunt and Auster, 1990; Crosbie and Knight, 1995).

3.7 An environmental sustainability framework for banks

The objective of the previous sections was to define and describe the three aspects of the bank's environmental performance: the bank's management, operations and motivations. This is in order to facilitate evaluation of the bank's performance in one of the sustainable environmental levels; thereafter, it is possible to classify the bank from an environmentally sustainable perspective. In order to attempt to identify the level of environmental sustainability regarding a bank's environmental lending practice, new environmental bank framework will be developed in this research, based on sustainability models (Zoeteman's Sustainability Attitude Model 2001; Epstein and Roy, 2001, and Isaksson and Garvare, 2003), the EPI-Finance 2000 Report, the GRI - Supplement 2005, and the environmental models which are shown in Table 3.1. This framework

provides an overview of different levels that could be reached by a bank and what each level indicates, according to the three major categories of indicators: management, operations and motivations.

3.7.1 Environmental sustainability levels

Sustainability reflects concerns about our world. In this respect, a variety of approaches have been developed that are concerned with reducing the impact of human actions on the physical and socio-cultural environment (Peeters; 2003, Morris, 2002; Thompson and Cowton, 2004; Coates, 2007).

It has been argued by many authors that businesses should recognize and acknowledge the issue of SD and the need to create awareness of it among employees, stakeholders, consumers and society as a whole (Barnett and Pauling, 2005; Jayne, 2002; Roper, 2004; Evans, 2005; Myers, 2005; Coulson and Monks, 1999). Different responses of organizations to environmental problems range from simply ignoring it to the need to change their attitudes towards sustainable behaviour. Increasing numbers of organizations have acknowledged responsibility for their legal and moral behaviour towards the environment, caused by external pressure and/or an internal sense of responsibility (Catasus and Lundgren, 2000; Thompson and Cowton, 2004). Thus, sustainability is not a single absolute standard - there is a wide spectrum of attitudes and levels of commitment towards the concept, ranging from a very weak position on sustainability to a very strong commitment. In the pursuit of SD, governmental and non-governmental organizations have established environmental guidelines, initiatives and principles; have issued various statements to affect the behaviour of people within organizations; and have attempted to measure the level of commitment to the concept.

This study utilizes the environmental sustainability strategies available in the environmental models and the environmental performance indicators which were shown earlier in this chapter. The most common levels of progress identified in previous literature are illustrated in Table 3.7.

Table 3.7 Levels of environmental sustainability

Study by	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Hunt and Auster (1990)	Beginner	Fire fighter	Concerned citizen	Pragmatist	Proactivist	
Azzone and Bertele (1994)	Stable	Reactive	Anticipatory	Proactive	Creative	
Elkington (1994)	Ignorance	Awakening	Denial	Guilt/reduction of guilt	Conversion	Integration
Crosbie and Knight (1995)	Do nothing	Defensive	Social responsibility	Strategic opportunity	Sustainable business	
Rondinelli and Vastag (1996)	Reactive	Proactive	Crisis preventive	Strategic		
Hart (1997)	Pollution prevention	Product stewardship	Clean technology			
Berry and Rondinelli (1998)	Non-compliance	Compliance	Beyond compliance			
Callens and Wolters (1998)	Unsustainability	Not taking SD into account	Active/Proactive	Proactive	Sustainable	
Brokhoff et al. (1999)	Defender	Escapist	Dormant	Activist		
Zoeteman (2001)	Very unsustainable	Unsustainable	Nearly sustainable	Sustainable	Beyond sustainable	
The proposed levels (Author)	Ignorance of environmental issues	Reactive	Partial and voluntary integration of environmental issues	Full integration = financial and environmental considerations are treated equally	Environmental priority	

Source: adapted from (Kolk and Mauser, 2001)

A challenge to the classification of the stages of the environmental strategy is the interpretation of the strategy at each level with respect to other terminologies that closely deliver a similar meaning, but are categorized at a different level(s).

However, this should not prevent researchers adopting a common terminology, which can then be adapted to this study to identify the proper term for each level. Therefore, the interpretation for each of the five different levels of environmental sustainability mentioned is based on the assumption that the attitude of corporations or industries reflects their level of awareness of the impact of their actions and their willingness to take responsibility for their consequences. Furthermore, the above-mentioned strategies in the environmental models can be used to assess the attitudes of banks in five main categories. Each category is characterized by a different way of corresponding to the different environmental sustainability levels. When the models are applied to business, each level represents a different management approach, a different level of understanding or a different way of working, or even a different organization structure. As the managerial attitude develops towards higher environmental sustainability levels, the organizational mindset evolves from ignorance and resistance to anticipation of managing the commons. Given the literature and the environmental models depicted in Table 3.1, the five most common levels of performance can be defined from an environmental perspective, as follows:

Ignorance of environmental issues: this means exhaustion of resources, unrestricted disposal of wastes and limited power of the government, who counteract only when an accident happens. Businesses focus to a large extent on profit, which narrows their horizon to their momentary and monetary needs, while not considering the health and environmental issues in their operations.

Reactive: corporations meet increasing legal restrictions as a result of exploitation of nature and pollution. Waste is discharged in sites where there is no immediate effect on local society. Businesses resist as much as possible environmental rules or environmental measures being enforced or implemented or imposed by government and/or green NGOs. Businesses believe such rules imply higher costs.

Partial and voluntary integration of environmental issues (Proactive): this means that businesses and governments start managing and protecting the environment from exploitation by applying legal requirements (not yet set by law). Business takes responsibility to limit environmental damage and negotiate

with governments and green NGOs to meet environmental responsibilities and have a legal environmental framework.

Full integration means co-existence of people and nature. Businesses and governments not only implement the rules, but also consider the needs of consumers, other stakeholders and future generations. Thus, waste is considered as a resource and all agents take responsibility to protect the natural environment. The environmental aspects are broadened to SD, and the Precautionary Principle⁶³ is considered.

Environmental priority means stepping from co-existence to co-creation. The challenge for corporations and governments is not only to protect the environment and meet the stakeholders' wishes, but also to develop and create solutions beyond scarcity and the existing characteristics for society at large.

The next section will introduce a new approach for assessing the attitude of a bank towards the concept of environmental sustainability.

3.7.2 Environmental sustainability framework

In this study a bank's lending activities will be examined from an environmental perspective. The environmental performance indicators will be evaluated at five environmental sustainability levels and will be adapted to comply with the specific demands of the banking industry (Figure 3.13).

⁶³ The Precautionary Principle is a way of making decisions that better protect the environment and human health. The Precautionary Principle basically says, "An ounce of prevention is worth a pound of cure." If a practice poses threats to human health or serious environmental damage, the Precautionary Principle uses the best available science to identify cost-effective measures that would prevent harm. Source:<http://environmentalcommons.org/precaution-background.html>.

Figure 3.13 Environmental sustainability framework for banks

Environmental sustainability	Level 1 Ignorance	Level 2 Reactive	Level 3 Proactive	Level 4 Bank wide involvement	Level 5 Manage commons
Management indicators					
Operational indicators					
Motivational indicators					

Source: Author

The five environmental sustainability levels from a bank's lending perspective can be customized, and described as follows:

Level one: *Ignorance*

At this stage the focus of the bank's board of directors, CEO and operational staff is economic health, which only takes into consideration profits and ignores activities that do not demonstrably benefit the bank. There is no co-operation between the banking sector and governmental and non-governmental organizations, and usually there are no environmental lending policies, procedures and practices to be incorporated in everyday transactions at all levels of the bank.

Level two: *Reactive*

The bank, at all levels, considers environmental issues in its lending operations in an ad-hoc and inconsistent manner. The bank complies with certain environmental standards only when forced by law to take certain responsibilities. In other words, operating activities include ecological issues, as long as they deliver short-term benefits or are affected by external pressure from the government, NGOs or society in large. Pilko (1989) observed that the bank, at this stage, is struggling to comply with existing regulations. The bank, however, starts thinking about its long-term continuity and transmission to the third level. A major characteristic of the relationships between the levels is one-way communication, and the two-way information exchange is described as unclear. Furthermore, environmental policy, roles and responsibilities, training and auditing are either not available or insufficient, or are not made clear to the various levels in the bank.

Level three: *Partial and voluntary integration of environmental issues (Proactive)*

At this stage the bank has established an environmental policy and environmental roles and responsibilities. It has a clear environmental strategy to be implemented in day-to-day lending activities. The bank accepts its legal requirements and environment-protection responsibilities voluntarily and seriously. The bank considers environmental aspects in its lending decision-making and recognizes its important role in protecting the environment. It also makes covenants and shows good intentions with government and NGOs. Moreover, the bank realizes that environmental risks (direct, indirect, and reputational) could affect its clients' and its own financial position alike and also starts realizing potential opportunities in lending to environmentally- friendly projects.

Level four: *Full integration*

Environmental aspects are incorporated at all levels of the bank in its daily lending transactions. The bank goes beyond compliance with regulations in managing environmental risks. Economic, environmental and social issues are equally considered in a long-term vision when making lending decisions. The bank strives to consider the consensus of all its stakeholders during the decision-making process, in a win-win situations for all parties. The bank, at this stage, is truly committed to a sustainable environment and is not just complying with national or international principles or guidelines. The bank is also, at this stage, effectively involved in seeking opportunities available from lending to environmentally-friendly projects and pioneers.

Level five: *Environmental priority*

At this stage, the bank's environmental lending policies, procedures and practices go beyond its own organizational reach, and society goes beyond sustainability. This is what is aimed for in the future. The bank voluntarily chooses to conserve the global commons and bear the responsibility which aims at a sustainable future. Managing the commons could involve lending against very low interest rates, investing in environmentally-friendly projects, and providing only services and

products that are environmentally sustainable. The bank sacrifices financial returns to preserve a sustainable environment.

Although sustainability is arguably more a direction than a goal, the bank may choose to pursue the ideal in order to come close to it. This study explores the attitude of Westpac towards the concept of the integration of environmental issues into its lending activities. Three environmental performance indicators are employed to measure and evaluate the bank's performance, relative to five levels of environmental sustainability.

3.8 Conclusion

In order to improve understanding of environmental management, behaviour and performance, academics and practitioners have suggested environmental management models, including indicators, as tools to inform organizational design, strategies and policies. Specific indicators to measure a bank's environmental performance applied to its actual behaviour have not yet been developed. Existing indicators focus on environmental management rather than on environmental performance, which, in turn, underlies the deficiency in implementation. In this study, such indicators have been adapted by further specifying the criteria to be satisfied in order to fit with a bank's operations.

In order to analyse bank practices in incorporating environmental matters into lending decisions, a bank environmental framework which contains three categories of environmental performance indicators - management performance indicators, operational performance indicators and motivational indicators - has been developed. In this chapter, indicators have been identified from the academic and professional literature. The process of developing indicators assists in setting goals and targets, comparing and monitoring actual performance, and improving the training and development provisions for staff. In particular, developing a bank's environmental framework improves the lending decision process by considering the environmental risks and opportunities. This, in turn, improves bank financial and environmental performance.

Specifically, management performance indicators measure the strengths and weaknesses of top management in integrating environmental policies and procedures into lending activities. Operational performance indicators measure the extent of applying the environmental policies and procedures in two primary aspects, core business processes and financing environmentally-pioneering projects. Motivational indicators investigate the impulse behind the banks' integrating environmental issues into lending policies and practices in three main areas, managerial, financial and environmental.

To conclude, in this chapter an environmental sustainability framework applied to the banking sector is developed. This framework facilitates evaluation of environmental performance with regard to lending activities. The framework provides an overview of different levels of performance. It enables bank environmental performance to be measured using three major categories of indicators: management, operational and motivational drivers.

CHAPTER 4 - RESEARCH METHODOLOGY

4.1 Introduction

This chapter specifies the research objectives and methodology. Details of the design, data collection, analysis, reliability and validity of research methods are included. The quantitative and qualitative research methods are outlined and the use of a single case study and the triangulation approach are explained.

4.2 The research problem, questions and study objectives

The research began with the identification of the research problem and the research questions. The research problem in this study is derived from a review of the literature (Chapters 2 and 3) as well as investigation into the lending practices of commercial banks in New Zealand. The problem explored in this study is how banks should consider environmental issues when making lending decisions. It is easy to say that banks should respond to growing environmental concerns by customers and staff, but it is another thing to be clear about the appropriate response. A number of specific questions assist in making this research tractable. Namely:

1. how does Westpac's management address environmental issues when making lending decisions?
2. why does the bank integrate environmental issues into its lending decisions?

The first research question explores:

- the bank's approaches to incorporating environmental issues into their lending decisions;
- what actions the bank takes to address environmental issues when making lending decisions.

This question explores the management approach to addressing environmental issues and the actions that take place at the operational level.

The second research question explores the bank's incentives/ motivations (managerial, financial and environmental) to incorporate environmental issues into lending decisions. The motivations are discussed in Section 2.6, pages 78-85.

Therefore, the first research question seeks to understand how the management administers the lending decisions at the various business levels, but the second research question seeks to uncover the impulse behind such administration.

The aim of this study is to understand how, and to what extent, environmental issues are considered in bank lending decisions, and what motivates banks to respond to these issues. The objectives are to learn:

- bank approaches to incorporating environmental issues into their lending decisions;
- what actions banks take to address environmental issues when making lending decisions;
- to what extent a bank gains competitive advantages through implementing an environmental strategy; The risks can be measured by the expected value of a bank's liability as a result of environmental damage and/ or a default by borrowers. The opportunities can be measured against the number, value and diversity of loans to environmentally-friendly projects;
- the reasons banks consider environmental issues in lending decisions;
- of any evidence concerning the effectiveness of incorporating environmental commitments into lending decisions; and
- how to improve the environmental practices associated with lending decisions.

4.3 Research approach

According to Easterby-Smith, Thorpe and Lowe (2002), social research has two main philosophical paradigms, either positivism or social constructionism. A positivist approach reflects that the social world exists externally, and its properties should be measured through objective methods rather than being inferred subjectively through sensation, reflection or intuition. The quantitative paradigm is based on positivism. Science is characterized by empirical research,

where all phenomena can be simplified to empirical indicators that represent the truth. The ontological position of the quantitative paradigm is that there is only one truth, an objective reality that exists independent of human perception.

Epistemologically, the investigator and investigated objects are independent objects and separate from their social contexts. Thus, the researcher is capable of studying a phenomenon without influencing it or being influenced by it. This type of study is what Guba and Lincoln (1994, p.110) expressed as ‘inquiry taking place as through a one way mirror.’ The goal of a quantitative type of research is to analyze and measure causal relationships between variables within a value-free framework (Denzin and Lincoln, 2005). The quantitative method involves highly structured protocol, randomization, and administered questionnaires with a limited range of predetermined responses. Sample sizes in the quantitative method are usually large, thus ensuring the study’s samples are representative of the whole population of the phenomenon under investigation (Easterby-Smith et al., 2002).

In contrast to this, a social constructionist approach views the world as socially constructed and subjective. Social constructionism is one of a group of approaches that Easterby-Smith et al., 2002 refer to as interpretive methods. As far as the ontology of the approach is concerned, there are multiple realities based on one’s construction of reality, which is constantly changing over time. The constructionist paradigm stems from the view that the reality is not objective and exterior but is socially constructed and given meaning by people (Easterby-Smith et al., 2002). In the qualitative approach the investigator and the object of study are interactively linked, so that findings are mutually created within the context of the situation that shapes the inquiry (Guba and Lincoln, 1994). Qualitative research stresses the process and meanings of the topic of interest. Techniques used in qualitative studies include in-depth and focus group interviews, and participant observation. Samples are not meant to represent large populations; rather small purposeful samples are used to provide valuable information. Since the early 1980s there has been significant growth in the volume of social constructionism research (Easterby-Smith et al., 2002). Table 4.1 describes the differences between two approaches.

Table 4.1 Differences between Positivism and Social Constructionism

	Positivism	Social Constructionism
Role of observer	must be independent, minimal and irrelevant	is always part of the process and what is being observed
Human interest	should be irrelevant	are the main drivers of science
Explanations	must demonstrate causality	aim to increase general understanding of the situation
Research progresses through	hypotheses and deductions to test	gathering rich data from which ideas are induced, case study based
Concepts	need to be operationalized so that they can be measured	should incorporate stakeholders' perspectives
Units of analysis	should be reduced to simplest terms	may include the complexity of whole situations
Generalization through	statistical probability, tight conclusions about findings, generalizable	theoretical abstraction, defined and focus on process not outcome, answer why, but empirically rich in detail
Sampling requires	large numbers selected randomly	Small numbers of cases for specific reasons

Source: Table 3.1 from Easterby-Smith et al. (2002), Management research: an introduction. London, Sage. P.30

Each of these approaches has its own strengths and limitations (Patton, 2002). In the case of quantitative approaches, the main strengths are that they can provide wide coverage of a range of situations and they can be fast and economical, particularly when statistics are aggregated from large samples. However, the drawbacks of these approaches are they can be inflexible and artificial, ineffective in understanding processes or the significance that people attach to actions, and not very helpful in generating theories.

Qualitative methods tend to allow more in-depth and detail investigation than quantitative methods of a phenomenon. They also provide a way of gathering data that is seen as natural rather than artificial. Qualitative data is a source of well grounded, rich descriptions and explanations of processes occurring in a local context (Miles and Huberman, 1984). Qualitative research therefore seeks to select information-rich cases relevant to the research question. Among the weaknesses of qualitative methods are that a great deal of time and resources are required for data collection, the analysis of data may be very difficult and cumbersome, and there may be a lack of clarity with respect to the conclusions.

Although the distinction between the two approaches may be very clear at the philosophical level, when it comes to the choice of specific methods, and to the issues of research design, the distinctions between both often break down (Bulmer, 1988). A combination of these approaches, in a single research study, commonly known as triangulation, compensates for the weaknesses of both approaches by counter-balancing the strengths of one another. Easterby-Smith et al. (2002) argue that, in practice, research rarely falls neatly into the positivism or social constructionism approach. Business and management research is often a mixture of both. It is assumed triangulation does not share the same weaknesses or potential for bias (Rohner, 1977). Increasingly, authors and researchers who work in organizations and with managers argue that these approaches do not exist in isolation and therefore one should attempt to mix both approaches to some extent, because this provides more perspectives on the phenomena being investigated and develops a more complete understanding (Easterby-Smith et al., 2002).

4.4 Triangulation

Triangulation refers to the use of more than one method to the investigation of a research question to facilitate validation and confidence in findings (Denzin, 1978). Webb et al. (1966) and Denzin (1978) were among the first to introduce the term ‘triangulation’ into the social science discipline as a research approach. Triangulation is broadly defined by Denzin (1978, p. 291) as ‘the combination of methodologies in the study of the same phenomenon’. Another broad definition is from Scandura and Williams (2000, p. 1252), who described triangulation as ‘the involvement of more than one research strategy or approach.’ A more specific definition of triangulation is provided by Stake (2005, p. 454): ‘a process of using multiple perceptions to clarify meaning, verify the repeatability of an observation or interpretation’. Webb et al. (1966) suggest ‘once a proposition has been confirmed by two or more independent measurement processes, the uncertainty of its interpretation is greatly reduced. The most persuasive evidence comes through a triangulation of measurement processes’ (p. 3).

Denzin (1978) and Patton (1987) suggest four types of triangulation – data triangulation, investigator triangulation, theory triangulation, and methodological

triangulation. Data triangulation refers to the gathering of data at different times or from different sources in the study of phenomenon. Investigator triangulation is the use of multiple researchers independently to collect data on the same study and compare the results, presuming that different researchers will bring different perspectives, thinking and analysis, thus strengthening the final assessment. As far as triangulation of theories is concerned, research should examine the phenomenon from different theoretical vantage points to see which would be the most robust in helping to clarify and explain what has been investigated. Methodological triangulation refers to the use of multiple methods of data collection to gain the most complete and detailed data possible on the phenomenon.

According to Blaikie (1991), the reason for using triangulation is to reduce bias and increase validity of a research that uses only one research method for gathering data - either quantitative or qualitative. As he observed, 'the common theme in discussions of triangulation has been the desire to overcome problems of bias and validity. It has been argued that the deficiencies of any one method can be overcome by combining methods and thus capitalizing on their individual strengths' (p.115). In research study potential biases can be identified through methodology, data and investigators. If one uses only one method, for example, a closed questions interview, the data is limited to responses to the specific questions and especially in the categories provided. Other possibly more important information is not included. Therefore, the results will be biased towards the preconceived categories provided by the researcher during the conversation with the respondent.

Glaser and Strauss (1967) stressed the need for triangulation, as they claimed: '[In] many instances, both forms of data are necessary - not quantitative to test qualitative, but both used as supplements, as mutual verification' (p. 18). Moreover, the use of both methods need not conflict with the research philosophy. Both types of inquiry inform each other, whether by questioning or confirming findings.

Consistent with other researchers, Bryman (1984) also believed that combining quantitative and qualitative methods is a process of validation by triangulation of the data collection techniques and the comparison of the findings. De Vaus (2002) points out quantitative research enables the researcher to arrive at a theory. The theory can then be tested through further qualitative methods. On the other hand, Flick (2002) argued that triangulation is not a tool or a strategy of validation, but an alternative to validation. According to him the combination of multiple methodological practices, empirical materials, perspectives and observers in a single study is best understood as a strategy that adds rigour breadth, complexity, richness and depth to any research inquiry.

Nonetheless, triangulation itself is not without some criticisms. Fielding and Fielding (1986, p. 33) argued that ‘theoretical triangulation’ does not necessarily minimize bias, nor increase validity of findings. According to them theories are generally the products of quite different traditions, so, when they are combined, one might get a fuller picture, but not a more objective one. They added that, ‘we should combine theories and methods carefully and purposefully with the intention of adding breadth and depth to our analysis but not for the purpose of pursuing objective truth’. Sections 4.6 and 4.7 address the qualitative and quantitative analysis utilized in this research.

4.5 Case study

In social science research there are a number of strategies that can be employed to conduct research: case studies, experiments, observations, surveys, histories, and analysis of archival information (Yin, 1984). The selection of a suitable method generally depends on: first, what the research question is; second, the control a researcher has over the actual events; and, third, the focus on contemporary trends. As far as a research question is concerned, Yin (2003) points out that case studies are the preferred strategy when ‘how’ or ‘what’ or ‘why’ questions are being posed. Creswell (1994) provides a case study definition with five components. A case study is a single, bounded entity, studied in detail, with a variety of methods, over a sustained period of time. A case study may be an almost entirely positivistic or almost entirely constructionist study, or anything

between these two paradigms (Remenyi et al., 1998). The research questions of this study – how/what, and why the bank addresses what environmental issues when making lending decisions - closely fits Yin's and Creswell's forms of research question. In terms of the investigator's control over the events, a case study is applicable to empirical inquiries when the investigator has little control over events (Yin, 2003). In the study of the incorporation of environmental issues into the bank's lending decisions, the investigator has no control over such a practice. It is determined by a range of economic agents interacting with environmental phenomena. Moreover, a case study is preferred when the focus is on a contemporary phenomenon within some real-life context, especially when the boundaries between the phenomenon and context are not very clear (Yin, 1981). This is undeniably relevant, since the study on integration of environmental issues into banks' lending decisions is a new research field, still in its infancy; and it is especially relevant in the context of banks in New Zealand, where so little of such research has been conducted. Since this study satisfies all three of these criteria, i.e., the research questions, the investigator's control over events and contemporary phenomenon, a case study methodology is preferred.

In general, there are two types of case study: single and multiple. This research utilizes a single case study design, where Westpac is the central focus in the research.

4.5.1 A case study strategy

This section discusses a number of parameters and boundaries to delineate the area under investigation. In particular, why Westpac has been chosen for the study of the integration of environmental issues into its lending processes. First, the bank has a long history of incorporating environmental considerations into its business activities⁶⁴. It initiated an environmental policy in the early 1990s, with an approach centered on an EMS. Its environmental policy covers areas such as managing the ecological footprint, measuring and reporting on environmental performance, and the incorporation of environmental considerations into the risk management framework. It has reported on its environmental performance, since

⁶⁴ www.westpac.com.au/docs/pdf/aw/EnvironmentalPolicy.pdf

2004, through annual stakeholder reports. Often, the bank reports that environmental considerations are factored into its lending decisions and that it adheres to the EPs in managing environmental risks in project finance. A reasonable conclusion, based on information from the annual reports and its website, is that the bank believes that taking advantage of environmental risk management opportunities is consistent with its objective to enhance shareholder values.

Second, Westpac is the only bank who issues an annual New Zealand stakeholder report. This suggests, at this stage, that considering multiple case studies of banks in New Zealand integrating environmental aspects into their lending decisions is unrealistic. However, to increase our understanding of the issue, validate the findings of Westpac's stakeholder annual reports, and to have a base for the interpretation of Westpac's environmental performance, one of the world's largest banking and financial services organizations, HSBC, was selected for comparative purposes. It published its first environmental policy in 1997 and adopted the EPs in 2003⁶⁵. Its policy is to manage the potential environmental risks associated with lending by following international standards of good practice, such as the EPs.

Third, Westpac has, and will continue to have, a large impact on the natural environment in which it operates and on New Zealand society as a whole. With over 1.2 million customers and over 5500 staff⁶⁶, NZ\$ 48.795 billion in the loan portfolio⁶⁷ and 21% market share, which was the largest share of any bank in New Zealand in 2005⁶⁸, the policies and practices of Westpac shape the financial position of many individuals and influence the state of the New Zealand economy and the country's natural environment.

As this research focused on a single case study strategy, the investigation started with analyzing Westpac's annual stakeholder reports (early 2007). These reports were examined using standard document analysis methods (Owen, 1984; Jones and Shoemaker, 1994). Two academics from Waikato Management School, in

⁶⁵ www.hsbc.com/1/PA_1_1_S5/content/.../hsbc_in_society.pdf

⁶⁶ www.westpac.co.nz/olcontent/olcontent.nsf/Content/Westpac+today

⁶⁷ Westpac New Zealand General Disclosure Statement 2009

⁶⁸ Westpac Stakeholder impact report 2006, p.12

addition to the researcher, were asked to highlight all the statements concerning environmental issues in Westpac's annual reports from 2004 to 2006 as evidence of the bank's environmental stance (Appendix B). Thereafter, the evidence was categorized into three major categories. Each major category consists of a number of sub-categories, and, in turn, each sub-category contains a number of indicators (Appendix A). The major categories, sub-categories and indicators were developed from a continuous learning process gained from the literature and Westpac's annual reports. To identify the process of recording the evidence, studies such as Gray et al. (1995) point to the number and amount of disclosures, and Hackston and Milne (1996) indicate the volume of disclosure. Sarantakos (1993) and Unerman (2000) suggest the following criteria in identifying the evidence of an indicator:

- the evidence is linked to an environmental issue and appears in the document;
- the frequency of appearance: in the form of the number of sentences, the number of words, the number of documents and the number of characters;
- the significance or prominence of the evidence in the document;
- the evaluation of the evidence: whether it is a positive, negative or neutral factor;
- the intensity of the evidence in the document; and
- volume of disclosure signifies the relative importance of that evidence.

This study is unique in identifying the indicators. In addition to utilizing the studies of Gray et al. (1995), Hackston and Milne (1996), Sarantakos(1993), Unerman (2000), this research focuses on the content and the quality of the information provided. Deegan and Rankin (1997) emphasise the 'reasonable right to information' for user groups such as equity investors, creditors, employees, analysts/advisors, business contact groups, government and public. This research takes account of their observation.

By February 2008 the process of recording the evidence was completed using three major categories: management performance, operational performance and motivational drivers. The lack of evidence under certain categories in Westpac's

annual reports and the need for further richness of evidence motivated the researcher to conduct semi-structured interviews with the bank's staff to obtain further information. Seventeen open-ended questions were composed, based on the findings from Westpac's stakeholder reports and the literature.

The first contact took place in November 2008 with the General Manager - Business Banking. He suggested contacting the Manager - Environmental Sustainability. An email was sent to her in November 2008; she replied in January 2009, and a meeting was arranged in February 2009. In the meeting, the manager was given a document which classified Westpac's environmental performance from a lending perspective into three major categories in response to the evidence obtained from the bank's annual reports from 2004 to 2006. It was suggested that meetings be arranged with the bank's staff. Later, in March, the manager recommended that the researcher start interviewing staff from Hamilton's main branch. A meeting with the Regional Manager - Waikato/Bay of Plenty, was arranged for 4th June 2009. In preparation for the meeting a document containing the proposed questions (Appendix C) was sent to the Regional Manager.

Seventeen questions were discussed with the Regional Manager for one hour. Later, a draft of the questions and the answers was sent back to him to confirm it was an accurate record. The Regional Manager updated the version with some changes that including a request for the deletion of question 14. The researcher duly updated the final version according to the Regional Manager's changes and requested final approval for the questionnaire. Owing to the cautious approach by Westpac and the amount of time between stages of agreement, this process lasted more than six months.

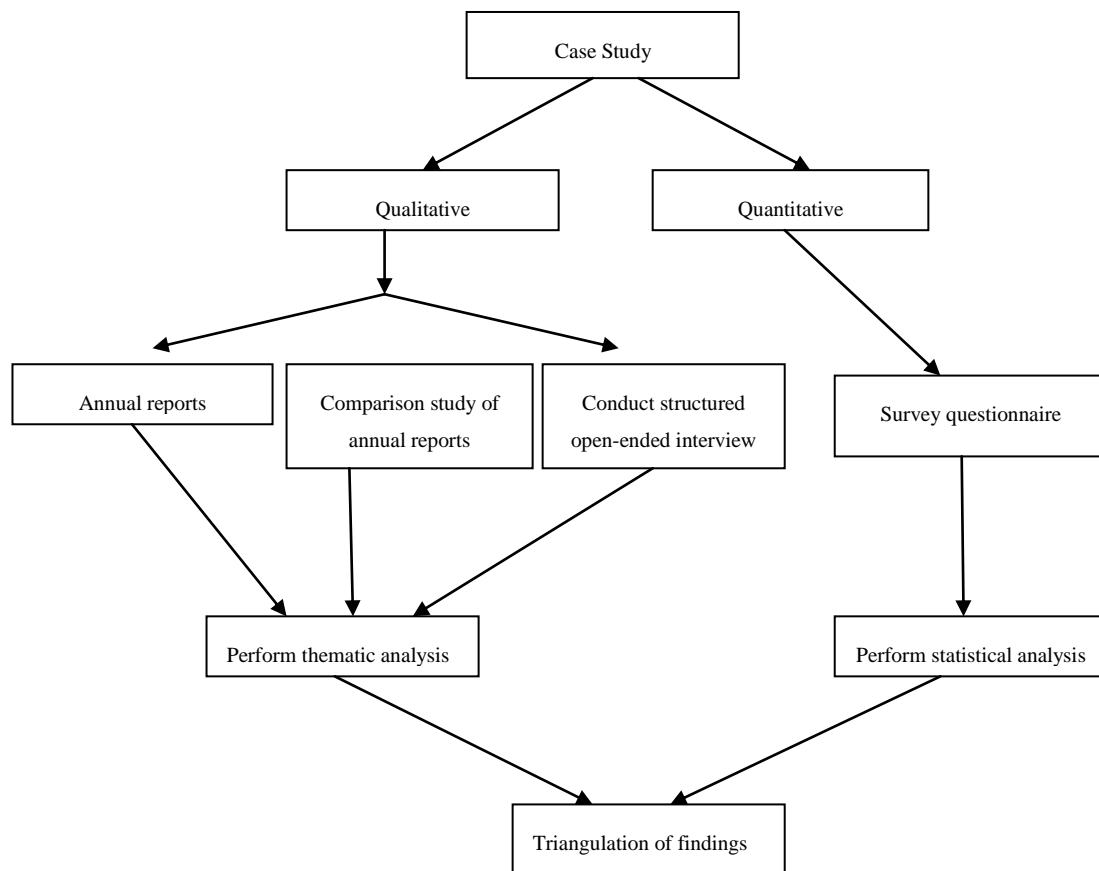
Since there was limited time for this thesis and progress was so slow, the researcher moved on to conduct further research aimed to enrich the case study outcomes. First, a comparison of the environmental reporting performance of Westpac and HSBC in their stakeholder reports over the two years 2007 and 2008 was conducted. The study focused on the incorporation of environmental issues into lending decisions in three major areas of investigation: management performance operational performance and motivational drivers. Second, a survey

questionnaire was conducted to collect information on people's views about the banks' environmental performance from a lending perspective. Both the banks researched and the people canvassed were located in New Zealand.

With regard to the study of the comparison between Westpac and HSBC, the researcher followed the same strategy applied to recording the evidence from Westpac's annual reports from 2004 to 2006. The researcher had gained the appropriate experience from that research to record the evidence from both banks' reports and, therefore, there was no need to employ academics for that purpose.

Figure 4.1 illustrates the holistic nature of the case study process and the relationship between qualitative/quantitative and positivism/social constructionism in this research. The four sources of data provide information which was structured to answer the research questions. Each source of data was designed to answer the research questions covering the two major themes in the research: the management and operational performance, and the motivations.

Figure 4.1 Holistic approach for case study strategy



Source: Author

4.5.2 Questionnaire

A questionnaire was developed to find evidence complementary to that provided from document analysis and an individual interview. The survey questionnaire was applied to obtain the views of both the public and more-informed people within the wider public.

Prior to the survey work (June 2009), the researcher started designing the questionnaire, utilizing the pilot study concept. This process is an integral part of instrument construction (De Vaus, 2002). It tests whether or not a questionnaire will be understood by the respondents. Specifically, the pilot study was conducted to establish how to phrase each question, to evaluate how respondents interpreted

the questions' meanings, and to check whether the range of response options was sufficient.

The pilot study processes were as follows:

- the first stage included an extensive review of the draft questionnaire by the two supervisors and the researcher;
- the second stage included employing five PhD students. This stage proved to be very helpful in the sense of rewording and restructuring the text to increase comprehension of the questionnaire;
- the third stage included employing eight people from the public in order to obtain feedback after the PhD students' evaluation. This stage revealed that there was a need to change some words to make the questions more easily understood by the public; and
- finally, a further pre-test was conducted by Versus Research Limited (Versus). A Versus consultant revised and shortened the questionnaire, and ensured that it was clear to the respondents.

After the pilot study was performed, two paths were followed to conduct the surveys of the public and the sub-population of informed people.

Questionnaire design

The design of the survey questionnaire was inspired by the existing literature concerning environmental issues related to banks' lending decisions (Lundgren and Catasus, 2000; Fenchel et al. 2003; Scholtens, 2006; Fenchel et al. 2005; Thompson, 1998; Jeucken, 2001; Thompson and Cowton, 2004). Each question represents an indicator which aims to measure bank's performance within two major categories, management/ operation performance and motivations. Management approaches and motivations are both a part of the lending decision process and they should be considered together. The unique characteristic of the New Zealand situation was incorporated in the design.

The purpose was to design a simple, easy-to-answer questionnaire, but also to gather all the necessary information related to the integration of environmental

issues into banks' lending decisions. Overall, the questionnaire consisted of 22 questions. The structure and wording of the questionnaire were designed carefully to make it easy to understand. The pre-test stages (discussed in the last section) helped to make the questions' form and wording suitable to the respondents' experiences.

The questionnaire was designed to collect respondents' views regarding:

- whether banks' management should effectively consider environmental issues when making lending decisions;
- whether banks' management should take specific actions to effectively consider environmental issues related to lending decisions;
- what motivates banks to consider these issues; and
- the extent to which banks are effective in addressing environmental issues when making lending decisions. The questionnaire was also designed to gather socio-demographic information about the respondents. This helps to identify the relationships between these demographic characteristics and people's views.

The public survey: the purpose of the public survey was to explore respondents' attitudes regarding banks' incorporating environmental issues into their lending decisions. The researcher recognized that public perceptions are needed to confirm/ not confirm the results from other data sources such as documents and interviews. The questionnaire, so constructed, was provided to Versus, which was responsible for setting up the questionnaire in an online format, organizing the collection of samples and hosting the survey online.

Method: surveying for this project was completed online. With this survey, potential respondents are selected from an online panel managed by an independent online sample supplier; in this instance, Great Kiwi Surveys (GKS). Each potential respondent was then emailed a link to a survey webpage, which allows them to enter their answers directly. An online methodology was selected for this project for the following reasons:

- the questionnaire for this project contained a number of technical terms which were better delivered via a visual (rather than aural) format;
- with online surveying there is greater scope for respondents to complete the survey at their own convenience (any time within approximately a week);
- demographic information about the sample is known prior to sending out invitations to complete the survey. Given this, the invitations can be sent to target cases that fit the sample frame, and the need for screening conditions at the start of the survey is reduced;
- an online approach generally has a higher response rate than a postal methodology;
- an online method allows greater reach to a large number of people quickly; and,
- an online approach is generally considerably cheaper than telephone and postal methodologies of the same sample size (n=801).

Sample: the population of interest for this study was those living in New Zealand, aged 20 and over. The sample for this project was designed to be representative of this population. The respondents were randomly selected. Weights were applied to the sample (post surveying) for this project to ensure that the final sample was representative of the New Zealand population. The following demographic variables⁶⁹ were used to stratify the sample: area of residence; gender; age; ethnicity; occupation; and highest educational qualification.

The sample (email addresses) for this project was provided by GKS, an online panel sample provider. Profiling information (provided by people who join the GKS panel) was used to identify and (randomly) extract relevant cases. These cases were then provided to Versus Research and invitations to complete the survey were emailed to each case provided. The response rate was 13.7%.

⁶⁹ Census data (2006) from Statistics New Zealand (for these demographic variables) was used to design the sample frame.

Margin of error: margin of error is a statistic used to express the amount of random sampling error there is in a survey's results (John et al., 2006). The sample size for this project is $n=801$, giving a maximum margin of error of ± 3.46 percent at the 95 percent confidence interval. That is, if the observed result on the total sample of 801 respondents was 50 percent (point of maximum margin of error), then there is a 95 percent probability that the true answer falls between 46.54 percent and 53.46 percent.

The online survey of $n=801$ people (general New Zealand population) was completed between the 14th and 17th of December, 2009. The average time to complete the survey was 6 minutes.

The informed people survey

Purpose: this survey also aimed to collect information on respondents' views about environmental issues related to banks' lending decisions. It sought the respondents' views, but not their organizations' views, about these issues. This component of the study targeted people who are likely to be better-informed or more knowledgeable on environmental/sustainability issues compared to the general population.

The sampling technique: Waikato region organizations were selected to be the sample for this survey. Informed people were contacted as a result of their association with: Environment Centre Hamilton; organizations that are members of the Sustainability Business Network (SBN) - Waikato Region; University of Waikato; and local and regional governmental organizations: Hamilton City Council and Environment Waikato. The sampling technique was further defined for each selected organization, so that the sample of respondents can reasonably be regarded as representing the views of a defined group of people.

The target was to obtain about 100 completed responses, 25 from each of the above groups. Ninety three responses were received. The response rate was 18.8%.

Method: to reach the potential respondents, names and the contact information (e.g., email address, telephone number, postal address) were needed. Therefore, key contact co-ordinators were approached, as well as the organizations' websites. The potential respondents were provided with a cover sheet, a letter confirming ethical approval for the survey and an information sheet, by means of mail or personal delivery by the researcher.

4.5.3 Limitations of using case study research

Using a case study approach is not without its limitations. According to Yin (2003) many research investigators disdain the case study as an inappropriate research strategy. First, concern has been expressed over the lack of rigour of case study research. This can occur if the case study research has not followed systematic procedures, or has allowed equivocal evidence or biased views to influence the direction of findings and conclusions. However, in conducting this survey, the researcher was aware of such issues and took every precaution to avoid bias in the research findings. A second common concern about case studies is that they provide little basic information for scientific generalization. However, the main goal of a case study is to expand and generalize theories (Yin, 2003). A third, frequent, complaint about case studies is that they take too long and result in massive, unreadable documents. However, in this particular case study, the researcher limited the investigation to Westpac's annual reports and an interview, which resulted in a reasonable amount of readable findings.

Hussey and Hussey (1996) also recognize some weaknesses in the case study approach. Access to suitable organizations is often difficult to negotiate and the process of the research can be very time-consuming. It is also difficult to decide on the limitations of study. Although the case study will focus on a particular organization, the organization does not exist in a vacuum, but interacts with the rest of society. Whatever unit of analysis is chosen, the organization will still have a history and a future that will influence a researcher's understanding of the present.

From the above perspectives there is a possibility that different views of social reality can affect data interpretation. Moreover, the influence of the researcher's

own experience can result in research bias. To reduce data interpretation and bias problems, the use of multiple sources of evidence and a theoretical framework were used in the study. The framework can be adjusted to allow the inclusion of new facts and ideas and to provide guidance for data collection and analysis. Furthermore, the use of multiple sources of evidence should increase the opportunity for checking interpretations and identifying patterns.

Data for this case study came from the triangulation of two main sources of evidence, a qualitative method (documents review and comparison, and interview) and a quantitative survey. These two sources of evidence are highly complementary and the incorporation of both increases the case study's quality substantially. According to Yin (2003) the use of multiple sources of evidence in a case study allows an investigator to address a broader range of historical, attitudinal and behavioural issues. However, in his view the most important advantage offered by using multiple sources of evidence is the development of converging lines of inquiry. The notion that using triangulation or mixed method research in a case study is more convincing than relying on any one approach is also supported by Crompton and Jones (1988, p. 72) who declare 'in organizational research it is not a mutually exclusive decision between quantitative and qualitative methodology. In reality, it is very difficult to study organizations without using both sorts of methods. In any event, quantitative data always rests on qualitative distinctions.'

A combination of qualitative and quantitative research fits with this study as the incorporation of environmental issues into banks' lending decisions is a newly developed academic subject. This analysis is, in fact, especially appropriate in New Zealand, where research in this area is still lagging. In addition, any findings or conclusions in this case study as a result of using triangulation are likely to be much more convincing and accurate, since it is based on several different sources of information.

4.6 Document analysis and interview

The qualitative approach in this study utilizes two sources of data, documents (annual reports) and interview transcripts.

Document reviews

Document reviews and interviews are important sources of case study information (Yin, 2003). As Merriam (1988 and 1998) states documents refer to written materials in case study research. Sarantakos (1993) states that documents have always been used as a source of information in social research, either as the only method or in conjunction with other methods. They are employed in the context of many diverse studies, such as qualitative studies and case study research (Bryman, 2001). Selltiz et al. (1959) advocate the use of historical documents, written materials and journalistic accounts or analysis of the records of corporations as a source for data. Document review forms a source of evidence in this research and provides a valuable insight into the company's present and past strategies, as well as being free of hearsay and bias (Hussey and Hussey, 1997). This could also explain why this research relies to a large extent on written documentation; as Kassinis and Panayiotou (2006) acknowledge, data on the perceptions of top executives is sometimes hard to find.

Determining the authenticity and accuracy of documents is an important part of the process to select the documents to be used in the research (Guba and Lincoln, 1981). The researcher opted for these kinds of collecting methods (Sarantakos, 1993), because they brought certain advantages to the process, namely:

- Retrospectivity: documentary methods enable researchers to study past events and issues;
- quick and easy accessibility: this applies, at least, to many documents - the introduction of electronic media and the availability of data banks have made this method an invaluable tool for many researchers;
- spontaneity: in most cases, documents are produced without having been requested by researchers;
- sole source: often documents are the only source of information;

- high quality of information; and
- possibility of re-testing.

Annual reports

In this research, annual reports are considered major evidence of the bank's documents as a source of collecting data related to environmental disclosure. An essential stage in any thematic analysis is deciding which documents are to be analyzed (Krippendorff, 1980). Most corporate reporting thematic analysis studies analyze annual reports, which are considered to be the primary mechanism for the disclosure of accountability to stakeholders (Unerman, 2000). Moreover, annual reports are regarded as important documents in corporations because of the high degree of credibility they lend to information reported within them, their use by a number of stakeholders as a source of economic, social and environmental information, their recognition as a medium through which companies can report their responsible behaviour, and their widespread distribution (Unerman, 2000). Staden and Villiers (2006) conclude that the annual report is the most important disclosure in terms of the organization's communicating a view of its operations to the public. They claim that it is widely available, being automatically sent to all shareholders and, on request, to other interested parties and, lately, is also freely available on companies' websites. In addition, the annual reports are considered as a vehicle of transparency regarding external stakeholders. The parties who provide capital often do not know where their investments are destined (Lendgren and Catusus, 2000).

Interviews

Interviews are also considered as a data collection instrument because they yield rich insights into people experience, opinions, and attitudes (May, 1997; Lindolf, 1995) and may overcome the problem that the documents could have been written for purposes other than those for which the researcher is using them, or that they may be worded for a public audience (Hussey and Hussey, 1997). Generally, there are four types of interviews: (i) the structured interview; (ii) the semi-structured interview; (iii) the unstructured or focused interview; and (iv) the group interview

(May, 1997). In accordance with the requirements of this research, the researcher used the semi-structured interview associated with structured open-ended questions. Bryman (2001) indicates that such a method is, first, flexible and puts emphasis on how the interviewees frame and understand issues and events – that is, on what the interviewee views as important in explaining and understanding events, patterns, and forms of behaviour. Second, this method allows room to pursue topics of particular interest so that more specific issues can be addressed. In addition, this technique helps to reduce interviewer effects and bias when different collecting data methods are used. Most important in this research, and a central objective in this study, is that the neutrality of the researcher's role is to be maintained (Dunne, 1995).

The researcher opted to use face-to-face interviews because they offered the possibility of modifying the line of inquiry, following up interesting responses, and investigating underlying motives in a way that other data collection techniques cannot (Robson, 1993). This, in turn, helps in understanding the responses, which is of vital importance to the technique of thematic analysis used by the researcher.

Also, the researcher opted to use the interview technique advocated by Easterby-Smith et al. (1991), utilizing semi-structured interviews as an appropriate method when:

- it is necessary to understand an interviewee's opinion about a particular matter or situation;
- the step-by-step logic of a situation is not clear; and
- the subject matter is commercially sensitive and relatively confidential.

4.6.1 Reliability and validity of qualitative research

Qualitative research involves sustained interaction with the organization being studied.

As with other research, in this study the qualitative research was evaluated in terms of reliability and the validity of the document review and interviews (Kirk and Miller, 1986).

To ensure reliability and validity of the study, the four common tests as proposed by Yin (1994) were completed. The first test was construction validity, which required research to establish the correct operational measures for the concepts being studied. According to Yin (2003) in a case study there are three tactics available to increase construction validity. The first is the use of multiple sources of evidence, in a manner encouraging convergent lines of inquiry. This is achieved in the data collection stage by using different annual reports: stakeholder and financial annual reports. In this study the line of inquiry was represented by three annual reports: the stakeholder report, the financial report and the concise annual report. At the same time other organizational information, from the bank's website and documents was also gathered and reviewed. In addition, evidence externally available to the organization was also sought. This included government reports, other academic studies and media reports.

A second tactic is to establish a chain of evidence. This tactic is related to the first, where each piece of evidence is investigated to see if all information converges to the same evidence. The third tactic is to have the evidence documented by key informants. In this research, as a validating procedure, the researcher asked academic peers to record the evidence gathered from the annual reports from 2004 to 2006. A review of the evidence by the participants ensures the actual facts of the case have been presented, even though the informants may still disagree with an investigator's conclusion and interpretation. If informant disagreement arises during the review process, an investigator knows the case study report is not yet finished, and such disagreements should be settled through correction of the draft.

The second test was internal validity, which is achieved through pattern matching and explanation building. Pattern matching was achieved in the Westpac study by matching the evidence statements which existed in different reports and, in turn, matching these with data collected from interviews. In other words, multiple sources of data collection (i.e. face-to-face interviews and documents review)

were used to confirm the emerging findings. The explanation building identified gaps in current information that could be gleaned from other sources of information, such as, documents, interviews and survey questionnaire. In addition, internal validity was improved when the case included a time series analysis of additional annual reports.

The third test is external validity. External validity of this case study would require replication of this case logic in other case studies. Within the qualitative research paradigm, external validity is replaced by the concept of transferability, that is the ability of research results to be transferred to situations with similar parameters, populations and characteristics. For this study only one bank was included in the research. Therefore, this case study, from a qualitative point of view, cannot deal with the issue of external validity. Thus, these qualitative research findings would have limited specific generalization ability. However, unlike the survey questionnaire utilized in this research, which relies on statistical generalization, case studies confined to a qualitative approach rely on analytical generalization. In analytical generalization, the investigator is striving to generalize a particular set of results to some broader theory (Yin, 1994). In relation to this, the knowledge gained from this case study will significantly assist the researcher in understanding banks' consideration of environmental issues related to lending decisions.

Finally, reliability is necessary, to ensure that any future researcher can replicate this study. This is achieved by establishing a semi-structured standard set of questions, the transcribing of the interview by two interviewers and the recording of evidence from annual reports by two academic peers. In this study, only the researcher was the instrument in the study of annual stakeholder reports 2007 and 2008; the reliability and validity of the study were, therefore, largely reliant on the skill and experience of the researcher (Patton, 2002).

4.6.2 Data preparation for analysis

Miles and Huberman (1994) have described qualitative data analysis as an iterative and interactive process, that is, open and flexible. The interactive model of data analysis has three sub-processes: data reduction; data display; and

conclusion-drawing and verification. In the data reduction, data is selected and condensed. This involves simplifying, abstracting and transforming the data collected. Miles and Huberman emphasise that it is a form of analysis that sharpens, sorts, focuses, discards and organises data in such a way that final conclusions can be drawn and verified. Data display involves the organization and compression of data into a framework that enables conclusions to be drawn or action to be taken. The displaying of data is the method chosen to present the data. There are various display techniques to choose from including: network diagrams (Knoke & Kuklinski, 1982); rich-pictures (Checkland & Scoles, 1990); and maps and matrices (Dey, 1993).

The process could also be presented as a series of steps, as described in the following:

a) Transcribe interview data: data collected from the interviewee was transcribed into a word processor. All transcribed interview data was then sent back to the interviewee (in this study, the respective Regional Manager of Westpac) for approval. The final approved transcript was then sent back and prepared for the subsequent process.

b) Thematic Analysis: Owen's (1984) thematic analysis was used in this study for both the interview and annual reports. In his research on relational communication, he applied thematic analysis to understand relational communication and participants' usage of discourse to interpret their relationships. Zorn and Ruccio (1998) also adopted thematic analysis to study the use of communication to motivate college sales teams. According to them, thematic analysis allows "the researcher to identify themes within individual responses, thus preserving individual perspectives, in addition to finding themes common to all or most interviewees" (p. 478). Similarly, the goal of the thematic analysis in this enquiry was to extract themes from individual company annual reports and interviews, and to draw connections with relevant theories to promote greater understanding of incorporating environmental issues into banks' lending decisions.

According to Jones and Shoemaker (1994), thematic analysis is a type of content analysis that “draws inferences from data by systematically identifying characteristics within the data” (p. 142). This method of analysis enables the researcher to answer the questions of how, what and why (Babbie, 1998). Thematic analysis offers a tool to understand the motivation and impediment of corporate social reporting practices. It is used to extract and analyze themes that emerge from the documents and interviews to understand environmental practices (Jones and Shoemaker, 1994).

Another advantage of using thematic analysis is that it allows the researcher “to actively enter the worlds of native people and to render those worlds understandable from the standpoint of a theory that is grounded in the behaviours, languages, definitions, attitudes, and feelings of those studied” (Denzin, 1971, in Owen, 1984, p. 50). In other words, thematic analysis allowed the researcher to understand environmental practices from the New Zealand context, as the interpretation of the data is dependent on the context in which the data was extricated, and forms the themes of the evidence in annual reports and transcribed interview data. Relevant themes were then grouped and analyzed, as described in Chapter Five later in the thesis. The themes or indicators were first grouped into eight sub-categories: top management (BOD, CEO) and senior management; training; auditing; integration of environmental issues; financing environmentally-pioneering projects; managerial drivers; financial drivers; and environmental drivers. Sub-categories were then grouped into two major categories: management performance and motivational drivers.

In the qualitative study, a typology of a proposed environmental model or framework was developed from the two major categories. The purpose of typology construction in qualitative research is not only to clarify and summarize large volumes of data, but also to validate the data under the quantitative typology.

The data collected from the interview and the first reading of Westpac’s stakeholder reports, in addition to HSBC stakeholder reports, revealed that for various reasons, software coding would not be suitable for this research. First, the environmental information disclosed in the bank’s annual reports was inconsistent,

insufficient and not in the same format in all the banks' reports. Second, this research, which utilizes the qualitative research methodology, relies heavily on the content and quality of the annual reports, and places less importance on the volume and/ or number of words, which studies such as (Unerman, 2000; Sarantakos, 1993; Gray, et al. 1995) refer to. Third, the interview transcript represented only five pages. Therefore, the option was to implement a manual coding that was sufficient to overcome the issues raised and address the research questions. Accordingly, the thematic analysis approach was utilized to identify patterns of environmental information coverage.

c) Interpretation and conclusions

In this research data interpretations were based on thematic analysis and conclusions were drawn from the research findings.

4.7 Surveys and analysis

Quantitative research methodologies make use of questionnaires and statistical analyses, in order to establish underlying patterns and commonalities between surveyed groups and to improve understanding of variable relationships (Robson, 2002). The quantitative data for this research was formulated by utilizing a structured closed-ended questionnaire. The aim of quantitative research is best understood as to obtain a common knowledge of a group, to minimize subjectivity and to arrive at conclusions that are valid and reliable.

Based on the literature review on the consideration of environmental issues when making lending decisions, as well as the background information of Westpac, provided in previous chapters, seven testable hypotheses were developed for the study:

- 1) the public and informed people in New Zealand respondents believe that the managements of banks in New Zealand should effectively consider environmental issues when making lending decisions;

- 2) the public and informed people in New Zealand respondents believe that banks in New Zealand should take specific actions to effectively consider environmental issues when making lending decisions;
- 3) the public and informed people in New Zealand respondents believe that banks in New Zealand are mainly motivated by financial reasons when making lending decisions;
- 4) the public and informed people in New Zealand respondents believe that the government and the public in New Zealand do not facilitate effective environmental management by banks in New Zealand;
- 5) the public and informed people in New Zealand respondents believe that banks in New Zealand are not effectively addressing environmental issues when making lending decisions;
- 6) the public respondents in New Zealand will have different attitudes according to their socio-demographic characteristic, e.g., different age means different views; and
- 7) informed respondents will have a similar perspective despite their different socio-demographic characteristics.

These hypotheses were then tested with the two samples - the public and a sub-population of informed people. It was anticipated that the sub-population may have different views from the broader population because of their different knowledge base.

Statistical tests were used to test the hypotheses. The t-test, F-test and Bartlett test aim to establish the probability of a specific event occurring from a set of possible events, expressed as a proportion. The t-test indicates whether the perceived differences are significantly different for two groups; the F-test indicates if the differences are significant between more than two groups; and the Bartlett test identifies the area of differences within each socio-demographic characteristic within each set of respondents. If the probability distribution value of a test is less than the significant level at 0.05, this would be used as evidence against the hypothesis. On the contrary, if the value is larger than the significant level of 0.05,

the hypothesis fails to be rejected, on the basis that insufficient evidence has been recorded to justify the claim of significance (Hinton, 1995).

The latest version of software, STATA, was used to conduct all data analysis and facilitate hypothesis testing. Various statistical tests were performed on the data. Statistical techniques involved in this study were: data descriptive - mean, median, variance and standard deviation; a test of normality - skewness and kurtosis; reliability testing; principal component analysis.

4.7.1 Questionnaire design and development

The survey questionnaire contained 22 questions in all (see Appendix D), four of which the participant had to answer on a Likert Scale running from one to five, with the addition of a sixth column which provided the option 'do not know'. The data was analyzed where 1 was the highest score and 5 the lowest score. Two questions provided an opportunity for respondents to elaborate on further comments. The rest were socio-demographic questions.

The main four questions contained 39 indicators. The indicators were structured in five categories. Category A contained eight indicators which expressed respondents' views regarding banks' management performance. Category B consisted of five indicators which expressed respondents' views on banks' operational performance. The indicators in these two categories were based on the EPI-Finance 2000 report and the Financial Services Sector Supplement 2005 document.

Category C included 13 indicators which reflected respondents' views on what motivates banks to incorporate environmental issues into lending decisions. Category D contained five indicators which indicated respondents' views on their satisfaction related to certain stakeholders' performance, e.g., government and public roles, borrowers' compliance. Items in categories C and D were adapted from those used in the studies examined in the extensive literature on incorporation of environmental aspects into banks' lending decisions (Thompson, 1998; Coulson and Monks, 1999; Lundgren and Catusus, 2000; Cowton and Thompson, 2000 and 2004; Jeucken, 2001; Fenchel et al., 2003).

Category E reflected people's views on the effectiveness of eight banks in New Zealand in addressing environmental issues when making lending decisions. This category was based on studies within the New Zealand context (Hackston and Milne, 1996; Jayne, 2002; Gray and Milne, 2002; Roper, 2004; Barnett and Pauling, 2005; Evans, 2005; Myers, 2005; Neilson, 2005 and 2006).

Data cleaning: once all the information was gathered from questionnaires, data were transferred into the STATA program. Data cleaning was first conducted to check for errors made while keying in the data.

Coding and data analysis: The surveyed data of 801 respondents from the public and 93 from informed people was collected over two months, from December 2009 to January 2010. After the field work, the questionnaires were numbered and manually coded in STATA for Windows. The data was then checked and corrected for coding and computer data entry errors. The questionnaires were carefully examined and analyzed to understand the data and to observe a potential relationship and differences among and between the two groups surveyed in the study. This process involves the electronic analysis employed by the computer, which depends on the instructions given to the computer, such as, grouping, relating and testing. The characteristic of this approach is that instruments, including the answers to each of the 39 questions (indicators), are studied separately, so that the researcher observes the total response for both the public and informed people. Also, in this study, the researcher conducted further statistical analysis related to five categories clustered from the indicators to reach final results that helped in answering the two research questions.

Tests for parametric data: the major choice of statistical methods is dependent on whether the data is parametric or non-parametric. The data must meet two conditions in order to use the parametric analysis of variance: first, each of the groups must be a random sample from a normally-distributed population; secondly, scores are independent because they come from different people (Field, 2005). This study met the two conditions.

Descriptive statistics: once a data set was entered into the STATA software, exploratory data analysis was conducted. Simple data-descriptive analysis, such as, frequency, means, median and standard deviation, skewness and kurtosis (distribution) provided general information to the researcher about the nature of the research data.

4.7.2 Reliability and validity of research questionnaire

Due care was taken in developing all of the measuring instruments used in the study. Reliability is a measure of the internal consistency of a set of scale items. Internal consistency, including Cronbach's Alpha, is often used with instruments that use Likert rating scales (Field, 2005). In this study each category was subject to a reliability analysis test. Cronbach's Alpha was used to measure the reliability of each construct or subscale in the instrument. Cronbach's Alpha can take values between 0 to 1; the closer to 1, the more reliable the scale. A Cronbach's Alpha level of 0.7 and above, as proposed by Field (2005), was used in this study to confirm a construct's reliability (Table 4.2).

Table 4.2 Reliability of the research survey questionnaire

Category	Management performance	Operational performance	Motivational drivers	Government and public performance	Banks' effectiveness
Cronbach's Alpha level	0.87	0.81	0.76	0.62	0.94

Source: Author

Additionally, the influence of each of the items individually was investigated. For this purpose, a Corrected Item-Total Correlation analysis provided suggestions for the removal of an item or some items from the subscales. Such a practice would increase the value of Alpha (reliability of the questionnaire). However, to do this would also depend on the intuition of the researcher. The government and public performance level was slightly low (0.62), due to the fact that the mean of each indicator in this category ranged from 2.3 to 4.0.

On the other hand, validity means the ability to produce findings that are in agreement with theoretical or conceptual values - in other words, to produce accurate results and to measure what is supposed to be measured (Sarantakos, 1993). There are several different types of validity to consider: face validity - a questionnaire has face validity if it seems to measure what it is expected to measure (the standards of judgment are not based on empirical evidence, but on general theoretical standards and principles); content validity - a questionnaire is supposed to have content validity if it covers all possible aspects of the research topic; and construct validity - a questionnaire can claim construct validity if its theoretical construct is valid (i.e., ability of a measure to confirm a network or related hypotheses generated from a theory based on constructs) (Sarantakos, 1993). These different types of validity fit with this study, as the questionnaire was assessed by a number of means, including congruence with academic literature, expert opinion, university academics and pilot studies.

4.7.3 Hypothesis testing

Seven hypotheses were tested by the use of the parametric t-test, F-test and Bartlett test. All analyses were conducted by means of STATA. For each test, a level of 0.05 was set for significance.

4.8 Comparison and integration of quantitative and qualitative data

Data comparison involves comparing data from the quantitative and qualitative data sources to see whether there are any similarities and differences between the results.

This is followed by data integration, whereby both quantitative and qualitative data are integrated into a coherent whole.

4.9 Conclusion

This chapter outlined the research problem, questions, objectives, and research methodology. It also explained why a triangulation or a mixed-methods research approach was deemed appropriate for the study. It provided the rationale for a

case study of Westpac's incorporation of environmental issues into lending decisions, and it detailed the qualitative and the quantitative approaches used.

In relation to qualitative research this chapter outlined the sources of documents and interview transcript utilized in this study. The reliability and validity of the qualitative research was addressed. Data preparation for analysis, interpretation and conclusions was also described.

In terms of the quantitative research, this chapter presented the research hypotheses and the analytical approach. It considered the key issues pertaining to questionnaire design and development, data analysis, tests of parametric data, reliability and validity of the research questionnaire, and hypotheses testing.

Once all analysis is complete, results need to be compared and integrated into a coherent whole to answer the research questions. Chapters Five and Six present the findings of the qualitative and quantitative analysis respectively.

CHAPTER 5 - DOCUMENT AND INTERVIEW ANALYSIS

5.1 Introduction

This chapter uses qualitative analysis to explore data collected from three sources: Westpac's annual financial and stakeholder reports from 2004 to 2006; a study involving the comparison of Westpac's and HSBC's stakeholder reports for 2007 and 2008, and an interview with a Westpac regional manager. It seeks answers to the two research questions to determine how Westpac addresses environmental issues when making lending decisions, what actions the bank takes to address these issues, and, finally, why the bank considers such issues in the lending decisions. First, evidence of Westpac's actions recorded in the annual reports is examined, then evidence of both Westpac's and HSBC's actions, to compare environmental performance. Finally, analysis of the transcription of the interview is undertaken.

Each part of this analysis is structured using major categories, sub-categories and indicators.

5.2 Analysis of Westpac's annual reports from 2004 to 2006

This section outlines the interpretation of evidence and the findings for each category, sub-category and indicator to seek the answers to the two research questions.

Section 5.3 outlines the evaluation and interpretation of the evidence which was recorded by the researcher and his academic peers.

5.3 Interpretation of management performance category

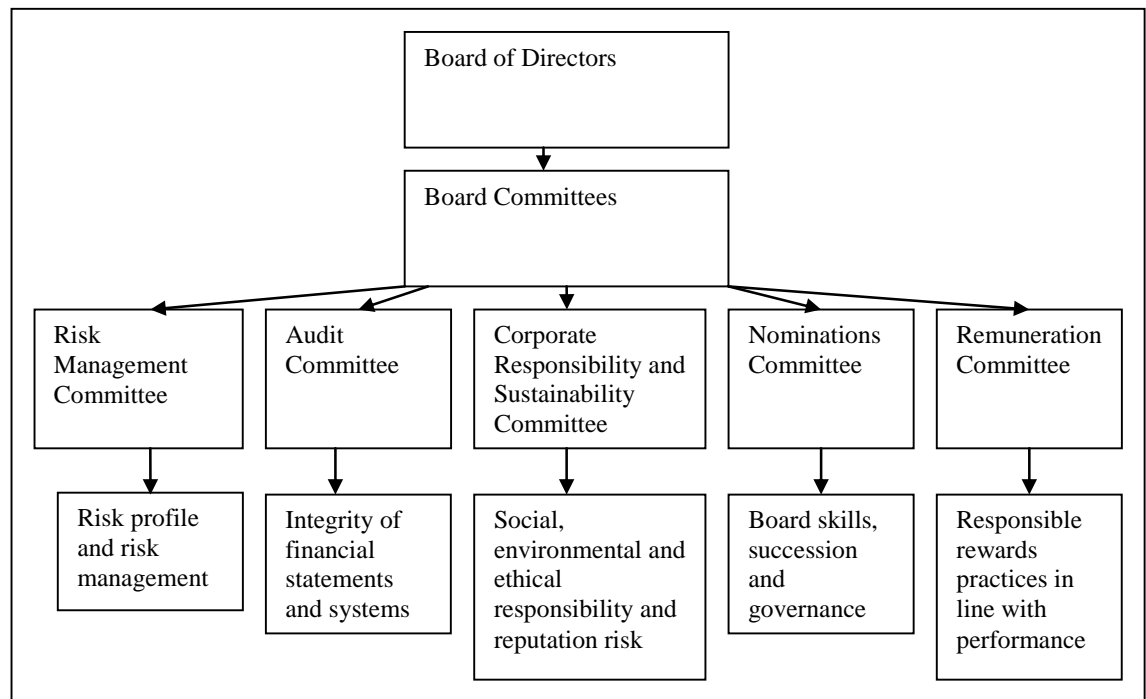
This section interprets evidence from annual reports pertaining to the BOD, the CEO, senior management, training, auditing, integration of environmental issues and environmental pioneering projects. Each of these sub-categories of interest is

examined using indicators identified in Chapter 3. Table 5.1 presents interpretation of evidence from annual reports relevant to the BOD.

Table 5.1 Management performance - BOD

BOD	Evidence	Interpretation
1.Lending activities have impact on the environment	Considering the environmental impact of both Westpac's direct and indirect activities. Promoting environmental policies. Having and delegating environmental roles and responsibilities.	Environmental roles and responsibilities are not available in New Zealand stakeholder reports. The external auditor, Banarra, raised issues regarding materiality, completeness and responsiveness
2.Having environmental policy	Not having environmental policy specific to Westpac	Westpac committed to Westpac Group's environmental policy. However, it was reported that the bank is only partially compliant with the Group policy without justifying the reasons.
3. Environmental policy is within BOD's top goals	Setting environmental standards and monitoring the bank's compliance with Westpac group's environmental policy and practice	Considering environmental responsibility as important as other strategic financial responsibilities
4. Promoting environmental policy	Establishing environmental policy at senior management level	Delegating to management day-to-day operations in accordance with standards for environmental practices. However, the annual reports showed inconsistent governance structures that reflect insufficient information about different levels of environmental responsibilities
5.Communicating with stakeholders	Unclear evidence	Inconsistency in ensuring that environmental policy is always available for stakeholders
6.Separate environmental policy	Not available	Only the group environmental policy was available in New Zealand Stakeholder Report 2005
7. Environmental performance is monitored	Having in place the task of monitoring compliance with environmental policy and practices	Delegation of environmental responsibilities to monitor and review the environmental impact of Westpac operations
8. Ensuring environmental policy establishes an interface among all levels of the bank	Corporate responsibility and sustainability governance structure was in place (Figure 5.1)	Unclear environmental responsibilities associated with each level and inconsistency of a structure in the stakeholder reports
9. Environmental policy is reviewed	Reviewing the environmental impacts of the bank's activities	The stakeholder reports did not reflect the BOD's environmental roles and responsibilities
10. BOD includes members with environmental knowledge and experience	Four directors are members of the Corporate Responsibility and Sustainability Committee (CRSC)	The stakeholder reports did not reflect the BOD's environmental experience and knowledge

Figure 5.1 The governance structure for the board committees and their responsibilities



Source: Adapted from Westpac's Annual Report 2006, p. 44

Findings for the BOD's section

The data in Westpac's stakeholder reports showed a poor communication system between the BOD and the bank's stakeholders. This can be verified by the absence of information in the reports regarding both an appropriate governance structure and the BOD's environmental roles and responsibilities in the reports. In contrast, the annual financial reports show an appropriate communication channel between the BOD and Westpac's stakeholders. This aspect can be evidenced through the documented environmental roles and responsibilities in each financial report.

However, a central issue in this study is to measure the BOD's environmental performance. The financial reports reflected that the BOD places environmental policy within its high priority goals, and has a clear understanding that the bank's activities affect, and are affected by, the natural environment. Therefore, one of the BOD's major responsibilities is to consider the social, ethical and

environmental impact of the bank's activities and set standards and monitor compliance with policies. In addition, the CRSC, which is one of the five major committees in the bank's governance structure, is delegated by the BOD to consider the direct and indirect environmental impact of the bank's operations. Furthermore, the BOD delegates to management the bank's day-to-day operations in accordance with their environmental standards.

In theory, Westpac did not have an environmental policy in place, has adopted the EPs to provide loans to those projects that demonstrate sound environmental management practices, and has applied the GRI G3 framework to report on economic, environmental and social performance. Furthermore, all the Directors have environmental experience, and four of them are members of the CRSC.

In practice, the Group Environmental Policy is available only in the New Zealand Stakeholder Report 2005. This limited practice is contrary to the GRI G3 framework, which requires the information to be disclosed consistently to enable stakeholders to analyze changes in the bank's performance. In addition, this practice does not conform to the completeness and comparability approaches, which enable the stakeholders to assess the reporting bank's performance over the reporting periods.

Accordingly, the BOD is responsible for monitoring the bank's environmental policy and practices (A6, 50)⁷⁰ and receives regular detailed financial and operational reports from senior management (A5, 54). In addition, the CRSC is responsible for reviewing the stakeholder impact reports (A6, 57). Therefore, a challenge for the BOD and CRSC is to reconsider the availability of the environmental policy; to institute an appropriate environmental governance structure associated with the relevant responsibilities to the bank's stakeholders; and to structure the reporting system to conform to the GRI G3 framework, which the bank adopted.

⁷⁰ The letter indicates the type of annual report, whether it is a financial annual report 'A', a concise annual report 'C' or a New Zealand stakeholder report 'NZ'. The number attached to the letter indicates the annual report year, 4 for 2004, 5 for 2005 and so on; the number after that indicates the annual report page.

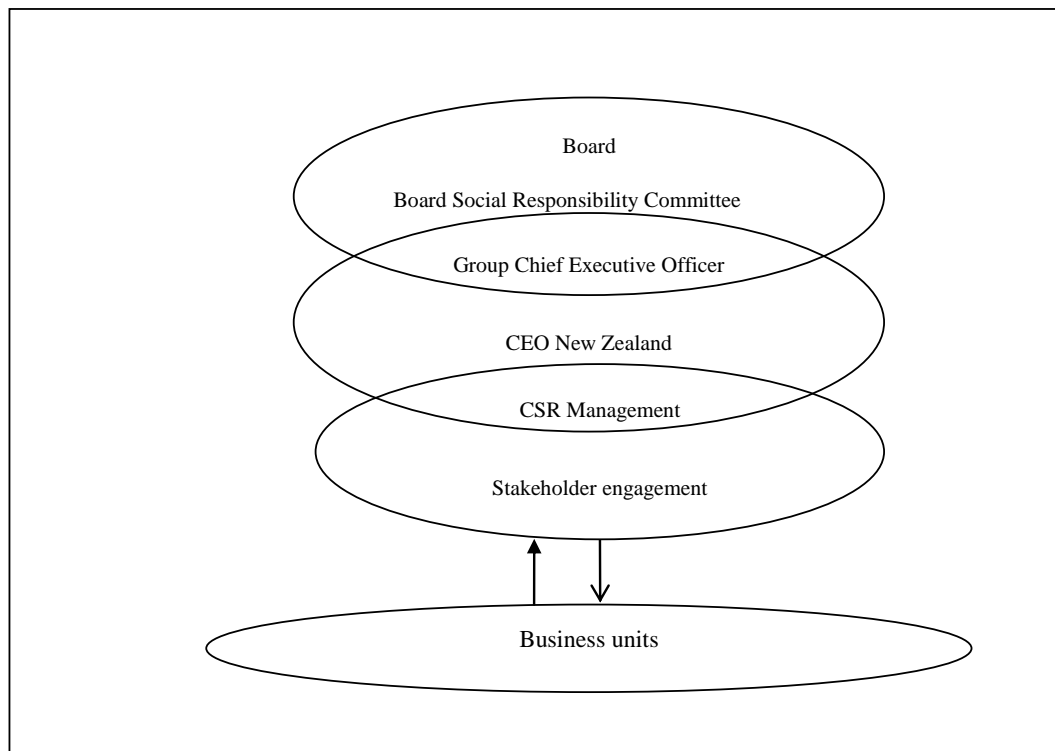
CEO: Table 5.2 presents interpretation of evidence from annual reports relevant to the CEO.

Table 5.2 Management performance – CEO

CEO	Evidence	Interpretation
1.CEO has environmental responsibilities	CEO level occupied a central position in the corporate responsibility governance structure. BOD delegates to the CEO environmental responsibilities. CEO is a member of CRSC.	Lack of information in the stakeholder reports
2. Promoting environmental policy and having procedures in place	No evidence available	Defining inconsistently the corporate responsibility governance structure in the stakeholder reports without identifying any roles in promoting environmental policy
3. Having environmental objectives	No evidence available	In the absence of a New Zealand environmental policy, there are no environmental objectives other than the Group environmental policy which is available in New Zealand Stakeholder Report 2005 only
4.Monitoring environmental performance	No evidence available	It is assumed that the NZ CEO monitors the environmental performance according to the Group policy.
5. Communication with stakeholders	Establishing the community Consultative Council, which is chaired by the CEO, to encourage communication with stakeholders	The bank's environmental policy identifies the nature of communication with stakeholders. In the absence of environmental policy, it is unclear how the CEO communicates with stakeholders
6.Raising awareness of environmental risk issues among employees	No evidence available	General communications related to work conditions only

In the stakeholder reports 2004 and 2005, the corporate responsibility governance structure defined the vertical levels of the corporate responsibility relationships (Figure 5.2).

Figure 5.2 Corporate social responsibility/governance structure



Source: NZ Social Impact Report 2004

Findings for CEO section

Despite the importance of the CEO level in the governance structure, both the stakeholder and financial reports did not explicitly document the CEO's environmental responsibilities and roles. However, it was noticed that the BOD delegates to management the bank's day-to-day operations in accordance with environmental standards and practices (C6, 35). Moreover, Westpac's CEO is a member of the CRSC, which has the following responsibilities:

- reviews Westpac's environmental impacts, both direct and indirect;
- oversees initiatives to enhance Westpac's sustainability;
- sets standards for Westpac's corporate responsibility and sustainability policies and practices, and monitors compliance with these policies and practices;
- monitors and oversees Westpac's reputational risks (along with the Risk Management Committee); and

- reviews and approves the independent assurance of Westpac's corporate responsibility systems and non-financial reporting, including the annual stakeholder impact reports.

Accordingly, despite the broad meaning of the term 'management', it can be said that the authorities which are delegated to 'management' and the CRSC are the CEO's environmental responsibilities. However, the GRI G3 framework, which the bank adopted, requires 'clarity' as an approach, where information should be made available in a manner that is understandable and accessible to stakeholders who use the report. In this instance, it is likely that stakeholders may not be able to recognize the CEO's responsibilities unless they put in extra effort and, perhaps, make more inquiries.

The above findings regarding the delegation process, imply that the environmental policy is within the CEO's high priority goals, that is, managing day-to-day operations in accordance with environmental standards, monitoring the bank's performance and reporting regularly on its financial condition, risk management and operational results (A5, 63). However, a challenge for the CEO, externally, is to ensure the availability of an environmental policy in the NZ stakeholder reports, and to review the reports where data needs to conform to the GRI G3 framework regarding the completeness, clarity, comparability and, importantly, the materiality approaches. The latter approach reflects the importance of covering the most significant topics in the report. It was noticed that the stakeholder reports were illustrated significantly with pictures and included large size fonts. It is unlikely that such decoration would substantially influence the assessment and decisions of the stakeholders.

Internally, it is a challenge for the CEO to effectively reflect, in communications with employees and senior management, the training and auditing processes regarding the environmental aspects of the business. The reports showed that the employees were not considered as an important source for gathering environmental information, nor did they state if the employees receive educational and/or training environmental programs relevant to environmental risks and assessment. Also, due to the absence of governance structure associated with

responsibilities, the communication process between the CEO and senior managers and their vertical and horizontal relationships is unclear.

Furthermore, it was not reported how the CEO responded to the Assurance Statement 2006 regarding the materiality, completeness and responsiveness approaches, despite the fact that a responsibility for the CEO is to review the independent assurance statement in the annual stakeholder reports (C6, 42).

Senior Management: Table 5.3 presents interpretation of evidence from annual reports relevant to senior management.

Table 5.3 Management performance – Senior Management

Senior management	Evidence	Interpretation
1. Placing environmental policy within the bank's top goals	Not enough evidence	In the absence of a specific New Zealand environmental policy and with commitment to the group policy it is difficult to claim that environmental policy was a priority within the senior management's top goals
2. Environmental responsibilities and roles	No evidence is available	The corporate social responsibility governance structure did not identify specific environmental roles and responsibilities
3. Promoting environmental policy and having procedures in place	No evidence available in the stakeholder reports	Even with commitment to the Group environmental policy, it is unclear how the senior management promoted environmental policy and whether the procedures for implementing it were in place
4. Monitoring environmental performance	No evidence is available	Unclear whether statement indicated that environmental responsibilities were established, maintained and monitored by sound governance across the business
5. Communication with stakeholders	No evidence is available	In the absence of having clear environmental responsibilities within the governance structure, it is difficult to claim how the senior management communicate with and respond to the stakeholders
6. EMS is in place	No evidence is available	EMS defines the environmental structure, responsibilities, procedures and resources for implementing environmental policy.
7. Raising awareness of environmental risk issues among employees	No evidence is available	The stakeholder reports did not reflect any specific environmental programs which familiarize the employees with environmental issues or raise their environmental knowledge and awareness

Findings for Senior Management

The annual reports did not explicitly identify environmental responsibilities for the bank's senior management. However, the NZ Stakeholder Report 2004

depicted a diagram including the senior management level within the corporate social responsibility governance structure, but without reflecting its environmental responsibilities (NZ4, 19). A similar situation applied for 2005. In 2006, the NZ Stakeholder Report did not refer to either a governance structure or the senior management's environmental responsibilities.

The clear evidence that the bank's senior management has such responsibility is that the BOD delegates authority to 'management' for day-to-day operations in accordance with environmental standards. Furthermore, even though Westpac did not have an environmental policy in 2004, it was unlikely that the bank did not incorporate environmental issues into its lending activities at that time. This was evidenced when the bank reported that it had in place classification codes to assess the environmental risk (NZ4, 73). This also means that even if the bank does not have a specific environmental policy for New Zealand, in practice the bank is more likely to commit to the Group Policy. That was made clear when Westpac declared explicitly, in 2005, its commitment to that policy. However, in 2006 the bank stated clearly that, due to operational challenges, it was only partially compliant with the Group Policy.

However, the corporate responsibility governance structure depicted in 2004 and 2005 literally indicated that Westpac's senior management considered an environmental policy as a priority, and the reality of having environmental assessment procedures supported this view, despite the inconsistency of completeness issues.

In addition, the reports did not present a clear vision and strategy for the bank's senior management regarding communication with its stakeholders, including the employees. This could be attributed to the poor documentation of senior management's responsibilities. In fact, the lack of documentation does not mean that senior management does not have environmental programs in place to raise awareness among employees and to familiarize them with environmental risks and opportunities, as well as to communicate with the bank's stakeholders - especially when it is acknowledged that the senior management's responsibility is to manage day-to-day operations in accordance with environmental standards. But one might

still ask what the objective is of having a stakeholder report that lacks specific information required by a particular stakeholder.

Training: Table 5.4 presents interpretation of evidence from annual reports relevant to training.

Table 5.4 Management performance – Training

Training	Evidence	Interpretation
1. Environmental training programs	No evidence is available	It is not clear to what extent environmental aspects are included in training and educational programs
2. Regular education and training	No evidence is available	Despite reports showing the need for general training, learning and development, and the fact that this aspect fell below the New Zealand norm, Westpac did not state how the bank responds to these issues
3. Improving environmental performance	No evidence is available	Employees were not considered as a source of gathering environmental information, and yet annual reports did indicate that the staff were critical to the success of improving the bank's environmental performance
4. Communication with staff	No evidence is available	The reports did not show how the bank responds to the staff's actual and potential input into its environmental performance

Findings for training

A basic finding in the training section is that the annual reports did not state specifically that Westpac's staff receives training in environmental issues. However, also without indicating a specific environmental education, the annual financial reports stated that the BOD undergoes induction programs and undertakes regular development workshops to familiarize themselves with matters relating to Westpac's business activities.

Regarding the employees, providing them with the necessary training is a crucial requirement to indicate whether a bank is socially responsible or not (NZ4, 22). When the employees were asked to rate Westpac as a socially responsible company they rated it 5.8 out of ten. This was a concern, but Westpac also considered it as an opportunity to improve its performance. Despite reports of no specific training in the environmental aspects of their job, the employees were still given credit for motivating the bank to consider training as an important factor to improve employees' performance. This was clear from the 2003 Staff Perspectives Survey (SPS), where 40% of employees agreed that the bank did not provide them with training that prepared them adequately for their work (NZ4, 31). However, despite an increase of 5% in 2004 and in 2005, the percentage fell by 5% in 2006, and, moreover, the bank admitted that employees' training, learning and development fell below the New Zealand norm.

However, the implications of environmental lending were a challenge for the bank to employ staff capable of understanding environmental issues, such as, the opportunities available from climate change and resource scarcity. The bank stated clearly the necessity to understand the new financing opportunities available in the development of emerging technologies and in infrastructure developments (NZ6, 47). This requires the bank to adapt its transactions to the present environmental requirements and, consequently, to provide the appropriate environmental knowledge to its staff. A more practical application is that the employees need to understand the technical procedures regarding lending criteria applied to environmental risk assessment and analysis processes. Also, the environmental risk analysis requires the bank's employees to be aware of the regulatory requirements and changes, and to consider carefully the borrowers' environmental management and financial capacity.

Another area of concern is that, although Westpac provides accessible formal channels to allow employees to voice their concerns about internal policies and procedures and to make suggestions for more efficient processes, this process, also, did not appear to reflect whether environmental aspects were raised or not.

Overall, environmental knowledge is essential for exploiting the new technological opportunities available while, at the same time, mitigating the environmental risk resulting from the staff's lack of environmental learning and education that may cause credit, operational and compliance risks.

In short, then, the bank failed to disclose whether environmental aspects are considered in the staff's learning and training processes.

Auditing: Table 5.5 presents interpretation of evidence from annual reports relevant to auditing.

Table 5.5 Management performance - Auditing

Auditing	Evidence	Interpretation
1. External audit	External audit (independent assurance) was conducted voluntarily using AA1000	The bank did not have formal criteria for identifying material issues and did not respond to some material issues. Also, the bank complied with the AA1000 standard despite claiming compliance with GRI guidelines
2. Internal audit	Scant information was revealed within the scope of the internal audit in the stakeholder report 2004	It is difficult to claim that an internal audit was in place, due to the inconsistent and insufficient information relevant to the compliance with audit standards
3. Audit is a strategic approach	The bank commissioned an external auditor to conduct an independent assurance. BOD delegates the CRSC to review and approve the independent assurance.	Environmental external audit captured the management's interest. However, the internal audit process was unclear with regard to delegation and implementation
4. Environmental audit is up-to-date, systematic and periodic framework	Regarding the internal audit, no evidence is available. However, an external audit was implemented annually and was conducted in accordance with the AA1000 Assurance Standard.	It is unclear how the bank's management view the audit reports and assess the need for improvements concerning the integration of environmental policies into the bank's lending operations

Findings for auditing

Two major forms of auditing regarding the environmental performance were noticed within the annual reports. The first was external auditing. Westpac has not yet had an external audit of its environmental performance, but what is called an ‘independent assurance’ of the environmental section was undertaken. In 2004, the independent auditor reviewed Westpac’s stakeholder report against the principles of materiality and completeness, and, in 2005 and 2006, against materiality, completeness and responsiveness, using the AA1000 Assurance Standard; but it was noted that the external auditors conducted a financial audit of the numeric data only in the stakeholder impact reports.

In addition, the New Zealand Auditing Standards do not provide information regarding environmental auditing. Therefore, Westpac, with regard to its own responsibility, commissioned an external auditor to conduct its environmental auditing. In the absence of formal environmental auditing standards in New Zealand, the external auditor chose to comply with the voluntary AA1000 Assurance Standard, in spite of the fact that Westpac stated its compliance with the GRI G3 reporting framework (NZ6, 6). The external audit did, however, comply with the AA1000 Assurance Standard.

Accordingly, it appears that Westpac is passing through a developing environmental audit stage. This is clear from the bank’s initially applying the materiality and completeness approach in 2004, then in 2005 and 2006 applying the further approach of responsiveness. However, there are two major challenges Westpac may wish to address: first, the bank stated clearly that it complies with the GRI G3 reporting framework, but the independent auditor used another approach, the AA1000 Assurance Standard; second, the GRI G3 reporting framework defines ten principles regarding the contents and quality of the report (see box 2.1), but, in practice, the bank applies mostly three. This criticism may also provide a challenge for the independent auditors to review their auditing framework where a business makes a commitment to one voluntary framework, but not to another, which is, however, then employed.

The second major form of audit is the internal audit. Westpac had a sound start in 2004 by reporting at least the number of hours which were spent on its internal environmental audit (NZ4, 20). However, such information was not available in 2005 and 2006. Therefore, it can be said that the internal environmental auditing information is inconsistent and insufficient.

Also, it was noticed that Westpac did not separate the audit work regarding the direct and indirect impact of its operations, which could cause misunderstanding and confuse the situation. On one hand, for example, the 300 hours which were stated in (NZ4, 20) as audit work could include the number of hours spent on analyzing the least energy-efficient locations and the spot audits done to check whether equipment had been left running unnecessarily, or it could include other audits regarding the indirect impact of the bank's activities (NZ4, 73). On the other hand, the 300 hours could include the number of hours the bank spent in auditing loans which are environmentally relevant. However, regardless of these points, the internal audit observations in the annual reports did not appear to pay attention to lending from an environmental perspective.

A further issue also needs to be clarified. The governance structure regarding the environmental audit is described as unclear and scant. The Stakeholder Impact Report 2004 is the only source of the (insufficient) information, and the only information available is that the Group Audit Team conducts the audit and provides an evaluation and advice to assist management and the board's Audit and Compliance Committee in exercising their responsibilities. It seems that the annual reports have revealed a gap between the internal Group Audit Team and the bank's operational level, where significant auditing work takes place.

Operational management: Table 5.6 presents interpretation of evidence from annual reports relevant to the integration of environmental issues.

**Table 5.6 Management performance – operational management:
integration of environmental issues**

Integration of environmental issues	Evidence	Interpretation
1. Environmental risks are considered	The bank considered environmental issues in daily business activities	Insufficient information and inconsistency of reporting on the consideration of environmental risks were a primary characteristic. Also, within the bank's financial reports environmental risks were not considerably equated to other risks
2. Screening	Assessing the potential environmental risk was clearly reported	Insufficient and inconsistent reporting on the environmental assessment
3. Evaluation	The bank put in place more cautious environmental procedures where there are indications of high environmental risk	Insufficient and inconsistent reporting on the environmental evaluation process
4. Control	Evidence is not available	This process requires the bank to establish procedures to outline the environmental conditions to be applied when the agreement is signed, ensure that the borrower's level of environmental knowledge is satisfactory and check that the borrower is both aware of the environmental conditions and has adequate management of environmental issues.
5. Monitoring	No evidence is available	It was unclear how management monitors the borrowers' activities after approving the loans
6. Sum and number of loans	No evidence is available	This indicator measures the business units' environmental performance by reporting the number of loans that are environmentally relevant
7. Region and industry sector	No evidence is available	This indicator helps to disclose the value of the environmental portfolio as a percentage of the lending profile according to a specific region or industry
8. Equator Principles	The bank adopted the EPs in 2003	A challenge to the bank was to disclose sufficient and consistent information about the implementation of the EPs, which the bank failed to provide
9. Sources of information about borrowers	Such information was disclosed only in the stakeholder report 2004	Insufficient and inconsistent sources of information in the annual reports

Findings for integration of environmental issues

A major theme in this research is to investigate whether Westpac is actually practising the integration of environmental policies and practices into its lending

criteria. As evidence that it is, first, the bank adopted the EPs. Second, the evidence was confirmed when the bank stated that it considers environmental issues in daily business activities (NZ5, 39) by using industry classification codes to assess environmental risk when screening lending proposals, and requiring further external environmental assessment where there are indications of high environmental risk (NZ4, 73).

From the above, it is clear that the bank conducts the first two credit appraisal stages, but that it fails to employ the controlling and monitoring processes. Specifically, on one hand, the screening process is carried out to identify potential environmental issues associated with a proposed project and to specify the types of environmental information required, in order to assess environmental risks, liabilities, regulatory compliance and any adverse environmental impacts. On the other hand, the evaluation process requires further external environmental assessment, such as, seeking external environmental advice and visiting sites. However, the New Zealand stakeholder reports did not reveal further credit appraisal steps, which include the controlling and monitoring processes. The controlling process represents the last stage in the loan's approval. It includes reviewing the final environmental report, ensuring that the risk and level of environmental knowledge is acceptable, and applying environmental conditions to credit agreements. Regarding the monitoring process, this stage ensures compliance and takes account of any change in legislation or change in the client's business activities, as well as considering the potential for environmental liability before taking possession of any assets.

In addition to noting the importance of integrating environmental considerations into the lending process, it is also essential to examine to what extent the bank specifies the loans according to the sum and number that are environmentally relevant, as further evidence for measuring the bank's operational performance. The New Zealand Stakeholder reports did not include such divisions. Despite Westpac's stated commitment to the industry-specific frameworks of the Environmental Performance Indicators (NZ6, 6), the bank did not, in fact, comply with them. The New Zealand stakeholder reports classified the business lending

profile according to the industry sector, but not from an environmentally relevant view (NZ4, 52). In the annual financial reports the loans are classified according to the type of the customer only, e.g., agriculture, forestry and fishing; commercial and financial; government and other public authorities, and the sum.

The purpose of describing the loans in terms of region, sum and number that are environmentally relevant is to serve a number of objectives: first, to reflect the bank's responsibility to consider the lending decision in the best interests of the environment, especially in regard to its commitment to the EPs; second, to ensure that such indicators measure the bank's environmental performance quantitatively; third, to identify the quantity of environmental opportunities and the potential profitability available in a particular sector; and finally, to recognize that stakeholders, e.g., investors, have an interest in understanding where the bank has portfolio activity in regions or sectors with potentially high environmental impacts or opportunities, in order to enable them to make a sound investment decision.

g) Operational management: environmental pioneering projects

This second sub-category of the operational performance category addresses the interpretation of Westpac's evidence regarding the actions the bank undertakes to exploit the opportunities available in environmental pioneering projects. Table 5.7 presents interpretation of the evidence available from annual reports relevant to these.

Table 5.7 Management performance- operational management: environmental pioneering projects

Environmental pioneering projects	Evidence	Interpretation
1. Projects with high environmental benefits	The bank reported in the stakeholder report 2004 its commitment to finance projects with high environmental benefits	No specific examples were provided
2. Credit risk	No evidence was reported that such projects have different risk profile than other financed projects.	Despite the opportunities offered by these projects the bank did not associate them with financial advantage
3. Sum and number of loans with high environmental benefit	Evidence available in the stakeholder report 2004 only	Insufficient and inconsistent reporting on the sum and number of loans
4. Region and industry sector	Evidence available in the stakeholder report 2004 only	Insufficient and inconsistent reporting on the sum and number of loans
5. Designing loans to address an environmental issue	The bank showed commitment to design loans specific to environmental issues in the stakeholder reports 2004 and 2006	The commitment was not translated to real examples of implementation

Findings for environmental pioneering projects

There was only one practical example that Westpac finances projects with high environmental benefits, which was found in the New Zealand Stakeholder Impact Report 2004 (p. 74). Despite the report of a significant 16.6% of the high environmental benefit lending as a total of the balance sheet lending in 2004, the stakeholder reports for 2005 and 2006 did not have such disclosure. It must also be acknowledged that this percentage of the balance sheet loan represented Westpac Institutional Banking only.

However, theoretically, the bank identified a set of high environmental benefit projects that were to be given automatic investment status, and another category to be given high environmental benefit priority (NZ4, 73-74). In addition, the bank realizes the opportunities available as a result of commitments to the Kyoto Protocol, the advent of climate change, and resource scarcity (NZ5, 41; NZ6, 47). Such opportunities may include loans designed to provide renewable energy, address water scarcity, enhance biodiversity and improve energy efficiency and innovations.

Overall, it could be argued that the environmental information available in the New Zealand stakeholder reports is inconsistent and incomplete. The Stakeholder Impact Report 2004 provided a sound starting point to provide statistical environmental information, but this was not available in the following two years. The Environmental Performance Indicators, which the bank is committed to, require Westpac to disclose sufficient environmental information described in terms of number, sum and region, in order for the bank's management to be able to identify the profit share of the high environmental benefit projects in any particular region, and to enable the stakeholders to have more engagement in, and understanding of, the bank's lending activities and its contribution towards environmental protection.

5.3.1 Findings concerning management performance

Westpac's management performance indicators signal relatively proactive management. The bank chose voluntarily to set up an environmental policy, adopting the EPs, considering the GRI G3 in environmental reporting and conducting an environmental risk assessment. In addition, the bank's corporate governance has environmental roles and responsibilities, despite the fact that Westpac's operations are not subject to any particular or significant environmental regulation or law. According to the evidence from the annual reports, environmental management is addressed as part of the governance profile and is embedded in the roles and responsibilities of one of the major board committees namely, the CRSC. Further, corporate governance practice shows acceptable interaction with governmental and non-governmental organizations and with stakeholders generally.

However, some weaknesses in the management performance indicators are revealed, and they are significant and real. The stakeholder impact reports provide only limited information on social, environmental and economic issues, and this is insufficient to enable a stakeholder to make a sound decision about the bank's environmental activities.

Westpac recognizes that its lending activities may affect the natural environment, and it clearly integrates this concern into the first two stages of the credit appraisal. The bank states that it perceives opportunities that may result from lending to projects that are described as of high environmental benefit, but their public reporting does not identify evidence of the bank's active contribution in this regard.

Despite the identification of environmental risk in the New Zealand stakeholder reports, the annual reports describe a variety of types of risks, which excludes environmental risk. This inconsistency raises concerns as to whether Westpac is actively considering environmental risks in its daily lending operations.

The preceding evidence indicates, at best, modest management performance by the bank. The annual reports provide minimal disclosure of information about: the integration of the environmental risk into the bank's lending activities; the environmental credit appraisal stages; the number and the sum of loans that are environmentally relevant; and the implications of the EPs.

This is problematic, given that the stakeholder impact report's function is to provide environmental information according to the GRI G3 framework relevant to the quality and content disclosure that can be described as complete, responsive, clear and aware of stakeholders' concerns.

5.4 Interpretation of motivational drivers

This section endeavours to interpret the evidence found in the annual reports which enables an evaluation of the motivational performance category in three sub-categories: the managerial drivers, the financial drivers and the environmental drivers. Accordingly, the interpretation of the evidence and findings are outlined under the three sub-categories:

a) Managerial drivers

This first sub-category seeks to evaluate and interpret the motivational drivers for integrating environmental aspects into the bank's lending operations. Table 5.8

presents interpretation of evidence from annual reports relevant to managerial drivers.

Table 5.8 Motivational drivers – managerial drivers

Motivational drivers – managerial drivers	Evidence	Interpretation
1. Compliance with regulations	The bank recognizes the role of international laws in protecting the natural environment	The bank translated its commitment to the environment by setting environmental roles and responsibilities.
2. Ethical stance	The bank acknowledged that its operations have an impact on the environment and that an ethical stance was reflected in its lending activities, senior management's introductions in the annual reports, awarding farmers for addressing their environmental risks.	Corporate governance was driven by ethical stance
3. Stakeholders' expectations	The bank emphasized the importance of meeting stakeholders' expectations through integrating environmental aspects into its lending activities	The bank is driven by stakeholders' expectations
4. Reputation	The bank claimed that it acts sustainably and accounts for its actions in order to enhance its reputation	The bank is driven by reputational aspects
5. Stakeholders' pressure	No clear evidence is available	The bank is not driven by stakeholders' pressure

Findings for managerial drivers

There was evidence that Westpac's management incorporated environmental issues into the bank's lending criteria as a result of legal requirements, or in order to comply with environmental regulations or to bolster the bank's reputation. With regard to legal requirements, the bank stated that Westpac's operations are not subject to any particular and significant environmental regulation under any law, nor have they incurred any liability under any environmental legislation (C5, 47). However, Westpac expects that its operations may become subject to environmental regulation in enforcing securities over land for the recovery of loans (C6, 54). Moreover, Westpac is aware that national and local environmental laws and regulations may affect the bank's operations and, thus, these laws could

impose liability for damages and/or clean-up costs or penalties in the event of certain discharges into the environment, environmental damage caused by previous owners of the companies, or non-compliance with environmental laws or regulations.

However, Westpac's CEO claimed that the bank's management's ethical stance is to embrace the concept of corporate social responsibility (CSR), incorporate it into the bank's activities, and meet the stakeholders' expectations. At the time she also claimed that large corporations utilize CSR as a veneer of respectability in the pursuit of profit, and that there is a lack of awareness of CSR in New Zealand. Moreover, the bank established educational programs, launched initiatives and sponsored awards, to enhance SD that reconciles economic goals with social and environmental expectations. Westpac's annual reports expressed a positive attitude from the BOD and management by affirming their duties are in line with stakeholders' expectations and go beyond the usual legal and financial obligations (C5, 38). This is confirmed by the BOD's, the CRSC's and management's responsibility to consider the environmental and ethical values of Westpac's activities (A4, 63; A6, 50). Furthermore, the bank stated that it believes that its social, environmental and ethical stance delivers a better outcome and enhances reputation and operational efficiency.

In fact, Westpac's stakeholder reports raised environmental issues regarding climate change and resource scarcity. The stakeholders increasingly understand the consequences of environmental issues that require management to react in an environmentally responsible manner. The bank's management may, therefore, be prompted to exploit the opportunities available and meet the stakeholders' concerns.

Overall, it is possible to say that Westpac's corporate governance integrates environmental issues into the bank's lending activities due to its proactively responding to environmental laws and requirements and the stakeholders' expectations, and that its stance is not due to pressure imposed by active environmental laws, threats to its reputation or stakeholders' negative perceptions.

b- Financial Drivers

This second sub-category of the motivational drivers seeks to interpret the evidence found in the annual reports regarding whether financial reasons were behind incorporating environmental issues into the bank's lending activities. Table 5.9 presents interpretation of evidence from annual reports relevant to financial drivers.

Table 5.9 Motivational drivers – financial drivers

Motivational drivers – financial drivers	Evidence	Interpretation
1. Environmental liabilities	No explicit evidence is available	Despite the evidence that the bank did not explicitly report environmental liabilities as a driving force for integrating environmental aspects into its lending decisions, such potential liabilities form a sound reason for considering the environmental risks
2. Borrower liability	No explicit evidence is available	The environmental screening and evaluations form adequate proof that the bank considers the borrower's liability as the bank's liability
3. Pricing the credit risk	Evidence not available	The bank was not driven by further pricing to cover the additional risk
4. Profitability	Lending to projects with high environmental benefits	The bank considered that profitability as a driver for integrating environmental issues into lending decisions resulted from loans to environmentally relevant projects.

Findings for financial drivers

Theoretically, Westpac views sustainable and responsible business practices as an important long-term driver of capacity, performance and shareholder value (C6, 47) and believes that adopting sustainable business practices delivers a better outcome and enhances the financial position (NZ6, 5).

In fact, Westpac does not explicitly claim that the integration of environmental issues into lending activities is for financial reasons. But, it was noted that the bank took account of the environmental risk, the environmental assessment and customers' environmental analyses, in order to avoid a potential risk which could affect the financial position for both the bank and its clients alike. Despite the

importance of this issue, environmental risk was not included among the major risks in the financial annual reports; yet Westpac's practices provided significant evidence that the potential for environmental risk drives the bank to integrate it into its lending criteria. Furthermore, the reports failed to identify the control and monitoring processes as complementary steps in following up the borrower's activity during the loan life.

The reports also provided evidence that Westpac realized that lending to projects with high environmental benefit offers promising new business opportunities (NZ4, 73-74; NZ6, 47). Accordingly, the bank reported that it gives automatic priority status to financing such projects. The bank also successfully identifies opportunities to be considered in lending to projects that have positive effects on climate change and resource scarcity.

However, in order to measure quantitatively the bank's performance regarding the financial drivers, Westpac needs to find numerical evidence that integration of environmental aspects into the bank's lending processes was due, in this regard, to financial reasons. In fact, Westpac failed to provide such evidence, acknowledging only that the bank is complying with GRI G3 and the Environmental Performance Indicators frameworks, which require transparency, completeness and clarity. In other words, the bank failed to determine the sum of lending, or number of loans, with environmental relevance. Also, apart from some (insufficient) information available in the New Zealand Stakeholder Report 2004 (p. 74) the bank failed to identify the sum of lending or number of loans with high environmental benefits and innovative characteristics.

Overall, the bank's view that sustainable business improves its financial position needs to be supported by further environmental information which reflects the bank's real contribution to the appropriate management of the environmental risk, and, in a consistent and complete disclosure in the annual reports, offers evidence that environmental innovations improve its financial performance. In addition, such evidence could be significant to the stakeholders, especially for investors who target companies that consider environmental issues proactively when making their lending investments.

c- Environmental Drivers

This third sub-category of the motivational drivers seeks to interpret the evidence found in the annual reports regarding what motivates the bank to integrate environmental aspects into the lending processes. Table 5.10 presents interpretation of evidence from annual reports relevant to environmental drivers.

Table 5.10 Motivational drivers – environmental drivers

Motivational drivers – environmental drivers	Evidence	Interpretation
1. Environmental protection	Having a governance structure associated with environmental roles and responsibilities. Incorporating stakeholders' concerns into bank's activities	The evidence showed that Westpac was driven by environmental protection; therefore, the stakeholder reports disclosed information on activities relevant to environmental responsibilities, environmental policy and stakeholders' concerns
2. Lending activities can have an impact on the environment	Adopting Equator Principles. Committing to the Group environmental policy, responsibilities and roles. Recognizing the indirect impact of its lending operations on the environment. Assessing the borrower's environmental risks before approving the loan	The bank was motivated by the fact that lending activities can have an impact on the environment.

Findings for environmental drivers

It is important to document that Westpac realizes that 'banks have a major indirect impact on the environment through financing' (NZ5, 41). This section concerning motivational drivers endeavours to measure to what extent the bank considers environmental protection in making a lending decision. The evidence showed that environmental protection was among the BOD's responsibilities where the reports stated that the environmental impact of the bank's activities is considered. Furthermore, the BOD delegates to management the authority to manage day-to-day operations in accordance with environmental standards. In practice, then, the bank conducts an environmental assessment process which includes: screening the lending proposal; investigating compliance with regulatory requirements;

conducting further external environmental assessment; investigating the customer's level of environmental awareness and adequacy of policies and practices; site visits; querying the borrower's activities regarding whether these are hazardous; and, finally, complying with the EPs and using the GRI G3 framework.

However, despite the fact that the bank's BOD, management and operational staff have environmental protection responsibilities, it is difficult to decide whether the bank genuinely forms a line of defence to protect the environment or whether, in practice, profit is the only objective. The controversial issue which had been raised in 2006 regarding sales-based targets and the employees' performance provoked skepticism about the real motivation for the integration of environmental aspects into lending decisions, since the employees considered that the bank was urging them to encourage customers to take on more debt. This issue could, perhaps, have led to more environmental concessions and less stringent assessment procedures, in order to achieve the sales-based targets.

Therefore, the issues raised challenge Westpac to reflect on the extent to which the bank cares about environmental protection. Westpac realizes that small to medium enterprises form the backbone of the New Zealand economy and stated that a significant percentage of its loan portfolio includes lending to agriculture, manufacturing, and property and business sectors. These sectors impact the environment, especially the agricultural sector, where dairy farmers are increasing production, thus putting more pressure on the fresh-water system and land usage. Also, Westpac is aware of climate change and resource scarcity issues. Patently, the bank succeeded in identifying environmental risks and recognizing promising environmental opportunities, but there is a need for it to record the actual environmental performance in terms of value and number for both the loans with environmental relevance and those with high environmental benefits and pioneering characteristics. Such disclosure in the annual reports in a consistent, complete and comparable manner may present evidence that the bank has concerns about environmental protection and, consequently, meets stakeholders' expectations. Thereafter, it would be possible to measure appropriately the

performance of the bank's environmental protection as a driver for incorporating environmental issues into its lending processes.

5.4.1 Findings of motivational drivers

There was clear evidence that Westpac's actions are motivated by multiple factors, including managerial, financial and environmental drivers. It appears that the bank is seeking to balance protecting its shareholders' investments, its stakeholders' concerns and the environment itself.

Westpac's corporate governance was motivated by: first, its ethical stance, which not only had regard for the value of laws and regulations but also for their spirit, which goes beyond legal requirements; and second, its recognition of the importance of meeting the bank's stakeholders' expectations and, as a result, protecting the bank's reputation.

There was little evidence of finance being a motivational driver, due to a lack of financial evidence that the integration of environmental considerations into the bank's lending activities builds profitability and gains market share, and the lack of evidence provided by financial information regarding loans which were environmentally relevant.

In contrast, there was evidence that environmental performance was a strong motivational driver, due to the bank's adopting, voluntarily, environmental initiatives and guidelines, such as, having an environmental policy, assessing the environmental risk and integrating the EPs into lending criteria.

5.5 Analysis of Westpac and HSBC stakeholders Annual Reports from 2007 to 2008

Two banks are widely seen to be leaders in the field of environmental reporting, Westpac and HSBC. Both banks have taken initial steps to formalize their environmentally-responsible business activity and are committed to reflecting accountability and meeting stakeholders' expectations. Westpac began its first social impact reporting in 2004 and HSBC in 2000. This section undertakes a comparison of the environmental reporting performance of both banks over the

two years 2007 and 2008. It focuses on incorporating environmental issues into lending decisions. Such investigation complements the findings for Westpac's annual reports from 2004 to 2006.

5.5.1 Interpretation of management performance

The evidence of both banks' practices are available in Appendix E. The analysis of the evidence of environmental performance found in Westpac's and HSBC's annual reports addresses three major categories: management performance, operational performance and motivational drivers, which are key concepts identified in previous research (Jeucken, 2001; Thompson and Cowton, 2004; EPI Finance, 2000; the Supplement 2005). Each major category is divided into specific sub-categories. Then, under each sub-category, a number of indicators are interpreted on the basis of evidence found in the stakeholder reports (Appendix F).

A summary of the comparison of both banks, Westpac and HSBC, regarding their environmental reporting performance, is illustrated in Table 5.11.

Table 5.11 Environmental reporting performance for Westpac's and HSBC's stakeholder reports 2007 and 2008

Description of category, sub-category and indicators	Westpac stakeholder reports	HSBC stakeholder reports
A) Management performance		
1. Top management		
- environmental roles and responsibilities	0	√√
- recognition of environmental risks and opportunities	√	√√
- promoting sustainable environmental practices	√	√√
- environmental policy	0	0
- communicating with stakeholders	√	√√
- environmental performance is monitored	0	√√
- environmental policy is reviewed	0	√√
- top management includes members who have environmental knowledge and experience, and holds regular meetings where environmental issues are on their agenda	0	√
2. Training	0	√√
3. Auditing	√	√√
Operational performance		
1. Integration of environmental issues into lending processes		
- environmental risks are considered	0	√√
- screening	0	√√
- evaluation	0	√√
- controlling the risks	0	√
- monitoring	0	√√

Description of category, sub-category and indicators	Westpac stakeholder reports	HSBC stakeholder reports
- sum and number of loans	0	√√
- region and industry	0	√√
- Equator Principles	0	√√
2. Environmental pioneering projects		
- financing projects with high environmental benefits	0	√√
- sum and number of loans	0	0
- region and sector	0	0
- designing loans to address an environmental issue	√	√
B) Motivational drivers		
1. Managerial drivers		
- environmental regulations	√	√√
- ethical stance	√√	√√
- stakeholders' expectations and pressure	√	√√
- reputation	0	√√
2. Financial drivers		
- environmental liabilities	0	√√
- borrower liability	0	√
- pricing the credit risk	0	0
- profitability	√	√
3. Environmental drivers		
- environmental protection	√√	√√
- lending activities make impact on the environment	√	√√
0 no information √ partial information √√ enough information		

5.5.2 Findings of management performance

Section 5.5 presented an empirical investigation into the environmental disclosure practices of two international banks, using information obtained from their stakeholder/ sustainability reports for 2007 and 2008. Thematic analysis was conducted to facilitate comparison of banks' practices as carried out by Westpac and HSBC.

The investigation found that the two banks' sustainability reports make disclosure on aspects relevant to customers, employees, the environment and the community. The majority of Westpac's reports tend to be descriptive, and emphasize aspects of good news. The disclosure of the direct environmental impact of the bank tends to also receive significant attention. In both Westpac reports the disclosure of lending practices received very scant attention, in particular with regard to: the EPs, environmental risks and opportunities and environmental assessment; stakeholders' engagement; environmental responsibility and roles; and the processes of environmental training and auditing. Also, with regard to the

operational performance, the bank is poorly presented on the implementation of environmental policy, managing environmental risks and opportunities, and communication with stakeholders.

With regard to the quality of the reports, Westpac did not have a systematic and consistent format over time. Therefore, it is difficult to compare the environmental performance and, consequently, to make sound decisions about the bank's environmental performance. If such a comparison is to be made, it should be conducted with caution until a standardized set of measurement techniques is universally approved. In this regard, it is important to stress that Westpac's Impact Report 2004 represented a valuable start in reporting on environmental issues relevant to the bank's environmental performance. This research found that this report could form a platform for other sustainability reports. Also, this paper ventures to suggest that, in fact, Westpac committed to the Group environmental policy, procedures and practices, but the existence of such a policy is not adequately disclosed in the bank's annual reports.

The contents of HSBC's sustainability reports focus mainly on lending activities with regard to environmental risks and opportunities, environmental assessment, engagement with stakeholders, applications of the EPs, and environmental training and auditing. Given the multiple significance of the reports' contents, and with regard to their quality, there is an acceptable degree of systematic recording and consistency over the two years' reporting, with some exceptions, mostly in regard to the credit appraisal steps and the quantitative description relevant to projects with high benefits and financial drivers.

However, both banks' reports reflect the effect of their operations and activities on the environment, and emphasize the need to meet stakeholders' expectations. Westpac's reports extensively reflect the direct impact of its operations on the environment, while HSBC's significantly recognize both the direct and indirect impact of the bank's operations on the environment. However, other reasons for integrating environmental issues into lending decisions, such as financial motives, were not clearly reported. This study has shown that annual reports' disclosures relating to a business's environmental performance tend to be unreliable as

information on which stakeholders who seek environmental information can make various business decisions. The comparison reveals that there is a shift in how banks view the consideration of environmental performance as material to users of the annual reports. However, due to the voluntary nature of sustainability disclosures in annual reports, there is a gap in the information provided. Thus, there is a need for improvement relating to the content and quality of environmental reporting, and a need to develop robust environmental disclosure standards and legislation for specific environmental reporting in the banking sector.

5.6 Interview analysis

This section outlines the thematic analysis of the interview transcript with a regional manager of Westpac (Appendix G). The three key themes that were identified from the data collected are managerial, operational and motivational. These are interpreted in sections 5.6.1 and 5.6.2 as follows:

5.6.1 Interpretation of management performance

This first category is interpreted according to three sub-categories:

1. Senior management performance: under this sub-category, the interpretations of the transcript regarding the senior management performance are detailed under seven indicators. These are as follows:

Indicator 1: lending activities have an impact on the environment

The manager stated that the bank undertakes an environmental analysis as part of the lending process wherever there are indications that environmental issues exist. He added that, if there is concern about a project that has a potentially major impact on the environment, the branch reports to the upper levels of management and asks for more investigations to be carried out. He contended that the process of engagement between Head Office and the regions regarding lending practices and environmental risks and opportunities is part of normal management and reporting.

Indicator2: environmental policy is in place

According to the manager there is no specific environmental policy or EMS in place regionally, but Westpac does have a Group-wide one instead. He claimed the bank is inherently and culturally aware of the environmental issues that should be addressed if environmental concerns arise when lending decisions are being made. He reflected this by claiming that the policy will not be fully effective unless the individual staff have environmental awareness and understanding, and are self-motivated to cultivate this. However, the manager claimed that the EP covers issues relevant to the management footprint, the measurement and reporting of the bank's performance, and the incorporation of environmental considerations into the bank's risk management framework.

Indicator 3: environmental policy is within BOD and senior management top goals

When asked to describe any BOD and CEO statements or policies pertaining to environmental outcomes that impact decision-making within the region, the manager commented that some statements exist in the stakeholder reports.

Indicator 4: communicating with stakeholders

The manager said that included in the EP is a commitment to respond to community expectations of environmental responsibility, and to meet or exceed relative standards in each country the bank operates in.

Indicator 5: environmental performance is monitored

The manager stated that the branch receives feedback regarding incidents of violations of the loan requirements and regulations.

Indicator 6: ensuring environmental policy establishes an interface among all bank's levels

As stated by the manager, environmental policy for the region is not available.

Indicator 7: environmental policy is reviewed

The manager emphasized the findings from Westpac's annual reports that the bank has a Group environmental policy, which was reviewed and re-released in 2001.

2. Training

Indicator 1: training programs

The manager pointed out that the bank has launched an internal sustainability plan and has an interactive intranet site providing educational programs for the lending staff at the branch level. He added that credit officers usually receive environmental training throughout their careers, along with other credit appraisal processes training programmes.

Indicator 2: regular education and training

The manager mentioned that environmental education is one area that the bank will be focusing on over the next couple of years.

Indicator 3: improving environmental performance

The manager considered that educating the lending staff about lending policies and procedures is the key to successful environmental training.

Indicator 4: communication with employees

The manager said that the bank's management shares ideas on all aspects of sustainability, through presentations and speeches to accessing information to help them in their jobs.

3. Auditing

The manager asked that the question, 'What are the keys to successful environmental auditing by the bank?' be excluded.

4. Interpretation of operational performance

This section interprets the interview's transcript on two themes, the integration of environmental issues into lending decisions, and projects with high environmental benefits. These are as follows:

a. Integration of environmental issues into lending decisions: this sub-category interprets the evidence under nine indicators. These are as follows:

Indicator 1: environmental risks are considered

The manager claimed that environmental policy aims to incorporate environmental considerations into the risk management framework.

Indicator 2: screening

The manager explained that the lending appraisal process addresses environmental concerns by referring to environmental clauses in the loan application form. He pointed out that if an environmental issue is a matter of concern and forms a threat to the environment the loan will be declined.

Indicator 3: evaluation

The manager claimed that consideration of loan applications usually involves site visits; if the loan application is approved, then credit officers may make site visits to ensure that the borrower's activities do not have a negative impact on the environment, and that they are managing the environmental issues in compliance with the loan conditions. Furthermore, he explained that additional investigations are sometimes made within upper levels of the bank, depending on the size of the project.

Indicator 4: control

The manager mentioned that the bank has an environmental standard that potential borrowers' performances are measured against. He confirmed that if the borrowers do not reach the minimum acceptable standard the application will not proceed. He mentioned some instances where applications were declined.

Indicator 5: monitoring

The manager confirmed that the bank expects customers to comply with all laws, including environmental laws, but does not:

- direct the manner in which customers comply with laws relating to the environment;
- control or take part in the management of customers' environmental affairs;
- provide environmental advice to a customer; and
- aid any breach of environmental law by customers.

He added that the bank ensures that every loan approved is fully environmentally, socially and ethically acceptable. He considered that the biggest challenge for the bank is that it cannot be responsible for all borrowers' behaviour, some of which may be inconsistent with the bank's expectations.

Indicator 6: sum and number of loans environmentally relevant

Information not available.

Indicator 7: region and industry

The manager explained that the value of the loans portfolio (overall) is broken down by specific sectors only, for example, agriculture, forestry and fishing.

Indicator 8: Equator Principles

The manager said that the bank's staff gain environmental knowledge through familiarising themselves with lending policies and procedures, and through their own background information-gathering. He mentioned that staff have been advised of the Equator Principles.

Indicator 9: sources of information

The manager identified site visits as a source for collecting data when assessing borrowers' environmental activities.

b. Projects with high environmental benefits: under this sub-category four themes are interpreted. These are:

Indicator 1: financing projects with high environmental benefit

Information not available.

Indicator 2: sum and number of loans

Information not available.

Indicator 3: region and industry

Information not available.

Indicator 4: designing loans to address an environmental issue

Information not available.

5.6.2 Interpretation of motivational drivers

Under this category three major themes were found in the interview transcript. These are as follows:

1. Managerial drivers

Under this sub-category, four themes are interpreted:

Indicator 1: compliance with regulations

The manager stressed that the bank does not make a loan where the borrower's purpose is to do something that breaches environmental law. However, he emphasised the need for similar assurances from other financial institutions that they would be conscientious in complying with environmental standards and regulations.

Indicator 2: ethical stance

The manager emphasised that Westpac does not become involved where it is unwilling to incur the risk in a problem management situation.

Indicator 3: stakeholders' expectations

The manager made it clear that the bank assures its stakeholders that it does what it is obliged to do, with their interests at heart.

Indicator 4: reputation

The manager claimed that the bank's reputation and brand is an important factor.

2. Financial drivers

Under this sub-category, two themes were established. These are:

Indicator 1: environmental liabilities

According to the manager, environmental damage may cause risk to the banks financial position.

Indicator2: profitability

The manager stressed the point that shareholders expect a sound return on their shares for their investment in Westpac.

3. Environmental drivers

This third sub-category is interpreted under two themes. These are:

Indicator 1: environmental protection

The manager pointed out that leadership in sustainability is attained by integrating environmental considerations into the core business activities.

Indicator 2: lending activities can have an impact on the environment

The opinion of the manager was that the bank endeavours to assure the public that every one of its lending transactions is environmentally, socially and ethically acceptable.

However when asked about any complexities for branches in addressing particular environmental lending concerns, the manager indicated that the complexity lies in balancing between lending to farmers, whose activities are necessary for their continuity and for generating an acceptable return for the New Zealand economy, and the bank's shareholders, and, at the same, assessing the environmental issues, such as animal wastes, wash-down water, spilled milk, detergents from dairy milking sheds and discharge of treated wastes from oxidation ponds, which farmers face as a result of those activities.

5.7 Key findings from the analysis

The purpose of Table 5.12 is to present the key findings of the interpretations of Westpac's stakeholder reports and the interview. It reports on the adequacy of providing information about the bank's environmental performance relevant to lending processes.

Table 5.12 Disclosure of environmental information from Westpac's stakeholder reports from 2004 to 2008 and from the interview

Description of category, sub-category and indicators	Interview	Stakeholder reports 2007 and 2008	Stakeholder reports 2004 and 2006
A) Management performance			
1.Top management			
- environmental roles and responsibilities	0	0	√
- recognition of environmental risks and opportunities	√	√	√√
- promoting sustainable environmental practices	√	√	√
- environmental policy	0	0	0
- communicating with stakeholders	√	√	√
- environmental performance is monitored	0	0	0
- environmental policy is reviewed	√	0	√
- top management includes members who have environmental knowledge and experience, and holds regular meetings where environmental issues are on their agenda	0	0	√
2. Training	0	0	0
3.Auditing	0	√	√
4. Operational performance:			
- Integration of environmental issues into lending processes			
- environmental risks are considered	√	0	√√
- screening	√	0	√
- evaluation	√	√	√√
- controlling the risk	√	√	√
- monitoring	√	√	√
- sum and number of loans	0	0	√
- region and industry	0	0	0
- Equator Principles	√	0	√
- Environmental pioneering projects			
- financing projects with high environmental benefits	0	0	√
- sum and number of loans	0	0	√
- region and sector	0	0	0
- designing loans to address an environmental issue	0	√	√√
B) Motivational drivers			
- Managerial drivers			
- environmental regulations	√√	√	√√
- ethical stance	√√	√√	√√
- stakeholders' expectations and pressure	√	√	√√
- reputation	√	0	√
- Financial drivers			
- environmental liabilities	√√	0	√√
- borrower liability	0	0	√
- pricing the credit risk	0	0	0
- profitability	√√	√	√√
- Environmental drivers			
- environmental protection	√√	√√	√√
- lending activities make impact on the environment	√√	√	√√
<ul style="list-style-type: none"> • 0 no information √ partial information √√ enough information 			

The key findings of the interview and Westpac's annual stakeholder reports are:

- the stakeholder reports 2004 to 2006 represent the best source of information about Westpac's environmental performance, compared to that obtained from the interview and the bank's stakeholder reports 2007 and 2008;
- there is a significant decline in the adequacy of information provided via stakeholder reports 2007 and 2008, in which specific attention is given to the training and operational performance matters. Further, Westpac decided not to publish a stakeholder report for 2009 but to set out its sustainability issues in the 2009 Group stakeholder report. The Group's report disclosed about two pages relevant to Westpac;
- despite the bank's reporting in 2004 that the executive level was working on putting together an environmental policy, the three sources of collected data show that it is not yet available;
- there is an indication that the bank is committed ethically and socially to protect the environment;
- there is an indication that the bank recognises environmental risk. Therefore, the bank assesses the environmental risk by applying the EPs and through having environmental roles and responsibilities; and
- in short, inconsistency and insufficient information are major findings in this study. This contradicts the agreements and initiatives the bank committed to, for example, the GRI and the Financial Services Sector Supplement: Environmental Performance 2005, the EPI-Finance 2000.

5.8 Conclusion

This chapter provides a summation of the qualitative analysis of Westpac's stakeholder reports, a comparison with HSBC stakeholder reports, and an interview with a Westpac senior regional manager. It analyses information regarding the bank's environmental performance in three major categories, management performance, operational performance and motivational drivers.

With regard to management performance, Westpac did not have an environmental policy specific to New Zealand. The Westpac Group policy on environmental roles and responsibilities was included in the New Zealand Stakeholder Impact Report 2005, but there was no evidence that environmental roles and responsibilities were assigned to specific management staff in New Zealand. Further, neither the reports nor the interview provided any evidence that staff received training on environmental management.

With regard to environmental auditing, the internal audit was inconsistent and insufficient. Westpac reported on an internal audit in 2004, but there was no evidence that an audit was undertaken in the years 2005 to 2008. In contrast, the stakeholder reports from 2004 to 2008 were audited by an independent assurance provider, utilising the AA1000 Assurance Standard, who verified them against three principles: completeness, materiality and responsiveness. The provider raised issues with regard to these three principles, to which Westpac did not respond. In this chapter, Westpac is evaluated against the more widely adopted GRI G3 reporting framework, which it claims to have adopted. This evaluation reveals that Westpac complies with only three out of the ten principles covered by this framework.

With regard to operational performance, a major theme in this research is to investigate whether Westpac practises the integration of environmental issues into lending activities. There is some evidence that Westpac started to consider environmental issues, lending to environmentally-friendly projects and adopting the EPs in 2004. For example, the Social Impact Report 2004 reported on projects with high environmental benefit and on environmental credit risk assessment, which includes the screening and evaluating of lending proposals. However, the stakeholder reports from 2005 to 2008 and the interview provided no evidence that the environmental initiative started in 2004 led to any specific actions.

The findings for motivational drivers revealed that Westpac is motivated by multiple factors, including managerial, financial and environmental drivers. Some evidence of financial drivers was reported in the stakeholder report 2004 regarding the number and sum of loans which were 'environmentally relevant'.

However, this evidence was not reported in the stakeholder reports from 2005 to 2008.

Either through its stakeholder reports or by way of the interview conducted, the major conclusion is that Westpac stepped backwards with regard to providing sufficient and consistent environmental information relevant to lending processes either through its stakeholder reports or by way of the interview conducted. In contrast, the bank reported a significant amount of information on the direct impact of its operations on the natural environment (e.g. electricity, petrol and paper consumption). In comparison, HSBC stakeholder reports 2007 and 2008 provided appropriate environmental information regarding its lending activities, and the quality and contents of the reporting was reasonably acceptable according to the international guidelines.

There were some indications that Westpac started to incorporate environmental issues into its lending decisions in 2004, when it showed some awareness of environmental protection as having potential for improving its financial and environmental performance. However this initiative seems to have been short-lived (or plateaued), and there is a need for full compliance with the voluntary international guidelines and agreements, which the bank is a member of or signatory to, regarding the quality and content of the information provided either by its staff or by disclosure in the stakeholder reports.

In order to enrich our understanding of these results, New Zealand people's views regarding the way in which banks should consider environmental issues in their lending decisions will be analysed in the next chapter.

CHAPTER 6 - SURVEY ANALYSIS AND HYPOTHESIS TESTING

6.1 Introduction

This chapter presents the results from two surveys conducted in New Zealand. One surveyed the New Zealand public, the other a sub-population of informed people who have environmental knowledge, experience or interest. Thirty-nine primary questions were employed to canvass views on how banks in New Zealand should consider environmental issues in their lending decisions. In addition, other socio-demographic questions were employed to closely differentiate people's views according to their socio-demographic characteristics. Both sets of respondents were given the same questionnaire investigating management and operational performance, and motivations. These two major categories represent the central themes of the two research questions.

In total, 801 responses from the public and 93 responses from informed respondents were collected. For each question respondents were allocated a rating on a scale from one to five, with an additional column for 'do not know'. The responses of each participant to each question were presented in an Excel sheet.

Statistical analysis of the surveys was conducted using STATA software. The results were interpreted for the two sets of respondents within five major categories of questions. Further interpretation and analysis was conducted using a t-test to determine the significance of difference between the two surveys with regard to the perceptions of how banks in New Zealand incorporate environmental issues into their lending decisions, and an F-test and a Bartlett test to determine the significance of difference and areas of differences within each set of respondents with regard to the socio-demographic questions.

Seven hypotheses were tested using the results of the two surveys. These hypotheses were derived from the literature and the researcher's accumulated experience (see Section 4.7).

Accordingly, this chapter, first, presents an interpretation of the results for each of the five categories of questions, followed by an interpretation of the results of each category associated with the demographic characteristics. Second, it presents the discussion of the results in the light of testing the seven hypotheses and then reaches a conclusion about them.

6.2 Descriptive statistics and interpretations

As a result of the initial data analysis, and to facilitate understanding the data obtained from both surveys, the 39 primary questions (indicators) were clustered into five major categories, described in Appendix D.

Accordingly, the interpretation of the data analysis for each indicator in the five categories is as follows:

6.2.1 Management performance

Tables 6.1.a and 6.1.b present the percentage of respondents - public and informed people respectively, the mean for the five scales, standard deviation, skewness, and coefficient of variance, with regard to each indicator.

Table 6.1.a Public views regarding management performance indicators

Management performance indicators	Percentage of respondents in each category						Mean score ⁷¹	SD ⁷²	Skewness	CV ⁷³
	1	2	3	4	5	6				
Public reports	20	41	24	10	5	3	2.4	1.06	0.64	0.44
Staff training	17	43	21	13	6	2	2.5	1.09	0.63	0.43
Auditing	16	32	29	16	7	3	2.7	1.14	0.31	0.42
Community activities	32	41	24	3	0	4	2.0	0.85	0.48	0.42
Direct impact of internal operations	36	38	20	5	1	5	2.0	0.93	0.78	0.46
Stakeholders' requirements	33	45	18	3	1	5	1.9	0.83	0.69	0.43
Compliance with law	20	39	27	9	5	8	2.4	1.09	0.59	0.45
Culture of environmental protection	19	35	33	10	3	7	2.4	0.99	0.35	0.41

⁷¹ The lower the value, the higher degree of respondent agreement

⁷² SD is Standard Deviation

⁷³ CV is Coefficient of Variance

Table 6.1.b Informed people views regarding management performance indicators

Management performance indicators	Percentage of respondents in each category						Mean score	SD	Skewness	CV
	1	2	3	4	5	6				
Public reports	42	29	13	11	5	2	2.1	1.22	0.91	0.60
Staff training	28	45	11	13	3	1	2.2	1.08	0.86	0.49
Auditing	20	33	25	13	9	2	2.6	1.20	0.46	0.46
Community activities	28	47	18	7	0	0	2.0	0.85	0.57	0.42
Direct impact of internal operations	57	30	11	2	0	0	1.6	0.77	1.16	0.48
Stakeholders' requirements	34	39	24	3	0	0	2.0	0.84	0.40	0.42
Compliance with law	30	35	18	9	9	2	2.3	1.25	0.79	0.54
Culture of environmental protection	41	31	16	9	3	0	2.0	1.10	0.93	0.55

The contents of the above two tables help to interpret each theme as follows:

Providing public reports on banks' environmental performance

Sixty-one percent of the public respondents agreed that banks in New Zealand should be legally required to provide public reports on their environmental performance, compared with a minority (15%) who disagree. In contrast, 71% of informed respondents agreed and only 16% disagreed. However, comparing the two means (2.1, 2.4), the informed respondents show a significantly higher level of agreement.

Staff training

Nearly 60% of the public respondents agreed that lending staff should be trained to professionally consider environmental issues when making lending decisions. However, 19% disagreed. On the other hand, 73% of informed respondents agreed and 16% disagreed. Comparing the two means (2.2, 2.5), the informed respondents show a significantly higher level of agreement.

Lending processes are audited by external environmental auditor

A significant proportion of the public respondents, 28%, neither agreed nor disagreed that banks in New Zealand should be required to have their lending processes audited by an external environmental auditor. This level of neutrality shifted the mean towards the moderate extent of agreement, an effect which was

also reflected in the mean of informed respondents' agreement. The values of the two means, the public respondents, 2.7, and the informed respondents, 2.6, were the lowest level of agreement with the two groups' indicators and were not significantly different.

Supporting community activities

Both sets of respondents had almost the same level of agreement, 73% and 75% respectively and the same value of mean, 2.0, that banks should give priority to supporting community activities.

Minimizing the direct impact of their operations on the environment

Both sets of respondents indicated that banks should give priority to minimizing the environmental impact of their own operations, for example, managing their paper, transport and energy usage. The highest mean value, 1.6, which was scored by informed respondents, confirms that this group felt strongly that banks should consider such a priority. However, when the two means compared (2.0, 1.6), both sets of respondents showed a significant higher level of agreement.

Responding to stakeholders' requirements

Responding to stakeholders' requirements was a fundamental demand from both sets of respondents, indicating that banks should listen and act on the views of stakeholders (78% and 73%). However, when the two means (1.9, 2.0) were compared, both sets of respondents showed a significant higher level of agreement.

Compliance with law

Only 14% of the public respondents and 18% of informed respondents, disagreed that banks should give priority to enhancing compliance with laws designed to ensure the incorporation of environmental considerations into banks' lending processes. The mean values of both sets of respondents (2.4 and 2.3) indicated that such compliance is significant.

Enhancing a culture of environmental protection

There was a significant difference of 18% with regard to the level of agreement between the two sets of respondents, with informed respondents believing that banks should give priority to enhancing a culture of environmental protection within a bank, for example, by having an environmental policy, a code of banking practice and clear environmental roles and responsibilities. That level of recognition was reflected by informed respondents' mean score, 2.0, compared to 2.4 for the public respondents. These responses are significantly different.

Figure 6.1 indicates that informed respondents, more so than the public respondents, required banks' management to be more effective in taking on their responsibilities towards environmental issues relevant to lending decisions. It can be concluded, however, that both sets of respondents agreed that banks in New Zealand should consider the themes included in this managerial category. However, the emphasis was weaker with regard to the audit indicator, but stronger with regard to banks' involvement in community activities, internal operations and stakeholder demands.

Figure 6.1 Respondents' views on management performance indicators (in mean score)

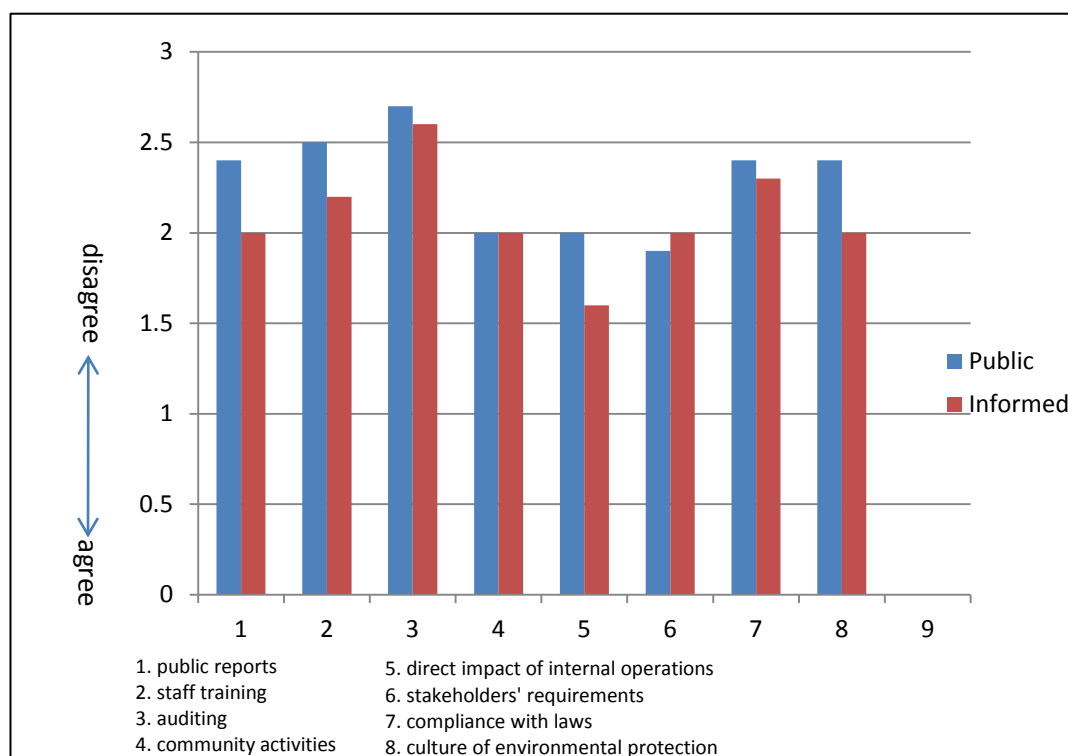


Table 6.2 provides quantitative information for each group, described in terms of socio-demographic characteristics.

Table 6.2 Respondents' views on management performance according to their socio-demographic characteristics

Socio-demographic characteristics	Public respondents		Informed respondents	
	Mean	SD	Mean	SD
Education				
High school	2.24	0.71	2.60	1.12
Tertiary but no degree	2.28	0.75	1.98	0.55
Bachelor's degree	2.27	0.69	2.00	0.72
Post-graduate's degree/master's degree	2.17	0.75	2.14	0.91
Doctorate	2.78	0.86	2.00	0.80
Other	2.28	0.82	-	-
Employment				
Work for pay or profit	2.30	0.73	2.11	0.78
Student	2.11	0.81	1.00	0.00
Unemployed	2.05	0.57	0.00	0.00
Retired	2.02	0.80	1.06	0.09
Other	2.16	0.62	1.50	0.00
Gender				
Male	2.35	0.75	2.12	0.82
Female	2.12	0.68	2.02	0.74
Age				
20-29	2.28	0.60	2.40	0.98
30-39	2.23	0.71	2.14	0.79

Socio-demographic characteristics	Public respondents		Informed respondents	
	Mean	SD	Mean	SD
40-49	2.22	0.78	1.96	0.61
50-59	2.33	0.84	1.82	0.55
60-69	2.27	0.75	2.67	1.13
70+	2.24	0.74	1.13	0.00
Participation in organizations				
Environmental group - participant	1.91	0.57	1.92	0.75
Environmental group - member	1.89	0.66	2.06	0.88
Environmental group - no involvement	2.34	0.73	2.27	0.79
Community group - participant	2.16	0.71	1.95	0.69
Community - member	2.26	0.75	2.18	0.95
Community - no involvement	2.32	0.72	2.30	0.85
Religious group - participant	2.10	0.71	1.99	0.84
Religious group - member	2.24	0.74	2.31	0.73
Religious - no involvement	2.30	0.73	2.05	0.78
Business association - participant	2.23	0.69	2.23	0.87
Business association - member	2.49	0.91	2.40	0.91
Business association - no involvement	2.24	0.72	1.93	0.68
Trade union - participant	2.02	0.72	1.68	0.54
Trade union - member	2.09	0.72	2.38	0.88
Trade union - no involvement	2.3	0.73	2.07	0.77
Political party - participant	2.22	0.86	1.4	0.40
Political party - member	2.00	0.73	1.83	0.45
Political party - no involvement	2.27	0.72	2.18	0.80
Ethnic group				
Asian	2.09	0.66	2.54	1.12
New Zealand European	2.32	0.72	2.05	0.78
Maori	1.91	0.71	1.62	0.36
Pacific Islander	2.03	0.56		
Other	2.31	0.75	2.62	0.45
Work sector				
Financial institution	2.39	0.69	-	
University	2.31	0.91	2.11	0.92
Media	2.11	0.62	-	-
Government	2.14	0.66	2.13	0.76
Other public organizations	2.31	0.76	2.00	0.35
Agriculture	2.34	0.75	-	-
Construction, manufacturing, I.T. industry, transport, automotive	2.33	0.72	-	-
Retail and wholesale trade, sales	2.30	0.77	1.5	0.00
None and home executive	2.23	0.72	2.03	0.75
Regions in New Zealand				
Auckland, Coromandel, Northland	2.23	0.69		
Waikato	2.37	0.79	2.07	0.78
Bay of Plenty, Central Plateau, East Coast	2.18	0.77		
Wellington, Wanganui - Manawatu, Wairarapa, Taranaki, Hawkes Bay	2.26	0.71		
Nelson, Marlborough	2.20	0.64		
West Coast, Canterbury	2.28	0.72		
Otago, Southland, Stewart Island, Fiordland	2.27	0.83		
Overall	2.26	0.72	2.07	0.78

The data presented in Table 6.2 facilitates interpretation of management performance. A comparison of the two means (2.26, 2.07) of the two sets of respondents, showed a significantly high level of agreement that banks' management should consider environmental issues when making lending decisions.

6.2.2 Operational performance

This category reflects attitudes in New Zealand regarding how banks in their lending decisions should take specific actions based on environmental commitments. Tables 6.3.a and 6.3.b provide basic statistical descriptions with regard to each indicator for the public respondents and informed respondents.

Table 6.3.a Public respondents' views regarding operational performance indicators

Operational Performance	Percentage of respondents in each category						Mean score	SD	Skewness	CV
	1	2	3	4	5	6				
Environmental clause in the loan application form	14	38	26	15	7	3	2.6	1.1	0.45	0.42
Considering environmental issues	30	43	15	8	4	2	2.1	1.05	0.97	0.50
External report	11	26	21	27	15	24	3.0	1.25	-0.05	0.41
Borrower compliant with environmental standards	18	33	29	13	7	6	2.6	1.13	0.42	0.43
Opportunities for lending to projects with environmental benefit	14	52	24	9	2	7	2.3	0.89	0.72	0.38

Table 6.3.b Informed respondents' views regarding operational performance indicators

Operational Performance	Percentage of respondents in each category						Mean score	SD	Skewness	CV
	1	2	3	4	5	6				
Environmental clause in the loan application form	25	46	13	11	5	1	2.3	1.1	0.89	0.47
Considering environmental issues	35	45	9	8	3	0	2.0	1.02	1.21	0.51
External report	10	24	21	26	19	16	3.0	1.28	-0.10	0.42
Borrower compliant with environmental standards	30	42	18	5	5	0	2.1	1.07	1.02	0.50
Opportunities for lending to projects with environmental benefit	29	48	14	8	1	10	2.0	0.93	0.85	0.46

The contents of Tables 6.3.a and 6.3 b facilitate an interpretation of the following themes:

Environmental clause in the loan application form

Fifty two percent of the public respondents agreed that banks in New Zealand should include an environmental clause in their loan application forms. Although almost one quarter of public respondents moderately agreed (m=2.6), informed respondents were more supportive (m=2.3).

Considering environmental issues when making lending decisions

Both sets of respondents reflected agreement (m=2.1, 2.0) that banks in New Zealand should consider environmental issues when making lending decisions on projects which might affect the environment. An overwhelming 80% of informed respondents agreed with this practice.

Obtaining an expert external report

Both sets of respondents scored a similar mean, 3.0, which showed their reluctance to agree or disagree that banks in New Zealand should obtain an expert external report evaluating the environmental risks associated with activities to be funded.

Borrowers are compliant with environmental standards

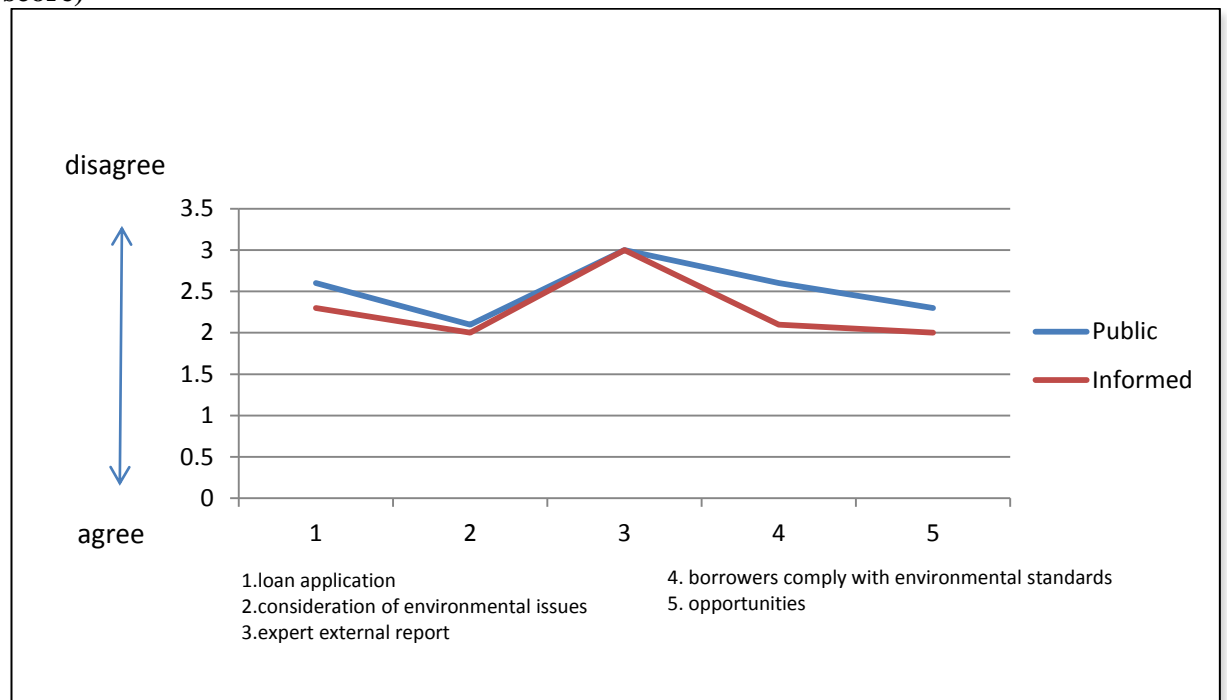
Seventy two percent of informed respondents believed that banks should make sure that people/ businesses who borrow money are compliant with environmental standards and practices. However, a significant percentage of the public respondents (29%) tended to be less supportive than the informed respondents. The means were significantly different (2.6, 2.1).

Opportunities for lending to projects with significant environmental benefits

Informed respondents were more likely than public respondents to recognize that professional consideration of environmental issues in banks' lending practices is likely to lead to opportunities for lending for projects with significant environmental benefits (m=2.0, 2.3).

Figure 6.2 shows the level of the two sets of respondents' agreement and disagreement with regard to the banks' operational performance indicators. Informed respondents were more supportive than the public respondents in agreeing that banks in New Zealand should effectively take further action with regard to the operational indicators in their lending activities. However, both sets of respondents seemed to be less supportive in regard to agreeing with obtaining an expert external report.

Figure 6.2 Respondents' views on the operational performance (in mean score)



For further interpretation, Table 6.4 provides a statistical description of the operational performance for the two sets of respondents with regard to the socio-demographic characteristics.

Table 6.4 Respondents' views on operational performance according to their socio-demographic characteristics

Socio-demographic characteristics	Public respondents		Informed respondents	
	Mean	SD	Mean	SD
Level of Education				
High school	2.47	0.78	2.60	0.69
Tertiary but no degree	2.56	0.85	2.10	0.60
Bachelor's degree	2.59	0.81	2.30	0.75
Post-graduate's degree/master's degree	2.40	0.81	2.45	0.98
Doctorate	3.05	0.80	2.08	0.66
Other	2.64	0.86		
Employment status				
Work for pay or profit	2.56	0.81	2.36	0.76
Student	2.36	0.78	1.00	0.00
Unemployed	2.33	0.64	-	-
Retired	2.62	0.96	1.20	0.28
Other	2.32	0.72	1.80	0.00
Gender				
Male	2.62	0.82	2.26	0.87
Female	2.37	0.79	2.32	0.70
Age				
20-29	2.44	0.67	2.65	0.65
30-39	2.62	0.82	2.25	0.68
40-49	2.50	0.84	2.17	0.54
50-59	2.56	0.88	2.12	0.69
60-69	2.64	0.91	2.88	1.47
70+	2.36	0.83	1.40	0.00
Participation in organizations				
Environmental group – participant	2.17	0.75	2.15	0.87
Environmental group – member	2.20	0.72	2.37	0.75
Environmental group - no involvement	2.62	0.82	2.44	0.68
Community group – participant	2.44	0.79	2.22	0.68
Community group – member	2.56	0.88	2.58	0.87
Community group - no involvement	2.57	0.80	2.26	0.94
Religious group – participant	2.51	0.80	2.10	0.72
Religious group – member	2.47	0.82	2.65	0.84
Religious group - no involvement	2.55	0.82	2.25	0.77
Business association – participant	2.57	0.84	2.43	0.86
Business association – member	2.74	0.98	2.74	0.69
Business association - no involvement	2.51	0.80	2.13	0.73
Trade union – participant	2.18	0.79	1.82	0.42
Trade union – member	2.30	0.75	2.46	0.70
Trade union - no involvement	2.60	0.82	2.32	0.83
Political party – participant	2.36	0.94	1.75	0.64
Political party – member	2.29	0.77	2.40	0.72
Political party - no involvement	2.55	0.81	2.36	0.79
Ethnic group				
Asian	2.28	0.78	2.99	1.11
New Zealand European	2.61	0.81	2.23	0.77
Maori	2.12	0.83	2.12	0.50
Pacific Islander	2.18	0.62	-	-
Other	2.72	0.82	3.06	0.70

Socio-demographic characteristics	Public respondents		Informed respondents	
	Mean	SD	Mean	SD
Work sector				
Financial institution	2.54	0.58	-	
University	2.58	0.89	2.20	0.80
Media	2.46	0.83	-	
Government	2.42	0.78	2.44	0.84
Other public organizations	2.60	0.85	2.08	0.52
Agriculture	2.50	0.81	-	
Construction, manufacturing, I.T. industry, transport, automotive	2.59	0.86	-	
Retail and wholesale trade, sales	2.56	0.80	1.90	0.14
Other	2.54	0.85	2.34	0.82
Regions in New Zealand				
Auckland, Coromandel, Northland	2.55	0.82		
Waikato	2.43	0.78	2.29	0.78
Bay of Plenty, Central Plateau, East Coast	2.50	0.86		
Wellington, Wanganui - Manawatu, Wairarapa, Taranaki, Hawkes Bay	2.56	0.83		
Nelson, Marlborough	2.67	0.64		
West Coast, Canterbury	2.48	0.79		
Otago, Southland, Stewart Island, Fiordland	2.50	0.94		
Overall	2.53	0.82	2.29	0.78

Table 6.4 facilitates interpretation of the operational performance indicators with regard to the respondents' socio-demographic characteristics. The means (2.53, 2.29) of the two sets of respondents showed a significant level of agreement that banks' management should take specific actions to incorporate environmental issues into banks' lending decisions.

6.2.3 Motivations and outcomes

Tables 6.5.a and 6.5.b provide basic statistical data for each theme.

Table 6.5.a Public respondents' views regarding motivational drivers' indicators

Motivations and outcomes	Percentage of respondents in each category						Mean score	SD	Skewness	CV
	1	2	3	4	5	6				
Enhancing banks' performance in the long run	9	42	31	14	4	7	2.6	0.96	0.47	0.36
Environmental responsibility and banks' success mutually reinforcing	7	37	35	17	4	9	2.7	0.95	0.33	0.35
Lending decisions necessary for sustainable environment and economy	25	51	17	6	1	4	2.0	0.85	0.82	0.42
Financial reasons	35	36	20	6	3	13	2.0	1.03	0.86	0.51
Environmental reasons	12	25	25	26	11	20	3.0	1.20	-0.02	0.33
Management concerns	22	40	26	8	4	16	2.3	1.01	0.62	0.43
Ethical stance of banks' staff	17	31	21	21	10	19	2.8	1.23	0.24	0.43
Perception of environmental responsibility	12	27	28	23	10	19	2.9	1.17	0.08	0.40
Maintaining long-term profitability	24	46	25	4	1	5	2.1	0.84	0.46	0.40
Sustainable environment in New Zealand	34	38	20	5	3	6	2.0	0.85	0.82	0.42
Lending to productive firms even where there is environmental risk	7	16	37	31	10	8	3.2	1.04	-0.24	0.32
New Zealand government facilitates effective environmental management	4	18	44	27	7	25	3.1	0.93	-0.10	0.3
Loan will be paid	46	33	15	3	3	10	1.9	0.99	1.22	0.52

Table 6.5.b Informed respondents' views regarding motivational drivers indicators

Motivations and outcomes	Percentage of respondents in each category						Mean score	SD	Skewness	CV
	1	2	3	4	5	6				
Enhancing banks' performance	22	47	12	16	3	8	2.3	1.10	0.71	0.47
Environmental responsibility and banks' success	10	30	31	24	5	14	2.8	1.06	0.07	0.38
Lending decisions necessary for sustainable environment and economy	41	47	10	2	0	0	1.7	0.72	0.79	0.42
Financial reasons	78	20	0	2	0	1	1.3	0.57	2.78	0.43
Environmental reasons	10	8	13	40	29	5	3.7	1.26	-0.91	0.34
Management concerns	22	49	21	4	4	13	2.2	0.94	0.98	0.42
Ethical stance	15	29	33	12	11	12	2.8	1.18	0.34	0.41
Perception of environmental responsibility	6	19	27	35	13	11	3.3	1.11	-0.29	0.33
Maintain Long-term profitability	42	47	11	0	0	0	1.7	0.65	0.42	0.38
Sustainable environment in New Zealand	53	25	19	3	0	0	1.7	0.72	0.79	0.42
Lending to productive firms even where there is environmental risk	5	8	25	37	24	2	3.7	1.09	-0.69	0.30
New Zealand government facilitates effective environmental management	3	3	22	52	20	31	3.8	0.90	-0.97	0.23
Loan will be paid	79	21	0	0	0	5	1.2	0.40	1.44	0.33

Tables 6.5.a and 6.5.b provide data to describe each indicator in the motivational performance as follows:

Enhancing banks' performance in the long run

Fifty-one percent of the public respondents agreed that professional consideration of environmental issues in banks' lending practices is likely to enhance banks' performance in the long run. A significant percentage of respondents (31%) moderately agreed. In comparison, 69% of informed respondents agreed with the proposition. However, a comparison of the two means (2.6, 2.3), showed a significantly higher level of agreement by the informed respondents.

Environmental responsibility and banks' success are mutually reinforcing

Twenty-nine percent of informed respondents and 21% of public respondents did not agree that environmental responsibility and banks' success are mutually reinforcing. Also, approximately one third of both sets of respondents were reluctant to agree or disagree. However, the two means (2.8, 2.7), indicated that both sets of respondents showed a moderate level of agreement.

Sound lending decisions are necessary for a sustainable environment and economy

Seventy-six percent of public respondents, in comparison with an overwhelming 88% of informed respondents, agreed that sound lending decisions are necessary for a sustainable environment and economy. However, the two means (2.0, 1.7), indicated that both sets of respondents had a highly significant level of agreement.

Financial reasons

Seventy-one percent of public respondents agreed that financial reasons have been determining banks' lending decisions. On the other hand, an overwhelming majority, 98%, of informed respondents agreed with that statement. However, the two means (2.0, 1.3), indicated that both sets of respondents showed a high level of agreement, but that of informed respondents was highly significant.

Environmental reasons

Eighteen percent of informed respondents agreed that banks are motivated by environmental reasons when make lending decisions, but public respondents were split between agree (37%), neutral (25%) and disagree (37%). However, the two means (3.0, 3.7), indicated that public respondents showed moderate agreement, but informed respondents tended to disagree. These responses are significantly different.

Management concerns

In comparison with 71% of informed respondents, 62% of the public respondents believed that management concerns about banks' reputation and pressure from stakeholders have been instrumental in determining banks' lending decisions. However, when the two means were compared (2.3, 2.2), both sets of respondents showed a high level of agreement but that of informed respondents was slightly more significant

The ethical stance of senior bank staff

Both sets of respondents had a similar view and both moderately agreed that lending decisions are motivated by the banks' management's ethical stance (m=2.8).

Banks' perception of environmental responsibility

Almost half of informed respondents disagreed that banks' management is motivated by environmental reasons. But also, more than one quarter of both sets of respondents moderately agreed regarding this. A comparison of the two means (2.9, 3.3) indicated that informed respondents showed a higher level of disagreement than public respondents.

Maintain long-term profitability

There was a strong tendency among the two sets of respondents to agree that banks should give priority to maintaining long-term profitability (m=2.1, 1.7).

However, this tendency was highly significant for informed respondents (89% agreed).

Maintain sustainable environment in New Zealand

The majority of both sets of respondents (72% and 78%) believed that banks should give priority to maintaining a sustainable environment in New Zealand. A comparison of the two means (2.0, 1.7) indicated that informed respondents had a higher level of agreement than public respondents.

Lending to highly productive firms even where there is environmental risk

Sixty-one percent of informed respondents, compared to 41% of public respondents, disagreed that banks should give priority to lending to highly productive firms, even where there is environmental risk; this compares with only 13% of informed respondents who believed that. However, 37% of the public respondents and 25% of informed respondents had a moderate level of agreement/disagreement. When the two means (3.2, 3.7) were compared, informed respondents showed a significantly higher level of disagreement than public respondents.

New Zealand government facilitates effective environmental management

Only 6% of informed respondents agreed that the New Zealand government facilitates effective environmental management by banks. However, nearly one quarter of informed respondents and 44% of the public showed moderate agreement/disagreement. A comparison of the two means (3.1, 3.8) indicated that the informed respondents had a significantly higher level of disagreement.

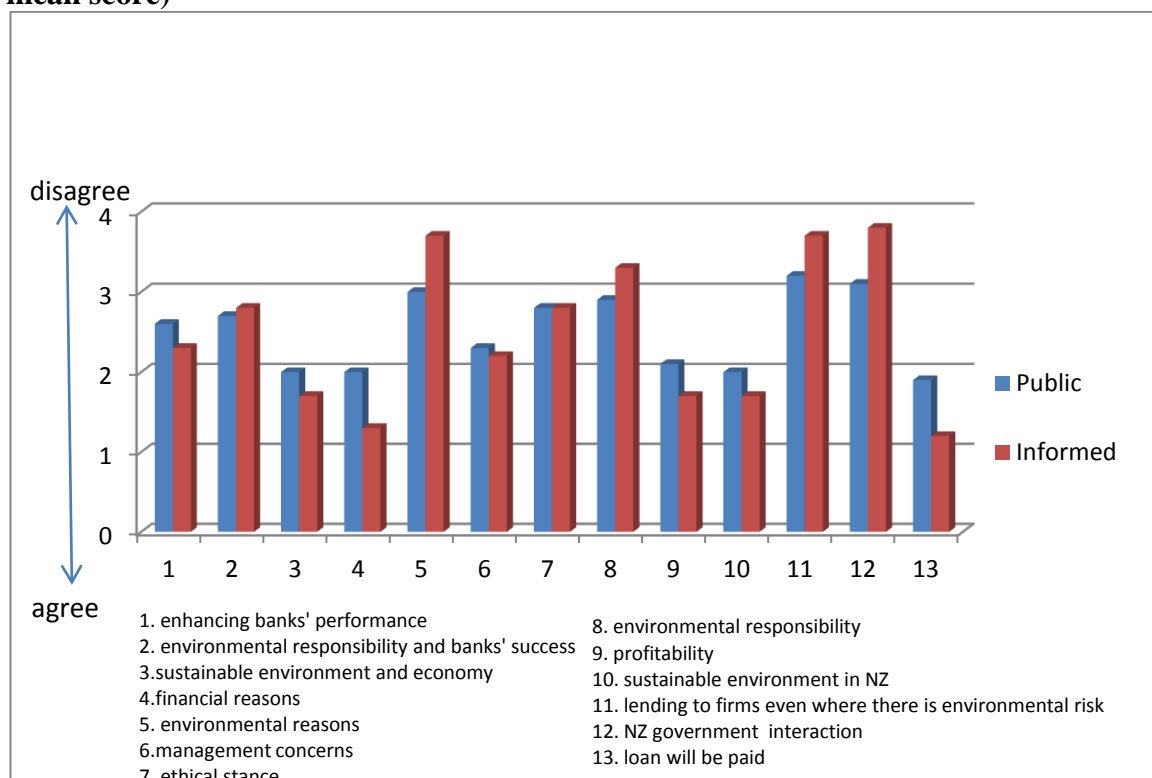
The loan will be paid

Informed respondents had no doubt (100%) that the bank's confidence that the loan will be repaid on time has been a factor in determining banks' lending decisions. On the contrary, 79% of the public believed that. This indicator scored the highest among other indicators in this category. A comparison of the two means (1.9, 1.2) indicated that both sets of respondents had a high level of

agreement, but informed respondents showed an overwhelmingly high level of agreement.

To obtain a general trend of respondents' attitudes with regard to motivational drivers, the following diagram presents the level of importance of the motivational indicators in determining banks' lending decisions.

Figure 6.3 Respondents' views on motivational drivers' performance (in mean score)



The figure reveals that respondents agreed that banks in New Zealand are mainly driven by financial reasons, e.g., profitability, seeking the payment of loans as a priority, and balancing between a sustainable economy and environment. However, environmental reasons and governmental interactions scored the least. Also, there is an acceptable level of agreement between respondents that banks should not lend to firms where there is an environmental risk.

For further explanation of how motivational drivers are interpreted from the socio-demographic perspective, Table 6.6 provides statistical descriptions for each theme as follows:

Table 6.6 Respondents' views on motivational drivers' performance according to their socio-demographic characteristics

Socio-demographic characteristics	Public respondents		Informed respondents	
	Mean	SD	Mean	SD
Education				
High school	2.52	0.59	2.61	0.00
Tertiary but no degree	2.57	0.55	2.52	0.40
Bachelor's degree	2.44	0.45	2.36	0.25
Post-graduate's degree/master's degree	2.42	0.50	2.52	0.47
Doctorate	2.58	0.31	2.42	0.40
Other	2.55	0.54	-	-
Employment				
Work for pay or profit	2.56	0.55	2.46	0.35
Student	2.46	0.58	-	-
Unemployed	2.48	0.45	-	-
Retired	2.43	0.57	1.69	0.00
Other	2.32	0.47	2.84	0.00
Gender				
Male	2.58	0.54	2.44	0.41
Female	2.39	0.54	2.47	0.31
Age				
20-29	2.47	0.50	2.66	0.36
30-39	2.58	0.49	2.34	0.35
40-49	2.48	0.63	2.66	0.27
50-59	2.57	0.53	2.29	0.38
60-69	2.59	0.55	2.36	0.45
70+	2.32	0.50	-	-
Participation in organizations				
Environmental group - participant	2.32	0.52	2.41	0.34
Environmental group - member	2.41	0.55	2.36	0.27
Environmental group - no involvement	2.56	0.54	2.51	0.42
Community group - participant	2.41	0.51	2.51	0.39
Community group - member	2.55	0.55	2.45	0.19
Community group - no involvement	2.56	0.55	2.32	0.41
Religious group - participant	2.49	0.54	2.45	0.54
Religious group - member	2.50	0.55	2.45	0.32
Religious group - no involvement	2.53	0.54	2.45	0.33
Business association - participant	2.48	0.51	2.44	0.27
Business association - member	2.68	0.51	2.63	0.12
Business association - no involvement	2.51	0.55	2.42	0.46
Trade union - participant	2.25	0.50	2.28	0.66
Trade union - member	2.50	0.53	2.50	0.35
Trade union - no involvement	2.54	0.54	2.46	0.34
Political party - participant	2.45	0.70	2.36	0.49
Political party - member	2.38	0.49	2.51	0.31
Political party - no involvement	2.53	0.54	2.46	0.37
Ethnic group				
Asian	2.28	0.50	2.50	0.05
New Zealand European	2.57	0.51	2.43	0.37
Maori	2.23	0.60	-	-
Pacific Islander	2.24	0.60	-	-
Other	2.82	0.62	3.00	0.00

Socio-demographic characteristics	Public respondents		Informed respondents	
	Mean	SD	Mean	SD
Work sector				
Financial institution	2.48	0.44		
University	2.48	0.50	2.36	0.46
Media	2.63	0.55		
Government	2.46	0.53	2.40	0.38
Other public organizations	2.58	0.56	2.58	0.42
Agriculture	2.33	0.55		
Construction, manufacturing, I.T. industry, transport, automotive	2.61	0.54		
Retail and wholesale trade, sales	2.60	0.61	2.46	0.00
None and home executive	2.47	0.52	2.54	0.27
Regions in New Zealand				
Auckland, Coromandel, Northland	2.52	0.51		
Waikato	2.43	0.59	2.45	0.37
Bay of Plenty, Central Plateau, East Coast	2.45	0.60		
Wellington, Wanganui-Manawatu, Wairarapa, Taranaki, Hawkes Bay	2.61	0.54		
Nelson, Marlborough	2.47	0.49		
West Coast, Canterbury	2.47	0.57		
Otago, Southland, Stewart Island, Fiordland	2.48	0.57		
Overall	2.52	0.54	2.45	0.37

The statistical data in Table 6.6 helps to interpret respondents' views with regard to their socio-demographic characteristics on what motivates banks to consider environmental issues when making lending decisions. A comparison of the two means (2.52, 2.45) indicated that both sets of respondents had almost similar views with regard to the motivational drivers.

6.2.4 The government and public performance

Tables 6.7.a and 6.7.b provide basic statistical data under five themes, as follows:

Table 6.7.a Public respondents' views regarding government and public performance indicators

Public and government performance	Percentage of respondents in each category						Mean score	SD	Skewness	CV
	1	2	3	4	5	6				
Satisfaction of respondents	2	16	51	27	4	20	3.1	0.80	-0.04	0.26
Borrowers comply with legal requirements	23	43	18	11	5	3	2.3	1.09	0.74	0.47
Public has sufficient control	3	13	28	43	13	12	3.5	0.96	-0.46	0.27
Stakeholders' involvement	14	28	29	22	7	22	2.8	1.15	0.11	0.41
Environmental laws	13	30	27	19	11	20	2.8	1.19	0.22	0.41

Table 6.7.b Informed respondents' views regarding government and public performance indicators

Public and government performance	Percentage of respondents in each category						Mean score	SD	Skewness	CV
	1	2	3	4	5	6				
Satisfaction of respondents	4	7	27	42	20	41	3.7	1.00	-0.65	0.27
Borrowers comply with legal requirements	30	36	13	13	8	4	2.3	1.25	0.71	0.54
Public has sufficient control	3	3	16	46	32	16	4.0	0.91	-1.08	0.22
Stakeholders' involvement	8	23	30	32	7	16	3.0	1.06	-0.19	0.35
Environmental laws	18	22	20	27	13	17	2.9	1.32	-0.04	0.45

Tables 6.7.a and 6.7.b demonstrate the interpretation of the five themes, as follows:

Satisfaction of the respondents

When asked about their satisfaction with the progress banks have made, a mere 18% of the public respondents agreed they had progressed very far, compared to an even smaller 11% of informed respondents. A comparison of the two means (3.1, 3.7) indicated that informed respondents had a significantly higher level of disagreement.

Borrowers comply with legal requirements

Sixty six percent of both sets of respondents agreed that banks should make sure that borrowers comply with legal requirements. When the two means (2.3, 2.3) were compared both sets of respondents showed similar levels of agreement.

Public has sufficient control over the way banks manage environmental issues

Only 16% of the public respondents and 6% of informed respondents agreed that the public in New Zealand has sufficient control over the way banks manage environmental issues when making lending decisions. A comparison of the two means (3.5, 4.0) indicated that informed respondents had a higher level of disagreement than public respondents.

Stakeholders persuading banks to be environmentally responsible

Thirty one percent of public respondents and 42% of informed respondents agreed that stakeholders have been an important factor in determining banks' lending decisions. However, 39% of informed people were against the suggestion. The two means (2.8, 3.0) showed that both sets of respondents moderately agreed.

Importance of environmental laws that affect lending decisions

Both sets of respondents (43% and 40%) agreed that environmental laws have been important factors in determining banks' lending decisions. A comparison of the two means (2.8, 2.9) indicated that both sets had a moderate level of agreement

Figure 6.4 illustrates the level of the two sets of respondents' agreement and disagreement with regard to the government and public performance. The Figure clearly shows the weak role of the public in affecting the banks' lending decisions from an environmental perspective. The weakness of this role was emphasized in the view of informed respondents. The diagram also indicates a significant level of respondents' dissatisfaction regarding the progress banks have made in incorporating environmental issues into lending decisions. However, the figure also shows that both sets of respondents agreed that banks should fulfil their obligations by making sure borrowers comply with legal requirements.

Figure 66.4 Respondents' views on satisfaction regarding government and public performance (in mean score)

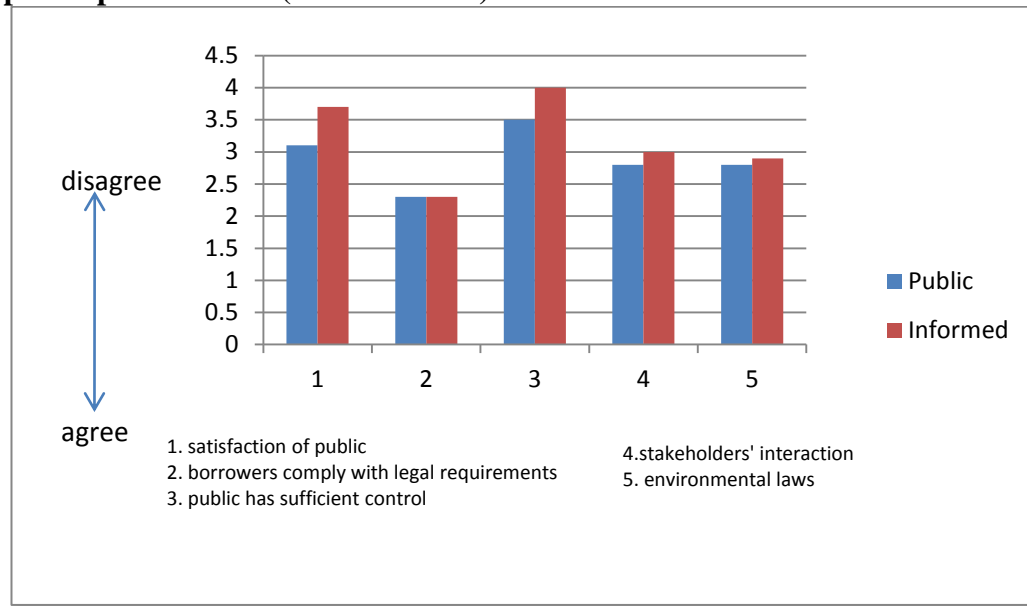


Table 6.8 provides statistical information of how the government and public performance category is affected by the socio-demographic characteristics, as follows:

Table 6.8 Respondents' views on government and public performance according to their socio-demographic characteristics

Socio-demographic characteristics	Public respondents		Informed respondents	
	Mean	SD	Mean	SD
Level of Education				
High school	2.82	0.68	3.59	0.00
Tertiary but no degree	2.92	0.65	3.12	0.54
Bachelor's degree	2.99	0.65	3.33	0.54
Post-graduate's degree/master's degree	2.85	0.67	3.24	0.94
Doctorate	3.65	0.29	3.02	0.80
Other	2.84	0.60	-	-
Employment status				
Work for pay or profit	2.93	0.66	3.24	0.70
Student	2.81	0.60	-	-
Unemployed	2.77	0.58	-	-
Retired	2.90	0.70	2.40	0.00
Other	2.70	0.70	3.59	0.00
Gender				
Male	2.96	0.65	3.19	0.77
Female	2.78	0.67	3.27	0.62
Age				
20-29	2.83	0.61	3.3	0.67
30-39	2.89	0.65	3.06	0.62
40-49	2.82	0.71	3.36	0.68
50-59	3.01	0.66	3.18	0.92
60-69	3.06	0.61	3.30	0.62

Socio-demographic characteristics	Public respondents		Informed respondents	
	Mean	SD	Mean	SD
70+	2.75	0.75	-	-
Participation in organizations				
Environmental group - participant	2.71	0.65	3.27	0.65
Environmental group - member	2.87	0.65	3.15	0.55
Environmental group - no involvement	2.93	0.66	3.18	0.84
Community group - participant	2.83	0.65	3.28	0.64
Community group - member	2.95	0.66	3.25	0.47
Community group - no involvement	2.91	0.66	3.11	0.96
Religious group - participant	2.88	0.65	3.20	0.89
Religious group - member	2.90	0.65	3.63	0.64
Religious group - no involvement	2.90	0.67	3.08	
Business association - participant	2.91	0.60	3.30	0.54
Business association - member	3.18	0.73	3.55	0.52
Business association - no involvement	2.87	0.66	3.12	0.82
Trade union - participant	2.66	0.67	3.03	1.15
Trade union - member	2.88	0.70	3.29	0.65
Trade union - no involvement	2.92	0.65	3.25	0.63
Political party - participant	2.66	0.87	3.03	0.38
Political party - member	2.85	0.68	4.04	0.19
Political party - no involvement	2.91	0.65	3.17	0.72
Ethnic group				
Asian	2.56	0.59	3.59	0.59
New Zealand European	2.96	0.61	3.16	0.70
Maori	2.54	0.69	4.00	0.00
Pacific Islander	2.45	0.65	-	
Other	3.26	0.79	-	
Work sector				
Financial institution	2.94	0.65	-	-
University	3.09	0.70	2.90	0.92
Media	3.00	0.72		
Government	3.01	0.62	3.04	0.47
Other public organization	2.89	0.69	3.92	0.10
Agriculture	2.86	0.88		
Construction , manufacturing, I.T. industry, transport, automotive	2.92	0.62		
Retail and wholesale trade, sales	2.83	0.66	3.00	0.00
None and home executive	2.85	0.66	3.49	0.62
Regions in New Zealand				
Auckland, Coromandel, Northland	2.92	0.61		
Waikato	2.80	0.65	3.23	0.70
Bay of Plenty, Central Plateau, East Coast	2.78	0.78		
Wellington, Wanganui-Manawatu, Wairarapa, Taranaki, Hawkes Bay	2.89	0.64		
Nelson, Marlborough	3.00	0.73		
West Coast, Canterbury	2.89	0.72		
Otago, Southland, Stewart Island, Fiordland	2.96	0.71		
Overall	2.90	0.66	3.23	0.70

The data presented in Table 6.8 provides guidelines for interpreting the respondents' views on the government and public performance. The public

respondents were moderately satisfied with the interaction between the government and the public and their interaction and communication with banks, but there was less satisfaction among informed respondents. When the two means (2.9, 3.23) were compared it was clear that informed respondents showed a slighter level of disagreement with regard to government and public performance.

6.2.5 The effectiveness of banks in New Zealand

Tables 6.9.a and 6.9.b provide statistical data from the public respondents and informed respondents about eight banks in New Zealand. The eight banks are ANZ, ASB, BNZ, Kiwibank, Rabobank, SBS, TSB and Westpac.

Table 6.9.a Public respondents' views regarding the effectiveness of banks in New Zealand in addressing environmental issues

Bank	Percentage of respondents in each category						Mean score	SD	Skewness	CV
	1	2	3	4	5	6				
ANZ	5	17	36	18	24	63	3.4	1.16	-0.05	0.34
ASB	8	27	35	15	15	62	3.0	1.16	0.22	0.38
BNZ	7	19	34	21	19	61	3.3	1.16	-0.05	0.35
Kiwibank	11	32	32	16	9	60	2.8	1.11	0.29	0.39
Rabobank	7	23	31	18	21	72	3.2	1.21	0.01	0.37
SBS	7	24	34	19	16	74	3.1	1.14	0.09	0.36
TSB	3	26	36	21	14	69	3.2	1.06	0.22	0.33
Westpac	7	26	30	19	18	58	3.2	1.19	0.08	0.37

Table 6.9.b Informed respondents' views regarding the effectiveness of banks in New Zealand in addressing environmental issues

Bank	Percentage of respondents in each category						Mean score	SD	Skewness	CV
	1	2	3	4	5	6				
ANZ	0	0	23	8	69	86	4.5	0.87	-1.03	0.19
ASB	10	0	10	20	60	89	4.2	1.31	-1.61	0.31
BNZ	0	7	43	14	36	85	3.8	1.05	0.02	0.27
Kiwibank	0	38	31	0	31	83	3.3	1.29	0.48	0.39
Rabobank	7	27	20	13	33	84	3.4	1.97	-0.10	0.57
SBS	0	11	34	11	44	90	3.9	1.16	-0.28	0.29
TSB	0	0	44	12	44	90	4.0	1.00	0.00	0.25
Westpac	0	7	29	14	50	85	4.0	1.07	-0.53	0.26

Tables 6.9.a and 6.9.b help to describe qualitatively the effectiveness of the eight banks in addressing environmental issues, as follows:

ANZ

Sixty-three percent of the public respondents did not know whether ANZ is effective in addressing environmental issues when making lending decisions, compared to 86% of informed respondents. Overwhelmingly, none of the informed respondents agreed with this proposition. When compared, the two means (3.4, 4.5) indicated that informed respondents had a significantly higher level of disagreement.

ASB

Sixty-two percent of public respondents, compared to (89%) of informed respondents, did not know whether ASB is effective in addressing environmental issues when making lending decisions. When compared, the two means (3.0, 4.2) showed that informed respondents had a significantly higher level of disagreement.

BNZ

Almost one quarter of the public respondents agreed that BNZ is effective in addressing environmental issues when making lending decisions. However, 61% did not know, and 40% disagreed. In contrast, 85% of informed respondents did not know, and only 7% agreed. A comparison of the two means (3.3, 3.8) indicated that informed respondents had a significantly higher level of disagreement.

Kiwibank

Sixty percent of the public respondents did not know whether Kiwibank is effective in addressing environmental issues when making lending decisions, compared with 83% of informed respondents. When compared, the means of the two sets of respondents (2.8, 3.3) indicated that informed respondents had a low level of moderate agreement.

Rabobank

Although a significant percentage of the two sets of respondents (72%, 84%) did not know, there was also a significant percentage (39%, 46%) who disagreed that Rabobank is effective in this regard. A comparison of the means of the two sets of respondents (3.2, 3.4) indicated that both sets had a lower level of moderate agreement.

SBS

Thirty-one percent of public respondents agreed that the SBS is effective in addressing environmental issues, and 74% did not know. However, 55% of informed respondents agreed the bank is not effective, and 90% did not know. When compared, the means of the two sets of respondents (3.1, 3.9) indicated that the informed respondents had a significantly higher level of disagreement.

TSB

Twenty-nine percent of the public respondents agreed the TSB is effective in addressing environmental issues, compared with none of the informed respondents. However, 90% of informed respondents did not know, compared to 69% of the public respondents. The means of the two sets of respondents (3.2, 4.0), when compared, indicated that the informed respondents had a significantly higher level of disagreement.

Westpac

Sixty-four percent of informed respondents disagreed that the bank is effective in addressing environmental issues when making lending decisions, compared to 37% of public respondents. Eighty-five percent of the informed respondents did not know about the bank's effectiveness, compared to 58% of the public respondents. Comparing the two means of both sets of respondents (3.2, 4.0) the informed respondents showed a significantly higher level of disagreement.

Figure 6.5 presents a comparison of the means of public respondents and informed respondents regarding their views on the effectiveness of banks in New

Zealand in addressing environmental issues when making lending decisions. ANZ scored the lowest means from both sets of respondents, TSB and Westpac scored the same means, and Kiwibank scored the best results overall.

Figure 6.5 Respondents’ views on the effectiveness of banks in addressing environmental issues (in mean score)

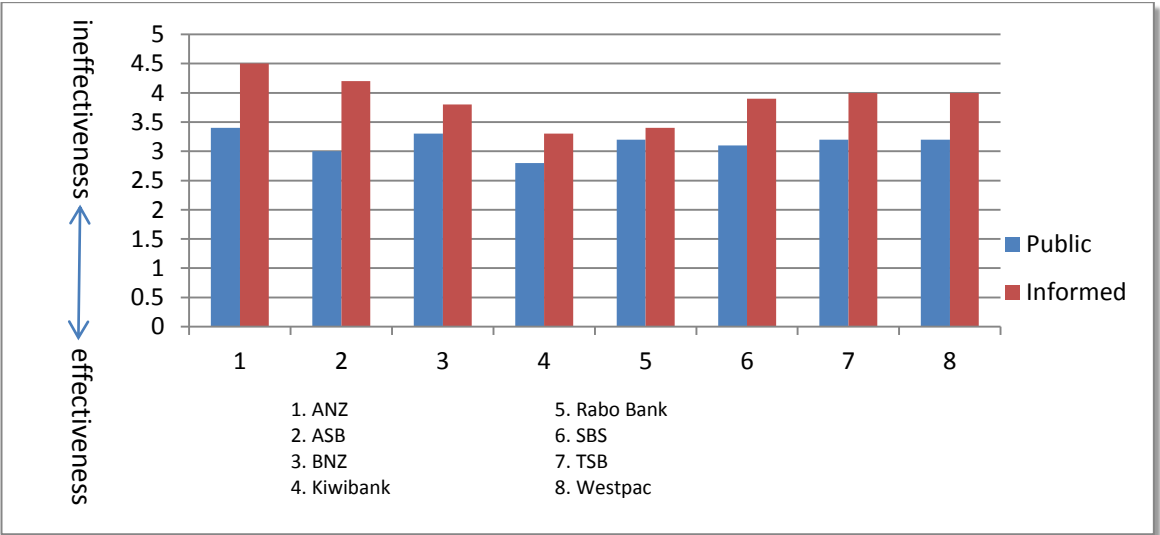


Table 6.10 provides statistical data on the banks’ effectiveness in addressing environmental issues when making lending decisions according to the respondents’ socio-demographic characteristics.

Table 6.10 Respondents' views on banks' effectiveness according to their socio-demographic characteristics

Socio-demographic characteristics	Public respondents		Informed respondents	
	Mean	SD	Mean	SD
Level of Education				
High school	2.95	0.96	5.00	0.00
Tertiary but no degree	3.47	1.03	-	
Bachelor's degree	3.02	0.91	4.37	1.08
Post-graduate's degree/master's degree	3.38	0.91	5.00	0.00
Doctorate	4.12	0.00	-	-
Other	2.58	0.88	-	-
Employment status				
Work for pay or profit	3.25	0.98	4.62	0.83
Student	3.42	1.12		
Unemployed	3.15	1.01		
Retired	2.95	1.06		
Other	3.00	0.98		
Gender				
Male	3.33	1.02	4.06	1.32
Female	2.87	0.88	5.00	0.00
Age				
20-29	3.18	0.91	5.00	0.00
30-39	3.23	0.98	3.12	0.00
40-49	3.10	1.05		
50-59	3.41	1.15	5.00	0.00
60-69	3.07	0.78		
70+	3.12	1.28		
Participation in organizations				
Environmental group - participant	3.23	1.08	5.00	0.00
Environmental group - member	4.01	0.57	-	
Environmental group - no involvement	3.13	0.99	4.37	1.08
Community group - participant	3.26	0.98	4.06	1.32
Community group - member	3.11	1.02		
Community group - no involvement	3.18	1.01	5.00	0.00
Religious group - participant	3.09	0.95	5.00	0.00
Religious group - member	3.11	1.06	3.12	0.00
Religious group - no involvement	3.23	1.00	5.00	0.00
Business association - participant	3.07	1.17	4.37	1.08
Business association - member	3.25	1.07		
Business association - no involvement	3.21	0.97	5.00	0.00
Trade union - participant	3.01	1.16	5.00	0.00
Trade union - member	2.78	0.94	3.12	0.00
Trade union - no involvement	3.27	0.97	5.00	0.00
Political party - participant	3.26	0.74	5.00	0.00
Political party - member	3.01	1.28		
Political party - no involvement	3.20	0.99	4.53	0.93
Ethnic group				
Asian	2.91	0.88		
New Zealand European	3.29	0.99	4.62	0.83
Maori	2.87	1.04		
Pacific Islander	2.54	0.91		

Socio-demographic characteristics	Public respondents		Informed respondents	
	Mean	SD	Mean	SD
Other	3.51	0.95		
Work sector				
Financial institution	3.52	0.86		
University	2.37	0.00	5.00	0.00
Media	2.56	0.42		
Government	3.24	0.96	3.12	0.00
Other public organizations	3.43	0.72		
Agriculture	2.28	0.75		
Construction , manufacturing, I.T. industry, transport, automotive	3.40	1.10		
Retail and wholesale trade, sales	3.26	1.07		
Other	3.09	1.02	5.00	0.00
Regions in New Zealand				
Auckland, Coromandel, Northland	3.35	1.00		
Waikato	2.78	0.88	4.62	0.83
Bay of Plenty, Central Plateau, East Coast	2.56	0.85		
Wellington, Wanganui-Manawatu, Wairarapa, Taranaki, Hawkes Bay	3.22	1.05		
Nelson, Marlborough	2.54	0.36		
West Coast, Canterbury	3.35	1.11		
Otago, Southland, Stewart Island, Fiordland	3.28	0.71		
Overall	3.19	1.00	4.62	0.83

The data available from Table 6.10 helps to describe the respondents' attitude, in accordance with their socio-demographic characteristics, toward the banks' effectiveness in addressing environmental issues when making lending decisions. When the means of the two sets of respondents (3.19, 4.62) were compared, the informed respondents showed a significantly higher level of disagreement.

6.3 Parametric data and hypotheses testing

The hypotheses presented in section 4.7 were tested using the data obtained from the two surveys. Three tables of results are presented for each category. The first table presents the overall results for each category by comparing the difference between the two means of the two sets of respondents obtained by conducting a t-test. The t-test provides an indication of whether there is a significant difference or not between the two sets for a specific category. Two tests were implemented: the t-test (P-value⁷⁴ test), based on the raw mean difference, and the t-test (P-value test) based on the mean score from the Principal Component Analysis (PCA).

⁷⁴ P value is the maximum type 1 error allowed.

Where there is a significant difference between the two sets for a major category, for example, management performance category, the second table provides details and locates the difference between the means, as well as using the t-test for each indicator in a category to determine the level of significance. This provides more detailed information about each indicator.

The third table presents further results obtained from connecting the five categories to the socio-demographic factors for the two sets of respondents. For each set, an F-test is conducted to determine whether there is a difference between the levels of a certain socio-demographic characteristic, for example, to find out whether there is a difference between males and females in Set 1. Further analysis was conducted by using the Bartlett test to locate the areas of differences.

It was unrealistic, however, to conduct an F-test to find out whether there was a difference or not between the two sets with regard to a specific socio-demographic factor. This was because there were not enough respondents in the informed people set for each socio-demographic characteristic to compare with those in public set. Therefore, it could be useful for future researchers to undertake further investigation and analysis of such characteristics by extending the sample size of the informed people set.

6.3.1 Management performance

Hypothesis 1

Public and informed respondents in New Zealand believe that the management of banks in New Zealand should effectively consider environmental issues when making lending decisions.

Table 6.11 T-test of mean difference between the public and informed respondents regarding management performance

Management performance	Mean	SD	P-value (based on raw mean difference)	P-value (based on mean score from PCA)	Accept/reject Hypothesis 1
Public respondents	2.26	0.72			
Informed respondents	2.07	0.78			
Difference	0.19	0.06	0.024**	0.018**	Accept
Combined	2.24	0.73			

** significant at 5%

Table 6.11 revealed that the public and informed respondents agreed (mean=2.24) that banks' management should: provide public reports, staff training and support for community activities; minimize the direct impact of their operations on the environment; respond to stakeholders' requirements; comply with laws and enhance the culture of environmental protection within a bank by having, for example, an environmental policy, a code of banking practice, environmental auditing, and clear environmental roles and responsibilities for the banks' staff and directors. This supports Hypothesis 1 that both sets of respondents believe that banks' management should effectively consider environmental issues when making lending decisions.

However, Table 6.11 also revealed that there is a difference between the public and informed respondents (significant at 5%), namely, that there is different degree of commitment between the two groups - both sets of respondents tended to agree with the statement, but the informed respondents tended to have a stronger view. Such differences do not, however, conflict with support for Hypothesis 1. In addition to the t-test performed to determine the raw mean difference, another t-test was performed on the mean score obtained from the PCA, which showed a similar result to the one recorded by the raw mean difference (0.018 and 0.024).

Table 6.12 T-test of mean difference between the public and informed respondents regarding management performance indicators

Indicator	Public respondents mean	Informed respondents mean	Mean difference	P value
Public reports	2.4	2.1	0.28	0.02**
Staff training	2.5	2.2	0.28	0.02**
External audit	2.7	2.6	0.09	0.50
Supporting community services	2.0	2.0	0.03	0.74
Direct impact of operations	2.0	1.6	0.39	0.0001***
Stakeholders' requirements	1.9	2.0	0.02	0.79
Compliance with laws	2.4	2.3	0.09	0.46
Enhancing environmental protection	2.4	2.0	0.41	0.0003***

** significant at 5% *** significant at 1%

Further to the above test, Table 6.12 shows the differences of the means for the public and the informed respondents for each indicator in the management performance category and the level of significance for each indicator. In this respect, Table 6.12 revealed similar results to the findings from Table 6.11. Even with a maximum significant difference of 1%, the two sets of respondents tended to agree with the indicator, but the informed respondents tended to have a firmer attitude; informed respondents were more concerned than the public respondents with regard to the indicators involving public reports, staff training, direct impact of operations and enhancing environmental protection. Furthermore, the mean values for each indicator in both sets, public and informed, where the degree of agreement ranges between 1.6 and 2.7, tend to support Hypothesis 1.

For further investigation, to link the management performance category to specific socio-demographic characteristics, Table 6.13 shows, first, an analysis of the variance obtained by using the F-test, which reflects on whether there is a significant difference between the components of each socio-demographic characteristic and, second, the area of differences within a certain set of respondents obtained by conducting the Bartlett test. Further, Table 6.13 is also utilized to test hypotheses 6 and 7.

Hypothesis 6

The public respondents in New Zealand will have different attitudes according to their socio-demographic characteristic, e.g., different age means different views; and

Hypothesis 7

Informed respondents will have a similar perspective despite their different socio-demographic characteristics.

Table 6.13 Analysis of management performance by means of F and Bartlett tests

Socio-demographic characteristic	Public respondents			Informed respondents		
	P value	Area of difference	Accept (A)/reject (R) Hypothesis 6	P value	Area of difference	Accept /reject Hypothesis 7
Education	0.60		R	0.66		A
Employment	0.07*	Unemployed and work	A	0.11		A
Gender	0.00***	Male and female	A	0.56		A
Age	0.89		R	0.03**	70+ and other levels of age	A
Environmental group	0.00***	Not involved and both participants and members	A	0.15		A
Social group	0.03**	Not involved and participants	A	0.19		A
Religious group	0.03**	Not involved and participants	R	0.49		A
Business association	0.07*	Not involved and members	A	0.08*	Not involved and members	R
Trade union	0.004***	Not involved and both participants and members	A	0.11		A
Political party	0.13		R	0.007***	Not involved and members	R
Ethnic group	0.00***	New Zealand European and both Maori and others	A	0.27		A
Work sector	0.60		R	0.85		A
Region in NZ	0.86		R	Waikato only		

* significant at 10% ** significant at 5% *** significant at 1%

Table 6.13 reveals that within both the public and informed respondents sets, there was no significant difference with regard to socio-demographic characteristics relevant to the level of education, age, religious status and work sector. However, there is a significant difference for both groups relevant to business association. By way of contrast, in the informed respondents there was no significant difference with regard to employment status, gender, environmental group, social group, trade union, and ethnicity. In fact, the informed people varied only in the political activities and business association characteristics. Therefore, Hypothesis 7 is rejected regarding these two characteristics. In contrast, seven factors marked by A in the public set support Hypothesis 6. For more detailed analysis about each specific socio-demographic characteristic, see Appendix H - Management performance.

6.3.2 Operational performance

Hypothesis 2

The public and informed respondents in New Zealand believe that banks in New Zealand should take specific actions to effectively consider environmental issues when making lending decisions.

Table 6.14 T-test of mean difference between the public and informed respondents regarding operational performance group

Operational performance	Mean	SD	P value (based on raw mean difference)	P value (based on mean score from PCA)	Accept/reject Hypothesis 2
Public respondents	2.53	0.82			
Informed respondents	2.30	0.78			
Difference	0.23	0.04			
Combined	2.50	0.82	0.023**	0.012**	Accept

** significant at 5%

Analysis of the two groups surveyed showed that respondents moderately agreed (m=2.5) that banks in New Zealand should integrate environmental aspects into their lending decisions. This is in conformance with Hypothesis 2, that respondents in New Zealand agreed that banks should take specific actions at the operational level to effectively consider environmental issues when making lending decisions.

Table 6.14 shows that, according to the t-test, there was a significant difference between the two groups at 5%. However, such a difference does not affect the aggregate results, since the public and informed respondents tend to agree (m=2.53, 2.30), even though the informed respondents had a firmer attitude than the public. Significantly, therefore, the values of the means and the test support Hypothesis 2.

Table 6.15 T-test of mean difference between the public and informed respondents for operational performance indicators

Indicator	Public respondents Mean	Informed respondents mean	Mean difference	P value
Environmental clause in the loan application	2.6	2.3	0.38	0.002***
Considering environmental issues	2.1	2.0	0.15	0.19
External report	3.0	3.0	0.16	0.44
Borrower compliant with environmental standards	2.6	2.1	0.43	0.0005***
Opportunities for lending to projects with environmental benefits	2.3	2.0	0.27	0.007***

*** significant at 1%

Table 6.15 shows that among the indicators the mean difference between the two groups is 0.43 at the maximum. Although there were significant differences at 1%, such differences occurred between adjacent levels of ‘agree’ and ‘moderately agree’. In turn, each indicator tends to support Hypothesis 2 and the findings in Table 6.14.

Table 6.16 presents two tests to link the operational performance indicators and the socio-demographic characteristics. An analysis of variances was conducted by using the F-test, which reflects on whether there is a significant difference between the components of each socio-demographic characteristic, and by using the Bartlett test to identify the areas of differences within a certain set of respondents. Table 6.16 reports the testing of Hypothesis 6 and Hypothesis 7.

Table 6.16 Analysis of operational performance by means of F and Bartlett tests

Socio-demographic Characteristic	Public respondents			Informed respondents		
	P value	Area of difference	Accept/reject Hypothesis 6	P value	Area of difference	Accept/reject Hypothesis 7
Education	0.39		R	0.64		A
Employment	0.11		R	0.05**	Retired and work	R
Gender	0.00***	Male and female	A	0.75		A
Age	0.27		R	0.14		A
Environmental group	0.00***	Not involved and both participants and members	A	0.34		A
Social group	0.22		R	0.34		A
Religious group	0.74		R	0.19		A
Business association	0.22		R	0.06*	Not involved and members	R
Trade union	0.00***	Not involved and both participants and members	A	0.21		A
Political party	0.19		R	0.11		A
Ethnic group	0.00***	Maori and both NZ/European and others; Asian and NZ/European; others and Asian	A	0.11		A
Work sector	0.94		R	0.77		A
Region in NZ	0.91		R	Waikato only		

* significant at 10% ** significant at 5% *** significant at 1%

Table 6.16 shows that within each set of respondents there was no significant difference with regard to socio-demographic characteristics relevant to the levels of education, employment, age, social, religious, business and political associations, and work sector. However, the informed respondents were influenced by only employment status and business association. Therefore, Hypothesis 7 is rejected with regard to these two factors. In contrast, four factors marked by *** support Hypothesis 6 in the public set. For more detailed analysis about each specific socio-demographic characteristic see Appendix H – operational performance.

6.3.3 Motivations and outcomes

Hypothesis 3

The public and informed respondents in New Zealand believe that banks in New Zealand are mainly motivated by financial reasons when making lending decisions.

Table 6.17 T-test of mean difference between the public and informed respondents regarding motivations and outcomes

Motivations and outcomes	Mean	SD	P value (based on raw mean)	P value (based on mean score from PCA)	Accept/reject Hypothesis 3
Public respondents	2.52	0.55			
Informed respondents	2.46	0.37			
Difference	0.06	0.18			
Combined	2.52	0.53	0.45	0.34	Accept

Table 6.17 shows that the two surveys revealed that respondents almost unanimously agreed that banks are motivated by multiple reasons, including financial, managerial and environmental reasons, when making lending decisions. However, in identifying the level of difference between the financial, managerial and environmental reasons, Table 6.18 emphasizes that financial matters, such as profitability and paying loans, receive high priority. This supports Hypothesis 3, that respondents agreed that banks are motivated mainly by financial reasons when making lending decisions. In addition, the t-test results show that there is no significant difference between the public and informed respondents regarding the statement, and thus support the hypothesis that the public and informed respondents' views were highly similar with regard to the banks' motivations and outcomes (mean difference = 0.06).

In order to investigate closely what motivates banks in their lending decisions, according to the respondents' attitudes, Table 6.18 shows, first, the differences of the means for the two groups, the public and the informed respondents, for each indicator in the motivations and outcomes category; second, the level of significance for each indicator, which explains the level of significance for the two sets of respondents.

Table 6.18 T-test of mean difference between the public and informed respondents regarding motivations and outcomes indicators

Indicator	Public respondents mean	Informed respondents mean	Mean difference	P value
Enhancing banks' performance	2.6	2.3	0.28	0.01***
Environmental responsibility and banks' success	2.7	2.8	0.10	0.36
Lending decisions necessary for sustainable environment and economy	2.0	1.7	0.34	0.003***
Financial reasons	2.0	1.3	0.70	0.00***
Environmental reasons	3.0	3.7	0.72	0.00***
Management concerns	2.3	2.2	0.14	0.22
Ethical stance	2.8	2.8	0.00	0.99
Perception of environmental responsibility	2.9	3.3	0.37	0.007***
Long term profitability	2.1	1.7	0.43	0.00***
Sustainable environment in New Zealand	2.0	1.7	0.33	0.0003***
Lending to productive firms even where there is environmental risk	3.2	3.7	0.45	0.0001***
Interact with government environmental policies	3.1	3.8	0.70	0.00***
Loan will be paid	1.9	1.2	0.64	0.00***

*** significant at 1%

Table 6.18 shows that the highest mean differences between the two sets of respondents occurred in the domain of financial (0.70), environmental (0.72) reasons, interaction with government (0.70) and paying the loan (0.64). These differences reflect that informed respondents had a stronger view than the public respondents in considering that banks are strongly motivated by financial reasons (m=1.3, 2.0) and ensuring that the loan will be paid (m=1.2, 1.9), and that they disagreed that government facilitates effective environmental management (m=3.8, 3.1) and that environmental reasons motivate banks (m=3.7, 3.0). In sum, the two sets of respondents showed that there was a perception that banks in New Zealand are driven by different motives and incentives, and that financial concerns were the most important factor in determining their lending decisions. This, in turn, supports Hypothesis 3.

Table 6.19 provides analysis of the motivational performance category with regard to the socio-demographic factors for both sets of respondents.

Table 6.19 Analysis of motivational performance by means of F and Bartlett tests

Socio demographic characteristic	Public respondents			Informed respondents		
	P value	Area of difference	Accept or reject Hypothesis 6	P value	Area of difference	Accept or reject Hypothesis 7
Education	0.43		R	0.81		A
Employment	0.14		R	0.06*	Retired and others	R
Gender	0.00***	Male and female	A	0.83		A
Age	0.15		R	0.08*	50-59 and both 20-29, 40-49	R
Environmental group	0.005***	Not involved and participants	A	0.61		A
Social group	0.04**	Not involved and participants	A	0.40		A
Religious group	0.85		R	0.99		A
Business association	0.19		R	0.54		A
Trade union	0.01**	Not involved and participants	A	0.63		A
Political party	0.40		R	0.86		A
Ethnic group	0.00***	Asian and both New Zealand European and others; Maori and both NZ/Europe and others; Pacific Islanders and others	A	0.34		A
Work sector	0.38		R	0.72		A
Region in NZ	0.52		R	Waikato only		

* significant at 10% ** significant at 5% *** significant at 1%

Table 6.19 indicates that: first, within the public and informed respondents' sets there was no significant difference with regard to socio-demographic characteristics relevant to education, religious, business and political association, and work sector; second, the results support Hypothesis 7 in all socio-demographic factors except for age and employment with regard to informed respondents; third, only five factors marked by A support Hypothesis 6 and eight factors marked by R are against it. For more detailed analysis about each specific socio-demographic characteristic, see Appendix H – motivational drivers.

6.3.4 The government and public performance

Hypothesis 4

The public and informed respondents in New Zealand believe that the government and the public in New Zealand do not facilitate effective environmental management by banks in New Zealand.

Table 6.20 T-test of mean difference between the public and informed respondents regarding government and public performance

Government and public performance	Mean	SD	P value (based on raw mean)	P value (based on mean score from PCA)	Accept/reject Hypothesis 4
Public respondents	2.90	0.66			
Informed respondents	3.23	0.70			
Difference	0.33	0.04			
Combined	2.93	0.67	0.001***	0.002***	Moderate

*** significant at 1%

Table 6.20 shows that the two sets of respondents were moderately satisfied that the government and the public (people in New Zealand) are effectively engaged with environmental aspects in New Zealand. This is of moderate support for Hypothesis 4 that the government and public are not major players in facilitating effective environmental management by banks. Also, despite the t-test's showing significant difference between the public and informed respondents, their perceptions still place them within the moderate level of agreement that the government and the public are only slightly engaged in environmental management with banks in New Zealand (mean difference = 0.33).

However, to identify the areas of differences, Table 6.21 shows the differences of the means for each indicator and the level of significance, which explains the degree of difference between the two sets of respondents for each indicator.

Table 6.21 T-test on mean difference between the public and informed respondents regarding government and public performance indicators

Indicator	Public respondents mean	Informed respondents mean	Mean difference	P value
Public satisfaction	3.1	3.7	0.53	0.00***
Borrowers comply with legal requirements	2.3	2.3	0.03	0.81
Public has sufficient control	3.5	4.0	0.53	0.00***
Stakeholders' involvement	2.8	3.0	0.25	0.07*
Environmental laws	2.8	2.9	0.11	0.44
Significant at 10% *** significant at 1%				

Table 6.21 reveals that there was a significant difference between the two sets of respondents in three indicators. Informed respondents had low satisfaction with regard to the public's (people in New Zealand) performance (m=3.7), compared to moderate satisfaction by the public respondents (m=3.1). However, informed respondents showed dissatisfaction (4.0) that people in New Zealand have sufficient control over the way banks manage environmental issues, compared to moderate satisfaction by the public respondents (m=3.5). Further, both sets of respondents had moderate satisfaction (m=2.8, 3.0) regarding stakeholders' involvement, despite a significant difference at 10%. With regard to borrowers' compliance, both sets tended to agree that borrowers should comply with legal requirements (m=2.3).

In sum, informed respondents had a stronger view than the public respondents and moderately low satisfaction with regard to government and public interaction with banks in New Zealand, and this result tends to support Hypothesis 4.

In order to expand our understanding of how the government and the public are perceived to interrelate with banks in New Zealand, according to the respondents' socio-demographic characteristics, further analysis was applied by using F and Bartlett tests. Table 6.22 presents such an analysis by identifying the significance of differences between the levels of each socio-demographic factor, and the areas of differences.

Table 6.22 Analysis of government and public performance by means of F and Bartlett tests

Socio-demographic characteristic	P value	Public respondents		P value	Informed respondents	
		Area of difference	Accept or reject Hypothesis 6		Area of difference	Accept or reject Hypothesis 7
Education	0.08*	Doctorate and both high school and others	A	0.85		A
Employment	0.26		R	0.44		A
Gender	0.004***	Male and female	A	0.69		A
Age	0.04**	Differences between all the age intervals	A	0.87		A
Environmental group	0.05**	Not involved and participants	A	0.90		A
Social group	0.33		R	0.80		A
Religious group	0.96		R	0.10*	Not involved and members	R
Business association	0.03**	Not involved and members	A	0.46		A
Trade union	0.07*	Not involved and both members and participants	A	0.76		A
Political party	0.21		R	0.04**	Not involved and members; members and participants	R
Ethnic group	0.00***	All ethnicities except between Asian, Maori and Pacific Islanders	A	0.17		A
Work sector	0.71		R	0.02**	University and agriculture	R
Region in NZ	0.84		R	Waikato only		

* significant at 10% ** significant at 5% *** significant at 1%

Table 6.22 reveals that the public respondents were influenced by levels of education, gender, age, environmental, business and trade union association, and ethnic group. Therefore, these factors support Hypothesis 6. In contrast, informed respondents were influenced by religious group, political association and work sector. Therefore, Hypothesis 7 is rejected against these factors. For more detailed analysis about each specific socio-demographic characteristic, see Appendix H – public and government performance.

6.3.5 The effectiveness of banks in New Zealand

Hypothesis 5

Public and informed respondents in New Zealand believe that banks in New Zealand are not effectively addressing environmental issues when making lending decisions.

Table 6.23 T-test on mean difference between public and informed respondents regarding banks' effectiveness

Banks effectiveness	Mean	SD	P value (based on raw mean)	P value (based on mean score from PCA)	Accept/reject Hypothesis 5
Public respondents	3.2	1.0			
Informed respondents	4.6	0.83			
Difference	1.43	0.17			
Combined	3.24	1.02	0.001***	0.002***	Moderate

*** Significant at 1%

Table 6.23 shows that informed respondents were strongly dissatisfied that banks in New Zealand are effective in addressing environmental issues when making lending decisions, compared to the slightly moderate satisfaction of public respondents. This result tends to support Hypothesis 5, that banks in New Zealand are not managing environmental issues effectively when making lending decisions. However, the t-test reveals that the public and informed respondents had different levels of satisfaction (significant at 1%) regarding the banks' effectiveness in addressing environmental issues when making lending decisions (mean difference = 1.43). The informed respondents tended to be strongly dissatisfied (m=4.6) with the banks' effectiveness, which supports Hypothesis 5, compared to the public's slight dissatisfaction (m=3.2).

To highlight more details about the differences for each indicator under this category, Table 6.24 presents the mean differences for the two sets of respondents for each bank, and the level of significance.

Table 6.24 T-test on mean difference between the public and informed people regarding banks' effectiveness for each bank

Indicator	Public respondents mean	Informed respondents mean	Mean difference	P value
ANZ	3.4	4.5	1.09	0.001***
ASB	3.0	4.2	1.18	0.001***
BNZ	3.3	3.8	0.53	0.1*
Kiwibank	2.8	3.3	0.43	0.13
Rabobank	3.2	3.4	0.15	0.63
SBS	3.1	3.9	0.75	0.05*
TSB	3.2	4.0	0.83	0.02*
Westpac	3.2	4.0	0.92	0.004***

*significant at 10% *** significant at 1%

Table 6.24 reveals that significant levels of difference between the two sets of respondents occurred regarding six banks, but their attitudes were similar with regard to both Kiwibank and Rabobank. Informed respondents expressed their dissatisfaction with six banks. In contrast, the public respondents showed moderate satisfaction with all the banks. However, both sets of respondents seemed to have moderate satisfaction with Kiwibank, and this scored the best among the banks (2.8, 3.3). Accordingly, Hypothesis 5 is accepted with regard to informed people's views, but has only slight acceptance from the point view of the public respondents. These findings support those of Table 6.23.

In order to analyze respondents' attitudes according to their socio-demographic factors, Table 6.25 demonstrates whether there is a difference in each level of the socio-demographic characteristics; results were obtained by means of the F-test, and the areas of differences by means of the Bartlett test.

Table 6.25 Analysis of banks effectiveness by means of F and Bartlett tests

Socio-demographic factors	Public respondents			Informed respondents		
	P value	Area of difference	Accept or reject Hypothesis 6	P value	Area of difference	Accept or reject Hypothesis 7
Education	0.02**	Doctorate and both high school and others	A	0.83		A
Employment	0.59		R	Information not available		
Gender	0.006***	Male and female	A	0.27		A
Age	0.87		R	Information not available		
Environmental group	0.02**	Not involved and both members and participants	A	0.49		A
Social group	0.77		R	0.27		A
Religious group	0.71		R	Information not available		
Business association	0.84		R	0.49		A
Trade union	0.11		R	Information not available		
Political party	0.80		R	0.68		A
Ethnic group	0.08*	Pacific Islanders and both New Zealand European and others	A	Information not available		
Work sector	0.32		R	Information not available		
Region in NZ	0.10*	Auckland, Coromandel, Northland and Bay of Plenty, Central Plateau, East Cape	A	Waikato only		

* significant at 10% ** significant at 5% *** significant at 1%

Table 6.25 reveals that informed respondents' views were not influenced by their socio-demographic characteristics, which, in this sense, supports Hypothesis 7. In contrast, with regard to the public respondents, the characteristics of education, gender, environmental association, ethnic group and region in New Zealand support Hypothesis 6. However, the public respondents' views were not affected by the characteristics of employment, age, social, religious, business, trade union and political party association, and work sector; therefore, Hypothesis 6 is rejected. For more detailed analysis about each specific socio-demographic characteristic, see Appendix H – banks' effectiveness.

Another significant fact Table 6.25 reveals is that in some instances within the informed people respondents' set this research could not have provided a P value for specific socio-demographic characteristics, because no respondents answered

certain questions, but the majority of informed people ticked ‘do not know’. This, in turn, made the comparison between the levels incomplete. Therefore, future researchers may want to consider this issue and enlarge the informed people sample size.

6.4 Conclusion

This chapter has presented an analysis of two surveys conducted within New Zealand canvassing the public and a sub-population of informed people. They were asked about their attitudes regarding integrating environmental aspects into banks’ lending decisions.

In order to facilitate understanding of the respondents’ views, the researcher clustered the 39 questions (indicators) into five major categories. Figure 6.6 presents respondents’ views arranged in these five categories.

Figure 6.6 Level of satisfaction of public and informed respondents in New Zealand

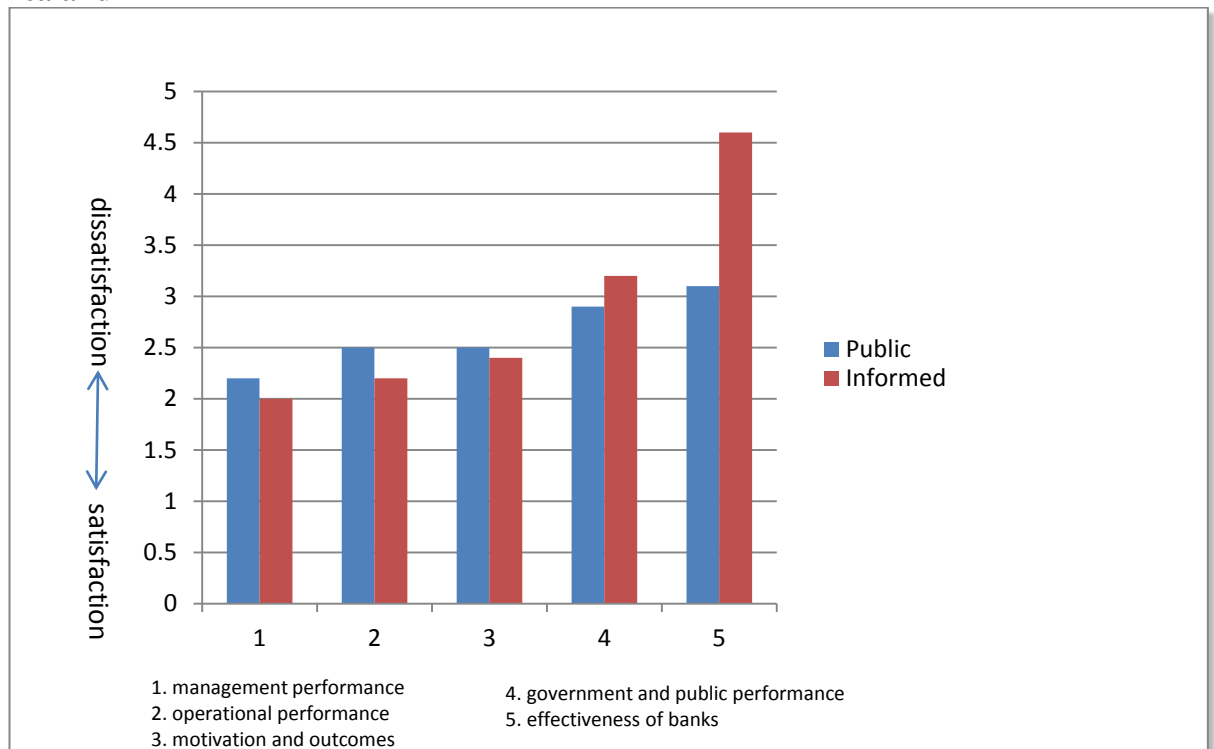


Figure 6.6 reveals that both sets of respondents agreed that bank management should effectively consider environmental issues when making lending decisions, and that they should take specific actions to have such issues effectively considered at the operational level.

The figure also reveals that both sets of respondents moderately agreed that banks are motivated by a variety of factors when making lending decisions. However, further analysis conducted in this study revealed that financial concerns were considered the most important factor when banks are making lending decisions.

Figure 6.6 indicates as well that both sets of respondents had moderate satisfaction concerning government and public interactions with banks in New Zealand, and the fact that some progress has been made by banks regarding the consideration of environmental aspects into lending decisions. However, informed respondents held firmer views regarding their dissatisfaction than those held by the public respondents in this regard.

In addition, a significant difference was noted between the public and informed respondents with regard to banks' effectiveness in addressing environmental issues when making lending decisions. Informed respondents tended to express strong dissatisfaction, while the public indicated moderate satisfaction. Also, it is worthwhile to mention that the analysis indicates that the majority of respondents in New Zealand did not know about the environmental performance of banks in New Zealand - Category Five (see Tables 6.9.a and 6.9.b). This also raises the question of the effectiveness of issuing stakeholder impact reports, since some banks who do not issue such reports scored higher than other banks who do.

Furthermore, Figure 6.6 indicated that informed respondents tended to mark 'agree' more than the public within the first three categories, which deal with the propositions that banks should consider and act on environmental issues effectively in their lending decisions and that banks in New Zealand are motivated by managerial, financial and environmental drivers. On the other hand, informed respondents also showed more dissatisfaction regarding the government and public performance and the progress banks have made in this regard.

Further analysis was then conducted to ascertain whether different levels of socio-demographic characteristics influence respondents' perspectives with regard to the five major categories as one unit. The major findings are presented in Table 6.26.

Table 6.26 supports a major conclusion that the public respondents' views were influenced by gender, environmental association and ethnic group, compared to the absence of such factors being related to informed respondents' views. Another major conclusion with regard to the overall survey is that the attitudes of both sets of respondents in New Zealand vary according to geographical location. The findings reveal that the public respondents' views were significantly different in the regions of Auckland, Coromandel, and Northland.

Table 6.26 Influence of socio-demographic characteristics on people's attitudes

Indicator	Public respondents	Informed respondents
Education	Yes	No
Employment	Yes	Yes
Gender	Yes	No
Age	Yes	Yes
Environmental association	Yes	No
Social association	Yes	No
Religious association	No	Yes
Business association	Yes	Yes
Trade union	Yes	Yes
Political association	No	Yes
Ethnic group	Yes	No
Work sector	No	Yes
Regions	Yes	Waikato region only

Given these results, there is a strong case for an additional survey that generates results for both urban and rural areas. There is opportunity to extend the informed people sample to cover all New Zealand regions rather than the Waikato only. This may minimize the percentage of potential respondents who answered 'do not know', while, at the same time, making the comparison between the two sets of respondents more accurate and useful.

CHAPTER 7 - A NEW FRAMEWORK FOR BANKING AND THE ENVIRONMENT

7.1 Introduction

Despite the growing body of research, very little is known about the internal and external process of incorporating environmental aspects into a bank's lending decision (Thompson, 1998). In this thesis, literature and empirical evidence are employed to develop a conceptual foundation for a proposed framework for understanding the internal and external processes. The resulting conceptual framework accounts more comprehensively than current models for the variety and dynamics of internal and external processes. Existing sustainability and environmental models do not satisfy the banks' requirements regarding the consideration of environmental issues in the lending process, as the existing models cannot easily be applied to banks' actual behaviour. This problem can be partly addressed by further specifying the criteria to suit particular purposes in the banking industry. Accordingly, this research has analyzed bank behaviour in order to develop a framework relevant to two major aspects of bank performance: managerial performance and motivational drivers.

A major theme of this thesis is to develop a framework that can be used to understand and interpret the research questions regarding the integration of environmental issues into a bank's lending decisions. This phase is critical, because it is here that a framework emerges, and the focus then shifts to applying the framework to support decision-making processes. However, internal and external factors may challenge and change assumptions and strategies. Thus, in the light of new information, the framework may be updated and re-assessed.

Accordingly, this chapter sets out the motivation behind the need for an environmental framework, then provides a thorough review of the key elements of the new framework and implications for a bank strategy, and an explanation of the five strategies for sustainable lending. The chapter then outlines the proposed

guidelines for implementation of the framework and its implications and, finally, presents a conclusion.

7.2 The need for an environmental sustainability framework

In many areas decision-making has become increasingly data-driven. But bank environmental decision-making has lagged in this regard (Jeucken, 2001; Thompson and Cowton, 2004). Plagued by widespread information gaps and uncertainties, environmental practices have often been based on generalized observations, best guesses, and expert opinion or rhetoric and emotion (Kovacic, 2007).

This research presents an environmental framework consistent with an ethic of environmental stewardship, based on two major themes using a number of indicators. The framework provides guidelines for shifting the current environmental management into more decisive environmental policy-making, procedures and practices. In addition, it facilitates analysis and comparison across banks, and provides a mechanism for making environmental management more quantitative, empirically grounded and systematic.

The framework demonstrates how a commitment to environmental indicators and greater emphasis on statistical analysis might strengthen environmental problem-solving at all levels of banks' operations. Therefore, this framework enhances decision-making at the managerial and operational levels, offers a step towards a more vigorous and quantitative approach to environmental decision-making, and helps to fill a long-existing gap in environmental performance evaluation. The lack of environmental information on many critical issues, limited data coverage, and the non-comparability of data across the various levels of banks' operations, as well as between banks, makes environmental performance difficult to measure. Just as banks have long benchmarked their financial performance against that of their industry peers, this framework is useful for comparing their environmental performance against other corporations which are similarly operated.

Another important function of the framework is as a policy tool for identifying issues that deserve greater attention within a bank's environmental program. The

framework provides a way of identifying those banks that are at the leading edge with regard to a particular environmental issue. This information is useful in identifying best practices, and may help to guide thinking on what it will take to make the bank's policy progress and achieve its goals. In this regard, decision-makers are eager for tools that will help them identify problems, track trends, set priorities, measure environmental outcomes and profitability, understand policy trade-offs and synergies, target environmental investments, and account for environmental risks and opportunities. The environmental framework is such a tool.

To sum up, the framework provides an indication of how close a bank is to being on a sustainable environmental trajectory, based on the perspective derived from a range of indicators describing recognized issues.

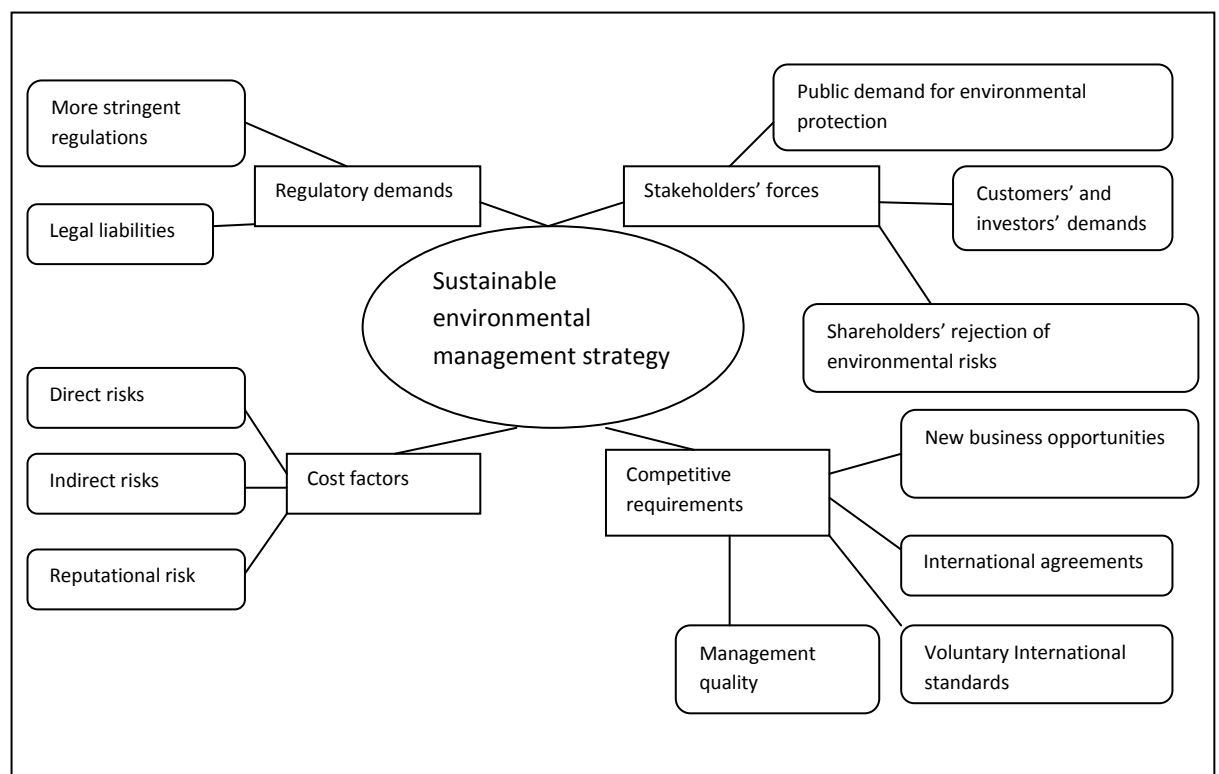
7.3 Key elements of the new framework and implications for bank strategy

The findings of empirical studies and the literature available allow the researcher to develop a profile of five types or levels of strategies that a bank may adopt (see Table 3.1). These profiles accommodate the different empirical studies and theoretical perspectives, and give a more comprehensive environmental typology for banks.

This section presents five phases of sustainability and aims at determining what changes are needed in a bank for it to compete effectively. According to these strategies, a bank can evaluate and verify its current position within these contexts, and understand different ways for improvements and overseeing the requirements for further development. More precisely, a bank can implement strategic actions that can exploit more opportunities and reduce the risk factor in its lending decisions. Exploiting the opportunities arising from the growing interest in environmental issues and recognizing the environmental risk and assessment require a commitment from the entire bank staff, from the design of the strategy by top management to its implementation by frontline workers.

There is not a single particular strategy that must be followed by each bank, but rather different possible strategies which may be found at different levels of a bank. However, a bank can be successful if it is able to select an environmental strategy that is consistent at all levels and efficient for further financial and environmental performance. From this point of view, the framework presented in this thesis can support a bank's lending decision by allowing a check on the consistency between the environmental strategy and the opportunities and risks in the business, and by providing an understanding of the ways the bank can realign its position by changing its environmental strategic goals or by restructuring its organizational model and processes. Management can use a suggested strategy to identify the most critical environmental issues, modify its strategic position, and be able to react in time to possible changes in opportunities and risks. Any chosen strategy by a bank's management must consider the forces driving a sustainable environmental management. Figure 7.1 provides four major external and internal forces that affect a sustainable environmental management strategy (Berry and Rondinelli, 1998).

Figure 7.1 Forces driving proactive environmental management

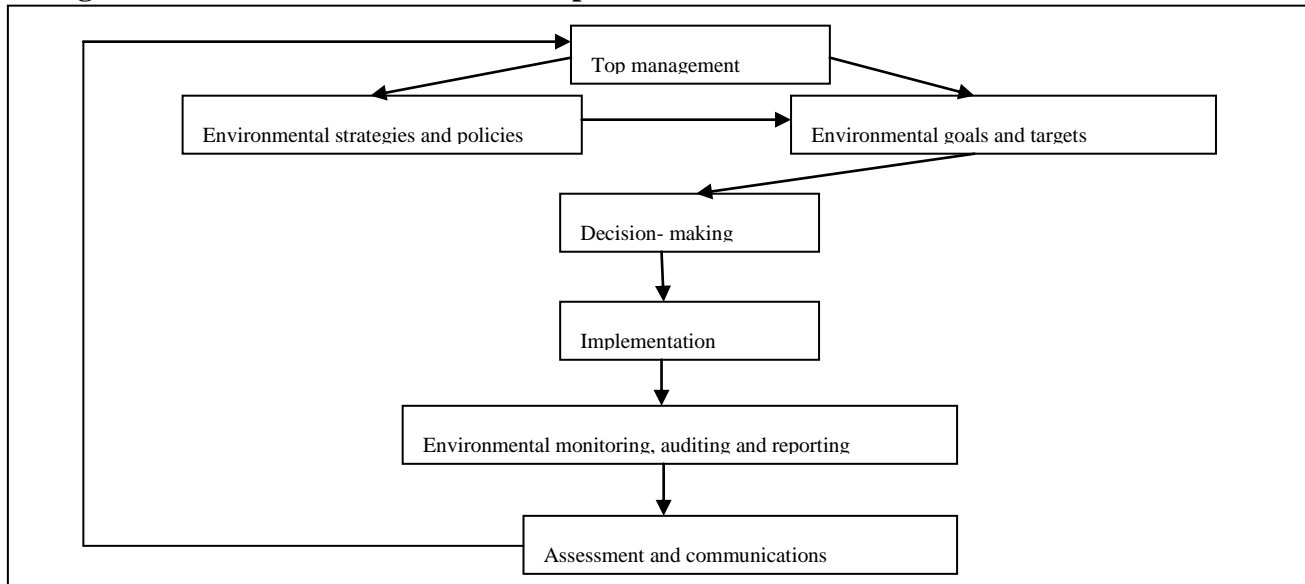


Source: Adapted from Berry and Rondinelli (1998)

Figure 7.1 illustrates that a proactive corporation should look at environmental performance from a far different perspective, that goes beyond complying with increasingly more stringent regulations. Corporations need to protect or enhance their ethical images, avoid serious legal liabilities, respond to government regulations and stakeholders' concerns, and develop new business opportunities, in order to remain competitive.

Creating an effective sustainable environmental management strategy requires that critical elements be integrated into a bank's lending criteria. These elements are illustrated in Figure 7.2.

Figure 7.2 Elements of environmental performance



Source: Adapted from Berry and Rondinelli (1998)

Figure 7.2 above describes the seven critical elements necessary to create an effective environmental management as follows:

Top management

The success of a sustainable environmental strategy depends on securing the backing of the BOD, CEO and the senior management. Having BOD support implies having a specific environmental policy and particular responsibilities about environmental issues (Ward, 1996). This strategy considers the

environmental lending risks and liabilities and seeks out environmentally beneficial opportunities. The strategy also assigns to senior staff environmental roles to be implemented on a day-to-day basis. Therefore, managerial skills, associated with allocating adequate resources to environmental management, are crucial to influencing the sustainable environmental direction of a bank.

Environmental strategies

Sustainable environmental behaviour begins with a written policy and a plan that reflects sound environmental goals and secures top management's commitment, backed up by a long-term strategy. A written policy identifies the environmental issues, and is reinforced with specific goals, target dates and specific procedures. In addition, the policy mandates an environmental system to monitor performance and take corrective action when necessary.

Environmental goals

As banks target financial performance by assigning financial targets, environmental issues, which affect the financial position, demand clear and measurable targets. These established specific targets have the potential to measure the environmental performance, including opportunities, risks and the impact on the environment.

Decision-making and implementation

For an environmental policy to be meaningful there should be a commitment to its implementation and involvement by all the bank's employees. Policy needs to be implemented at all relevant levels to make the environmental perspective part of the organizational structure, involving roles and responsibilities, then, part of any business decision. Decision-making and implementation processes need tools to turn the business decision into practice. This requires employee motivation for continual improvement, formal reporting across divisions and departments, record keeping systems, and training and education programs for environmental staff.

Monitoring, auditing and reporting

Monitoring, compliance with audit systems, and reporting are important parts of formal inspection systems. These systems are useful in measuring compliance and improving environmental management and operational efficiency. A proactive management monitors existing and emerging environmental strategies and adopts the most appropriate one. This allows the management to move beyond compliance.

Assessment and communications

A bank makes effective use of internal and external environmental information to continually re-evaluate its environmental strategy and balance environmental and business priorities. This allows for building environmental considerations into its lending service; revising the organizational structure to maximize the environmental program's visibility, accessibility, and effectiveness; investing in environmental technology that delivers high environmental benefit; and seeking out a lending policy with solutions to environmental problems.

A proactive management is one which recognizes the needs of various constituencies, including customers, potential investors, shareholders, employees, environmental groups, and the public. Understanding this is vital to a bank's reputation and image and essential for stakeholder support.

Accordingly, performance indicators were developed for each area, in order to focus on management, operations and motivations, and to understand ways of implementing improvements to environmental strategies.

7.4 The new framework and sustainable lending

This research utilizes and employs the strategies available from the sustainability and environmental models that were discussed earlier in Chapters Two and Three, to fit the new framework. According to the proposed new framework, a bank's

environmental lending behaviour could be described as being in one of the following five phases:

Phase 1: very unsustainable

1. at top management level: top management shows no commitment to the environment; the environment is not the bank's responsibility; and its goals are in conflict with those organizational goals. Environmental considerations are not part of lending decision-making. Therefore, no environmental planning or monitoring activities are in place to prevent or meet unexpected liabilities from new regulations or emerging environmental issues; no measures of the bank's own environmental performance are maintained. Top management does not perceive the environment as a source of significant performance opportunities. In other words, an integrated approach is not available. The environment is not a priority, either because it does not earn money or it costs money.

2. at operational level: environmental considerations are not part of functional decision making, nor of operational decision-making.

3. with regard to the motivational drivers: bank's management is driven by profit and cost approaches. Protection of the environment does not earn money, rather it is an expense.

Phase 2: unsustainable

1. at top management level: management follows a deliberately reactive approach: its attention to environmental problems is limited, and it engages in specific environmental activities only when forced to do so, by merely complying in reactive fashion with legal and regulatory requirements or other external pressures (regulatory requirements or technical and market pressure); actions are taken reluctantly, and, therefore, management can be described as a follower and being at a low level of policy commitment (If everything is going well, why change it). The management's low level of strategic commitment to environmental issues matches its reluctant approach to environmental activities.

2. at operational level: weak and low commitment and a reactive approach to implementation. This behaviour prevents a bank from exploring strategic opportunities linked to environmental issues. Movement towards more systematic implementation could result if an environmental liability is identified or if environmental damage occurs, thus forcing the allocation of resources to implementing strategies.

3. with regard to motivational drivers: environmental improvements are driven by external pressures, such as environmental authorities, rather than being part of strategic planning.

Phase 3: almost sustainable

1. at top management level: the environment is not systematically considered in lending decisions across all sections. Top management appears to be committed and to consider the environment in their decision making, although the bank is not constantly internally viewed as having responsibility for the environment – in other words, a shallow policy commitment. Also, there is a medium level of formal planning and monitoring of internal environmental performance or external developments. The importance of environmental issues does not appear to have the same priority as other organizational goals. At this intermediate stage, management publicly announces commitment to environmental policy, but is not completely intent on committing resources to implementing EMS goals (e.g., green-washing). Top management has the intention of implementing an environmental policy, but there is a disconnection between upper and middle management, barring complete implementation at the operational level (e.g., the policy is designed specifically to generate a positive image of the bank for reputational benefits). In other words, the written environmental philosophy from the management is as weighted as other organizational demands, but the problem comes in translating this commitment into integration throughout the organization.

2. at operational level: lending decisions are not managed constantly with environmental considerations, and there is reasonable interest in lending to projects that are of high environmental benefit. The EMS is not fully integrated

into in all functional decisions - financial and environmental. At this level a bank commences environmental assessment.

3. with regard to motivational drivers: environmental benefits appear to be incidental. Due to economic issues, the bank cannot always do what is optimal for the environment, and its environmental considerations are secondary to economic considerations.

Phase 4: sustainable banking

1. at top management level: in this phase, top management perceives environmental activities as a source of significant opportunities and/or risks and, therefore, environmental values on both commitment and implementation are high within all levels of the bank. Management stresses the importance of involvement at all levels in environmental issues. Top management is stringently committed to environmental assessment and environmental protection as crucial to financial feasibility. The environment is considered in all lending decisions and its goals are linked to other existing goals. In this phase, management is deliberate in its systematic approach to environmental activities and actively engages in environmental initiatives. Management also possesses a general capacity for prevention, which includes planning, monitoring and anticipating, with an EMS in place to monitor and respond to internal and external environmental issues.

Moreover, top management's strategic priorities are consistent with the allocation of resources and the development of capabilities towards environmental activities; top management's support, policies, systems, and, critically, integration, permit continued improvement. The foundation of policies, procedures and activities to plan, control and anticipate future developments permits a high degree of consistency and the strategic integration of environmental policy and systems with other integrated management systems.

2. at operational level: the environment is considered in all functional lending decisions and a high level of implementation is achieved. The operational management is at the forefront of environmental innovations. Also, at this level, environmental lending activities are conducted as high-level priorities in the

context of consistency with strategic directives from, and resources provided by, top management. Furthermore, the degree of policy commitment to environmental issues is congruent with this approach to environmental activity, and decision-making at different levels and across different functions and systems are aligned. The bank consistently conducts environmental risk assessment for each loan provided. This process includes screening, evaluation, control, and monitoring.

3. with regard to motivational drivers: at this stage, the bank is driven by equal environmental and economic reasons when making lending decisions. It perceives environmental risks as a threat to its own financial position and to that of other stakeholders, including the environment. Also, the bank is driven to exploit opportunities arising from lending to projects that have beneficial environmental outcomes.

Phase 5: beyond sustainability

1. top management level: in this phase, top management perceives environmental aspects as a high priority in all the bank's activities. The bank will not look for the highest financial rate of return, but for the highest sustainable rate of return, even if such policies lead to a loss of profit and lending opportunities. Such a bank will require that its stakeholders have the same vision and ambition.

2. operational level: at this level, integration of environmental aspects into each single lending decision is undertaken. All lending activities target a sustainable future and aim at improving the environmental and economical structure of society as a whole.

3. motivational drivers: the bank not only takes into account the wishes of its own customers, employees and other stakeholders, but is also driven by the demands from society at large when making lending decisions.

However, the current findings of this research indicate that the demand for sustainable banking is not high enough to reach the phase 5 level of sustainability in New Zealand. Nevertheless, with respect to environmental concerns, the literature and the empirical study of this research show that almost all banks

follow a development towards sustainability ranging between reactive and proactive.

7.5 Guidelines for implementation of the new framework

This study utilizes the five strategies for sustainable lending (Section 7.4), the literature and the empirical study, in order to constitute the proposed framework. The existing models cannot easily be applied to organizations' actual behaviour in the sense that these models consider broad themes for a number of entities or a number of countries (Douglas et al., 2004; KPMG, 2005; Zoeteman, 2001). This problem can be partly addressed by further specifying, where necessary, the criteria to suit particular purposes (Kolk and Mauser, 2002). In such models, however, measuring performance is problematic. The measurement of the sustainability of a bank needs to be accurate to effectively determine whether each activity is sustainable or not. Therefore, it would appear that sustainability measurement is more accurate when a specific issue is investigated (Dyllick and Hockerts, 2002).

Accordingly, this study is intended to measure the performance of a bank with regard to whether the lending process is sustainable from an environmental perspective.

The proposed new framework aims to measure a bank's performance in two major categories: management and motivational drivers. To facilitate the measurements, each category is composed of specific indicators or themes that make the interpretation and analysis more accurate. In addition, measurement tools were added to the tables to enhance interpreting the evidence for the bank's actions. Tables 7.1.a, 7.1.b, 7.1.c, 7.1.d and 7.1.e present the two major categories, the sub-categories and the indicators.

Management performance indicators

This first major category is composed of five sub-categories, and under each sub-category a number of indicators are established to facilitate measuring management performance (Tables 7.1.a, 7.1.b, 7.1.c, 7.1.d, 7.1.e). Sub-categories

lie in five areas: the BOD, the CEO and senior management; training; auditing; operational integration; and environmental pioneering projects.

Table 7.1.a Management performance indicators – BOD, CEO, senior management

Management performance	Indicator	Measurement tools
BOD, CEO and Senior management	The bank has an environmental policy (EP) which identifies the environmental objectives, targets and EMS	A written environmental policy
	EP is publicly available	
	Lending activities may cause environmental risk: direct, indirect and reputational	EMS is in place
	Lending activities may cause environmental damage	Equator Principles, lending policies
	Promoting EP and ensuring procedures in place for implementation	Bank's internal documents
	Environmental roles and responsibilities	Environmental structure included in the organizational chart
	Stakeholders' communication	Number of workshops, researches and surveys, conferences
	Environmental performance is monitored	Internal documents and audit reports
	EP is reviewed annually	Internal documents and audit reports
	Complying with national and international environmental principles and regulations	Audit reports
	Having environmental knowledge and/or experience	Documentation, for example, in annual reports and/or on website, number of BOD members and senior staff
	Environmental issues are discussed in meetings	Bank's agenda
	Raising the awareness of environmental risks and environmental opportunities among employees	Internal documents, annual reports,

Table 7.1.b Management performance indicators – training

Management performance – training	Indicator	Measurement tools
	Environmental programs at all levels	Number of programs
	Regular education and training	Number of staff trained
	Training is critical to the success of improving environmental performance	Number of loans that are environmentally relevant and successfully repaid
	Communication between bank's levels about staff's environmental training	Internal documents, annual stakeholder reports

Table 7.1.c Management performance indicators – auditing

Auditing	Indicator	Measurement tools
	External environmental audit in place	External audit report
	Internal environmental audit in place	Internal audit report
	Environmental audit is a strategic approach to environmental management	Senior management has environmental audit roles and responsibilities
	Providing up-to-date, systematic, periodic and objective data	Audit reports
	Identifying strengths and weaknesses of environmental performance	Audit reports
	Audit report is available for management to measure progress and assess the need for training and education	Internal documents

Table 7.1.d Management performance indicators: operational integration

Operational - Integration	Indicator	Measurement tools
	Environmental risks are considered when lending decisions are made	Borrowers' files
	Screening	Having exclusion list; internal documents which contain initial environmental risk rating
	Evaluation	Documentation of site visits; environmental review by internal and/or external experts, draft of final environmental report
	Control	Reviewing the final environmental report; environmental conditions are included in credit agreements
	Monitoring	Documents that ensure monitoring environmental performance, changes in legislation, and changes in clients' activities
	Sum and number of loans which are environmentally relevant	Bank's stakeholder and financial reports
	Describing the environmental portfolio according to specific region and industry sector	Bank's stakeholder and financial reports
	Applying the EPs	EPs is in place
	Using different sources of information when making lending decisions	Borrowers' annual reports, personal interviews, on-line data sources, industry data and reports, reports on site visits

Table 7.1.e Management performance indicators – environmental pioneering projects

Environmental pioneering projects	Indicator	Measurement tools
	Bank finances projects with high environmental benefits	Number of projects financed
	The sum and number of loans which are relevant to environmental pioneering projects	Annual financial and stakeholder reports
	Environmental portfolio is described according to a specific region and sector	Annual financial and stakeholder reports
	Designing loans that address an environmental issue	Number of loans approved

Motivational performance indicators

This second major category is composed of three sub-categories and the indicators. These are illustrated in tables 7.2.a, 7.2.b and 7.2.c.

Table 7.2. a Motivational performance indicators - managerial drivers

Managerial drivers	Indicator	Measurement tools
	Complying with regulations	Environmental regulations
	Reflecting the bank's ethical stance	International rating agencies
	Meeting stakeholders' expectations	Surveys, researches, workshops
	Enhancing reputation and brand	International rating agencies

Table 7.2.b Motivational performance indicators – financial drivers

Financial drivers	Indicator	Measurement tools
	Avoiding environmental liabilities	Fines, legal cost, default loans
	Protecting the creditworthiness of borrowers	Follow up borrowers' activities
	Building profitability	Share of profit resulting from loans that are environmentally relevant
	Exploiting opportunities from environmental pioneering projects	Share of profit resulting from financing environmental pioneering projects

Table 7.2.c Motivational performance indicators – environmental drivers

Environmental drivers	Indicator	Measurement tools
	Pursuing sustainable environment	Environmental policy, EMS, environmental responsibility, environmental structure, environmental audit, member in environmental organization, sponsor of environmental projects
	Lending activities may impact on the environment	Equator Principles, number of loans declined for environmental reasons, classifying loans into categories, A, B and C

Since the financial and environmental world is exposed to change and development, the framework is not rigid and, in the future, changes may have to be considered in the two major categories developed in this study and established in this environmental model.

7.5.1 Implications of the new framework

Based on the guidelines presented in Section 7.5 and the literature and the empirical study regarding attitudes related to the integration of environmental issues into lending decisions, the proposed research framework presented in Table 7.3 will be used to assess the sustainability position of a bank. A bank will be judged on its dedication to each of the indicators outlined in Tables 7.1.a, b, c, d, e; and 7.2.a, b, and c, which include the two major categories, resulting in an average level of environmental sustainability score. Therefore, the indicators are considered as an integral part of the framework for measuring banks' environmental performance.

Table 7.3 Framework for environmental sustainability in the commercial banking sector

Categories	Level 1	Level 2	Level 3	Level 4	Level 5
	Very unsustainable (Ignorance)	Unsustainable (Reactive)	Almost Sustainable (Active)	Sustainable (Proactive)	Beyond Sustainability
a) Management performance					
BOD, CEO, senior Management	No involvement	Very limited	Sometimes	Wide involvement	Priority for environmental protection
Training	Non-existent	Very limited	Sometimes	Widely practised	Extremely important
Auditing	Non-existent	Very limited	Sometimes	Widely executed	Well-implemented
<i>Operational performance</i>					
Integration of environmental issues into lending decisions	No consideration of environmental issues at all	Very limited	Sometimes	Wide integration	Fully integrated
Lending to projects with high environmental benefit	Lending to any project without considering environmental impact	Very limited - as required by law	Sometimes	Seriously considered	Involved only in projects that deliver high environmental benefit
b) Motivational drivers					
Managerial drivers	Management is driven by financial factors	Highly driven by financial factors	Mostly driven by financial factors	Managerial, financial, environmental factors are equally considered	Priority for environmental protection
Financial drivers	Profit	Highly driven by financial goals	Financial priority	Balancing between financial drivers and environmental protection	Financial drivers are not a priority
Environmental drivers	Not considered	Very limited	Sometimes	Considered important as financial goals	Environmental drivers are a priority

The banking sector's environmental framework represents a study not explored by any previous studies. The five levels of sustainability represent the dynamics of strategies and possible patterns or paths that describe a bank's environmental behaviour in each of the levels provided. This framework, which points to future

research directions on the dynamics of integrating environmental issues into lending processes, takes into account five types of strategies which are based on measures of commitment and implementation. This study argues that different configurations may underlie the five types of strategies, and that each of these has different implications for the dynamics and directions of incorporating environmental aspects into lending decisions within banks. However, this framework can help a bank choose the most appropriate policy or develop an incremental strategy that moves it to adopt a more appropriate policy as changes dictate. Top management may be involved in environmental policy development, to avoid potentially-damaging legal and environmental liabilities, and to protect the reputation of a bank.

In addition, the indicators provide a comprehensive understanding of a bank's behaviour in regard to two major areas; the management performance and operational performance, and the motivational drivers. Therefore, this study seeks to gain a deeper understanding of each area, in order to better appreciate a bank's specific activities and to be able to probe further into the reasons for considering environmental aspects in a bank all levels. In an era of rapid change and increased competition, the ability of banks to change purposefully and effectively is a source of competitive advantage, and may be a strategic necessity. This study highlights the critical role of the dynamic relationship between policy commitment and approaches towards implementation.

This research classifies the behaviour of top management into three sub-categories: BOD, CEO, senior management; training; and auditing. Each sub-category has different implications for the dynamics and directions of policy integration within a bank, but finally maps the likely paths of strategic priorities and resource allocations. However, senior managers often find it difficult to translate strategy into action. This research presents a framework that describes the actions that managers can take to affect the operational performance related to the integration of environmental issues into lending decisions, and identify the opportunities for lending to projects with high environmental benefits. This framework also describes the drivers behind incorporating environmental issues

into lending decisions, which, in turn, permits a better understanding of management's contribution to both banks and the environment.

To sum up, the framework includes not only the details of banks' systems, structures and measures that are necessary to change banks' culture, but also the processes to improve both financial and environmental performance. The framework is a descriptive tool but also has implications. It describes measures of performance which leads to better decision-making.

7.6 Conclusion

This chapter presents an environmental framework for banks. Measuring environmental performance is increasingly important to the banking industry because of the recognition of the relationship between a bank's environmental performance and its financial performance. To improve understanding of banks' behaviour with regard to the integration of environmental aspects into lending decisions, an environmental framework was established. The framework addresses management, operations and motivational drivers. Indicators were established to facilitate banks' performance measurement. Consequently, quantitative and/ or qualitative analysis measures can be applied to the indicators, resulting in environmental sustainability scores.

In addition, the framework is intended to serve as a tool for banks' management, policy-makers and consultants, in order to improve understanding of and further the practice of environmental management. The framework focuses on policy commitment and approaches towards implementation that consider internal and external environmental forces. In other words, it focuses on environmental management and environmental performance. Management aspects, such as environmental strategies, policies, communication and commitment, should lead to the desired environmental performance.

The framework provides a background for both researchers and bank managers. On one hand, researchers can enrich the understanding of the relationship between financial and environmental performance; on the other, managers can use this framework as an instrument and an opportunity to improve their bank's

environmental management. Such a framework also helps managers to compare their corporation's environmental performance against that of other financial institutions, and they can then take any necessary actions that affect, and possibly improve, its financial and environmental performance.

CHAPTER 8 - DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

8.1 Introduction

There are three purposes for this chapter: first, to summarize answers to the research questions, based on the findings from the qualitative and quantitative research methods; second, to discuss the findings in the context of broader environmental management literature; and finally, to give some recommendations on how to improve environmental sustainability in the banking sector, as well as to suggest future research ideas that have become apparent as a result of the research process and the researcher's knowledge and experience.

8.2 Discussion

The mixed methods or triangulation research of the study investigated environmental issues related to lending decisions, with specific focus on Westpac as a commercial bank in the financial industry. The research questions addressed in the study were:

1. How does Westpac's management address environmental issues when making lending decisions? i.e., what actions does the bank take to incorporate environmental issues into their lending process?
2. Why does the bank integrate environmental issues into lending decisions?

Each are considered in turn.

8.2.1 How does Westpac address environmental issues when making lending decisions?

a) BOD and senior management

The findings regarding management performance revealed that the bank's management shows awareness in integrating environmental aspects into Westpac's daily activities. That was clear in the annual financial reports, which showed that management: set up an environmental policy; adopted the EPs and

GRI G3 framework reporting; has environmental experience; has explicit roles and responsibilities, which consider the environmental impact of the bank's operations; and delegates to management day-to-day operations in accordance with environmental standards.

However, the stakeholder impact reports showed that Westpac still operated without a specific New Zealand environmental policy, and there was no evidence that the bank's management reviews and monitors the environmental performance, apart from monitoring the direct impact of the bank's operations. Further, the reports provided the minimal amount of information and revealed insufficient and inconsistent disclosure of an appropriate environmental structure associated with the roles and responsibilities. They also revealed the weak role of management in raising the awareness of environmental risk and opportunities among the bank's employees. Moreover, the annual reports did not indicate how management contributes towards implementing the environmental policy at the operational level. The reports lack specifics on how environmental policy (Westpac Group policy) is implemented within the New Zealand context.

In addition, the information in Westpac stakeholder reports showed deficiencies in the communication system between the management and the bank's stakeholders, including a significant lack of sufficient and consistent information regarding reporting on stakeholder consultation and inviting their feedback on the bank's operational impact. This issue raises concerns about managers' accountability and their responsibility to disclose information to those who have a right to know (Deegan, 2002). Lundgren and Catasus (2000) identify those parties who provide banks with capital and do not know where their investments are destined. This is also consistent with Mathews (1997, p.26) who states:

The social contract would exist between corporations and individual members of society. Society provides corporations with their legal standing and attributes and the authority to own and use the natural resources and to hire employees. Organizations draw on community resources and output both goods and services and waste products to the general environment. The organization has no inherent rights to these benefits, and in order to allow their existence, society would expect the benefits to exceed the costs to society.

Nevertheless, the evidence reveals that Westpac's New Zealand Social Impact Report 2004 met the criteria for an appropriate document among the other stakeholder reports investigated in this research. It reflects on the most critical issues related to stakeholders: that the reporting framework is adequately based on GRI; that the environmental risk is assessed; there is lending to projects with high environmental benefit; there is a corporate social responsibility governance structure, and the EPs are considered.

In addition, the annual financial reports showed there was an appropriate channel of communication between the bank and the stakeholders, and between all levels of the bank. This aspect can be evidenced through the environmental roles and responsibilities documented in each financial report. This poses the question of whether the stakeholder reports, also, should include the same corporate governance structure associated with such environmental roles and responsibilities. Charan (2005) argues that miscommunication between the BOD and management inevitably leads to missed opportunities.

Furthermore, Westpac failed to make an environmental policy and the disclosure of EPs details consistently available in the stakeholder reports. This limited practice is contradictory to the GRI G3 framework to report on environmental performance and to the bank's commitment to international agreements and initiatives. Also this limitation, which was confirmed by the assurance provider, does not conform to the completeness and comparability approaches, which enable the stakeholders to assess the reporting of the bank's performance within the reporting periods. Hence, many annual reports users, such as investors, would be wary of the potential financial risks associated with companies that are unable to reflect environmental responsibility (Deegan and Rankin, 1997).

Even with the voluntary nature of environmental disclosure, a challenge for the bank's management is to reconsider the availability of an environmental policy and an appropriate environmental governance structure associated with the relevant environmental roles and responsibilities, and to structure the reporting system to conform to the GRI G3 framework, which the bank adopted. Such

availability also allows the bank to consider environmental performance disclosure and consistency of reporting in sustainability/ stakeholder reports.

In addition to the annual reports, an interview with a regional manager also provided an insight into Westpac environmental practices. Information obtained from the interview shows that there is no specific environmental policy and/or EMS in place for the Waikato/Bay of Plenty regions, but Westpac does have a Group-wide one. This finding supports the findings from the annual reports. Also, there was little evidence of co-operation between the management and branches with regard to environmental issues, although the process of engagement is part of normal management and reporting. Further, findings from the interview also showed that Westpac's environmental practices were not influenced by stakeholders' pressure and communication, pressure from employees or other external forces. In other words, environmental proactiveness in Westpac was internally motivated. This, in turn, fits with the findings from the annual reports. However, the findings from the two sets of respondents' survey showed people in New Zealand urge banks in New Zealand to consider and take actions related to environmental issues when making lending decisions. Also, the survey confirmed the findings from the annual reports and the interview, that the public has little control over the way banks manage environmental issues, and exposed the relatively weak role of government and the public in facilitating effective environmental management in the banks.

However, Kiernan (2001) points out that a shift has emerged in public attitudes towards paying close attention to companies' environmental performance. According to Kiernan, this shift provides a test not only of companies' environmental management, but also of their strategic management capability. Emtairah et al. (2005) identified two tracks that commercial banks deal with. One is the environmental credit risk management. By focusing on the environmental credit risk of borrowers, banks can signal industries to improve environmental management practices, while enhancing the performance of their own loan portfolios. The second track banks focus on is environmental finance to projects with high environmental benefit. Both tracks, environmental credit risk

management and environmental finance, pose a challenge for Westpac's management to improve their environmental, financial and managerial performance.

b) Training

This study revealed that environmental training and learning were shown less interest by the bank's management. This is supported by the findings in the annual reports that: first, a significant percentage of employees believed that they did not receive adequate training to prepare them for daily work; second, the training and development of employees fell under the New Zealand norm; third, some employees felt that the sales-based targets meant encouraging the customers to take on more debt, which, in turn, raised concerns about making environmental concessions; and, finally, the employees were not considered as a source for gathering environmental information regarding the indicators which the bank established to measure its environmental performance.

Another basic finding is that stakeholder reports did not state specifically that the bank's staff receive training in environmental issues. This evidence was also confirmed in the interview with the regional manager, who stated that environmental training is received alongside other credit training programs; but he did not refer to any specific one. Such absence of environmental education limits the capability of the bank to understand the potential environmental risks and opportunities. In other words, environmental knowledge and training is essential for exploiting the new technological opportunities available, while, at the same time, mitigating the environmental risk resulting from staff's lack of environmental knowledge, which may cause credit, operational and compliance risks (Thomas, 2008).

Fenchel et al. (2005) consider that the training of credit officers in assessing environmental issues is decisive. They argue that credit officers who perceive and evaluate company's environmental risks are able to integrate sustainability criteria into the credit rating process. Thus, the implementation of a rating system should go alongside capacity building in this business field in a bank. They added that

applying knowledge about the interaction between financial risks and environmental risks could lead to an improvement in the risk rating process, as well as enabling a credit officer to determine the performance of a borrower. They concluded that some of the environmentally-caused credit defaults could have been prevented if the lenders had used a rating system that consisted not only of economic and financial indicators, but also of environmental indicators.

Westpac's reports raise questions about the adequacy of the bank's environmental training programs. However, the findings from the survey confirm the New Zealand public's agreement that lending staff should be trained to professionally consider environmental issues when making lending decisions. A study by Kassinis and Panayiotou (2006) argues that employees' environmental knowledge and participation is essential for the successful implementation of firm environmental policies. Their study concludes that CEOs acknowledge the importance of employees in allowing them to make firm environmental decisions, and this is reflected in the business's strong environmental performance. Moreover, as the study by Feldman et al. (1997) revealed, a positive relationship exists between environmental performance and financial performance; they suggest that companies can capture more opportunities to improve their financial and environmental performance by undertaking knowledge and skill building within their workforce and enhancing their information-management capabilities. Thomas (2008) suggests training credit risk managers to recognize environmental risks and educating managers to perceive green business opportunities.

c) Auditing

In addition to training, auditing, as a managerial responsibility, was evaluated in two areas. First, the external audit was relatively successful in conducting the annual verification of the New Zealand stakeholder impact reports. In fact, Westpac has not yet had an external audit of its environmental performance, but only what is called an independent assurance. The assurance provider conducts the assurance against the AA1000 Assurance Standard, which includes the three principles of materiality, completeness and responsiveness. However, Westpac claimed its compliance with the GRI G3 reporting framework, which includes ten

principles. In addition, the verification statement, especially in 2006, identified reporting areas in need of improvement. However, the bank's management failed to reflect the auditor's concerns, despite having the responsibility to review the independent assurance of Westpac's corporate responsibility systems, including the annual stakeholder impact reports.

Second, the internal audit was poorly represented in the annual reports. Only one statement, in 2004, indicated an environmental audit had taken place. Westpac had a sound start in the Stakeholder Impact Report 2004 by reporting at least the number of hours which were spent on its internal environmental audit (NZ4, 20), but such information was not available in the reports between 2005 and 2008. Further, the regional manager who was interviewed chose not to answer a question relevant to environmental auditing. The internal auditing process could be described, then, as unclear, both in regard to the delegation and implementation processes and in whether there is a separate environmental audit, or whether this is included implicitly when assessing the credit risk overall. Therefore, it can be concluded that the bank's environmental auditing information is inconsistent and insufficient. However, the survey showed that New Zealand people had moderate agreement that lending processes should be audited by an external environmental auditor.

An environmental audit is a useful tool in determining the overall status of the implementation of an EMS with regard to conforming to defined procedures and proper implementation (EPI-Finance 2000; the Supplement 2005).

d) Incorporating environmental issues into lending processes

The bank considers environmental risks when making lending decisions. This was evidenced in some parts of the annual reports and in the comments made by the interviewee, who confirmed that action has been taken in responding to the environmental policy requirements. Also, it was concluded that the bank is mostly aware of the first two stages in the lending appraisal process; screening and evaluation and, significantly, considers the EPs for projects with a total capital cost of US\$10 million or more. The interviewee stressed the importance of site

visits and of communicating with upper levels, depending on the size of projects. Moreover, the bank recognizes environmental opportunities just as it understands environmental risks.

However, the bank could be described as reactive, in the sense that the annual reports and, specifically, the stakeholder reports did not provide sufficient information regarding further stages for credit appraisal other than the screening and evaluation processes. However, the regional manager interviewed was certain that the bank is aware of the controlling and monitoring processes. He claimed that every loan approved should be fully environmentally acceptable, and revealed that there were instances where applications were declined as a result of not reaching the minimum acceptable standards. However, with regard to such actions, Westpac reported poorly on whether environmental risk is considered separately and/or alongside other traditional risks. In addition, the EPs, which the bank committed to, require disclosing to the stakeholders specific information about financed projects, a disclosure the bank did not make available. Furthermore, the bank failed to describe the sum and the number of loans where environmental issues were considered. These findings are also confirmed by the interviewee, who claimed that such information is not available. This, then, acknowledges that the bank uses as a reporting guideline the GRI and the Financial Services Sector Supplement: Environmental Performance 2005, which requires the financial sector's compliance. These applications are fundamental requirements of the international agreements and initiatives, which the bank is a member of and/or signatory to. In addition, the survey revealed that people in New Zealand tended to agree that banks should take specific actions related to integrating environmental aspects into their lending decisions.

In a case study of commercial banks by Emtairah et al. (2005), findings show weaknesses in the banks' integration of environmental issues into lending practices. First, credit staff tend to focus only on checking whether the client has received the environmental permit from the relevant authorities. In addition, Jeucken (2001) considers this as insufficient guarantee, as there are still many uncertainties and potential risks involved in the whole development process of the

proposed project. Second, many of the banks' environmental assessment practitioners do not have the appropriate skills to conduct qualified environmental impact assessments. Third, in some cases, local environmental authorities are reducing the environmental standard threshold due to heavy political pressure. Finally, the banks' EMS lacks the necessary environmental risk monitoring procedures. Periodic inspections are done in the form of internal on-desk checks without due attention to environmental aspects, such as, environmental compliance of the borrower, changes in environmental legislation, or changes in the activities and related environmental impacts of borrowers (Jeucken, 2001).

However, Fenchel et al. (2005) are of the view that the integration of environmental issues into the lending process results in improved risk prediction and risk management for lenders, because environmental risks influence the risk of the loans. In addition, Kassinis and Panayiotou (2006) point to the importance of a successful implementation of environmental practices by firms and the positive relationship to the firm's financial performance. Further, Weber et al. (2005) refer to studies which found that in 10 % of all credit losses in German banks environmental risks were involved. They concluded that these risks indicate that banks should place increasing importance on the all phases of environmental credit risk management; rating/screening, costing/evaluating, pricing/controlling, monitoring and work-out. Further, a survey of 50 banks conducted by Fenchel et al. (2003) revealed that in the credit management process the integration of environmental risk varies immensely from one process phase to another. Consistent with that study, Ezovski (2006) points out that the implementation of all phases is not yet widespread, but suggests that lenders would do well to make sure their environmental practices are in line with banks' risk philosophies. Therefore, Westpac may wish to reconsider the integration process in view of the evidence the literature provides for risks and opportunities associated with it.

e) Lending to projects with high environmental benefit

Westpac realized the opportunities available in the pioneering and technological projects that are described as of high environmental benefit. The bank clearly identified the projects that should be given high priority and automatic investment

status. However, such information was made explicitly in the 2004 Stakeholder Report only. Other stakeholder reports disclosed partial information about opportunities available from climate change issues.

However, the bank could be described as reactive in responding to environmental pioneering projects, due to evidence that supports the bank's poor realization of such opportunities. The reports did not record any applications for projects with innovative characteristics, other than Westpac's home loan deal. In supporting these findings, the regional manager interviewed confirmed the unavailability of such information at the branch level. In addition, the survey revealed that people in New Zealand tend to believe that funding projects with environmental benefits has not been an important factor in determining banks' lending decisions. However, the Supplement 2005 requires describing these projects in sum and number, which the bank failed to do. Also, Thomas (2008) contends that the next stage for financial institutions will be to deal with the growing push to finance sustainability, clean technology, or "green" efforts in business. Prior to Thomas, Thompson (1998) and Thompson and Cowton (2004) argue in a similar vein that the rise in environmental concern, and stricter environmental regulations, offer opportunities in the form of lending to companies investing in environmentally friendly technologies and pollution-control measures. Also Emtairah et al. (2005) observe engagement in environmental issues by commercial banks offering clean technology and energy efficiency financing.

8.2.2 Why does Westpac incorporate environmental issues into its lending decisions?

The results of the study of the motivational drivers revealed three types of drivers.

a) The Managerial Drivers

The results of the study of top management's performance showed different motives behind incorporating environmental issues into the lending process. Some of these motives are relevant to complying with internal environmental regulations and laws that otherwise would be imposed from elsewhere. This notion was also confirmed by the interviewee, who called for similar assurances

from others, to be conscientious in complying with environmental standards and regulations. These findings are supported in a study by Cowton and Thompson (2000), who found that lenders could become liable due to environmental regulations, which can pose a threat to their loan portfolio and a company's cash flow. In fact, the existence of strict environmental laws has forced firms to re-evaluate their strategic approach towards the natural environment, and business leaders acknowledge that environmental protection measures have, and will continue to have, a growing influence on how companies operate (Kassinis and Panayiotou, 2006). A result of their study shows that larger firms were more likely to be the target of law suits and be convicted for violating environmental laws.

Also, it was noted that the integration process within Westpac's lending practices is motivated by the need to meet stakeholders' expectations and to reflect the bank's ethical stance to protect the environment, which goes beyond legal and financial obligations. These motivations are consistent with Thompson's (1998) observations that there has been an increasing public concern for the state of the natural environment, promoted by the climate change issues, consumption of natural resources, declining air quality and the rising concentrations of greenhouse gases. Thompson and Cowton (2004) are also of the opinion that stakeholders' attitudes, as reflected in their roles as legislators or as consumers, can pose risks for the state of a bank's lending portfolio. Moreover, the bank's corporate governance pays significant attention to the reputational risk, which is considered among other major CRSC's responsibilities. However, the integration process did not seem to be driven by stakeholders' pressure, and this was evidenced from the reactive role of the stakeholders in responding to the bank's initiatives and surveys. This is also supported by a Westpac's CEO, who indicated the low level of awareness of CSR in NZ. Moreover, the survey revealed that people in New Zealand tend not to be satisfied with the government's and public's influence on banks' lending decisions relevant to environmental issues. This finding is consistent with Maltby (1997), who casts doubts on whether stakeholders are sufficiently empowered to have much impact on banks' environmental practices, but observes that banks often do have the potential to exert considerable influence

over many companies because the financial communities hold ultimate power in capitalism. The findings of this research also conform to those of Kassinis and Panayiotou's (2006) study that there is currently little empirical support for the notion that stakeholders' pressures enhance environmental performance and a change in the behaviour of firms towards the natural environment. However, this is not to deny that stakeholders can have a significant impact on firms' performance if they take a serious approach to an environmental issue that the firm is involved in (Jayne, 2002). Also, Emtairah et al. (2005) and Ekins and Vanner (2007) emphasize that stakeholders can have an impact on business decision making, and, therefore, they should be a major target of the communication process.

b) The Financial Drivers

Despite its not being indicated explicitly in the annual reports that the integration of environmental issues into the credit appraisal is motivated by financial drivers, it is clear that the bank considers the environmental risk in the credit appraisal, to avoid a potential liability, as well as to assess the borrowers' ability to meet their financial obligations and environmental standards. These findings were also confirmed in the interview with the regional manager who claimed that environmental damage may cause risk to the bank's financial position. This is consistent with studies by Thompson (1998) and Thompson and Cowton (2004), which concluded that lenders are confronted with three types of environmental risk – direct, indirect and reputational. There are some losses in the credit business, caused by environmental risks, that justified environmental risk management measures in the credit business (Coulson and Monks, 1999). Also, Jeucken (2001) reported many examples where banks have been liable for the environmental damage caused by their clients (see pp. 131, 132, 135).

However, people in New Zealand believe that banks are mainly driven by financial reasons, and that there is a significant difference in attitude and less emphasis with regard to environmental and managerial drivers. In addition, although the bank claimed that the integration of environmental issues improves the financial performance and the shareholder value, Westpac could not provide

evidence that the profitability and the market share attributed to the loans portfolio were environmentally relevant. In fact, a study by Kassinis and Panayiotou (2006) shows a positive relationship between environmental performance and financial performance, and that better environmental performance is related to improved financial performance and increased shareholder wealth. Another study by Feldman et al. (1997) suggests that environmental improvements might lead to a substantial reduction in the perceived risk of a firm, with an accompanying increase in the company's stock price. Also, academic surveys identified a positive correlation between environmental and financial performance (Dowell et al., 2000; King and Lenox, 2001; Klassen and McLaughlin, 1996). These findings also comply with Thompson and Cowton's (2004) study which claims that the Co-operative Bank's environmental stance appears to contribute to its building market share and profitability. However, they argue that, for most banks, the environment is more likely to be a threat than an opportunity for profitable lending business, and that the primary basis for integrating environmental issues into lending decisions is risk management. This notion is emphasized by Fenchel et al. (2003) who note that banks' attention was first caught by court cases in the USA, and stress that environmental credit risk can form serious credit risk for banks. Boyer and Laffont (1997) also observed that banks have been found liable in various cases in the USA and elsewhere.

c) The Environmental Drivers

Westpac is involved in relatively many environmental practices that promote sustainability in New Zealand. The bank integrates environmental issues into its lending operations because of its clear realization that the bank has a significant indirect impact on the environment through financing. This fits with what Thompson and Cowton (2004) conclude, namely, that lending operations affect and degrade the state of the natural environment. They are of the view that banks, also, can be seen as facilitators of industrial activities which cause environmental damage. In supporting this view, Sarokin and Schulkin (1991) state that the business of moving money is inextricably linked to the movement of raw

materials, finished goods, labour and, ultimately, to the quality of the natural environment.

However, Westpac realizes the special characteristics of the New Zealand economy, which depends mainly on sectors that have a significant impact on the environment. In addition, the integration process was promoted by its stakeholders' participation, which prompted the bank to take a strategic approach to mitigate environmental impacts and to incorporate environmental considerations into its risk assessment process.

Nevertheless, the annual reports produced many findings, especially at the corporate governance level, that environmental issues receive the BOD's, CEO's and senior management's interest. That is clear from the bank's establishing the CRSC, which is associated with environmental roles and responsibilities, and, in turn, delegates day-to-day operations to management.

In practice, the bank implements environmental assessment in its lending operations and assesses the borrowers' environmental performance. The bank also voluntarily adopted the Group's environmental policy and the EPs, and showed practical evidence that it enhances environmental protection. However, this study revealed a lack of significant statistics that would enable an effective measurement of the bank's environmental performance. Therefore, the bank may need to transform its environmental vision into disclosing, quantitatively, consistently, completely and comparably, the environmental data required to enable a conclusion to be reached with regard to what extent environmental motives were proved to cause the bank to integrate environmental aspects into its lending operations.

The evidence in the annual reports showed that, on one hand, Westpac is motivated by managerial, operational and motivational reasons. In contrast, the survey showed that, on the other hand, people in New Zealand believe that environmental reasons lag behind financial motives. However, the regional manager interviewed observed that the complexity is to strike a balance between

the bank's financial, managerial and environmental requirements and its stakeholders', e.g., borrowers, government, environment demands.

8.3 Conclusions

There are a number of conclusions that can be drawn from this study.

First, Westpac has recognized that the bank's lending operations affect, and are affected by, the state of the natural environment. The bank has exercised a proactive strategy to respond to environmental risks arising from borrower activities, environmental opportunities, stakeholders' expectations and concerns, and environmental legislation. The bank assigns environmental roles and responsibilities to its senior management, undertakes environmental assessment, has an environmental policy (the Group Policy), and realizes the competitive advantage to be gained from recognizing the opportunities that can arise from lending to projects with high environmental benefits. However, concerns were raised regarding the bank's environmental strategy; first, whether the Group environmental policy is Westpac New Zealand's policy as well; second, the ability to provide sufficient, consistent information and evidence regarding the implication of the EPs, training and auditing processes, the sum and number of loans which are environmentally relevant, and the sum and number of projects which have environmental benefits. Sometimes, there is a clear tension between global leadership and local practice. This is not a new thing with multinational corporations. How global policies are translated into local policies and practices is critically important.

Second, a majority of the public and, notably, informed people in New Zealand acknowledged the public ignorance of Westpac's and other banks' environmental performance. This could be attributed to Westpac's disclosing its environmental performance in an incomplete and inconsistent manner in its stakeholder reports - in contrast to the well-structured financial annual reports, and/or may be due to reasons relevant to the stakeholders themselves.

Third, the mixed methods research methodology provides a significant improvement over methods which use a single method for analysis. Document

reviews, an interview, and a survey questionnaire enabled the researcher to probe for more details regarding any particular question and to avoid bias that could result from using only one method of collecting data and concluding analysis.

Fourth, this research contributes to banks' environmental management pertaining to the lending process. Over the last three decades, there have been an increasing number of studies dealing with the incorporation of environmental issues into the lending process. However, these studies, first, did not investigate as comprehensive an approach to environmental management as this study did. Second, such studies have been of limited usefulness in the New Zealand context, and this is where this research will contribute to further knowledge of the topic as it affects New Zealand. In this regard, Thompson and Cowton (2004) recommended choosing a study involving countries other than the UK in order to delve more deeply into how environmental issues are incorporated into other nations' banks' lending decisions.

Fifth, these results have important implications for managers in the banking industry, for authorities that enact public policy and for other industry stakeholders concerning how to improve the effectiveness of addressing environmental issues when making lending decisions. The proposed environmental sustainability framework, which is based on the literature and the Westpac case study, provides guidelines for more effective lending decisions that consider the bank's economical, social and environmental positions and stakeholders' attitudes alike.

Sixth, this study reveals that, with regard to the environmental aspects of business operations, international agreements, guidelines and initiatives lack effective implementation. The literature provides evidence that such initiatives are not appropriately implemented with regard to the principles of accountability, transparency and commitment. This research suggests that unless environmental agreements and initiatives become legally compulsory, progress will continue to be slow.

8.4 Recommendations

The research findings of this study have important implications for bank's management, the public, governmental policy-makers, academics and other stakeholders regarding how to encourage more environmentally-sustainable lending decisions in the banking industry.

8.4.1 Senior management

Before making any plausible suggestions to bank's management, it is worthwhile to look at the findings from the annual reports, the interview and the survey questionnaire in order to be able to draw the rational recommendations.

Westpac does not have a specific environmental policy. Increasingly, a strategic environmental policy for a bank is becoming a crucial element of business success. A bank's environmental policy directs and reflects its environmental responsiveness. Environmental objectives, environmental targets, employee programs and the EMS itself are all developed from the over-arching environmental policy. Thus, the quality of the environmental policy itself will be a strong indicator of how well that bank is likely to perform in the associated areas of environmental responsiveness.

Therefore, environmental policy has to be part of the bank's overall business strategy, formulated at top management and implemented at the operational level (Rondinelli and Vastag, 1996). Moreover, environmental policy has to be approved by the bank's BOD, embedded in a separate policy statement, and made publicly available. In such a bank, the objectives of the environmental policy are derived from the corporation's long-term strategy, and go beyond regulatory compliance and current environmental regulations. This is to take advantage of market opportunities for lending to environmentally-friendly projects, minimizing a bank's indirect adverse impacts on the environment, and avoiding environmental risk and potential liabilities.

Senior management can enhance the process of change by actively developing lending policies and processes related to environmental issues that are transparent, monitored, audited and reported upon. Further, managers should explore the

opportunities brought about by the green market, climate change, and innovational highly environmental projects with low risk, which, it is believed, bring a series of benefits to banks as more and more managers equate environmental performance with good management.

In addition, the bank's commitment to internationally-recognized guidelines could be taken more seriously. Westpac Group did sign international guidelines, namely the GRI, which shows good intentions; however, the accuracy of interpretation and method of implementation by Westpac lag behind other operational indicators. This could lead to bad publicity, as it might be seen as window-dressing or pretending to do the right thing.

Furthermore, the bank's involvement with its stakeholders could be improved. At some banks shareholders are the only party taken into consideration. In this regard, the provision of information on non-financial matters should be improved, as this increases the transparency of Westpac's environmental performance, which would diminish misunderstanding among stakeholders, foster credibility and trust, and improve the bank's reputation.

8.4.2 Training and auditing

The study's findings revealed that environmental training and auditing are important components in environmental management performance. However, insufficient and inconsistent information about these two components were noticed in Westpac's annual reports and in the interview with the regional manager. Employees' training is critical to the success of improving the bank's environmental performance. This applies as much to the BOD as to senior management, and as much to middle management as to operations staff. Also, a strategic approach to the environmental audit identifies strengths and weaknesses and areas of risk and opportunities, and makes available to the management the information needed to measure progress, assess the need for education and training, and improve the bank's environmental performance.

8.4.3 Government's role

The findings of this study revealed that no specific government role was reported in the Westpac's stakeholder reports, and that people in New Zealand tend to be satisfied with the government's actual role in facilitating effective environmental management in the banking industry.

As for the government, it could further improve the conditions of the environmental market to provide more incentives for commercial banks to engage in environmental financing. Specific measures could include, for example, more governmental support, such as tax credits and a policy of charging banks' credit at a lower interest rate. Additionally, being responsible for controlling regulatory organizations for the banking sector, government could consider establishing appropriate policies to ensure the effective practice of environmental risk management in commercial banks. The governments of many countries have begun to implement detailed legislation to protect the environment, and have sought to raise environmental standards and more tightly regulate business activity with such legislation as the Resource Management Act 1991 in New Zealand and the Environmental Protection Act 1990 and the Environment Act 1995 in the UK. Perhaps, a review of the Resource Management Act is required, in order for it to be upgraded to consider the contemporary environmental issues related to banks' lending practices in New Zealand. For example, a review may consider if the New Zealand government will introduce or consider introducing, laws to recover from the liable parties the clean-up costs caused by pollution damage.

8.4.4 Future research and research methodology

This thesis has offered an insight into Westpac's integration of environmental issues into its lending decisions, by way of exploring aspects relevant to environmental management performance, operational performance, environmental risk assessment and potential environmental opportunities, and motivational drivers.

As there is still confusion and compromise with regard to the integration of environmental issues into the bank's lending policies, further research should consider more case studies to explore the relationship between the bank's environmental performance and its financial performance. Further research could also be embarked on to quantify the potential green market, which could provide banks' management with a potential supply of business that has not been realized.

It is acknowledged that research on the integration of environmental issues into lending decisions is in its infancy in New Zealand. Nevertheless, with increased internalization and globalization of environmental issues, banks cannot afford to neglect the management of environmental issues in the future. Thus, researchers need to update their research agendas. While, in this study, the researcher only identified and categorized the banks' environmental performance indicators, future researchers need to focus their studies on them. In relation to this, future studies should concentrate on the issues of the implementation of environmental policy, environmental audits, and a bank's environmental structure.

Additionally, this study identified the stakeholders' expectation factor as a motivation for Westpac to integrate environmental issues into its lending operations. However, future research should attempt to expand on how these stakeholders use their power to exert pressure on the banking industry.

With regard to improvement in research methodology, the researcher took several years to complete this research, and, in so doing, has gained experience, learned valuable lessons, and gathered invaluable knowledge pertaining to the study of incorporating environmental issues into banks' lending decisions. In this study measurement of the environmental effectiveness was base on a mixed method research - annual reports, an interview and survey questionnaire. In order to enrich this stream of research, future researchers will need to conduct more in-depth interviews with a number of banks. This thesis includes only one study and, as such, one has to be cautious with regard to the generalizability of the results. Moreover, the survey findings of this study revealed the need for extending the size of the informed people sample, to enhance the probability of robust results. In this regard, future researchers would gain from including a socio-demographic

question which considers the urban and rural factor, in order to differentiate both sectors' views with regard to the incorporation of environmental issues into banks' lending decisions in New Zealand.

References

- Aladwani, A. (2001). Online banking: a field study of drivers, development challenges, and expectations. *International Journal of Information Management*, 21(3), 213-225.
- Azzone, G., & Bertele, U. (1994). Exploiting green strategies for competitive advantage. *Long range Planning*, 27(6), 69-81.
- Babbie, E. (1998). *The practice of social research*. (8th ed.). Belmont, California: Wadsworth.
- Barnett, J., & Pauling, J (2005). The environmental effects of New Zealand's free-market reforms. *Environment, Development and Sustainability*, 7(2), 271-289.
- Bebbington, J., & Gray, R. (2000). An account of sustainability: failure, success and a reconceptualisation. *Critical Perspectives on Accounting*, 12(5), 557-588.
- Bennett, M., & James, P. (1998). *The green bottom line: environmental accounting for management; current practice and future trends*. Sheffield: Greenleaf.
- Berry, M., & Rondinelli, D. (1998). Proactive corporate environmental management: a new industrial revolution. *Academy of Management Executive*, 12(2), 38-50.
- Bisset, D. (2006). Managing environmental risk: A new responsibility for banks. *The Bankers Magazine*, 178(2), 55-60.
- Blaikie, N. (1991). A critique of the use of triangulation in social research. *Quality and Quantity*, 25, 115-136.
- Bossel, H. (1999). *Indicators for sustainable development: theory, method, applications*. Canada, Manitoba: IISD.
- Bouma, J., Jeucken, M., & Klinkers, L. (2001). *Sustainable banking: the greening of finance*. Sheffield: Greenleaf.
- Boyer, M., & Laffont, J. (1997). Environmental risks and bank liability. *European Economic Review*, 41(8), 1427-1459.

- Brockhoff, K., Chakrabarti, A., & Kirchgeorg, M. (1999). Corporate strategies in environmental management. *Research Technology Management*, 42(4), 26-30.
- Bryman, A. (1984). The debate about quantitative and qualitative research: a question of method of epistemology? *British Journal of Sociology*, 35(1), 75-92.
- Bryman, A. (2001). *Social research methods*. New York: Oxford University Press.
- Bulmer, M. (1988). 'Some reflections upon research in organizations', in A. Bryman (ed.), *Doing research in organizations* (p. 151-161). London: Routledge.
- Callens, I., & Wolters, L. (1998). Factors of unsustainability: identification, links and hierarchy. *Business Strategy and the Environment*, 7(1), 32-42.
- Campbell, D., Craven, B., & Shrides, P. (2003). Voluntary social reporting in three FTSE sectors: a comment on perception and legitimacy. *Accounting, Auditing and accountability Journal*, 16(4), 558-581.
- Campbell, D., & Slack, R. (2011). Environmental disclosure and environmental risk: sceptical attitudes of UK sell-side bank analysts. *The British Accounting Review*, 43(1), 54-61.
- Candy, P. (1989). Alternative paradigms in educational research. *Australian Educational Researcher*, 16(3), 1-11.
- Charan, R. (2005). Aligning boards and management on strategy. *Leader to Leader*, 2005(37), 35-40
- Checkland, P. & Scholes, J. (1990). *Soft system methodology in action*. Chichester: Wiley.
- Child, J. and Rodriguez, R. (2003). The international crisis of confidence in corporations. *Journal of Management and Governance*, 7, 233-240.
- Churchill, G. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, 16(1), 64-73.
- Conley, J., & Williams, C. (2011). Global banks as global sustainability regulators? the Equator Principles. *Law & Policy*, 33(4), 542-545.
- Constas, M. (1992). Qualitative analysis as a public event: the documentation of category development procedures. *American Educational Research Journal*, 29(2), 253-266.

- Cornell, B. & Shapiro, A. (1987). Corporate stakeholders and corporate finance. *Financial Management*, 16(6), 5-14.
- Coulson, B., & Monks, V. (1999). Corporate environmental performance considerations within bank lending decisions. *Eco-Management and Auditing*, 6(1), 1-10.
- Cowton, C., & Thompson, P. (2000). Do codes make a difference? the case of bank lending and the environment. *Journal of Business Ethics*, 24, 165-178.
- Creswell, W. (1994). *Research design: qualitative and quantitative approaches*. California: Sage.
- Crompton, R. & Jones, G. (1988). 'Researching white collar organizations: why sociologists should not stop doing case studies', in A. Bryman (ed.), *Doing research in organizations* (pp. 68-81). London: Routledge.
- Crosbie, L., & Knight, K. (1995). *Strategy for sustainable business: environmental opportunity and strategic choice*. New York: McGraw-Hill.
- Croty, M. (1998). *The foundations of social research: meaning and perspective in the research process*. Australia: Allen and Unwin.
- Dahl, A. (2000). Using indicators to measure sustainability: recent methodological and conceptual developments. *Marine and Freshwater Research*, 51, 427-33.
- Darby, L., & Jenkins, H. (2006). Applying sustainability indicators to the social enterprise business model. *International Journal of Social Economics*, 33(5/6), 411-431.
- Davidson, M., & Weller, H. (1997). A consensus on director responsibilities. *Directors and Board*, 21(4), 45.
- Davidson, W., & Worrell, D. (2001). Regulatory pressure and environmental management infrastructure and practices. *Business and Society*, 40(3), 315-342.
- DeBono, T. (2004). Integrating sustainability practices into power generation operations. *Greener Management International*, (46), 73-86.
- Deegan, G. (2002). The legitimising effect of social and environmental disclosures: a theoretical foundation. *Accounting, Auditing & Accountability Journal*. 15 (3), 282-311.

- Deegan, C., & Rankin, M. (1997). The materiality of environmental information to users of annual reports. *Accounting, Auditing and Accountability Journal*, 10(4), 562-583.
- Deegan, C., & Rankin, M. (1999). The environmental reporting expectations gap: Australian evidence. *British Accounting Review*, 31, 313-346.
- Delamaide, D. (2008). Environmental risk management: a growing trend in commercial lending. *The Secured Lender*, 64(3), 56-59.
- Deland, M. (1992). Seize the moment. *Directors and Boards*. 16(4), 8-10.
- Denzin, N. (1978). *The research act: a theoretical introduction to sociological methods*. New York: McGraw-Hill.
- Denzin, N., & Lincoln, Y. (2003). *Strategies of qualitative inquiry*. Thousand Oaks: Sage Publications.
- Denzin, N., & Lincoln, Y. (1994). *Handbook of qualitative research*. Thousand Oaks: Sage.
- Denzin, N., & Lincoln, Y. (2005). 'introduction: the discipline and practice of qualitative research', in N. K. Denzin & Y. S. Lincoln (eds.), *The Handbook of Qualitative Research* (3rd ed.). Thousand Oaks: Sage.
- Derhake, J. (2009). Lenders' tolerance for environmental risks. *The RMA Journal*, 91(5), 52-56.
- De Vaus, D.A. (2002). *Surveys in social research*. St. Leonards, N.S.W: Allen & Unwin.
- Dey, I. (1993). *Qualitative analysis: a user friendly guide for social scientists*. London: Routledge.
- Douglas, A., Doris, J., & Johnson, B. (2004). Case study: corporate social reporting in Irish financial institutions. *The TQM Magazine*, 16(6), 387-395.
- Dowell g., Hart, S., & Yeung, B. (2000). Do corporate global environmental standards create or destroy market value. *Management Science*, 46(8), 1059-1074.
- Dunne, S. (1995). *Interviewing techniques for writers and researchers*. London: A & C Black.
- Dyllick, T., & Hockerts, K. (2002). Beyond the business case for corporate sustainability. *Business Strategy and the Environment*, 11(2), 130-141.

- Easterby-Smith, M., Thorpe, R., & Lowe, A. (1991). *Management research: an introduction*. London: Sage.
- Easterby-Smith, M., Thorpe, R., & Lowe, A. (2002). *Management research: an introduction* (2nd ed.). London: Sage.
- Ekins, P., & Vanner, R. (2007). Sectoral sustainability and sustainability assessment methodologies: a review of methodology in light of collaboration with UK oil and gas sector. *Journal of Environmental Planning and Management*, 50(1), 87-111.
- Elkington, J. (1998). *Cannibals with forks: the triple bottom line of 21st century business*. Gabriola Island, BC and Stony Creek, CT: New Society Publishers.
- Elkington, J. (1994). Towards the sustainable corporation: win-win-win business strategies for sustainable development. *California Management Review*, 36(2), 90-100.
- Emtairah, T., Hansson, L., & Hao, G. (2005). Environmental challenges and opportunities for banks in China. *Greener Management International*, 50, 85-95
- Epstein, J., & Roy, M. (2003). Improving sustainability performance: specifying, implementing and measuring key principles. *Journal of General Management*, 29(1), 15-31.
- Epstein, J., & Roy, M. (2001). Sustainability in action: identifying and measuring the key performance drivers. *Long Range Planning*, 34(5), 585-604.
- Evans, C. (2005). Making money from sustainability. *Chartered Accountants Journal of New Zealand*, 84(7), 13-14.
- Ezovski, D. (2006). Outside forces driving lenders to take another look at environmental policies. *The Secured Lenders*, 62(6), 56-59.
- Feldman, S., Soyka, P., & Ameer, P. (1997). Does improving a firm's environmental management system and environmental performance result in a higher stock price? *Journal of Investing*, 6(4), 87-97.
- Field, A. (2005). *Discovering statistics using SPSS* (2nd ed.). London: Sage publication.
- Field, D. (2007). Governance in permanent whitewater: the board's role in planning and implementing organisational change. *Corporate Governance*, 15(2), 334-344.
- Fielding, N., & Fielding, J. (1986). *Linking data. Qualitative research methods series no.4*. Newbery Park, CA: Sage.

- Firestone, W. (1987). Meaning in method: the rhetoric of quantitative and qualitative research. *Educational Researcher*, 16(7), 16-21.
- Flick, U. (2002). *An introduction to qualitative research*, (2nd ed.) London: Sage.
- Fowler, M., Hart, C., & Phillips, C. (1999). Social and environmental reporting: a snapshot of New Zealand. *Australia CPA*, 69(11), 30-32.
- Friedman, B. (1978). *New challenges to the role of profit*. Lexington, Mass.: Lexington Books.
- Friedman, M. (1962). *Capitalism and freedom*. Chicago: University of Chicago Press.
- Gallopin, G. (1996). Environmental and sustainability indicators and the concept of situational indicators. A system approach. *Environmental Modeling and Assessment*, 1(3), 101-117.
- Glaser, B. G. & Strauss, A. L. (1967). *The discovery of grounded theory: strategies for qualitative research*. New York: Aldine.
- Glaser, B., & Strauss, A. (1970). Discovery of substantive theory. In W. Filstead (ed.), *Qualitative methodology* (pp. 288-297). Chicago : Rand McNally.
- Gray, R., Owen, D. & Maunders, K. (1987). *Corporate social responsibility: accounting and accountability*. Prentice-Hall, London.
- Gray, R., Kouchy, R., & Lavers, S. (1995). Constructing a research database of social and environmental reporting by UK companies: a methodological note. *Accounting, Auditing and Accountability Journal*, 8(2), 78-101.
- Gray, R., & Milne, M. (2002). Sustainability reporting: who's kidding whom? *Chartered Accountants Journal of New Zealand*, 81(6), 66-73.
- Green, P. (2005). Banking on Responsibility. *Global Finance*, 19(8), 22-24.
- Grix, J. (2004). *The foundation of research*. New York: Palgrave Macmillan.
- Guba, E. (1990). *The paradigm dialog*. Newbury Park: Sage Publications.
- Guba, E., & Lincoln, Y. (1981). *Effective evaluation: improving the effectiveness of evaluation results through responsive and naturalistic approaches*. San Francisco: Jossey-Bass.
- Guba, E., & Lincoln, Y. (1986). Research, evaluation, and policy analysis: Heuristics for disciplined inquiry. *Policy Studies Review*, 5(3), 546-565.
- Guba, E., & Lincoln, Y. (1994). 'Competing Paradigms in Qualitative Research'. In: N. Denzin & Y. Lincoln (ed.), *Handbook of qualitative research* (pp. 105-117). Thousand Oaks: Sage.

- Gummesson, E. (1991). *Qualitative methods in management research*. Newbury Park: Sage.
- Guthrie, J. & Parker, L. (1990). Corporate social disclosure practice: a comparative international analysis. *Advances in Public Interest Accounting*, 3, 159-75.
- Haberlen, J., & Pollard, D. (2009). Developing and updating an environmental risk management policy. *The RMA Journal*, 91(6), 54-61.
- Hackston, D., & Milne, M. (1996). Some determinants of social and environmental disclosures in New Zealand companies. *Accounting, Auditing & Accountability Journal*, 9(1), 77-108.
- Halici, A., & Kucukaslan, A. (2005). Turkish companies' ethical statements: Content analysis with comparisons. *Management Research News*, 28(1), 45-62.
- Hanson, N. (1965). *Patterns of discovery: an inquiry into the conceptual foundations of science*. Cambridge: Cambridge University Press.
- Harbers, B., Southerland, B., & Fambrough, G. (1994). To what extent are current environmental laws affecting your bank's lending policies? *Texas Banking*, 83(7), 13.
- Hardi, P., & DeSouza-Huletey, J. (2000). Issues in analysing data and indicators for sustainable development. *Ecological Modelling*, 130 (1-3), 59-65.
- Hart, S. (1997). Beyond greening: strategies for a sustainable world. *Harvard Business Review*, 75(1), 66-76.
- Hemraj, M. (2003). Corporate governance: directors, shareholders and the audit committee. *Journal of Financial Crime*, 11(2), 150-157.
- Hodge, N. (2011). Beyond greenwash. *Financial Management*, London: Jul/Aug, 26-30.
- Hoijtink, A. & Zoeteman, B. (2005). *The sustainability attitude of six Dutch banks*. Available from Google: Tilburg University: The Sustainability Attitude of Six Dutch Banks
- Huberman, A., & Miles, B. (1994). *Qualitative data analysis*. Thousand Oaks: Sage Publications.
- Hunt, C., & Auster, E. (1990). Proactive environmental management: avoiding the toxic trap. *Sloan Management Review*, 31(2), 7-18.

- Hussey, J. & Hussey, R. (1997). *Business research: a practical guide for undergraduate and postgraduate students*. New York: Palgrave.
- Hugenschmidt, H., Kermode, Y., Schumacher, I., & Janssen, J. (1999). Sustainability banking at UBS. *Greener Management International*, (27), 37-48.
- Ibars, M. (2004). Keeping lenders clean. *Latin Finance*, 1.
- Idowu, S., & Towler, A. (2004). A comparative study of the contents of corporate social responsibility reports of UK companies. *Management of Environmental Quality: An International Journal*, 15(4), 420-437.
- Isaksson, R., & Garvare, R. (2003). Measuring sustainable development using process models. *Managerial Auditing Journal*, 18(8), 649-656.
- Jackson, M. (2003). The power of multi-methodology: some thoughts for John Mingers. *The Journal of the Operational Research Society*, 54(12), 1300-1301.
- Jayne, V. (2002). Sea change: how the revolution in management thinking is reshaping business. *New Zealand Management*, 49(8), 24-28.
- Jeucken, M. (2001). *Sustainable finance and banking: the financial sector and the future of the planet*. London: Earthscan Publications Ltd.
- Jick, T. (1979). Mixing qualitative and quantitative methods: triangulation in action. *Administrative Science Quarterly*, 24(4), 602-611.
- John, J., Whitaker, D., & Johnson, D. (2006). *Statistical thinking in business*. London: Chapman and Hall/CRC, Taylor and Francis Group.
- Kassinis, G., & Panayiotou, A. (2006). Perceptions matter: CEO perceptions and firm environmental performance. *The Journal of Corporate Citizenship*, (23), 67-80.
- Kelle, U. (1997). Theory building in qualitative research and computer programs for the management of textual data. *Sociology research Online*, 2(2).
- Kennedy, S. (1998). The impact of management practices supporting sustainable development. *CMA*, 72(4), 31.
- Kiernan, M. (2001). Eco-value, sustainability, and shareholder value: driving environmental performance to the bottom line. *Environmental Quality Management*, 10(4), 1-12.

- King, A., & Lenox, M. (2001). Does it really pay to be green? an empirical study of firm environmental and financial performance. *Journal of Industrial Ecology*, 5(1), 105-116.
- Kirk, J. & Miller, M. L. (1986). *Reliability and validity in qualitative research*. Beverly Hills: Sage.
- Klassen, R., & McLaughlin, C. (1996). The impact of environmental management on firm performance. *Management Science*, 42(8), 1199-1214.
- Knoke, D. & Kuklinski, J. H. (1982). *Network analysis*. Beverly Hills: Sage.
- Kolk, A., & Mauser, A. (2001). The evolution of environmental management: from stage models to performance evaluation. *Business Strategy and the Environment*, 11(1), 14-31.
- Kovacic, A. (2007). Sustainable development and the problems of measuring. *International Journal of Human and Social Sciences*, 1(2), 83-91.
- Krippendorff, K. (1980). *Content analysis: an introduction to its methodology*. London: Sage Publications.
- Kuhn, T. (1970). *The structure of scientific revolutions*. Chicago: University of Chicago Press.
- Kuhn, T. (1996). *The structure of scientific revolutions*. 3rd Edition. Chicago: University of Chicago Press.
- Lancaster, G. (2005). *Research methods in management: a concise introduction to research in management and business consultancy*. Burlington: Elsevier Butterworth-Heinemann.
- Lee, A. (1989). A scientific methodology for MIS case studies. *MIS Quarterly*, 13(1), 33-50.
- Lindlof, T. (1995). *Qualitative communication research methods*. Thousand Oaks: Sage.
- Linsley, M., & Shrives, J. (2006). Risk reporting: a study of risk disclosures in the annual reports of UK companies. *The British Accounting Review*, 38(4), 387- 404.
- Llena, F., Moneva, J., & Hernandez, B. (2007). Environmental disclosures and compulsory accounting standards: the case of Spanish annual reports. *Business Strategy and the Environment*, 16, 50-63.
- Lopez, J., & Potter, G. (2001). *After postmodernism: an introduction to critical realism*. London: The Athlone Press.

- Lundgren, M., & Catasus, B. (2000). The banks' impact on the natural environment - on the space between 'what is' and 'what if'. *Business Strategy and the Environment*, 9(3), 186-195.
- Luzkow, S. (2004). Environmental due diligence for lenders. *The RMA Journal*, 87(3), 28-33.
- Lynn, J. (1994). Profits from green ventures. *CMA*, 68(7), 17-20.
- Lynch, J. (1994). *Banking and finance: managing the moral dimension*. Cambridge: Gresham Books.
- Macve, R., & Chen, X. (2010). The equator principles: a success for voluntary codes? *Accounting, Auditing & Accountability Journal*, 23(7), 890-919.
- Maltby, J. (1997). Setting its own standards and meeting those standards: voluntarism versus regulation in environmental reporting. *Business Strategy and the Environment*, 6(2), 83-92.
- Martin, J., & Nakayama, T. (1999). Thinking diacritically about culture and communication. *Communication Theory*, 9(1), 1-25.
- Mathews, M. (1997). Twenty-five years of social and environmental accounting research: is there a silver jubilee to celebrate. *Accounting, Auditing and Accountability Journal*, 10(4), 481-531.
- May, T. (1997). *Social research issues, methods and process*. (2nd ed.) Buckingham, Philadelphia: Open University Press.
- McDermott, T., Stainer, A., & Stainer, L. (2005). Contaminated land: bank credit risk for small and medium size UK enterprises. *International Journal of Environmental Technology and Management*, 5(1), 1-13.
- McKenzie, G., & Wolfe, S. (2004). The impact of environmental risk on the UK banking sector. *Applied Financial Economics*, 14(14), 1005-1016.
- McWilliams, A. & Siegel, D. (2001). Corporate social responsibility: a theory of the firm perspective. *Academy of Management Review*, 26(1), 117-127.
- Mercer, D., & Powell, J. (1972). *Phenomenology and related non-positivistic viewpoints in the social sciences*. Melbourne, Vic. : Dept. of Geography, Monash University.
- Meredith, J. (1998). Building operations management theory through case and field research. *Journal of Operations Management*, 16(4), 441-454.
- Merriam, S. (1988). *Case study research in education: a qualitative approach*. San Francisco: Jossey-Bass Publishers.

- Merriam, S. (1998). *Qualitative research and case study applications in education*. San Francisco: Jossey-Bass Publishers.
- Merriam, S. (2002). *Qualitative research in practice: examples for discussion and analysis*. San Francisco: Jossey-Bass Publishers.
- Miles, M. & Huberman, A. M. (1984). *Qualitative data analysis: a sourcebook of new methods*. Beverly Hills; London: Sage.
- Miles, A. M. & Huberman, A. (1994). *Qualitative data analysis: an expanded sourcebook* (2nd ed.). Thousand Oaks: Sage.
- Milne, M., & Gray, R. (2008). International trends in corporate ‘sustainability’ reporting. *Chartered Accountants Journal of New Zealand*, 87(11), 60-63.
- Mintzberg, H. (1979). An emerging strategy of “direct” research. *Administrative Science Quarterly*, 24(4), 582-589.
- Missbach, A. (2004). The Equator Principles: Drawing the line for socially responsible banks? an interim review from an NGO perspective. *Development*, 47(3), 78.
- Mitchell, C., & Hill, T. (2009). Corporate social and environmental reporting and the impact of internal environmental policy in South Africa. *Corporate Social Responsibility and Environmental Management*, 16, 48-60.
- Moir, L. (2001). What do we mean by corporate social responsibility? *Corporate Governance*, 1(2), 16-22.
- Monks, R. & Minow, N. (2004). *Corporate Governance*. Malden, Mass.: Blackwell Publication, Cambridge.
- Morgan, G., & Smircich, L. (1980). The case of qualitative approach. *Academy of Management Review*, 5, 491-500.
- Morse, M. (1994). *Critical issues in qualitative research methods*. Thousand Oaks :Sage.
- Morse, S., McNamara, N., Acholo, M., & Okwoli, B. (2001). Sustainability indicators: the problem of integration. *Sustainable Development*, 9(1), 1-15.
- Mulliken, D., & Vaughan, S. (2007). It’s not easy being green. *International Financial Law Review*, 1.
- Myers, T. (2005). Sustainable management: why unsustainable is high-risk management. *New Zealand Management*, 54.

- Nadler, P. (1993). Our new endangered species: the bank director. *The Secured Lender*, 49(1), 42-44.
- Neilson, P. (2005). Sustainability: pick any shade of green. *New Zealand Management*, 21.
- Neilson, P. (2006). Sustainability: direct hits. *New Zealand Management*, 27.
- Neuman, W. (2006). *Social research methods: qualitative and quantitative approaches*. U.S.A. : Pearson Education, Inc.
- New Zealand Management (2004). *Corporate governance could we show the world sustainable governance? are New Zealand directors in a unique position to embrace sustainable business practices? and could our sustainable corporate governance strategies be an example to the world? yes, apparently. why?* 68.
- Owen, W. (1984). Interpretive themes in rational communication. *Quarterly Journal of Speech*, 70, 274-287.
- Patton, M. (1987). *How to use qualitative methods in evaluation*. Newbury Park, London: Sage Publications.
- Patton, M. (1990). *Qualitative evaluation and research methods*. Newbury Park: Sage Publications.
- Patton, M. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks: Sage Publications.
- Patten, D. (2002). Media exposure, public policy pressure, and environmental disclosure: an examination of the impact of tri data availability. *Accounting Forum*, 26(2), 152-171.
- Pearce, D., & Warford, J. (1993). *World without end: economics, environment, and sustainable development*. N.Y: Oxford University Press,
- Peeters, H. (2003). Sustainable development and the role of the financial world. *Environment, Development and Sustainability*, 5(1-2), 197.
- Pierce-Durance, E. (1991). New Zealand: a tough diet to swallow; the great sell-off; new green laws cause concern. *Asian Business*, 27(11), 38-43.
- Pilko, G. (1989). Director Readiness for the Big Cleanup. *Directors and Boards*, 13(3), 25.
- Popper, K. (1972). *The logic of scientific discovery*. London: Hutchinson.
- Project Finance (2004). *A matter of principal*. London: March.

- Raiborn, C., Butler, J., & Massoud, M. (2011). Environmental reporting: toward enhanced information quality. *Business Horizons*, 54(5), 425-431.
- Ratnatunga, J., & Alam, M. (2007). *Corporate governance and the emerging role of management accounting: Evidence from a case study*. Accounting research seminar: Waikato Management School, 3 October.
- Remenyi, D., Williams, B., Money, A., & Swartz, E. (1998). *Doing research in business and management*. London: Sage Publications.
- Robson, C. (1993). *Real world research: a resource for social scientists and practitioner-researchers*. Oxford: Blackwell.
- Rohner, R. P. (1977). Advantages of comparative method of anthropology. *Behavioural Science Review*, 12(2), 117-144.
- Rondinelli, D., & Vastag, G. (1996). International environmental standards and corporate policies: an integrative framework. *California Management Review*, 39(1), 106-122.
- Roper, J. (2004). Corporate responsibility in New Zealand. *The Journal of Corporate Citizenship*, (14), 22.
- Sarantakos, S. (1993). *Social research*. Melbourne : Macmillan.
- Sarokin, D. & Schulkin J. (1991). Environmental concerns and business of banking. *Journal of Commercial Bank Lending*, 74(5), 6-19.
- Scandura, T. A. & Williams, E. A. (2000). Research methodology in management: Current practices, trends and implications for future research. *Academy of Management Journal*, 43(6), 1248-1264.
- Scapens, R. (1990). Researching management accounting practice: the role of case study methods. *British Accounting Review*, 22, 259-281.
- Scholtens, B. (2006). Finance as a driver of corporate social responsibility. *Journal of Business Ethics*, 68, 19-33.
- Scranton, D. (1992). Issues in lending: director responsibility for bank credit activities. *The Journal of Commercial Lending*, 75(3), 23-33.
- Searcy, C., McCartney, D., Karapetrovic, A. (2007). Sustainable development indicators for the transmission system of an electric utility. *Responsibility and Environmental Management*, 14(3), 135.
- Sellitz, C., Jahoda, M., Deutsch, M., & Cook, S. (1959). *Research Methods in Social Relations*. New York: Holt, Rinehart and Winston.

- Sevastopulos, D. (2003). Banks sign up for responsible lending accord. *Financial Times*, 15.
- Sharma, S., & Vredenburg, H. (1998). Proactive corporate environmental strategy and the development of competitively valuable organizational capabilities. *Strategic Management Journal*, 19(8), 729-753.
- Sherony, B. (2007). The entrepreneurial director. *New England Journal of Entrepreneurship*. 10(2), 51-57.
- Sikdar, S. (2004). Sustainable development and sustainability metrics. *American Institute of Chemical Engineers Journal*, 49(8), 1928-1932.
- Silverman, D. (2006). *Interpreting qualitative data: methods for analysing talk, text and interaction*. London: Sage Publications.
- Spiller, R. (2006). Ethics: investing in ethics. *New Zealand Management*, 46.
- Solaiman, M., & Belal, A. (1999). An account of the sustainable development process in Bangladesh. *Sustainable Development*, 7(3), 121-131.
- Staden, C., & Villers, C. (2006). Can less environmental disclosure have a legitimising effect? evidence from Africa. *Accounting, Organizations and Society*, 31(8), 763-781.
- Stake, R. A. (2005). 'Qualitative case studies', in N. K. Denzin & Y. S. Lincoln (eds.), *The handbook of qualitative research* (3rd ed.). (pp. 443-466). Thousand Oaks, Calif.: Sage.
- Stake, R. (1981). "Case study methodology: an epistemological advocacy." In W.W. Welsh (ed.). *Case study methodology in educational evaluation*. Proceedings of the 1981 Minnesota Evaluation Conference. Minneapolis: Minnesota research and Evaluation Center.
- Steger, U., Somers, A., & Salzmann, O. (2007). The economic foundations of corporate sustainability. *Corporate Governance*, 7(2), 162-177.
- Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: grounded theory procedures and techniques*. Newburg park: Sage publications.
- Tesch, R. (1990). *Qualitative research: analysis types and software tools*. New York: Falmer.
- The Economist (2005). *Leaders: the good company; the good company-capitalism and ethics*. 374(8410), 9.
- The Economist (2004). *Leaders: Corporate storytelling; Non-financial reporting*. 373(8400), 13.

- The Economist (2002). *Survey: the great race*. 364(8280), 4.
- Thomas, M. (2008). Understanding environmentally responsible lending. *The Secured Lender*, 64(3), 28-31
- Thompson, P. (1998). Assessing the environmental risk and exposure of UK banks. *The International Journal of Bank Marketing*, 16(6), 129.
- Thompson, P. (1998a). Bank lending and the environment: policies and opportunities. *The International Journal of Bank Marketing*, 16(6), 243.
- Thompson, P. & Cowton, C. (2004). Bringing the environment into bank lending: implications for environmental reporting. *The British Accounting Review*, 36(2), 197-218.
- Thompson, P., & Zinkin, J. (2003). Why corporate social responsibility matters. *Investor digest*.
- Tilley, C. (2002). Sustaining the future: environmental responsibility is not a matter of benevolence or social responsibility – it simply makes good business sense. *Financial Times*, 2.
- Treadwell, D. (2006). The role of the non-executive director: a personal view. *Corporate Governance*, 6(1), 64-68.
- Tregidga, H. & Milne, M. (2006). From sustainable management to sustainable development: a longitudinal analysis of a leading New Zealand environmental reporter. *Business Strategy and the Environment*, 15, 219-241.
- Unerman, J. (2000). Methodological issues – reflections on quantification in corporate social reporting content analysis. *Accounting and Accountability Journal*, 13(5), 667-681.
- Vuontisjarvi, T. (2006). Corporate social reporting in the European context and human resource disclosures: an analysis of Finnish companies. *Journal of Business Ethics*, 69, 331-354.
- Walker, J. (2009). Environmental risk screening revisited. *The RMA Journal*, 92(3), 72-77.
- Walton, S., & Galea, C. (2005). Some considerations for applying business sustainability practices to campus environmental challenges. *International Journal of Sustainability in Higher education*, 6(2), 147-160.
- Ward, E. (1996). Environmental risk management: the why and how. *The Bankers Magazine*. Boston: Warren, Gorham and Lamont.

- Webb, E. J., Campbell, D. T., Schwartz, R. D. & Sechrest, L. (1966). *Unobtrusive measures: nonreactive research in the social sciences*. Chicago: Rand McNally.
- Weber, O. (2010). Sustainability and environmental risk management in Canadian banks and financial service institutions – a global comparative study. SSRN working paper series. Rochester: November.
- Weber, O., Scholz, R., & Fenchel, M. (2010). Incorporating sustainability criteria into credit risk management. *Business Strategy and the Environment*, 19, 39-50.
- Weber, O. (2005). Sustainability benchmarking of European banks and financial service organizations. *Corporate Social Responsibility and Environmental Management*, 12, 73-87.
- Weber, O., Fenchel, M. & Scholz, R. (2008). Integration of environmental risks into the credit risk management process of European banks. *Business Strategy and the Environment*, 17, 149-159.
- Weber, R. (1990). *Basic content analysis: quantitative applications in the social sciences*. Sage: California and London.
- White, M. (1996). Environmental finance: value and risk in an age of ecology. *Business Strategy and the Environment*, 5(3), 198-206.
- Willman, J. (2007). New way of gaining competitive edge. *Financial Times*. 1.
- Winn, M., & Angell, C. (2000). Towards a process model of corporate greening. *Organization Studies*, 21(6), 1119-1147.
- Yamak, S., & Suer, S. (2005). State as a stakeholder. *Corporate Governance*, 5(2), 111-120.
- Yin, R. (1981). The case study crisis: some answers. *Administrative Science Quarterly*, 59-65.
- Yin, R. (1984). *Case study research: design and methods*. London: Sage.
- Yin, R. (1994). *Case study research: design and methods*. (2nd ed.). Thousand Oaks: Sage Publications.
- Yin, R. K. (2003). *Case study research: design and methods* (3rd ed.). Thousand Oaks, Calif.:Sage.
- Zoeteman, K. (2001). Sustainability of nations. *International Journal of Sustainable Development and World Ecology*, 8, 93-109.

Zorn, T., & Ruccio, S. (1998). The use of communication to motivate college sales teams. *The Journal of Business Communication*, 35(4), 468 – 499.

Annual financial reports

1. Westpac New Zealand Social Impact Report 2004 - NZ4
2. Westpac New Zealand Stakeholder Impact Report 2005 - NZ5
3. Westpac New Zealand Stakeholder Impact Report 2006 - NZ6
4. Westpac New Zealand Stakeholder Impact Report 2007- NZ7
5. Westpac New Zealand Stakeholder Impact Report 2008 - NZ8
6. 2007 Sustainability Report HSBC Holdings plc.
7. 2008 HSBC Holdings plc Sustainability Report.
8. Westpac Annual Financial Report 2004 – A4
9. Westpac Annual Financial Report 2005 – A5
10. Westpac Annual Financial Reports 2006 – A6
11. Westpac Concise Annual Report 2004 – C4
12. Westpac Concise Annual Report 2005 – C5
13. Westpac Concise Annual Report 2006 – C6

Websites

1. EPI-Finance 2000. Environmental Performance Indicators for the Financial Industry. Available at: www.epifinance.com
2. Global reporting Initiative. Available at: www.globalreporting.org
3. The Supplement 2005. Global Reporting Initiative, GRI, (2005). Financial Services Sector Supplement: Environmental performance. Available at: <http://www.globalreporting.org/ReportingFramework/G3Online/SectorSupplements/>
4. Fenchel, M., Weber, O., & Scholz, R. (2003). *Does good environmental performance reduce credit risk? empirical evidence from Europe's banking sector*. Retrieved 12 January 2006 from the World Wide Web: <http://scholar.google.com/scholar?hl=en&lr=&q=cache:iFO8310nfN0J:e-collection.ethbib.ethz.ch/show%3Ftype%3Dincoll%26nr%3D926%26part%3Dtext+link:LQv2xNPJU2wJ:scholar.google.com/>
5. Fenchel, M., Weber, O., & Scholz, R. (2005). *Integration of environmental risks into the credit risk management process of banks*. Retrieved 23 July 2008 from the World Wide Web: <http://www.vfu.de/download/roundtable%202005/Credit%20management.pdf>
6. Global Reporting Initiative, GRI, (2005). *Financial services sector supplement: Environmental performance*. Retrieved 28 July 2008 from the World Wide Web: <http://www.globalreporting.org/ReportingFramework/G3Online/SectorSupplements/>
7. Zoeteman, K. & Harkink, E. (2003). *New public instruments for environmental management in a globalization world*. Retrieved 15 July

- 2008 from the World Wide Web:
<http://www.tilburguniversity.nl/globus/activities/conference/papers/zoeteman.pdf>
8. KPMG. (2005). KPMG International survey of corporate sustainability reporting. Retrieved April 25, 2010 from http://www.kpmg.nl/Docs/Corporate_Site/Publicaties/International_Survey_Corporate_Responsibility_2005.pdf
 9. Report of the world commission on environment and development. *Our common future*. Retrieved 15 July 2006 from the World Wide Web: <http://www.un-documents.net/ocf-02.htm>.
 10. The Corporation of London. *The London Principles: the role of UK financial services in sustainable development*. Retrieved 28 July 2008 from the World Wide Web: <http://www.forumforthefuture.org.uk/docs/publications/224/Londonprinciplesfullreport.pdf> -
 11. Environmental Law Advisory (2004). *Sustainable Development Considerations for US Companies*. Retrieved 17 July 2006 from the World Wide Web: <http://www.goodwinprocter.com/~media/5ABB74E30A5141349D16AD7B6CFBF615.ashx>
 12. European Bank for Reconstruction and Development (2001). *Environmental risk management for financial institutions: a manual for EBRD's for financial intermediaries Version 2*. London: the Bank.

Appendices

Appendix A: Indicator definitions

1- Management performance category: this category seeks to answer the first sub-research question. Under this major category five sub-categories are generated, which include:

a- Board of directors: this sub-category includes the following indicators:

1. recognizes that the bank's lending activities are linked to its commercial activities, some of which may cause environmental risk and degrade the natural environment.
2. ensures that the bank has an approved written environmental policy which defines the aims and principles of action with respect to the environment, including compliance with relevant regulatory requirements.
3. places environmental policy within its top goals, defining environmental responsibility as a core value of the bank, for example, in the same way that safety or financial viability is regarded.
4. promotes EP and has procedures in place which ensure that senior management has environmental responsibility established within the core values of the bank.
5. ensures the environmental policy is publicly available and that it includes reporting on environmental issues to shareholders and to stakeholders alike. This process is to ensure transparency and commitment to continuous environmental improvement. The bank's communication with stakeholders indicates whether it is a one-way or two-way dialogue and includes involvement with them. Stakeholders include anyone who is, or has the potential to be, impacted upon by the bank's lending activities, for example, customers, industry associations, environmental groups, investors, NGOs, government, legislators and regulators, employees, local communities, suppliers, media, banks, and science and education communities. The value of effective stakeholder communication is that it fosters credibility and trust, improved reputation and a 'licence to operate'. It also improves stakeholders' understanding so that more critiques of the bank's environmental performance may be offered. Stakeholders may express a broad range of interest from environmental policies to responsible lending and business ethics.
6. supports a separate environmental policy rather than having it included in safety, health or various other reporting systems.
7. ensures that environmental performance is monitored. This, first, helps to meet the environmental objectives and the long and short-term environmental goals of the bank, for example, ISO 14001 and EMAS; and, second, identifies any shortcomings in the bank's overall environmental performance.

8. ensures the environmental policy establishes an interface among all the bank's levels. For example, lending managers liaise with the credit team, environmental team, brand and reputation team to get advice or guidance on a transaction that is environmentally sensitive.
9. ensures that environmental policy is reviewed on an annual basis and is consistent with national and international environmental principles and regulations.
10. the board includes members who have environmental knowledge and experience.
11. the BOD holds meeting regularly

b.CEO: this second sub-category includes the following indicators:

1. places environmental policy within the bank's top goals, defining environmental responsibility as a core value of the bank, for example, in the same way that safety or financial viability is regarded.
2. promotes EP and has procedures in place which ensure the senior management has environmental responsibility established within the core values of the bank.
3. identifies the environmental objectives, in terms of environmental performance, which the bank sets itself to achieve.
4. ensures the bank's environmental performance is monitored.
5. supports communication with stakeholders.
6. raises the awareness of environmental risk issues and opportunities among employees.

c. Senior management: this third sub-category includes the following indicators:

1. places environmental policy amongst the highest priorities of the bank; i.e., that the bank is an important contributor towards achieving a sustainable environment and, therefore, endeavors to ensure that the bank's policies and business actions promote it.
2. defines environmental responsibility for example, in the same way that safety or financial viability is regarded; it also provides realistic and detailed goals as a core value of the bank for improving its environmental performance by ensuring that the departments pursue common principles of environmental protection by using best practices of environmental management in the bank's internal operations and integrating environmental risks into the normal checklist for risk assessment and management.
3. promotes EP and puts procedures in place which ensure the departments have environmental responsibility established within the core values of the bank.
4. ensures environmental performance is monitored.
5. supports communication with stakeholders.
6. ensures the bank has an environmental management system (EMS) in place which recognizes environmental management as playing a major role in improving the overall performance, reputation and viability of the bank. EMS includes the organizational structure, responsibilities, procedures, practices and resources for determining and implementing the environmental policy.

7. raises the awareness of environmental risk issues and opportunities among employees.

d. Training: the fourth sub-category includes the following indicators:

1. the bank has an environmental program at all levels, including the BOD, senior management and operations staff.
2. the bank provides the means of regular education and training, which enables committed involvement from staff. It is paramount that environmental policy and objectives are known and understood by relevant staff, as part of their own training for their job and their own environmental education.
3. employees are critical to the success of the bank's improving its environmental performance.
4. the bank respects the employees' actual and potential input to its environmental performance and provides the appropriate channel for this. The bank has an internal environmental communication system and regularly communicates with employees about their own ideas and perceptions of how best practice may be achieved.

e- Auditing:

The audit process is an indication of the level of rigour that the bank brings to its environmental management goals. It is an important feature of the bank's transparency and commitment and an important way of improving its reputation. This last sub-category in measuring management performance includes the following indicators:

1. an external audit is in place. This independent audit is often perceived as more rigorous and more legitimate than an internal audit.
2. an internal audit is also fundamental to the overall auditing process, and both kinds of audit can work off each other.
3. an environmental audit is a strategic approach to environmental management.
4. the audit framework provides up-to-date, systematic, periodic and objective data that feeds into planning for improved performance.
5. the audit process identifies strengths and weaknesses of environmental performance and areas of environmental risks.
6. the audited environmental information is available to management to measure progress, assess the need for education and training and to improve the environmental performance.

2- Operational performance category: this second major category includes two sub-categories, which are assumed to answer the second sub-research question: incorporating environmental issues into the core business and lending to environmentally friendly projects. This category indicates the implications of environmental policy which focuses on the environmental sensitivities of lending and is designed to ensure that lending proposals are rigorously assessed to identify, quantify, and, where appropriate, mitigate the environmental impacts.

a- Integration of environmental issues into the bank's lending process, includes the following indicators:

1. the bank ensures environmental risks are considered alongside more traditional business risks when lending decisions are made. This means the bank endeavors to balance the economic aspects of the loans with the environmental concerns they raise.
2. credit appraisal, which includes environmental screening as a first step in environmental risk management. This process includes rejecting activities on the environmental exclusion list, assessing environmental risk and implementing an initial environmental risk rating (low, medium or high) [Epstein and Roy (2001).
3. the second step in credit appraisal is the evaluation of environmental risk and impact. This process includes site visits, further investigation by the bank's staff, an environmental review by internal and/or external experts, and preparation of the final environmental report. The external expert confirms whether the project financed meets the environmental policy and the other principles the bank is committed to adopt, e.g. Equator Principles.
4. environmental risk control: this third step of credit appraisal includes reviewing the final environmental report, ensuring that the risk and level of environmental knowledge is acceptable, and applying environmental conditions to credit agreements. The credit agreement may include identifying the risks and the appropriate actions and controls to be taken by companies when carrying out the finance project, for example, the issue of the disposal of surgical waste requires identifying the company's policy, procedures and actions that are undertaken to deal with such an issue.
5. step four is the environmental monitoring. This stage includes monitoring environmental compliance, changes in legislation and changes in clients' business activities, as well as considering the potential for environmental liability before taking possession of any assets.
6. the bank specifies the sum and number of loans which are environmentally relevant. This number could also indicate the number of project finance transactions which are not progressed because of considerations related to environmental issues.
7. the bank describes the value of the environmental portfolio according to a specific region and by industry sector, e.g. agriculture, forestry, fishing, manufacturing, energy and water.
8. the bank applies the Equator Principles, which give consideration to environmental issues in project finance transactions. The principles apply to all project financings with capital costs above US\$ 10 million. This threshold was lowered from US\$ 50 million.
9. the spirit of environmental risk management is about not only identifying possible risks but also about spotting potential environmental benefits.
10. the bank uses different sources of information when making a lending decision e.g. annual reports, personal interviews, on-line data sources, industry data and reports, information obtained on company visits.

b. Environmental pioneering projects:

Environmental issues are a significant threat to maintaining a sustainable business. The resulting environmental changes have an impact on the bank's operations, the customers, the economy and the natural environment. These changes are risks and need to be managed, but are also a significant business opportunity. So the bank can help to support the customers, the economy and the natural environment by developing products and services that meet environmental impacts. For example, a bank promotes environmental improvements by lending to customers who invest in windfarms, landfill gas extraction plants, hydroelectric projects, biomass plants, bio-diesel conversion plants, renewable energy projects.

Environmental pioneering projects include the following indicators:

1. the bank finances projects with high environmental benefits and innovative characteristics.
2. the bank considers that lending to projects which invest in new environmentally friendly technology, meaning less associated credit risks.
3. the bank specifies the sum and number of loans which are relevant to environmental pioneering projects.
4. the bank describes the value of its environmental portfolio according to a specific region and by sector.
5. the bank explicitly designs loans to address an environmental issue, for example, lending to companies investing in environmentally friendly technologies and pollution control measures; e.g. loans which are designed to foster renewable energy projects.

3. The motivational drivers seek to answer the third sub-research question 'Why does the bank adopt environmental criteria in its lending activities'? This research divides this third category of measuring the environmental performance into three drivers, the managerial drivers, the financial drivers and the environmental drivers.

a. The managerial drivers investigate why top management (BOD, CEO and senior management) incorporate environmental matters into the bank's lending activities. This sub-category includes the following indicators:

1. to comply with regulations.
2. to reflect the ethical and environmental stance of management.
3. to meet stakeholders' expectations. There is a growing, and increasingly widespread, understanding of the consequences of environmental issues by stakeholders, that requires the bank to react in an environmentally responsible manner[Epstein and Roy (2003)].
4. to enhance the bank's reputation and brand.
5. to avoid stakeholders' pressure and reputational risks.

b. The financial drivers include the following indicators:

1. to avoid or mitigate environmental liabilities represented in three types of environmental risks: direct, indirect and reputational.
2. to manage the risks which have potential lender liability as well as potential bank liability.
3. to price the credit which reflects the underlying environmental risk.
4. to protect customers' deposits and the impact on the creditworthiness of a borrower.
5. to gain market advantage and build profitability.
6. to exploit opportunities in financing environmental pioneering projects.

c. Environmental drivers. This sub-category includes two indicators:

1. the bank pursues a sustainable environment and commits to environmental protection. This means the bank has a strong and longstanding commitment to managing environmental issues associated with lending decisions. Also the bank believes that taking due account of the environmental impact is the right thing to do and makes good business sense.
2. the bank believes that lending activities can form an impact on the environment. This means that the bank recognizes that a bank's major environmental impacts tend to be indirect, arising from the provision of lending activities to business customers operating in sensitive sectors. Since there is an evolving debate around sustainable environment that banks have long term impacts on the environment and economy in which they operate, the bank considers the borrowers' environmental performance, even if their activities are legal and carried out in accordance with the relevant regulations.

Appendix B: Data from annual reports

Research Project for Basman Mazahrih (PhD student)

Category One: Management Performance Category

Section S - S 1(a): Board of Directors

Indicator 1: The Board of Directors recognizes that the bank's lending activities are linked to its commercial activities that may cause environmental risk and degrade the natural environment.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1(a)(1)	4	NZ4	53	Adopting the EPs which states to provide loans to those projects that demonstrate sound environmental (e) management practices (Management).
		NZ5	19	Adopting EPs.
		NZ6	47	Signing up to a set of international voluntary guidelines such as EPs.
		C4	30	BOD considers the environmental impact of Westpac's activities.
		C5	25	The BOD's roles and responsibilities include considering the environmental impact of Westpac's activities.
			32	Corporate Responsibility and Sustainability Committee (CRSC) is responsible for reviewing the indirect environmental impact of Westpac activities.
			34	The board is responsible for approving and reviewing Westpac's risk management strategy. Risk management includes the four main types of risk: credit, market,

				operational and compliance (not clear about e risks).
		C6	21 40,41 41 42	In 2003, the bank signed the EP. 30 signatories cover more than 80% of the global project-financing market. The BOD considers the e impact of Westpac's activities Risk management includes the four main types of risk: credit, market and liquidity, operational and compliance (not clear about e risks). BOD delegates the corporate responsibility (CR) and sustainability (S) committee to review Westpac's environmental impacts both direct and indirect Adoption of GRI G3 framework and recommitted to revised EPs
		A4	60	Social Responsibility Committee is delegated by BOD to review the e impacts of Westpac's activities
		A5	59	Sr Committee is delegated by BOD to review the e impacts of Westpac's activities
		A6	50, 247	Board's responsibility is to consider the e impact of the bank's activities and delegating to management responsibilities to manage day-to-day operations in accordance with standards for e practices (refer to website)

Indicator 2 The Board of Directors ensures that the bank has an approved written environmental policy which defines the aims and principles of action with respect to the environment, including compliance with relevant regulatory requirements.

Evidence from the annual reports

Indicator	Score	Which	Page	Justification
-----------	-------	-------	------	---------------

Number		annual report?	Number	
S1(a)(2)		NZ4	18	Westpac has CSR policies which can be reviewed from Australian Westpac website. It includes governance structure and responsibilities.
			72	Westpac does not currently have an environmental policy specific to NZ. Executive level works to put one which will be guided by environmental committee.
			18,19	Integrating Corporate Social Responsibility (CSR) into the business model. The CSR structure starts with the Board Social Responsibility Committee, passing through the Group Chief Executive Officer, The CEO, the CSR management and ending with the business unit. Westpac adapts and shapes the CSR framework of Australia for NZ.
		NZ5	8	Westpac has corporate responsibility governance representatives sitting on the Board Corporate Responsibility and Sustainability Committee, Group Chief Executive Officer, CEO, CRS management and Environmental Advisory Group.
			39	Explicitly committed to the Westpac Group Environmental Policy by incorporation of environmental considerations into risk management framework and measuring and reporting on environmental performance. NZ main focus is on resource management specifically on water and energy conservation, and supplier evaluation.
		NZ5	39	Meeting or exceeding relevant environmental regulations of the countries in which the bank operates and other

		NZ6	39 6	<p>environmental standards.</p> <p>Westpac Group is a signatory to UNEP's Statement by Financial Institutions on the Environment and Sustainable Development, the Global Compact and the Australian Federal Government Greenhouse Challenge. Reporting framework is based on GRI G3- Environmental Performance Indicators, the principles of the UN Global Compact and stakeholders' input.</p>
		C4,C5	25, 30	BOD sets standards regarding Westpac's social responsibility policies and practices
		C5	32	BOD delegates the CRSC to set standards for Westpac CR and sustainability policies and practices.
		C6	20 35 42	<p>The bank agrees not to fund projects that endanger the environment(EP)</p> <p>BOD sets standards that consider environmental impact of Westpac's activities.</p> <p>The BOD delegates CRSC to set CRSC policies and practices.</p>
		A4	44 54, 60 59	<p>BOD approves policies that govern customer exposures (credit risk).</p> <p>BOD sets standards that considers environmental impact of Westpac's activities</p> <p>Risk management committee reviews and approves the framework for the management of credit, market , liquidity, compliance and operational risk</p>
		A5	42 47, 48	<p>BOD approves policies that govern customer exposures (credit risk).</p> <p>Compliance risk: the risk of failing to comply with all applicable legal and</p>

			52 59	regulatory requirements. The compliance committee is delegated by risk management committee to establish the compliance framework and policies and oversees compliance effectiveness across the business areas. The bank did not experience any significant e compliance requirements other than financial reforms. BOD responsibility is to set standards for cr. CR and S Committee set standards
		A6	42, 247 57	BOD approves and delegates risk management strategy to CEO and executive management team CR and S committee sets CR standards and sustainability policies and practices

Indicator 3. The Board of Directors places environmental policy within its top goals, defining environmental responsibility as a core value of the bank, for example, regarded, in the same way that safety or financial viability is.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1(a)(3)		NZ4	71	It is important to ensure that progress made in the area of economic gain does not come at any extra cost to the environment(the report's view)
		NZ5	39	Ensuring e aspects are integrated into business activities and to environmental (e) protection.
		NZ6	7	'Publication of this report is one of the ways we hold ourselves accountable to you, our stakeholders' (report's view).

		C4	28,29	4 members of BOD are members at Social responsibility committee.
		C5	25 32 37	<p>All directors have environmental experience.</p> <p>Establishing Corporate Responsibility and Sustainability Committee (CR and SC) the purpose of which is to drive and oversee Westpac's commitment to operate its business ethically and responsibly, consistent with the evolving expectations of society.</p> <p>Westpac seeks maximising its financial value as well as e value</p>
		C6	34	The Corporate Governance's contents page contains separate sections that highlight the importance of Corporate responsibility and sustainability. The Corporate governance approach is based on values and behaviours that underpin everyday activities, ensure transparency protect shareholder interests.
		A4	57, 60 65	<p>S Committee is considered as one important committee among other Board Committees</p> <p>Westpac aims to produce positive outcomes for all stakeholders and its responsibility goes beyond the financial bottom-line and maximises economic, social and environmental value.</p>
		A5	52 65	<p>BOD's role and responsibility is to consider the environmental impact of the bank's activities.</p> <p>The bank aims to produce positive outcomes for all stakeholders and to maximise the financial and environmental value from its activities.</p>
		A6	57	The CR and S committee oversees and drives commitment to operate responsibly and sustainably, consistent with evolving community expectations.

			60	S Committee is considered as one important committee among other Board Committees
--	--	--	----	---

Indicator 4. The Board of Directors promotes EP and has procedures in place which ensure that senior management has environmental responsibility established within the core values of the bank

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1(a)(4)		NZ5	39	The Board's Corporate Responsibility and Sustainability Committee oversees management's role in ensuring e commitment is promoted and maintained across the Group in a responsible and sustainable manner.
		NZ6	13	Advocating the importance of energy efficiency by launching Green Home Loan; seeking with the Ministry for the environment further product development.
		C4	30 35	BOD delegates to management to manage day-to-day operations in accordance with standards for environmental practices. BOD delegates to Social responsibility Committee review of e impacts of Westpac's activities; setting standards for Westpac's corporate responsibility policies and practices; overseeing initiatives to enhance Westpac's reputation; monitoring compliance with Westpac's published corporate responsibility policies and practices; ensuring that there is effective monitoring and oversight of Westpac's

				reputation risks; and reviewing and approving the annual stakeholder impact report.
		C5	28 32	BOD receives regular detailed financial and operational reports from executive management to enable them to carry out their duties. CRSC is delegated by BOD to review compliance with corporate governance requirements.
		C6	35 41	The BOD delegates to management the corporate responsibility of managing day-to-day operations in accordance with standards for environmental practices. BOD delegates CRSC to oversee initiatives to enhance sustainability.
		A5	52 54 55	The BOD delegates to management the corporate responsibility of managing day-to-day operations in accordance with standards for environmental practices. BOD receives regular detailed financial and operational reports from executive management CEO and Senior executives may be invited to attend BOD committee meetings.
		A6	60	The risk management governance structure is clearly exhibited and reflects the roles and responsibilities at each level. CR and s structure is unavailable in Ao6.

Indicator 5. The Board of Directors ensures the environmental policy is publicly available in the annual reports and includes reporting on environmental issues to shareholders and to stakeholders alike.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1(a)(5)		NZ4	20	Group Market Disclosure policy ensures shareholders are given comprehensive and equal access to information about bank activities.
			23	Engaging stakeholders (staff, customers, the community and shareholders) to reflect their perspective about the bank's responsibilities and their expectations that enables senior management to implement CSR (mngt view).
			72	The bank is on its way to completing and having action plans in place with suppliers in order to screen their performance (mngt). Sharing information with the stakeholders who asked the bank to a. take a strategic long-term approach to mitigating environmental impacts b. extend the horizons of environmental planning c. make financial products support environmental sustainability d. incorporate environmental screening for business deals e. carry out environmental auditing f. be proactive in supporting the environment g. assisting rural communities to become environmentally sustainable (mngt)
		NZ5	7 39	Review the corporate responsibility of 50 suppliers
		NZ6	3	Environmental policy is publicly available and this commitment means open dialogue on environmental issues with stakeholders in

		NZ6	6 37 39	<p>both the national and international community.</p> <p>Sherry and Morgan urge their stakeholders to work together to meet social, financial and e demands. The bank established a Community Consultative Council to obtain insight about stakeholders' expectations in a regular annual meeting.</p> <p>Regular dialogue with stakeholders.</p> <p>Supplier evaluation through the lens of Westpac's SE E impact and dealing with those who demonstrate commitment to sustainability.</p> <p>Robin Taylor assured the suppliers that their products are valued by customers.</p>
		C4	4 7 40 81	<p>Investors(shareholders) remain frustrated because of lack of transparency and accountability(chairman's report)</p> <p>Financial performance no longer meets the shareholders and stakeholders needs.</p> <p>Producing positive outcomes for all stakeholders and maximising e value. Also providing shareholders with timely access to Westpac activities, developments and performance.</p> <p>Shareholders are provided with concise and financial annual reports only.</p>
		C5	24 32 37 39	<p>"Westpac's approach to corporate governance is to have a set of values and behaviours that underpin everyday activities, ensure transparency and fair dealing, and protect stakeholder interests".</p> <p>CRSC is responsible for overseeing initiatives to enhance Westpac's sustainability</p> <p>Commitment to transparency</p>

				Shareholders are encouraged to participate at the annual meeting; they are given comprehensive, timely and equal access to information about bank's activities so they can make informed investment decisions.
		C6	47	Westpac reports on its environmental performance as a transparent component of its governance and responsibility management.
		A4 A6	57 63 64	<p>All directors have unrestricted access to company records and information from bank's internal and external bank's stakeholders.</p> <p>Reporting on environmental performance through the annual stakeholder impact report. Using the reporting framework GRI and being independently assured against the AA1000 Assurance Standards.</p> <p>Shareholders are given comprehensive, timely and equal access to information about the bank's activities. The have been asked to put forward questions that they would like addressed at the annual general meeting.</p>

Indicator 6. The Board of Directors supports a separate environmental policy rather than having it included in safety, health or various other reporting systems.

Evidence from the annual reports

Indicator number	Score	Which annual report?	Page Number	Justification
S1(a)(6)		NZ4	72	Westpac does not currently have an environmental policy specific to NZ. Executive level works to establish one which will be guided by environmental committee (mngt).
		NZ5	39	A separate policy
		A4	64	Under the section: promoting ethical and responsible behaviour-internal policies and procedures, the series did not include the environmental policy
		A5	65	The bank seeks to ensure that transparent and comprehensive reporting on all dimensions of performance is central to its approach to governance and responsibility management.

Indicator 7. The Board of Directors ensures that environmental performance is monitored.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1(a)(7)		NZ6	6 39	E performance is monitored and so we have adopted the AA1000 Assurance standards Reviewing how we manage our direct and indirect environmental impacts.
		C4	30	BOD monitoring compliance with Westpac's social responsibility policies and practices.
		C5	25 32	The board's roles and responsibilities include monitoring compliance with Westpac social responsibilities policies and practices BOD delegates CRSC to be responsible for monitoring and compliance with corporate responsibility policies and practices. Also monitoring and oversight of Westpac's reputation risks.
		C6	35	The BOD role and responsibility includes monitoring compliance with Westpac's environmental responsibilities policies and practices.
		A4	54, 60 59	The BOD role and responsibility includes monitoring compliance with Westpac environmental responsibilities policies and practices Risk management committee considers whether there is effective monitoring of the risk profile, performance and management. And compliance with applicable laws and regulations.

		A5	52 59	BOD responsibility is to monitor compliance with corporate responsibility policies and practices. CRSC monitors compliance with corporate responsibility policies and practices.
		A6	57, 247	BOD and CRSC monitor compliance with corporate responsibility policies and practices

Indicator 8. The Board of Directors ensures the environmental policy establishes an interface among staff at all the bank's levels.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1(a)(8)		NZ4 NZ5	9 39	The bank ensures the total responsibility is established, maintained and monitored by sound governance across the business (mngt). E P ensures every employee understands the importance of incorporating environmental consideration into their daily business activities.
		C5	27	The BOD elects one of the independent non-executive directors as a Chairman to represent their views to the public(p.26).the chairman and the CEO establish meeting agendas, for assessing Westpac's coverage of financial, strategic and major risk areas. Also members of the executive management are regularly invited to attend BOD meetings.

Indicator 9. Board of Directors ensures that environmental policy is reviewed on an annual basis and is consistent with national and international environmental principles and regulations.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1(a)(9)		Nzsti06	39	Manage and review the bank's direct and indirect e impacts.
		C4	31	BOD has ten scheduled meetings each year to discuss plans and set the overall strategic direction of the bank.
		C5	27 29 38	BOD has ten scheduled meetings each year. 2 days in July to discuss Westpac's strategic plan. Half-year review of the bank's strategic direction. The performance of Cr and sustainability committee is reviewed by the BOD. GRI framework is adopted to address issues that matter to stakeholders.
		C6	38	BOD has access to financial and operational reports from executive management.
		A5	54	BOD receives regular detailed financial and operational reports from executive management.
		A6	57	CRSC reviews e impacts both direct and indirect.

Indicator 10. Board of Directors is in support of the bank's commitment to raise the profile of environmental issues. Also, the BOD includes members who have environmental knowledge and experience, meet regularly and represent the environmental agenda at this level.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1(a)(10)		C4	28	All directors have environmental experience. 4 are members of social responsibility committee and one of them is the chairman of the social responsibility committee.
		C5	25 32 44,45	All directors have environmental experience in areas in which the business operates. The CSR committee reviews the direct and indirect environmental impacts of Westpac activities 4 are member of corporate responsibility and sustainability committee and one of them is the chairman of the social responsibility committee.
		C6	10 35 38, 52, 53 54	The chairman, Davis reported " we are on the right track in having SD and responsible business practices at the heart of what we do" All directors have environmental experience in areas in which the business operates 4 members of BOD are members of Corporate Responsibility and sustainability committee and one of them is the Chairman of the Committee. The members of CRSC meet 4 times a year

		A4	57	4 members of BOD are members of Corporate Responsibility and sustainability committee and one of them is the Chairman of the Committee.
		A5	50,51, 55	4 members of BOD are members of Corporate Responsibility and sustainability committee and one of them is the Chairman of the Committee.
		A6	48, 49 53	4 members of BOD are members of Corporate Responsibility and sustainability committee and one of them is the Chairman of the Committee Board committees meet quarterly. Ceo, executives and other employees may be invited to attend.

Section 1(b): CEO

Indicator 1. The CEO places environmental policy within their top goals, defining environmental responsibility as a core value of the bank, regarded, in the same way that safety or financial viability is.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1(b)(1)		NZ5	3	Sherry states that 'we have a much broader impact on a range of stakeholders. And our record has not always been as good as we would like'. Commitment to cr, behaving in a responsible and ethical manner, acknowledging our impact on the environment and accountability to all stakeholders. Examining the growing regulatory environment, not just to follow but to be

		NZ5	39	<p>leaders (Sherry states this in a whole separate paragraph).</p> <p>CEO has overall responsibility for the Group's e policies and performance.</p>
		C5	26 29	<p>BOD delegates to management responsibility for managing day-to-day operations in accordance with standards for environmental practices which have been set by the BOD.</p> <p>CEO is a member of the cr and s committee</p>
		C6	38 41	<p>CEO is a member in cr and s committee</p> <p>CEO has been delegated by BOD to set standards for Westpac's cr and s policies.</p>
		A4	44 54	<p>BOD delegates approval authorities (credit risk) to the CEO</p> <p>BOD delegates responsibility for managing day-to-day operations in accordance with standards for environmental practices</p>
		A5	42 63	<p>BOD delegates approval authorities (credit risk) to the CEO</p> <p>The BOD receives regular reports from CEO on financial condition, risk management and operational results</p>
		A6	42 53 61	<p>CEO is responsible for implementing the risk management frameworks approved by board risk management committee and developing policies ,controls and procedures for managing risks</p> <p>CEO is a member of cr and s committee</p> <p>The BOD receives regular reports from CEO about financial condition and operational results</p>

Indicator 2. The CEO promotes EP and has procedures in place which ensure the senior management has environmental responsibility established within the core values of the bank.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1(b)(2)		NZ4	18	Developing csr policies, processes and controls to implement Board approved strategy and managing risk.
		NZ5	3	Examining the processes and procedures to create sustainable value for both our business and stakeholders
		NZ6	39	Sherry challenges business to deal with environmental risks and take advantage of the opportunities.
		C4	9 19	“CR program touched all aspects of our operations including environmental impact” Sherry: launched the first social impact report and independently audited
		C6	15 41	CEO David Morgan: delivering sustainable growth by managing all the things that drive longer-term performance. CEO is delegated by BOD to review the environmental impact

Indicator 3. The CEO identifies the environmental objectives, in terms of environmental performance, which the bank sets itself to achieve.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
------------------	-------	----------------------	-------------	---------------

S1(b)(3)		NZ4	7	The report is to be a living benchmark indicating objectives to be achieved =a bit vague though
		NZ5	3	Westpac has an important role contributing to the debate about the future sustainability.
		NZ6	30	‘Westpac will work with e social and other groups to improve its direct and indirect impacts’ to ‘shape the nz we want for next 145 years’
		C6	41	CEO oversees initiatives to enhance Westpac sustainability

Indicator 4. The CEO ensures environmental performance is monitored.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1(b)(4)		NZ4	9	The bank ensures the total responsibility is established, maintained and monitored by sound governance across the business.
		NZ5	39	CEO of the Group has the responsibility of monitoring the e performance.
		C6	42	CEO is delegated by BOD to monitor and oversee Westpac reputational risks (may result from environmental issues)
		A5, A6	47, 46	Operational risk may result from failed internal processes, people and systems which could negatively impact the financial performance and the bank’s reputation. On a quarterly basis, management of each business area (branch) reports on the effectiveness of its management of operational risk to CEO and Board risk management committee. Also the internal audit appraises the effectiveness of the internal control environment and reports to

				CEO and Board Risk Management Committee.
--	--	--	--	--

Indicator 5. The CEO supports communications with stakeholders.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1(b)(5)		NZ4	7	CEO introduction: asking stakeholders to begin the process of accepting what the bank does. Seeking the views of 130 internal and external stakeholders about the bank's environmental, social and economic impact on their communities, their expectations and how they would like the bank's performance to be measured. Sherry challenges the readers of (NZ4) and the stakeholders to indicate if such commitment has value for them and how it could be improved.
		NZ5	3	Developing mutual trust with stakeholders and being accountable to them. Ensure the customers understand the costs and benefits of debt. Raising financial literacy. Urging stakeholders to give their feedback.
		NZ6	6	Improving customer satisfaction. CEO chaired the Westpac Community Council
		C4	9	CEO: seeking customer satisfaction

Indicator 6. The CEO raises the awareness of environmental risk issues and environmental opportunities among employees.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1(b)(6)		NZ4	15	The employees were not considered as a source for gathering environmental information.
		NZ5	3	Examine the improvements in the commitment of the employees to what the bank is doing as a business.
			55	NZ employees did not appear to be a source for gathering environmental information as indicated by the table where, under the column NZ employee indicator, there are no ticks
		NZ6	21	Sherry in March 2006 visited every branch to listen to input from employees. The main issues discussed were how to manage change[Management] at Westpac and “sales versus service” and employment conditions.
		C4	9	CEO spent an extraordinary amount of time with leaders

Section 1©: Senior Management

Indicator 1. Senior management places environmental policy amongst the highest priorities of the bank, indicating that the bank is an important contributor towards achieving a sustainable environment and, therefore, endeavours to ensure that the bank's policies and the business actions promote it.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1©(1)		NZ4	72	We are working at executive level on putting together a NZ e policy
		NZ5	25	And therefore, a portion of remuneration is dependent upon performance against key performance indicators; these include environmental objectives.
		NZ6	40	Partially compliant with the Group's environmental policy. Some programs are already in place which deal with the direct e impacts (efficiency of fleet, energy, zero waste and papers). However, 'the Ministry for the environment has identified Westpac as a leader in sustainability in the New Zealand lending sector. The Ministry seconded a staff member to Westpac to learn about the drivers and opportunities for sustainability in the lending sector.
		C4	31	Executives are regularly invited to attend BOD meetings.
		C5	26 27	BOD delegates to management responsibility for managing day-to-day operations in accordance with standards for environmental practices which have been set by the BOD.

			31 34	<p>Executives are regularly invited to attend BOD meetings.</p> <p>Risk Management Committee considers the CEO and senior management recommendations on the risk profile of Westpac (environmental risk?).</p> <p>Executive management is responsible for implementing the BOD approved risk management strategy.</p>
		C6	44,45	<p>Executive management is responsible for implementing the BOD approved risk management strategy. Westpac risk management governance structure is considered by the BOD, board committees, independent internal review, executive risk committee (credit, market, operational and compliance), group risk and business unit which manages and develops the policies, controls, procedures and reporting in respect of the risk classes.</p>
		A4	44	BOD delegates approval authorities (credit risk policies) to the chief risk officer
		A5	42	BOD delegates approval authorities (credit risk policies) to the chief risk officer
		A6	42 61	<p>Executive management is responsible for implementing the risk management frameworks and developing policies, controls and procedures for managing risk.</p> <p>Senior management is responsible also for guiding the organization in embedding compliance into how the bank does business, engaging with regulatory bodies and industry forums to ensure compliance with regulatory standards and maintain high standards across the industry.</p>

Indicator 2. Senior management defines environmental responsibility and provides realistic and detailed goals as a core value for the bank for improving its environmental performance, e.g., that the departments pursue common principles of environmental protection by using best practices of environmental management in the bank's internal operations and integrating environmental risks into the normal checklist for risk assessment and management.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1©(2)		NZ4	19	The Corporate Social Responsibility /Governance Structure defines the NZ CEO and the executive Team as primary parties in CR. Their specific responsibilities include developing policies, processes and controls to implement BOD approved strategy and managing risk.
		NZ5	37	Mark Orams, executive Director of Sir Peter Blake trust, promotes the benefits of conserving the natural resources and protecting the environment.
			39	The Environmental Co-ordinator co-ordinates the environmental policy development and ensures that the implementation of its objectives and reporting responsibilities are consistent Group wide.
		C4	38	Executive management is responsible for implementing the approved risk management strategy and developing policies, controls, processes and procedures to identify and manage risks in all Westpac activities.
		C6	44	Executive management is responsible for developing policies, controls, processes and procedures to identify and manage risks in

				all Westpac activities.
		A4	54	BOD delegates responsibility for managing day-to-day operations in accordance with standards for environmental practices
		A5	62	The risk management governance structure provides a clear framework for risk management roles and responsibilities starting with BOD and ending with business units. However, the corporate responsibility and sustainability structure is not clear in Ao5 report (p. 65)

Indicator 3. Senior management promotes environmental policy and puts procedures in place which ensure the departments have environmental responsibility established within the core values of the bank.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1©(3)		NZ4	18	Executive team develop policies, processes and controls to implement Board approved strategy
		NZ5	39 40	The environmental Advisory Group is central to the management of operational issues. This includes 1. Incorporating e considerations into the lending process for customers across the Group (Westpac now participates in this group). 2. Oversees the implementation of initiatives to improve e performance 3. Examines the indirect impact arising from core business activities.
		C6	45	Senior management is responsible for developing procedures to identify and manage risks in all Westpac activities.

Indicator 4. Senior management ensures environmental performance is monitored.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1©(4)		NZ4	9	The bank ensures the total responsibility is established, maintained and monitored by sound governance across the business.
			77	Power consumptions and waste, and how we could reduce it.....is now everyday policy. The resulting savings have been dramatic=
		NZ5	40	monitoring is not of lending policies but of internal, relatively minor effects of the environment.
		NZ6	6	Oversees the implementation of e policy to improve the e performance.
			39	‘for external assurance and verification we have adopted the AA1000 Assurance Standards’
				Have ‘reviewed how we manage our direct and indirect environmental impacts’.
		C6	40	The audit committee discusses with risk and assessment management the steps taken to control and monitor such risks (may includes e risk)

Indicator 5. Senior management supports communication with stakeholders.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1©(5)		NZ4	72	<p>A NZ specific environmental policy will be dependent upon ‘feedback from our stakeholders’</p> <p>Accounting to our stakeholders...performance indicators reported against in this report were formed following consultation with 130 internal and external NZ stakeholders; Westpac is creating a council comprising representatives from government, community sectors environmental....; will complement our existing engaging channels....</p> <p>Our reputation and relationships with each of our stakeholders help us.... They canvass their key stakeholders to identify concerns.</p>
		NZ5	7	
		NZ6	3 5	
		A4	58	Board committees meet quarterly and CEO, senior management and other employees are invited as necessary.

Indicator 6. Senior management ensures the bank has an environmental management system (EMS) in place which recognises environmental management as playing a major role in improving the overall performance, reputation and viability of the bank. EMS includes the organisational structure, responsibilities, procedures, practices and resources for determining and implementing the environmental policy.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1©(6)		NZ4	16	Introduces the supporting systems and processes necessary for ongoing...environmental reporting = possibly these systems and processes come under the umbrella heading of EMS.
		NZ5	39	Having EMS which includes a set of specific e objectives and targets.
			40	Westpac 'have adopted the Group EMS to improve "overall environmental performance and strategically examine our indirect impacts arising from our core business activities, such as in our loan portfolio". Incorporating environmental criteria into lending considerations is a key challenge for sustainable financial services.

Indicator 7. Senior management raises the awareness of environmental risk issues among employees.

Evidence from the annual reports

Indicator number	Score	Which annual report?	Page Number	Justification

S1©(7)		NZ4	15	The employees were not considered as a source of gathering environmental information. The executive team is accessible to staff for them to pass on any concerns or to ask any questions they have.
		NZ5	28	
		NZ5	55	The employees were not considered as a source of gathering environmental information.
		NZ6	22	Senior leadership was urged to raise the training level among the employees, at least, to reach the NZ norm

Section 1(D): Training

Indicator 1. The bank has an environmental program at all levels, including the BOD, senior management and operational staff.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1(d)(1)		NZ4	31	In 2003, 60 % of the staff agreed that the bank provided them with training adequate for their work (SPS survey). Programs available for staff only (not clearly stated if environmental included). Launched its” understanding our customers” strategy which includes an increase in frontline staffing and training for new and existing frontline staff” but doesn’t appear available to BOD or senior management nor are environmental issues mentioned.
		NZ5	18	
		C4	31	BOD undertakes regular development workshops. These include Westpac’s risk/reward program, succession management, treasury operations and

			32	market risk The new directors undergo an induction program to familiarize them with matters relating to Westpac business. Further, continuing their education by participating in quarterly formal workshops.
		C5	27 28	BOD undertakes regular development workshops The new directors undergo an induction program.
		C6	37 38 46	The new BOD is offered induction program Participating in at least four formal workshops Westpac has policies to manage its compliance and human resource requirements. There is a training processes to support these policies.
		A4	56	The new BOD is offered induction program Directors continue their education by participating at least in four formal workshops
		A5	54	The new BOD is offered induction program Directors continue their education by participating in at least four formal workshops
		A6	52	The new BOD is offered induction program Directors continue their education by participating in at least four formal workshops

Indicator 2. The bank provides the means of regular education and training which enables committed involvement from staff.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1(d)(2)		NZ4	22	According to a survey in 2003:1.Employees

		NZ5	23	<p>asked for training, learning and development about CSR to be provided. The staff rated Westpac 5.8/10 as a socially responsible company.</p> <p>2. Customers and shareholders state that a socially responsible company should have high ethical standards.</p> <p>3. From environmental perspective, the external stakeholders demanded Westpac a. provide leadership and advocacy in the community b. minimize the environmental impact of the bank's operations and proactively enhance the environment (not clear what type of impact: direct e.g. papers, water, energy or indirect e.g. lending activity).</p> <p>Training, learning and development are among three top issues in the survey</p>
		NZ6	19	<p>Providing employees, customers with easy-to-understand information about a financial literacy programme called 'managing your money'.</p>
			22	<p>Training, learning and development and working relationships fall below the NZ norm.</p>
			53	<p>Employees need to understand the implications of environmental issues; the threat of climate change on rising sea level and flooded homelands could lead to increased migration.</p>
		A5	64	<p>Business units have systems and procedures in place including training processes to manage staff compliance and human resource requirements (Compliance Handbook 'Doing the Right Thing' and the on-line compliance test that staff undertake.</p>
		A6	59	<p>Controlling and managing the four main types of risk enables staff to reflect on the</p>

				need for training.
--	--	--	--	--------------------

Indicator 3. Employees are critical to the success of the bank's improving environmental performance.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1(d)(3)		NZ4	15	The employees were not considered as a source of gathering environmental information.
			27	The bank considers the employees as the cornerstone of whether the bank is genuine about csr. The bank's reputation rests with its employees, hence the need to develop them personally and professionally.
		NZ5	22	Employees are "our best ambassadors" but doesn't specifically mention e performance
		NZ5	43	Encourage staff to bring any issues or concerns to management attention (whistleblower protection policy)
			55	The employees were not considered as a source of gathering e information.
		NZ6	19	The management provide employees and customers with financial skills, as they are considered important in supporting and keeping the bank in its business
			20	Emphasis on the importance of staff to the overall performance of Westpac but doesn't specifically mention e performance.
		C5	37	Employees are encouraged to bring any problems to the attention of management.
		C6	46	Employees are encouraged to make

				suggestions for more efficient processes.
--	--	--	--	---

Indicator 4. The bank respects the employees' actual and potential input to its environmental performance and provides the appropriate channel for their input. The bank has an internal environmental communication system and regularly communicates with employees about their own ideas and perception of how best practice may be achieved.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1(d)(4)		NZ4	28, 29	The executive team is accessible to staff. Every Friday, one senior team is available on an 0800 Hotline. Monthly 'temperature Checks' and an annual Staff Perspective Survey (SPS) conducted by an external provider.
		NZ5	30	In 2003, a survey asking employees about satisfaction of training and development showed that 60% agree that the training they received prepared them adequately for the work.
			22	SPS confidential survey. Two-way flow of information.
		NZ6	27	65% of employees agreed that the bank provided training that prepared them for their work.
			20	Providing accessible formal channels to voice the employees concerns. Annual Staff Perspective Survey, Ask Once and Let's Talk forums.
			26	60% of employees agreed that the bank provided training that prepared them for their work (Staff Perspective Survey).

		C5	37	Westpac provides a range of mechanisms to raise issues such as making suggestions for more efficient processes via the online Ask Once program.
		C6	46	Concerns about internal policies or procedures can be raised with the chief operational risk and compliance officer through Westpac's internet-based whistleblowing reporting system, Concern Online, or by telephone or email through the Concern Hotline.
		A5	64	Concerns about internal policies or procedures can be raised with the chief operational risk and compliance officer through Westpac's internet-based whistleblowing reporting system, Concern Online, or by telephone or email through the Concern Hotline.
		A6	62	Employees are encouraged to bring any problems to the attention of management via the online Ask Once program. Concerns about internal policies or procedures can be raised with the chief operational risk and compliance officer through Westpac's internet-based whistleblowing reporting system, Concern Online, or by telephone or email through the Concern Hotline.

Section 1(E): Auditing

Indicator 1. An external environmental audit is in place. This independent audit is often perceived as rigorous and more legitimate than an internal audit.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1(e)(1)		NZ4	19, 20	External audits are performed in financial accounts and occupational safety and health

				and considered by board and executive management.
			73	Does not yet conduct external auditing of environmental performance.
			105	Salmon conducted an independent assurance of the e section and reported that the section presents a fair and reasonable view of Westpac's e performance
			106	PricewaterhouseCoopers examined the numeric data on pages 84 to 87 of the Economic Section in accordance with NZ Auditing Standards and found the numeric data is consistent with the annual financial statements.
		NZ5	43,60	
			65	Performing only financial reporting as determined by a. the Financial Reporting Act 1993 b. The Reserve Bank of NZ. Salmon conducted an independent assurance of the environmental section and reported that the environmental statement and indicators present a fair and reasonable view. Salmon reported that the Report presents a fair representation of the material aspects (review against principles of materiality and completeness of Westpac's e performance).
		NZ5	66	PricewaterhouseCoopers examined the numeric data on pages 42, 43 of the Financial Section and found the numeric data is consistent with the annual financial statements.
		NZ6	57	PricewaterhouseCoopers examined the numeric data on pages 48, 49 of the Economic Section and found the data consistent with the annual financial statements.

			58	Banarra was commissioned to conduct a report assurance of sti06 report. Banarra uses the AA1000 Assurance Standard which assures materiality, completeness and responsiveness. Testing the report against GRI Guidelines.
		C4	40	Specialist environmental auditors independently verify and assure the stakeholder impact report.
		C5	38	Specialist environmental auditors independently verify and assure the stakeholder impact report. Not only testing the integrity of data but also examining the effectiveness of the extent that CR and sustainability policies and practices are embedded across the organization.
		C6	47	The stakeholder impact report is independently assured against the AA1000 Assurance Standards that corporate responsibility is embedded across the organization.
		A4	65	The stakeholder impact report is independently assured against the AA1000 Assurance by specialist environmental auditors
		A5	56 59 65	The external auditor reports to the Audit Committee and to the BOD BOD is committed to three basic principles: financial reports present a true and fair view, accounting methods are comprehensive and relevant and comply with applicable accounting rules and policies, and the external auditor is independent and serves shareholder interests. Specialist environmental and social auditors independently verify and assure the

				Stakeholder Impact report against AA1000 Assurance Standard (the bank uses GRI guideline as a framework of reporting; then why does the independent auditor uses AA1000)
--	--	--	--	---

Indicator 2. An internal environmental audit is also fundamental to the overall auditing process, and both kinds of audit can work off each other.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1(e)(2)		NZ4	20	The bank's Group Audit team conducts objective reviews and provides risk and compliance evaluations and advice to assist management in exercising its responsibility to develop, maintain, monitor and continually enhance control frameworks and systems. The internal audit scope considers the most important aspects of operational risk across Westpac's business.
		NZ5	73 42	The bank independently audits and verifies annual reporting of environmental performance (environmental lending audit). Electricity accounts are analysed. Westpac has an internal audit committee with rotating partners every 5 years and monitors and reviews the bank's relationship with the external auditors, implying that both the internal and external audit work off each other
		C4	34	The Audit Committee reviews and assesses the processes used to monitor and ensure

		A4	62	Group assurance is an independent internal audit charged with evaluating, testing and reporting on the adequacy and effectiveness of management's control of operational risk. The Group reports to Audit Committee and Risk Management Committee.
		A5	47 60 63	<p>Operational risk: the internal audit appraises the effectiveness of the internal control environment in the business area (branches) and reports to CEO and B risk Management Committee.</p> <p>Group assurance includes an independent and objective internal audit review function charged with evaluating, testing and reporting on the adequacy and effectiveness of management's control of operational risk. General manager Group assurance provides reports to both the Audit Committee and the Risk Management Committee.</p> <p>Group Assurance provides independent assurance to BOD, executive management and external auditor on adequacy and effectiveness of management controls for risk.</p>
		A6	58	Group Assurance includes an independent and objective internal audit review function charged with evaluating, testing and reporting on the adequacy and effectiveness of management's control of operational risk

Indicator 3. An environmental audit is a strategic approach to environmental management.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1(e)(3)		NZ4 NZ5 NZ6	104 65 9 58	E verification statement E verification statement E external environmental verification Commissioning Banarra to conduct a report assurance. Banarra noted two new mechanisms for engaging with external and internal stakeholders; the external Community Consultative Council and the internal Editorial Committee. According to Banarra the corporate responsibility performance allows stakeholders to make informed decisions.
		C5	30,31 32	Audit committee is responsible for external audit+ internal audit (not clear if environmental audit included) bod delegates crsc to review and approve the independent assurance of Westpac corporate responsibility systems and external reporting including the annual stakeholder impact report.
		C6	40 42	Audit committee is responsible for external audit+ internal audit. It discusses with risk management, the chief compliance and operational risk officer and external auditor the financial risk exposures and Westpac's risk assessment and risk management policies. BOD delegates CEO to review and approve the independent assurance of Westpac's CR systems and non-financial reporting including the stakeholder impact report.

		A4	58	The Board Audit Committee reviews and assesses the processes used to monitor and ensure compliance with laws, regulations and other requirements relating to external reporting of financial and non-financial information
		A5	56 59	BOD approves the internal audit plan on the recommendations from the B Audit Committee CRSC reviews and approves the independent assurance of corporate responsibility systems and external reporting including the annual stakeholder impact report.
		A6	54 57 57	Audit committee oversees the integrity of financial statements, the performance of external and internal audit function and the compliance with regulatory requirements relating to financial and non-financial information. CRSC reviews and approves the independent assurance of corporate responsibility systems and non-financial reporting BOD is committed to three core principles: financial reports present a true and fair value, comply with applicable accounting rules and policies and that the external auditor is independent and serves shareholders interests.

Indicator 4. The audit framework provides up-to-date, systematic, periodic and objective data that feeds into planning for improved performance.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1(e)(4)		NZ4	20 20 73	Audit and verify annual reporting of social and environmental performance. Shows the internal environmental audit's hours (300 hrs) as a part of all internal group audit (9386 hrs) but still unclear if auditing includes the indirect impact. External audit for numeric data is reviewed by the relevant board and executive management Spot audits for wastage.
			104,105	Independent "environmental verification statement" but the statement states that "the audit team is independent from Westpac" so it reads like it is some sort of audit
		NZ5 NZ6	65 58 9	Annual verification statement Annual assurance statement Westpac provides a table of the number of hours spent on internal audit and number of internal audits conducted

Indicator 5. The audit process identifies strengths and weakness of environmental performance and areas of environmental risks.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1(e)(5)		NZ4	20	The bank's Group Audit team conducts objective reviews and provides risk and compliance evaluations and advice to assist management in exercising its responsibility to develop, maintain, monitor and continually enhance control frameworks and systems (not clear regarding environmental audit). Banarra noted two new mechanisms for engaging with external and internal stakeholders. Banarra urges Westpac to establish formal procedures and definitions for gathering and reporting quantitative data. Also motivates Westpac to implement materiality criteria and processes for evaluating the relevance and importance of issues.
		NZ6	58	
			59	

Indicator 6. The audited environmental information is available to management to measure progress, assess the need for education and training and to improve the environmental performance.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S1(e)(6)		NZ4	20 10 73	Audited reports are available for management to develop, maintain, monitor and enhance control frameworks and systems. Much of the data has been collated and audited = a bit vague as no clear indication of whether this relates to the information Electricity accounts are analysed, the least energy-efficient locations identified and remedied over a period of three months. This is an ongoing process; spot audits are done...when such wastage is discovered its cost is calculated and communicated to staff—is internal environment information but not relevant to the bank's credit policies/almost read like a smokescreen to deflect attention from the bank's environmental lending policies.
		C6	42	CEO has to review and approve the independent assurance of Westpac's CR systems and non-financial reporting including the stakeholder impact report.
		A4	58	The Board audit Committee reviews significant issues that may be raised by internal audit as well as the length of time and action taken to resolve such issues. Also audit committee discusses with risk management committee and other senior management risk assessment and risk management policies.
		A6	58	The General Assurance Manager Group Assurance has a reporting line to the chairman of the Audit committee. Group Assurance provides reports to both the

				Audit Committee and the Risk Management Committee.
--	--	--	--	--

Category Two: Operational Performance Category

Section 2(a): Integration of environmental issues into the bank's lending process.

Indicator 1. The bank ensures environmental risks are considered alongside more traditional business risks when lending decisions are made. This means the bank endeavours to balance the economic aspects of the loans with the environmental concerns they raise.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S2(a)(1)		NZ5	39	Considering environmental issues in daily business activities where this is appropriate.
		NZ5	39	Customer's appraisal includes assessing the potential e risk along side other risks.
		NZ5	50	In the Cook Islands the bank introduced a policy not to fund any new accommodation development or major reconstruction along the coast unless a suitable sewage treatment plant was installed.
		NZ6	53	Westpac's lending guidelines state ' not provide a loan where the purpose breaches environmental law' and 'ensure that all environmental requirements are included in project financing applications' that the bank assesses.
			73	Environmental risk assessment (ERA) may include "management and financial Capacity".
		C4	34	The Risk Management Committee oversees the risk profile of Westpac.
			37	Westpac recognizes four main types of risk: credit risk, market risk, operational risk and compliance risk (environmental risk?)
		C5	31	The Risk Management Committee oversees

			160	<p>All the above risks are interlinked and the bank takes an integrated approach to managing them.</p> <p>The bank considers that credit risk as a major risk arises primarily from lending activities, which may lead to financial loss resulting from customers failing to meet their obligations. Credit policies are delegated by BOD to CEO and the Chief Risk officer, then to independent credit officers in each business area. The Chief Risk Officer works with the manager</p>
--	--	--	-----	---

Indicator 2. Credit appraisal, which includes environmental screening, is a first step in environmental risk management. This process includes rejecting activities on the environmental exclusion list, assessing environmental risk and implementing an initial environmental risk rating (low, medium, or high)

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S2(a)(2)		NZ4	53	The lending criteria includes a detailed analysis of customer industry, country and facility risk (environmental?).
			73	Using industry classification codes to assess environmental risk when screening lending proposals. Requiring further external environmental assessment in case of high environmental risk either in any security offered or the industry sectors itself.
			19	The lending criteria includes a detailed analysis of customer industry, country and facility risk (environmental?).
		NZ5	39	The bank's appraisal of business customers' applications for finance includes an

Indicator 3. The second step in credit appraisal is the evaluation of environmental risks and impact. This process includes site visits, further investigation by the bank's staff, an environmental review by internal and/or external experts, and preparation of the final environmental report. The external expert confirms whether the project being financed meets the environmental policy and the other principles the bank is committed to adopt.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S2(a)(3)		NZ4	73	Further external e assessment is required in case of high e risk including external advice and site inspections where relevant
		NZ5	41	Further investigation is required in case of high e risk.
		A4	44	The Portfolio Risk Review Unit provides independent assessment of the quality of the credit portfolio.
		A5	42	The Portfolio Risk Review Unit provides independent assessment of the quality of the credit portfolio

Indicator 4. Environmental risk control: this third step of credit appraisal includes reviewing the final environmental report, ensuring that the risk and level of environmental knowledge is acceptable, and applying environmental conditions to credit agreements. The credit agreements may include identifying the risks and the appropriate actions and controls to be taken by companies when carrying out the finance project.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S2(a)(4)		A4	44	Credit decisions required joint approval by authorised credit and line business officers

		A5	42	Credit decisions required joint approval by authorised credit and line business officers

Indicator 5. Environmental monitoring. This stage includes monitoring environmental compliance, change in legislation and changes in clients' business activities, as well as considering the potential for environmental liability before taking possession of any assets.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S2(a)(5)		NZ4	73	ERA may include "compliance with all regulatory requirements"
		NZ6	47	Our e risk analysis includes compliance with all regulatory requirements and management and financial capacity
		A4	44	The bank monitors the credit portfolio to avoid risk concentrations
		A5	42	The bank monitors the credit portfolio to avoid risk concentrations
		A6	160	The bank monitors the credit portfolio to avoid risk concentrations and the credit risk remains well diversified

Indicator 6. The bank specifies the sum and number of loans which are environmentally relevant. This number could also indicate the number of project finance transactions which are not progressed because of considerations related to environmental issues.

Evidence from the annual reports

Indicator number	Score	Which annual report?	Page Number	Justification
S2(a)(6)		NZ4	20	A table Specifies the number of hours spent on internal environmental audit
		NZ5	55, 61	The performance indicators guide did not include any statistics.
		C6	14	CEO's report: 14 transactions assessed against the EQ
		A5	102	Loans are classified according to type of customer and sum(agriculture, government,...) but not by type of environmental sum or number. Also the bad and doubtful debts did not indicate that e reasons could be the cause (p. 105)

Indicator 7. The bank describes the value of the environmental portfolio according to a specific region and by industry sector, e.g. agriculture, forestry.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S2(a)(7)		NZ4	52	Specifies the business lending profile according to the industry sector (but not as environmental lending percentage; agriculture, forestry and fishing 20%; manufacturing 10% and property and business services 35%).
		NZ5	57	Specifies the business lending profile according to the industry sector (but not as environmental lending percentage; agriculture, forestry and fishing 20%; manufacturing 9% and property and business services 35%
		NZ6	17 42, 43, 56	Agriculture, forestry and fishing 20%; manufacturing 9% and property and business services 35%) Reporting environmental performance regarding the bank's direct impact only (electricity, gas, car fleet, paper)
		A4	102, 143	Loans are classified by type of industry sector, region and the sum for each (but not as environmental portfolio)
		A6	70, 110, and 111	Loans and impaired loans are classified by type of industry sector, region and the sum for each (but not as environmental portfolio)

Indicator 8. The bank applies the Equator Principles, which consider environmental issues in project finance transactions. The principles apply to all project financings with capital costs above US \$10 million. This threshold was lowered from US \$50 million.

Evidence from the annual reports

Indicator number	Score	Which annual report?	Page Number	Justification
S2(a)(8)		NZ4	53	In 2003 Westpac Group adopted EP
		N Z5	41	Committed to EP
		NZ6	47	Westpac follows EP Guidelines
		A6	57	Recommitted to EP including reassessment of sector and issue-specific policies for corporate and institutional banking.

Indicator 9. The spirit of environmental risk management is not only about identifying possible risks but also about spotting potential environmental benefits.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S2(a)(9)		NZ4 NZ5 NZ6	73 38 47 53	Lending with high environmental benefit Financing in infrastructure and transport Financing in renewable energy, new financing opportunities in the development of emerging technologies and opportunities in financing infrastructure developments with regard to adaptation requirements present exciting opportunities for banks Westpac is committed to managing its impact on the e and to supporting initiatives with high e benefit

Indicator 10. The bank uses different sources of information when making a lending decision about a borrower, e.g. annual reports, personal interviews, information obtained on company visits, environmental regulations.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S2(a)(10)		NZ4	73	The bank investigates the borrower's levels of environmental awareness and adequacy of policies and practices, the financial capacity, the compliance with environmental regulations, external advice and site visits.

Section 2(b): Environmental pioneering projects.

Indicator 1. The bank finances projects with high environmental benefits and innovative characteristics.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S2(b)(1)		NZ4	73	Giving automatic status to projects that are described as high environmental benefit (better to provide some examples from Westpac's actual practices)
		NZ6	53	Westpac is committed to managing its impact on the environment and to supporting initiatives with high environmental benefit.

Indicator 2. The bank considers lending in new environmentally friendly technology, meaning less associated credit risks.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S2(b)(2)		NZ4	73	Financing to environmentally friendly start up companies.
		NZ6	47	Exploring opportunities in financing renewable energy and CO2 emission trading.

Indicator 3. The bank specifies the sum and number of loans which are relevant to environmental pioneering projects.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S2(b)(3)		NZ4	74	Total high environmental benefit lending = NZ\$445,397,636. Total lending = NZ\$2,685,984,089 As a % of total 16.6%
		NZ5	55	The report states a reference to Westpac Group Stakeholder Impact Report to obtain the number and the sum of lending with high e benefit

Indicator 4. The bank describes the value of its environmental portfolio according to a specific region and by sector.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S2(b)(4)		NZ4	74	The report stated the sum of high environmental benefit lending

Indicator. 5. The bank explicitly designs loans to address an environmental issue, for example, lending to companies investing in environmentally friendly technologies and pollution control measures, e.g., loans which are designed to foster renewable energy projects.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S2(b)(5)		NZ4	73	Lending to companies which invest in renewable resources, solar power, energy trading/weather derivatives, recreational parks, zoos and botanical gardens that preserve the environment, housing developers with green credentials, tourism, leisure, water conservation and agriculture(best practice), rural and regional development (recycling, windfarming, public transport that reduces emission or pollution.
		NZ6	46	The agricultural customers in the dairy farm industry in NZ are calling for ever-increasing productivity.. the NZ freshwater system is struggling with increased nitrogen and phosphate levels associated with more intensive land usage. Westpac has the
			46	challenge to finance pioneering projects that

			47	invest in environmentally friendly projects. In August 2006 petrol prices reached a new high; 177 cents /litre. Climate change and resource scarcity offer businesses opportunities such as the possibility of CO2 emissions trading, venture capital financing in renewable energy .
--	--	--	----	---

Category Three: Motivational drivers

Section 3(a): Managerial drivers. The managerial drivers investigate why top management (BOD, CEO, senior management) incorporate environmental matters into the bank's lending activities.

Indicator 1. to comply with regulations.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S3(a)(1)		NZ4	9	"if Westpac does not establish, maintain and monitor...enforcement will eventually come from somewhere else".
		C4	46	The operations of Westpac are not subject to any particular and significant e regulation under any law of the Commonwealth of Australia, but may become subject to e regulation in enforcing securities over land for the recovery of loans.
		C5	34	One of the main types of risk which Westpac considers is the compliant risk that meets all applicable legal and regulatory requirements and ethical standards (environmental requirements?).

			47	The operations of Westpac are not subject to any particular and significant e regulation under any law of the Commonwealth of Australia but may become subject to e regulation in enforcing securities over land for the recovery of loans.
		C6	54	The operations of Westpac are not subject to any particular and significant e regulation under any law of the Commonwealth of Australia, but may become subject to e regulation in enforcing securities over land for the recovery of loans.
		A4	50	National and local e laws and regulations may affect the operations of Westpac. These laws may impose liability for damages, clean up costs or penalties in the event of certain discharges into the environment, environmental damage caused by previous owners of the companies or non-compliance with environmental laws or regulations.

Indicator 2. To reflect the ethical and environmental stance of management.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S3(a)(2)		NZ4	6 73	CEO Ann Sherry indicated the relatively low level of awareness of CSR in NZ and denies that large corporate utilize CSR as a veneer of respectability for the pursuit of profit only.
		NZ5	6	Investigate a. the borrower's level of environmental awareness and adequacy of policies and practices, and b. the activities that are likely to cause harm regardless of efforts to mitigate the risk. 'Unless accountability is at the heart of our

		NZ6	7 31 33 39	<p>culture and structure, backed by a plan which sets out objectives, it won't become core business'.</p> <p>The driving value is not just about profit but all stakeholders</p> <p>Financial literacy to address social and financial exclusion and debt levels, at the same time supporting government objectives and initiatives (Managing Your Money programme).</p> <p>In 2005 Westpac launched Let's Settle This in a joint initiative with NZ Business Council for Sustainable Development to help Maori develop a model for sustainable development that reconciles economic goals with the social and e expectations.</p> <p>The CEO Corporate Responsibility and Sustainability Awards to Westpac's employees and their teams who run their business in a way that meets social , e and economic responsibilities.</p>
		NZ6	47	<p>Sponsoring the Sustainable Business Awards to confirm the importance of critical business functions and supporting the e work of the Sir Peter Blake Trust.</p> <p>As sector leaders of the Dow Jones Sustainability Index, the bank recognises its responsibility to drive the business sustainability agenda in NZ. Dairy Excellence Awards for individual farms who are doing something to address their environmental and economic risks.</p>
		C5	38	<p>Board and management seek to take a practical and broad view of their duties in line with societal expectations and which goes beyond strict legal and financial obligations. Transparency and reporting on all dimensions of performance is central to</p>

				Westpac's approach to governance and responsibility management.
		C6	21 41	"We are prepared to put the planet and people in the same equation as profit". CR and S Committee oversees and drives Westpac's commitment to operate its business ethically, responsibly and sustainably, consistent with evolving community expectations.
		A4	63	Sr committee is responsible for maximising the environmental and ethical values of Westpac's activities.
		A5	65	The BOD and management approach carry on their fiduciary duties in line with societal expectations.

Indicator 3. To meet stakeholders expectations. There is growing and increasingly widespread understanding of the consequences of environmental issues by stakeholders that requires the bank to react in an environmentally responsible manner.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S3(a)(3)		NZ4	Forward	"Measuring its activities against public expectations" by Pratt. In 2003 the bank documented people's expectations and made some formal commitments to meet these.
			72	Stakeholders asked the bank to be proactive in having environmental policies and procedures in place.
		NZ6	3	Sherry and Morgan believe that communicating with stakeholders improves the results the shareholders are looking for.

			45	<p>Improving the financial literacy and bringing Westpac prices down to market levels were main issues in the CEO and the Chairman passage.</p> <p>42% of all Customers' complaints are FEES, CHARGES and INTEREST.</p> <p>'Our generation will be faced with peak oil prices, the depletion of fossil fuels and climate change. Navigating these issues will be vital for any business looking to survive and flourish' Brendan O'Donovan, Chief Economist, Westpac</p>
			46	<p>The impact of e concerns on long term returns has created a new breed of investor. Investors in Europe and US are asking that the companies they invest in take e considerations seriously. In US, about one in every ten dollars is being invested in companies that rate highly on some measure of SR.</p>
		C4	4	<p>To meet investors (shareholders) concerns about transparency and accountability (Chairman's report).</p>
			24	<p>People want the bank to meet e responsibilities.</p>
		C5	3	<p>Davis, chairman, pointed out that 70% of Westpac market value is made up of intangible assets, like the value of customer relationships, employee loyalty and commitment and risk management capabilities.</p>
		C6	31	<p>Stakeholders need the complete picture of environmental initiatives, as well as financial ones to assess and value the bank's performance.</p>
		A6	11	<p>Kiwibank promotes low fees and interest rates to consumers, leading on to rapidly acquiring market share.</p>
			63	<p>Producing positive outcomes for all</p>

				stakeholders and maximising the financial as well as environmental value. Also being committed to transparency.
--	--	--	--	---

Indicator 4. To enhance the bank's reputation and brand, regarding environmental matters

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S3(a)(4)		NZ4	9	Must demonstrate measurable social responsibility to earn a social licence
		NZ5	6	Accounting for the bank's actions affects the business performance and its reputation.
		NZ6	5	Adopting sustainable business practices and operating in a responsible manner delivers a better outcome and enhances reputation and financial position.
		C4	4	Untrusting climate between investors (shareholders) and the bank "is not good for our bank".
		C5	38	Through sustainable practices Westpac seeks to reduce operational and reputational risk.
		C6	47	Commitment to transparency with the community reduces operational and reputational risk and enhances operational efficiency, while contributing to a more sustainable society.
		A4	60	Sr committee ensures that there is effective monitoring and oversight of the bank's reputation risks.
		A5	65	Sustainable business practices reduce operational and reputational risk and contribute to a more sustainable society.
		A6	6	In its business strategy the bank seeks to continuously improve and maintain a

			63	<p>leading position in cr ratings(may be window dressing)</p> <p>Being committed to corporate responsibility and sustainability reduces operational and reputational risk.</p>
--	--	--	----	---

Indicator 5. To avoid stakeholders' pressure and reputational risk regarding the environmental issues

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S3(a)(5)		NZ4 NZ6	9 30 31 39	<p>To earn a social licence to operate.</p> <p>1.4 million customers, 29000 shareholders, 6000 employees in NZ. It is worthwhile that Westpac values its reputation, its direct and indirect impacts to address environmental and social concerns.</p> <p>Among these concerns the Community in Action programme raised these issues: a. debt levels in society b. environmental leadership and c. business's role in society.</p> <p>Peter Neilson challenges Westpac to develop sustainable business models and make a compelling point of difference through its staff, customers and investors.</p>
		C4	5	<p>Pressure from investors to be transparent and accountable. The chairman states that this requires a willingness and culture to go further than just regulations in meeting stakeholders' legitimate concerns(a bit vague about what exactly the investors required).</p>
		C5	34	<p>The bank perceives the reputational risk as one of the major risks that affects its business. It is the result of negative experiences and perceptions impacting</p>

				Westpac's standing with stakeholders.
		A4	62	The bank recognises reputation risk as a risk resulting from negative experiences and perceptions impacting the bank's standing with stakeholders (may include environmental reputation risk). And so the bank allocates resources to manage this type of risk.

Section 3(b): Financial drivers.

Indicator 1. To avoid or mitigate environmental liabilities represented in three types of environmental risks: direct, indirect and reputational.

Evidence from the annual reports

Indicator number	Score	Which annual report?	Page Number	Justification
S3(b)(1)		NZ4 NZ5 NZ6	73 40,41 38	Assessing the security offered and the industry itself to avoid high environmental risk Tracking the electricity and gas usage, emissions from petrol consumption and lending activities. Better management of resources (water, energy, and paper) makes good business sense because it reduces costs.
		C4	46 68	Westpac has not incurred any liability (including for rectification costs) under any e legislation. Bad and doubtful debts were 414 million (benign credit environment)
		C5	47	Westpac has not incurred any liability (including that for rectification costs) under any e legislation.
		C6	54	Westpac has not incurred any liability (including that for rectification costs) under

				any e legislation
		A4	50 62	Environmental risks include clean up costs and penalties. The bank considers 4 types of risk which did not indicate to e risks.
		A6	57	Crs committee monitors and oversees reputational risks along with the risk management committee (however this is not clear in the risk management sections in p. 60, 61.

Indicator 2. To manage the risks which have potential borrower liability as well as potential bank liability.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S3(b)(2)		NZ4	73	“Transactions with perceived e risks are subject to an initial e screening to determine whether that potential risk will impact the customer’s capacity in meeting their financial obligations”
		NZ5 NZ6	41 46	E risk may impact the applicant’s capacity in meeting the financial obligations Environmental investors and mainstream institutions realise the importance of a company managing all of the risks found within its operations.
		C5	34	Credit risk is the risk of financial loss from the failure of customers to fully honour the terms of their contract; this failure may be due to e risk.
		C6	31	A successful management of environmental risks is fundamental to sustainable prosperity.
		A4	50	Managing e risk by ensuring previous owners of companies complied with e laws

			54	and regulations, and/or carrying appropriate insurance. BOD delegates to management responsibility for maintaining an effective risk management framework.
		A5	42 61	Managing credit risk arises from lending activities in cases of customers failing to meet their obligations. Managing four main types of risk: credit, market, operational and compliance. In addition other risks include liquidity and reputation.

Indicator 3. To price the credit which reflects the underlying environmental risk.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S3(b)(3)		A4	44	Credit risk: as individuals using statistical analysis to score customer creditworthiness and payment behaviours for consumer business. As large commercial and corporate borrowers, the bank factors in price credit facilities based on discrete analysis of each customer's risk(General credit , not specific for environmental risk)
		A5	42	Credit risk: as individuals using statistical analysis to score customer creditworthiness and payment behaviours for consumer business. As large commercial and corporate borrowers, the bank factors in price credit facilities based on discrete analysis of each customer's risk(General credit , not specific for environmental risk)

Indicator 4. To protect customers' deposits and the impact on the creditworthiness of a borrower.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S3(b)(4)		Nzsi04	55 57 73	A 'Beyond Survival' workshop to encourage SME owners to familiarise themselves with their financial accounts. The 'Home Buying and Sellers Guide' includes advice on how to choose a best deal, traps to watch out for, and how to investigate further necessary legal requirements(environmental issues ?) E risk may impact the customers' capacity in meeting their financial obligations.
		Nzsti05	17 41	"we lend to people who can demonstrate their ability to repay money...debt management is an important part of our responsibility" "promoting financial literacy is a core component of responsible banking"(not clear whether bank does that considering e risks). Produced a series of 'toolkits' to assist customers understand how the Kyoto agreement will impact their business.
		NZ6	14,19 15	They provide "managing your money" workshops to aid in financial literacy They provide a "start up business Guide designed to provide guidance to existing and potential business owners

Indicator 5. To gain market advantage and build profitability.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
3(b)(5)		NZ4	9	“Erosion of trust increases the cost of doing business”.
		NZ5	45	Customer “service [lending] is the foundation of our profitability”
			2	“Potential for sustainability and how it can create wealth and well-being and authenticate nz’s competitive advantage as a clean, green and ethical nation” foreword from Prof Pratt.
			6	“A compliance driven approach is limited in its ability to identify issues that may destroy or create value”
		NZ6	5	“adopting such sustainable business practices...will deliver a better outcome...enhancing...our financial position”
			38	Reducing costs of resources contributed to improve productivity.
		C5	23	Successful management of environmental issues is fundamental to the creation of sustainable shareholder value
			38	Responsible business practice is integrated and viewed as an important long term driver of capacity, performance and shareholder value.
		C6	47	Westpac views sustainable and responsible business practices as an important long-term driver of capacity, performance and shareholder value.
		A5	65	Sustainable business practices are viewed as an important long-term driver of capacity, performance and shareholder value.
		A6	63	Sustainable business practices are viewed as an important long-term driver of capacity, performance and shareholder value.

Indicator 6. To exploit opportunities in financing environmental pioneering projects.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S3(b)(6)		NZ4	73	Exploiting opportunities available from financing environmentally friendly projects.
		NZ6	47	Exploring the possibilities of CO2 emissions trading, venture capital financing in renewable energy and developing consultancy services to small and medium sized enterprises to adopt environmentally friendly business practices. During 2006, the bank began trading in the EU Emission Trading Scheme and working with NZ Business Council for Sustainable Development to consider the options for market-based instruments, in particular those in which there is a change in technology.

Section 3©: Environmental drivers.

Indicator 1. The bank pursues a sustainable environment and commits to environmental protection. This means the bank has a strong and longstanding commitment to managing environmental issues associated with lending decisions. Also, the bank believes that taking due account of the environmental impact is the right thing to do and makes good business sense.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S3©(1)		NZ4	6	In 2004 the bank released the NZSI Report

				<p>as an introduction to formalize its socially responsible business activity, to achieve another level of accountability and to meet the stakeholders' expectations which were documented in the 'I Never Knew You Cared' brochure in 2003.</p>
			51,52	<p>Realization that SMEs form the backbone of NZ economy (90% of NZ businesses, p. 55) and out of 100% business lending profile, 24% lending to agriculture, forestry and fishing; 12% to manufacturing; 34% to property and business services.</p>
			71	<p>Ensures this does not come at any extra cost to the environment.</p>
		NZ5	1	<p>Embracing its responsibility to make business decisions that go hand in hand with social, environmental and financial performance.</p>
			38	<p>Direct impact on the environment (zero waste, recycling).</p>
			39	
			42	<p>E policy ensures environmental protection.</p>
		NZ6	1	<p>Commercial competitiveness correlates positively with e sustainability.</p>
				<p>To contribute and balance among social, financial and e issues. Raising the issues which concern stakeholders and on which they expect the bank to respond. To help and lead others to build a more sustainable NZ.</p>
		NZ6	8	
				<p>Membership of the Sustainable Business Network and NZ Business Council for Sustainable Development.</p>
		NZ6	38	<p>Commitment to zero waste, working towards greenhouse gas emission goals.</p>
		C5	2	<p>The chairman, Leon Davis, argued that paying attention to the three pillars of sustainability, financial, social and environmental, makes Westpac more</p>

			37	<p>responsive to stakeholders' interests and has been the key to putting on a more resilient and contemporary long term growth path.</p> <p>"Westpac aims to produce positive outcomes for all stakeholders in managing its business and to maximize financial as well as social and e value from our activities"</p>
		C6	1 30 31 47	<p>Westpac has been voted the world's most sustainable bank for the fifth year in a row. According to Dow Jones Sustainability Indexes, Westpac's environmental performance was assessed as a leader for the banking sector 2005/2006.</p> <p>Westpac has been rated the number one company in the Corporate Responsibility Index in Australia and UK.</p> <p>"Westpac aims to produce positive outcomes for all stakeholders in managing its business and to maximize financial as well as social and e value from our activities"</p>
		A4	5 65	<p>The bank's business strategy is to be a good corporate citizen and sustain the corporate reputation, provide high returns to shareholders, provide staff with a great place to work and provide customers with superior experience.</p> <p>The Social charter sets out the bank's environmental practices as a response of stakeholders' expectations.</p>
		A5	5 49	<p>The bank's business strategy is to achieve a balanced vision among different stakeholders.</p> <p>Corporate governance approach is to have a set of values and behaviours that underpin everyday activities, ensure transparency and protect stakeholders' interests, adopt the principles and practices that are in the</p>

				stakeholders' best interests and ensuring full compliance with legal requirements
		A6	57 63	CRSC oversees initiatives to enhance sustainability. Being committed to transparency and fair dealing, treating employees and customers responsibly, and having solid and transparent links with the community enhances contributing to a more sustainable society.

Indicator 2. The bank believes that lending activities can have an impact on the environment. This means that the bank recognises that a bank's major environmental impacts tend to be indirect, arising from the provision of lending activities to business customers operating in sensitive sectors. Since there is an evolving debate in regard to the issue of a sustainable environment that banks have long term impacts on the environment and economy in which they operate, the bank takes the borrowers' environmental performance into consideration, even if their activities are legal and carried out in accordance with the relevant regulations.

Evidence from the annual reports

Indicator Number	Score	Which annual report?	Page Number	Justification
S3©(2)		NZ4 NZ5	6 41 41	"Westpac's impact on NZ is considerable" (what type of impact?). Banks have a major indirect impact on the e through financing. Assisting customers' understanding of how climate change policy affects their businesses in the primary production sectors (e.g. a toolkit specific to dairy farmers aims to minimize their impact on the e, this could save them extra costs which may lead to

		NZ6	21 47	<p>bankruptcy).</p> <p>Employees are encouraging customers to take on more debt to achieve their sales-based targets.</p> <p>Encouraging greater consideration of social and e issues before lending for projects, and so adopting EPs</p>
		C6	21	<p>Adoption of Equator principles means managing e issues relating to the financing of projects.</p>
		A6		<p>CRSC realises that bank's activities have an indirect impact on the e and so recommitted to revise the EP and adopting the new GRI G3 framework</p>

Appendix C: Interview questions

1. Describe the lending appraisal process and how it addresses environmental concerns?
2. How successful do you think you have been in incorporating environmental issues into lending decisions?
3. How does the region evaluate environmental performance from a lending perspective?
4. What are the biggest challenges for branch management in incorporating environmental issues into lending decisions?
5. Are there any complexities for branches in addressing particular environmental lending concerns?
6. What environmental training do the credit officers receive?
7. What are the keys to successful environmental training for lending staff?
8. Describe any environmental policy and environmental management system used in the region.
9. Do branches collate the following information:
 - the number and value of loans that are environmentally relevant and of those with high environmental benefit;
 - the proportion of loans that are environmentally relevant according to region and sector; and
 - the return and the profit which is generated from loans that are environmentally relevant?
10. Describe any BOD and CEO statements or policies pertaining to environmental outcomes that impact decision making within the region.
11. Are bank staff familiar with the Equator Principles?
12. Describe any information about lending decisions affecting the environment that the branch reports back to the BOD, the CEO and/ or the senior management.
13. Describe the process of engagement between Head Office and the region regarding lending practices and environmental risks and opportunities.
14. What are the keys to successful environmental auditing by the bank?
15. Do the branches receive any feedback from environmental auditing?

16. What do you think are the bank's primary drivers of bank lending policies - from an environmental perspective?

17. Is there anything else the researcher should know about Westpac's environmental performance?

Appendix D: Survey questionnaire

Banks and the Environment

Banks and the Environment

We'd like your views on how banks should consider environmental issues in their lending decisions, if at all.

For example, suppose a chemical company harms the environment, should a bank lend the company money or ask the company to reduce its environmental impact. Suppose a start up company seeks a loan to buy environmentally friendly technology, should the bank give priority to this company? We hope that data from this survey will benefit New Zealand banks, the wider community and New Zealand environment.

This survey should take about 5 - 6 minutes and is being conducted on behalf of the University of Waikato. This Waikato Management School Ethics Committee has approved this study.

Q.1 Thinking about Banks in New Zealand, please indicate if you agree or disagree with the following statements

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Do not know
Banks in New Zealand should be legally required to provide public reports on their environmental performance	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Environmental issues should be considered when making lending decisions on projects which may affect the environment	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Lending staff should be trained to professionally consider environmental issues when making lending decisions	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
An environmental clause should be included within loan applications	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Banks should fulfil their environmental obligations by making sure their borrowers comply with legal requirements	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Lending processes should be audited by an external environmental auditor	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6

Q.2 Thinking about Banks in New Zealand, please indicate if you agree or disagree with the following statements

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Do not know
Considering environmental issues in banks' lending practices is likely to enhance banks' performance in the long run	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Considering environmental issues is likely to increase lending to projects with significant environmental benefits	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
I am satisfied progress has been made in incorporating environmental aspects into bank lending decisions	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
The public has sufficient control over the way banks manage environmental issues when making lending decisions	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Environmental responsibility and banks' success are mutually reinforcing	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
New Zealand government policy facilitates effective environmental management by the banks	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Sound lending decisions are necessary for a sustainable environment and economy	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6

Q.3 What is your view as to the effectiveness of the following banks in addressing environmental issues when making lending decisions in New Zealand

	Very effective	Effective	Moderately effective	Slightly effective	Not effective	Don't know
ANZ National Bank Limited	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
ASB Bank Limited	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Bank of New Zealand	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Kiwibank Limited	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Rabobank New Zealand Limited	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Southland Building Society (SBS)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
TSB Bank Limited	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Westpac New Zealand Limited	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6

Q.4 In your view, how important have the following factors been in determining banks' lending decisions.

	Very important <input type="checkbox"/> 1	Important <input type="checkbox"/> 2	Moderately important <input type="checkbox"/> 3	Not very important <input type="checkbox"/> 4	Not at all important <input type="checkbox"/> 5	Don't know <input type="checkbox"/> 6
Financial reasons (for example, to increase banks' profitability or reduce liabilities)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Environmental reasons (for example, by funding projects with environmental benefits)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Management concerns about banks' reputation, and pressure from stakeholders	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Banks' perceptions of their environmental responsibility	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Environmental laws that affect lending decisions	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
The ethical stance of senior bank staff	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
The bank's confidence that the loan will be repaid on time	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Obtaining an expert external report evaluating the environmental risks associated with the activities to be funded	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Stakeholders (eg environmental organisations, suppliers & news media) persuading banks to be environmentally responsible	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6

Q.5 Please provide any other reasons you have considered

Q.6 In your view, what priority should banks give to the following activities?

	Very High	High	Moderate	Low	None	Don't Know
Ensuring all people/businesses who borrow money are compliant with environmental standards and practices	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Supporting community activities	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Minimizing the environmental impact of their own operations, for example, managing their paper, transport, energy usage	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Maintaining long-term profitability	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Maintaining sustainable environment in New Zealand	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Listen and act on the views of customers, shareholders, government/non-governmental organisations, local community,	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Enhanced culture of environmental protection within a bank.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Lending to highly productive firms, even where there is an environmental risk.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Enhancing compliance with laws to ensure incorporation of environmental considerations into banks' lending	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6

Q.7 Please detail any other priorities you believe you should be considered

**Q.8 Just for our statistics we will ask you a few questions about yourself.
Are you...?**

- ☐ 1 New Zealand Citizen
- ☐ 2 Permanent resident of New Zealand
- ☐ 3 Not a New Zealand citizen or a permanent resident of New Zealand

Q.9 Which ethnic group do you most closely identify with?

- ☐ 1 Asian
- ☐ 2 New Zealand European
- ☐ 3 Maori
- ☐ 4 Pacific Islander
- ☐ 5 None of the above

Q.10 Please state which ethnic group you belong to.

Q.11 In which district of New Zealand do you usually live or closest to?

- ☐ 01 Auckland
- ☐ 02 Bay of Plenty
- ☐ 03 Canterbury
- ☐ 04 Central Plateau
- ☐ 05 Coromandel
- ☐ 06 Eastcape
- ☐ 07 Fiordland
- ☐ 08 Hawkes Bay
- ☐ 09 Marlborough
- ☐ 10 Nelson
- ☐ 11 Northland
- ☐ 12 Otago
- ☐ 13 Southland
- ☐ 14 Stewart Island
- ☐ 15 Taranaki
- ☐ 16 Waikato
- ☐ 17 Wairarapa
- ☐ 18 Wanganui-Manawatu
- ☐ 19 Wellington
- ☐ 20 West Coast

Q.12 During the last two years, have you had any involvement in any of the following organisations?

	Participated	A member	No Involvement
Environmental Group	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
Community or Social Group	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
Church or Religious Group	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
Trade / Business Association	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
Trade / Employee Union	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
Political Party	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3

Q.13 Please detail any other organisations not detailed above along with your level of involvement (member/participated).

Q.14 Which of the following best describes your employment status...

- ☐ 1 Work for pay or profit (full or part time)
- ☐ 2 Student
- ☐ 3 Unemployed
- ☐ 4 Retired
- ☐ 5 Other (including voluntary work)

Q.15 Which of the following best describes the sector you work in...

- ☐ 01 Bank or Financial Institution or insurance
- ☐ 02 University / Crown Research Institute
- ☐ 03 Media (e.g. newspaper, radio, TV)
- ☐ 04 Other Government & public sector organizations
- ☐ 05 Agriculture, forestry, fishing, mining
- ☐ 06 Manufacturing
- ☐ 07 Government (Central, regional or local), Education and Training, Health care, community and social services
- ☐ 08 Construction (building industry)
- ☐ 09 Retail and wholesale trade (e.g. shops, restaurants and hotels etc)
- ☐ 10 None of the above
- ☐ 11 Sales / Marketing
- ☐ 12 Stay at home mum
- ☐ 13 I.T. Industry
- ☐ 14 Transport
- ☐ 15 Automotive

Q.16 Please state which sector you work in

Q.17 What is your occupation e.g. Electrician, Teacher, Shop Manager

Q.18 What is your highest level of education?

- ☐ 1 High School
- ☐ 2 Tertiary but no degree
- ☐ 3 Bachelor's degree
- ☐ 4 Post-graduate's degree / Master's degree
- ☐ 5 Doctorate
- ☐ 6 Other

Q.19 Which bank do you consider to be your primary bank? The one you do most of your banking with.

- ☐ 1 ANZ National Bank Limited
- ☐ 2 ASB Bank Limited
- ☐ 3 Bank of New Zealand
- ☐ 4 Kiwibank Limited
- ☐ 5 Rabobank New Zealand Limited
- ☐ 6 Southland Building Society (SBS)
- ☐ 7 TSB Bank Limited
- ☐ 8 Westpac New Zealand Limited
- ☐ 9 None of the above

Q.20 If not listed, please specify which bank you use

Q.21 Please state your gender

- ☐ 1 Male
- ☐ 2 Female

Q.22 Please state your age

- ☐ 1 20 - 29
- ☐ 2 30 - 39
- ☐ 3 40 - 49
- ☐ 4 50 - 59
- ☐ 5 60 - 69
- ☐ 6 70+

Appendix E: Banks comparison data

1. Evidence of environmental performance for 2007 from a lending perspective for Westpac and HSBC

Indicators	Westpac E evidence 2007	HSBC E evidence 2007
<i>a. Management performance(2007)</i>		
<i>I.BOD and senior management performance(2007)</i>		
1. BOD and senior management have environmental responsibilities and roles.	BOD and senior management environmental roles and responsibilities are available only in the group financial reports (see, for example, 2006 annual report (pp. 50, 57).	<p>The Corporate Sustainability Committee which comprises non-executive directors of HSBC oversees HSBC's sustainability policies (p. 7).</p> <p>The report illustrates an organizational chart which depicts the HSBC's committees (p. 7).</p> <p>The Group Head Office has a responsibility to review the transactions with a value of over US\$15 million. Where there is a sustainability risk the transaction is subjected to clearance by the Group (p. 24).</p> <p>HSBC has appointed 31 Sustainability Risk Managers who provide guidance and approval to its offices around the world. These managers are located at regional and national</p>

		<p>level risk functions and are integral part of the credit approval process (p. 24).</p> <p>Each national CEO complies with the Group Standards Manual and the Functional Instruction Manuals, one of which includes a chapter on Corporate Sustainability (pp. 7, 8).</p>
<p>2. Recognizes that the bank's lending activities are linked to its commercial activities, some of which may cause environmental risk and some of which may be associated with opportunities</p>	<p>CEO: Commitment to environmental responsibilities and to be accountable for the bank's actions (p. 3).</p> <p>CEO: one third of New Zealanders are affected by how the bank operates (p. 3).</p> <p>The bank recognizes the importance of reducing its impact on climate change (p. 13).</p>	<p>Sustainable lending and finance were dominant issues for HSBC and their stakeholders (p. 1).</p> <p>Sustainable lending is associated with risks and opportunities (p. 1).</p> <p>Improving climate risk management across bank's lending (p. 2).</p> <p>Integrating environmental issues into decision-making processes (p. 2).</p> <p>Examining the bank's direct environmental impacts (Chairman, p. 3).</p> <p>The bank introduced policies that cover all types of lending regardless of the value of the transaction (p. 24).</p>
<p>3.Promote sustainable environmental practices</p>	<p>CEO: offering the Green Home Loan Product (p. 3).</p>	<p>All senior managers are promoted according to balanced scorecards which include a sustainability</p>

	<p>Develop an environmental work program with the Sir Peter Blake Trust for employees to help reduce the impact of climate change (p. 11).</p>	<p>aspect (Chairman, p. 3).</p> <p>Establishing the Climate Change Centre of Excellence to assess the opportunities and risks associated with a lower carbon economy (p. 14).</p> <p>The Carbon Finance Strategy supports clients who are developing clean technologies and non-fossil fuel energy solutions (p. 15).</p> <p>Launching a unique green equipment financing product to provide an incentive for businesses to switch to low-carbon and energy-efficient technologies. The borrowers benefit from an interest rebate of up to two months, 50 per cent waiver in documentary credit fees, a six-month principal repayment moratorium, and a two year waiver on a Business Vantage account (p. 17).</p> <p>The forestry sector policy is updated and strengthened to support clients whose activities are independently certified, at the same time not supporting clients whose activities are directly or indirectly illegal and have a high level of environmental impact (p. 25).</p>
4. The bank has an approved, separate and	A separate Westpac Group and written approved policy is	The bank communicates its business principles to employees

<p>written environmental policy, placing it within the top management goals. The policy is publicly available and establishes an interface between all bank's levels</p>	<p>available only in the NZ Stakeholder Report 2005 (p. 39).</p> <p>The bank set 2008 goals which include: launch a staff environmental program with the Sir Peter Blake Trust; zero waste strategy; develop climate change strategy; reduce emissions of CO2 and reduce paper consumption (p. 15).</p>	<p>through the Group Standards Manual which is updated annually and is mandatory reading for all employees (p. 7). The Manual provides links to Equator Principles and the bank's sustainability risk sector policies (p. 7).</p> <p>HSBC introduced a Group standard that requires offices to manage environmental risks (P. 22). Furthermore, the bank developed series of industry sector policies to provide further guidance to its business (p. 22). this series includes mining and metals, energy, chemicals, freshwater infrastructure, and forest land and forest products (p. 24).</p>
<p>5. Communications regarding environmental issues is carried out between all the bank's levels, with shareholders and with stakeholders alike.</p>	<p>CEO: contributions through sponsorship and community investment initiatives (p. 3).</p> <p>Community Consultative Council communicates with stakeholders on emerging trends and sensitive issues, e.g., managing the bank's environmental footprint (p. 5).</p> <p>Westpac should develop formal criteria for prioritising material issues. This will ensure the areas of greatest concern to stakeholders receive the most</p>	<p>In response to feedback from stakeholders, the report contains more in-depth reporting on sustainability policies, practices, targets and performance (p. 1).</p> <p>Commissioned independent stakeholder engagement research with various stakeholders (p. 1).</p> <p>Supporting interaction and dialogue with stakeholders (Chairman, p. 3).</p> <p>The bank realises the stakeholders' concerns regarding</p>

	<p>attention (Banarra, p. 18).</p> <p>A shorter report has resulted in a less complete NZ account (Banarra, p. 19).</p>	<p>its indirect impacts through lending (p. 7).</p> <p>Engaging stakeholders in surveys and workshops to inform them about the report contents and to receive feedback (p. 9). The key issue to address was sustainable finance and lending (p. 9). Another primary issue is that stakeholders consult the Sustainability Report to obtain information about climate change and to compare regional performances (p. 10). They expect to include HSBC's views on the opportunities and risks associated with climate change effects (p. 10).</p> <p>The challenge for the bank was that the level of details to be disclosed is restricted by confidentiality and legal reasons (p. 9) and also important issues for stakeholders vary considerably between regions (p. 10). However, more details have been provided regarding the implementation of EP (p. 10).</p> <p>The bank strengthens and implements its forestry policy after dialogue with both internal and external stakeholders (p. 26).</p>
6. Environmental performance is monitored	Board Corporate Responsibility and Sustainability Committee recommended to present Westpac New Zealand's specific issues	Each country's CEO is responsible for complying with the Group Standards Manual which includes a chapter on

	<p>and performance in the group-wide Stakeholder Impact Report (p. 4)</p> <p>Reporting figures regarding its direct impact on the environment (p. 16)</p>	<p>corporate sustainability (p. 8).</p> <p>HSBC reviews the progress made by its clients towards meeting sustainability policies (p. 26).</p> <p>Reporting direct impact on the environment (p. 33).</p> <p>DNV, the assurance provider, had access to conduct face to face and telephone interviews, conducted in-depth analysis of a wide range of documentation; analysed the content of the environmental database and reviewed its functionality; and reviewed feedback from stakeholder engagement workshops and reports on HSBC (p. 34).</p>
<p>7. Ensuring that environmental policy is reviewed on an annual basis and is consistent with national and international environmental principles and regulations</p>	<p>Not using the GRI Sustainability Reporting Guidelines this year (Banarra, p. 19).</p> <p>Updating lending policies and performance appraisal structures is not discussed in the Report (Banarra, p. 19).</p>	<p>Expand Energy Sector Policy. Launch and review of the Mining and Metals Sector Policy. Launch new business development strategies aimed at sustainable forestry and water finance (p. 1).</p> <p>Supporting the UN Global Compact and its principles on the environment; commit to the Equator Principles (Chairman: p. 3; p.8). Abiding by the UN Environment Program Finance Initiative (p.8).</p> <p>The Corporate Sustainability Committee must undertake annual review of the effectiveness of bank's sustainability policies</p>

		<p>(p.7).</p> <p>HSBC updated and strengthened implementation of the forestry policy (p. 25). other sector policies should be up-dated to the same level of detail as the newly up-dated Forestry Policy (p. 35 – observation of DNV).</p> <p>DNV's findings confirmed that HSBC comply with the content of the report regarding the materiality, completeness and responsiveness, which are included in GRI G3 principles (p. 35).</p>
8. Top management includes members who have environmental knowledge and experience, and held regular meeting where environmental issues were on their agenda.		<p>The Corporate Sustainability Committee met five times in 2007 (p. 7).</p> <p>Appointing a Special Advisor on Economic Development and Climate Change to the Group Chairman (p.13)</p>
II. Training (2007)		
Promoting environmental training at all levels of bank's staff	<p>Providing more consistent training for frontline staff (p. 3)</p> <p>Ensuring the bank's staff have the skills they need to do their job well (p. 4)</p> <p>The need for increased training for frontline staff (Banarra, p. 19)</p>	<p>Embedding consistent sustainability learning and development across all strategic training programmes (p. 2)</p> <p>Involving 100,000 employees in learning (climate change and experience programs, p. 13) and volunteer sustainability programs (Chairman, p. 3).</p> <p>The bank has started to engage</p>

		<p>climate risk policies and educate employees about it and to encourage them to develop strategies to integrate it into their work (p, 12)</p> <p>Training programs include a section on sustainability risk and the application of HSBC's sector policies (pp. 24, 27). 31 Sustainability Risk Managers and over 200 Risk Managers and Relationship Managers were delivered a training program which focuses on sustainability risk (p. 27). Sustainability Risk Managers (SRMs) deliver the presentation to their local businesses (p. 24). Holding regular online seminars and conference calls to keep SRMs up to date (p. 24). Training on EP Toolkit will be rolled out to over 200 employees in Project Finance 2008, along with updated training on the EP (p. 24).</p> <p>The Next Generation Development Programme aims to give participants a greater awareness and understanding of the concept of corporate sustainability and how the decisions of large organizations impact a variety of stakeholders. The participants, in addition to HSBC's employees, included clients, government organizations, NGOs and others</p>
--	--	--

		<p>(p. 27).</p> <p>Nine Group strategic programs were held in 2007 and 1620 participants were trained on sustainability (p. 28).</p>
III. Auditing (2007)		
Ensuring external and internal environmental audits are in place	<p>An assurance statement was issued by Banarra Sustainability Assurance and Advice. Systems and processes are assured against the AA1000 Assurance Standard in terms of materiality, completeness and responsiveness (p.18)</p>	<p>GRI G3Sustainability Reporting Guidelines and AA1000 were employed to determine material issues (pp. 1, 34).</p> <p>Engaging DNV to provide independent third party assurance of the contents of the Report (p. 1), including the accuracy and completeness of environmental performance data for 2007, analysis and achievement of the environmental targets and HSBC's implementation of EP (p. 34)</p> <p>The Group Sustainability department underwent an internal audit by the Group Audit function in 2007. The audit found that the Group has a number of Sustainability and Social Responsibility lending policies (p. 7).</p> <p>The bank's internal audit function is responsible for ensuring that each CEO complies with the Group Standards Manual and the Functional Instruction Manuals</p>

		<p>(p. 8)</p> <p>Assessing transactions for compliance with EP by independent assurance provider (p. 24)</p> <p>Arranging for an EP Toolkit system to be rolled out in 2008 that will ensure the bank's implementation is consistent, transaction costs are reduced and management information is automated (p. 24).</p> <p>DNV concentrated on the most material for both HSBC and its stakeholders, i.e., sustainable lending (including the EP; carbon neutrality; and environmental performance and targets relating to HSBC's direct impacts (p. 34).</p>
--	--	--

<i>b. Operational performance</i>		
I. Integration of environmental issues into bank's lending process (2007)		
1.Ensuring environmental risks are considered alongside with the traditional business risks when lending decisions are made		<p>Developing of tools to track indirect sustainability impacts(p. 1)</p> <p>Assesses potential environmental risks when agreeing new businesses with</p>

		<p>customers, a process similar to analysing other types of business risk such as credit risk (p. 22).</p> <p>DNV commended general improvements to the structure and content of the report, e.g., integration of stakeholder expectations, performance versus targets, increased detail and clarity on sections such as sustainable lending and the EP (p. 35).</p>
2.Screening the environmental risks		<p>Assess the risks of climate change for HSBC's wider client business (p. 1)</p> <p>Assessing environmental risks through applying EP (p. 22)</p> <p>An environmental assessment is undertaken for all Category A and B projects to determine whether the project meets the standards of good practice published by the International Finance Corporation and local laws (p. 23).</p> <p>The bank's policies define activities that it will not support (prohibited), and those it will only support if undertaken to a high standard (restricted) (p. 24).</p>
3.Evaluation of environmental		<p>The sustainability risk ratings (SRRs) assess the scale of</p>

risks		<p>potential impacts which a client's activities may have on the environment. The SRRs assess whether the client meets the bank's policies (p. 24).</p> <p>The bank uses a client compliance matrix similar to the sustainability risk rating to categorise clients as compliant, near-compliant or non-compliant for forest policy implementation (p. 26).</p> <p>Where there is doubt regarding a client's compliance with the policies, the bank seeks independent expert advice to confirm the position (p. 26). The challenge for the bank is that some clients' relationships are of long standing and may involve long-term loan facilities, so withdrawal can take some time (p. 26).</p>
4. Controlling the environmental risks		<p>A project will be financed only if the bank considers the impacts to be acceptable and the client's ability to manage them satisfactory (p. 23).</p> <p>The loan agreement with the client is conditional on the project's running in accordance with the Principles (p. 23).</p>

		Many loans were declined as the managers identified unacceptable projects at an early pre-screening stage (p. 23).
5. Environmental monitoring		<p>Where satisfactory and continued progress is not made, the bank will terminate relationships with clients (p. 24).</p> <p>335 transactions were considered to have high sustainability risks (p. 24). Fifteen of them were declined because their impacts would not be managed to the standards required by the bank's policies and the EP (p. 24).</p> <p>Monitoring of environmental impacts of large projects using EP guidelines throughout the life of the loan (pp. 22, 23).</p>
6. Specifying the value and number of loans which are environmentally relevant		Transactions screened by number and value in addition to the transactions declined (p.22).
7. Describing the value of the environmental portfolio according to specific region and industry		Describing the value and number of loans by region and sector (p.23).
8. Applying the Equator		HSBC adopted EP in 2003 (p.

Principles		<p>22).</p> <p>The assurance provider has found EP implementation is satisfactory (P. 24).</p>
9. Spotting potential environmental benefits and opportunities		<p>Evaluate the opportunities arising from climate change (pp. 2, 12, 14, 16).</p> <p>Seeking to create access to capital markets for forestry companies. It is estimated that the investable global timber and forest sector exceeds US\$300 billion (p. 16).</p>
II. Environmental pioneering projects (2007)		
1.Financing projects with high environmental benefits and innovative characteristics		<p>The bank undertakes actions to reduce greenhouse gas emissions through financing low-carbon technologies (pp. 12, 13).</p> <p>Opportunities exist with companies providing underlying technologies, such as wind turbine manufacturers and solar photovoltaic cell suppliers, clean energy generation, low carbon and renewable energy technologies, and individual consumers taking action in</p>

		their homes (p. 15).
2.Specifying the value and number of loans which are relevant to environmental pioneering projects		
3. Describing the value of the environmental portfolio according to a specific region and sector		
4. The bank explicitly designs loans to address an environmental issue	The Green Home Loan is an initiative to allow the bank's customers to take a step towards addressing climate change (p. 3).	The estimated size of market for renewable and clean energy is US\$706 billion between 2007 and 2050 (p. 14).

<i>c- Motivational drivers</i>		
I. Managerial drivers (2007)		
1. Complying with environmental regulations		Governments are reshaping new regulation to combat climate change; governments' incentives and regulations create new business risks and opportunities (p.14).
2. The ethical and environmental stance of management	Investing NZ\$5 million into the New Zealand community through various community and environmental initiatives	Commitment to sustainable principles must be part of a company's culture, permeating every level of the organization

	(p. 11).	(Chairman, p. 3).
3. Meeting stakeholders' expectations and avoiding their pressure	Customer research told the bank that 83% were interested in receiving deals for energy efficient and eco-friendly products as part of Westpac's home loan deal (p. 13).	<p>Stakeholders want more in-depth information about sustainability issues (p. 1).</p> <p>This report highlights responses to the requests from stakeholders for more transparency and bolder action on issues of particular importance to them – climate change, forestry and sustainable lending (Chairman, p. 3).</p> <p>The pace of action to combat climate change is increasing as a result of growing public demand (p. 14).</p> <p>In response to stakeholders' requests for more transparency the bank increased reporting on EP projects regarding the number, region and sector (p. 23). Also stakeholders need an increased assurance on EP implementation even though they understand financial details of projects are commercially sensitive (p. 23).</p> <p>Certain stakeholders demand independent certification that products are derived from sustainable sources (p. 25).</p>

4.Enhancing the bank's reputation and brand		Embedding sustainability into the business strengthens the HSBC brand (p. 6).
II. Financial drivers (2007)		
1.Mitigating environmental risks represented in three types of risks: direct, indirect and reputational		HSBC adopted EP which stipulates classifying loans into three categories to minimise the risk of potential environmental impacts (p. 22).
2. Managing environmental risks which have potential lender liability as well as potential bank liability		HSBC assesses potential environmental risks when agreeing new business with customers (p. 22).
3.Pricing the credit which reflects the underlying environmental risk		
4.Gaining market advantage and building profitability		<p>Financial success depends on managing and addressing non-financial considerations (p. 1)</p> <p>Companies that manage their business in a sustainable way are better placed to compete in the global economy (p. 6).</p> <p>Climate change creates opportunities and risks (p. 14).</p>
5.Exploiting opportunities available from financing environmental pioneering		Companies that successfully put climate change high on the corporate agenda can take

projects		<p>advantage of fast-developing opportunities (p. 14).</p> <p>Lending to and financing companies which invest in clean energy, renewable energy and efficiency technology represents a major opportunity (pp. 14, 15).</p>
III. Environmental drivers (2007)		
1. Pursuing a sustainable environment and committing to environmental protection	<p>Westpac is recognised as a leader in its approach to sustainability (p. 3). Contributions through sponsorship and community investment initiatives (p. 3). Supporting the Sir Peter Blake Trust (p. 3).</p> <p>Launch a conservation initiative Care for our Coast (p. 11).</p> <p>The Report provided intensive information about the bank's direct impact on the environment and its performance (p. 16).</p>	<p>Sustainability is about making decisions that maintain the right balance between the environment, society and the economy to ensure long-term business success (Chairman, p. 3).</p> <p>Extensive information about the bank's performance and its direct impact on the environment (pp. 18, 20, 21).</p> <p>HSBC is aware of the challenge of balancing the use of natural resources to support economic development with the environmental impact from this use (p. 25).</p> <p>24% of the donations are to support environmental protection (p. 29).</p> <p>HSBC is a partner with a number of environmental organizations, helping them to</p>

		<p>achieve their goals and drawing on their expertise to achieve its own (p.30).</p> <p>DNV confirmed HSBC's commitment to embed sustainability in its business strategy (p. 35).</p>
2. Lending activities can form an impact on the environment	Launching the Westpac Green Home Loan (p. 13)	<p>Recognizing that the clients' commercial activities could have a potentially high environmental impact (p.25).</p> <p>DNV confirmed HSBC's commitment to the effective implementation of the EP and the achievement of 2005-07 targets for indirect impacts (p. 35).</p> <p>HSBC's policy is not to finance timber, oil palm, soy or rubber plantations converted from natural forests (p. 26). Its policy stipulates that plantations should not clear land by burning existing forests or plantations (p.26).</p>

(2)Evidence of environmental performance for 2008 from a lending perspective for Westpac and HSBC

Indicators	Westpac E evidence 2008	HSBC E evidence 2008
------------	-------------------------	----------------------

<i>a. Management performance (2008)</i>		
<i>1..BOD and senior management performance(2008)</i>		
1.BOD and senior management have environmental responsibilities and roles	<p>Environmental sustainability Working Group was formed to drive the actions needed to reduce the bank's environmental (direct) impact (p. 16).</p> <p>The appointment of a Head of Corporate Responsibility – the report did not show how this outcome supports Westpac's overall sustainability agenda (p. 23).</p>	<p>It's the responsibility of boards to supervise, and management to embed, a sustainable culture into the organization (p. 2).</p> <p>Despite the global economic and financial crisis, environmental sustainability is still very much a focus of bank's efforts and climate change remains a priority (p. 2).</p> <p>HSBC's Board has five committees , one of which is the Corporate Sustainability Committee - CSC (p. 4). This Committee is composed of non-executive directors and non-director members (p. 4).</p> <p>Sustainability at HSBC is overseen by the CSC of the HSBC Holdings Board. The CSC is responsible for advising the Board, Committees of the Board and executive management on sustainability policies, including environmental issues (p. 4).</p> <p>The Group Reputational Risk Committee oversees existing and potential reputational issues, including environmental issues (p.</p>

		<p>4).</p> <p>Appointing heads of sustainability in HSBC's regions who report directly to senior management and Group Corporate Sustainability (p. 5).</p>
<p>2. Recognizes that the bank's lending activities are linked to its commercial activities, some of which may cause environmental risk and some of which may be associated with opportunities</p>	<p>The CEO: We need to communicate our responsible lending principles (customer debt) to all our stakeholders and to commit to marketing our products responsibly (p. 1).</p> <p>Research shows that social and environmental initiatives, such as financial literacy, community sponsorships and responsible lending, are becoming more important to the bank's customers and staff (p. 3).</p> <p>The bank assesses its direct environmental impact (p. 14).</p> <p>Acknowledging its major impact on the environment and being accountable to stakeholders (p. 20).</p>	<p>The risks and opportunities arising from climate change and implementing sustainable lending and finance policies remain priorities (p. 1).</p> <p>Managing the environmental footprint of the bank's operations is still firmly embedded throughout HSBC's operations (p. 2).</p> <p>From an environmental perspective, sustainable business means managing environmental impact of HSBC operations (p. 4).</p> <p>The focus of HSBC work on environmental issues addresses the risks and opportunities associated with climate change and natural resources (p. 4).</p> <p>Evaluate the risks and opportunities arising from climate change (p. 6).</p> <p>The bank is working with HSBC Climate Partnership organizations to prepare the business for the risks and opportunities associated with the water industry and the forestry sector (p. 19).</p>

<p>3. Promote sustainable environmental practices</p>	<p>Launching the Green Home Loan voucher scheme (Westpac Ecoshop) (p. 9).</p> <p>Organizing and sharing in clean-up events (p. 18).</p> <p>Striving to work more collaboratively and transparently with environmental organizations (p. 20).</p>	<p>Distribution of economic benefits on community and environment is US\$102 million (p. 3).</p> <p>Creating products and services that provide environmental benefit as well as commercial return (p. 11).</p>
<p>4. The bank has an approved, separate and written environmental policy, placing it within the top management goals. This policy is publicly available and establishes an interface between all bank's levels</p>		<p>At an operational level, Group Corporate Sustainability, a department reporting to the Group Chairman, takes responsibility for shaping the Group's response to the management of sustainability risk and opportunities (p. 4). This Group works closely with other functions, such as Group Human Resources, Group Compliance, Group Risk, to ensure the effective implementation of policies and practices (p. 4).</p> <p>Sustainability policies are transparently implemented (p. 16).</p> <p>HSBC has developed a series of policies for sensitive sectors, including Forest Land and Forest Products, Mining and Metals, Chemicals, Freshwater Infrastructure and Energy. These policies cover a wider range of lending activity and are applied regardless of the value of the transaction or size of the business</p>

		(p. 16).
5. Communications regarding environmental issues is carried out between all the bank's levels, with shareholders and with stakeholders alike	<p>The CEO: this report summarises the health of the bank's relationships with its key stakeholders and ensures Westpac is a corporate leader in sustainability best practice (p. 1).</p> <p>Westpac will launch a four year plan to communicate 10 sustainability objectives to staff, customers and community; five for the environment – bank's direct impact (p. 3).</p> <p>With regular dialogue with stakeholders, these issues are identified: responsible lending and environmental leadership (p. 4).</p>	<p>The HSBC's Sustainability Report is intended for HSBC's stakeholders (p. 1).</p> <p>Conducting surveys to gauge stakeholders' views on the most important sustainability issues for HSBC to address (p. 7).</p>
6. Environmental performance is monitored	Monitoring the performance of Sir Peter Blake Trust, energy and water management, reducing CO2 and paper consumption (pp. 5, 14, 15)	<p>Providing numerical and non-numerical information about the bank's direct impact (p. 20-23), and indirect impact (pp. 16-19).</p> <p>Improve climate risk management across lending (p. 6).</p>
7. Ensuring that environmental policy is reviewed on an annual basis and is consistent with national and international environmental principles and regulations	Updating the progress and sharing best practice with Westpac Sustainability Council, which is responsible for managing sustainability agenda (p. 3).	<p>HSBC has voluntarily agreed to abide by UNEP FI (cover page).</p> <p>Supporting a number of international voluntary principles in relation to lending activity (p. 2).</p> <p>Conducting a review of the Mining and Metals, Forest Land and Forest</p>

		Product, Energy and Chemical sectors policies to reflect changes in legislation, regulatory environment, new research and developing technologies, and international best practice (pp. 6, 16).
8. Top management includes members who have environmental knowledge and experience, and they held regular meetings where environmental issues were on their agenda.		<p>Appointing Chairman of the Corporate Sustainability Committee (p. 2).</p> <p>The CSC includes five members (p. 4).</p> <p>The bank has invested in a network of sustainability risk managers and has recognized the importance of having expertise in this area (p. 16)</p>
II. Training (2008)		
Promoting environmental training for bank's staff at all levels	<p>The CEO: increasing investment in many aspects of learning and development (p. 1).</p> <p>With regular dialogue with stakeholders, staff training was identified to have received more focus (p. 4).</p> <p>Ensuring that employees have the skills they need to do their job well (p. 10).</p> <p>The bank introduced Managing Your Money education campaign to improve financial</p>	<p>Group Standards Manual is mandatory reading for all employees and includes a chapter on Corporate Responsibility. It also directs employees to Functional Instruction Manuals, which set out detailed policies and procedures for specific functions including Compliance, Credit and Risk, Finance, Human Resources (p. 4).</p> <p>Reputational risks form an integral part of the training process (p. 4).</p> <p>Sustainability is a key element of</p>

	literacy (p. 20).	<p>the employee induction and senior management training programs (p. 5).</p> <p>Planning to train 400 employees on Climate Champions (p. 5).</p> <p>Embedding consistent sustainability learning and development for senior management, graduate induction, and risk management employees (p. 6).</p> <p>Seven out of ten employees, according to 2008 survey, were actively encouraged to take part in environmental initiatives (p. 12).</p> <p>Training is integrated into a number of HSBC's global leadership and specific risk management programs, ranging from senior management induction to entry level Group graduate development program – 1264 participants in 2008 were involved in sustainability programs (p. 12).</p> <p>Implementing specialist training on sustainability risk to the wider risk management community (p. 18).</p>
III. Auditing (2008)		
Ensuring external and internal environmental	Banarra Sustainability Assurance and Advice was commissioned	HSBC appointed PricewaterhouseCoopers LLP (in

<p>audits are in place</p>	<p>by Westpac New Zealand Limited to assure its stakeholder impact Report 2008 against the AA1000 Assurance Standard (2003) (p. 22).</p> <p>Banarra's approach assures in terms of materiality - addressing the most important issues, completeness - the information presented is complete and reliable, and responsiveness - the information presented is meaningful and contains the most of Westpac's key responses to material issues (p. 22).</p> <p>Banarra believes that the Report represents Westpac's material sustainability performance in a way that allows stakeholders to make informed decisions (p. 22).</p> <p>Some significant opportunities were identified and reported to Westpac's management (p. 22).</p> <p>Banarra's methodological approach (AccountAbility) included: a- interviews with Peter Wilson, Director of Westpac and Chairman of the Board Sustainability Committee and eight external stakeholders; b- reviews of internal documentation such as policies and surveys (p. 22).</p> <p>Banarra identified that: a- Westpac does not have a formal</p>	<p>2007 was Det Norske Veritas - DNV) to provide independent assurance on selected information in the bank's Sustainability Report 2008 covering carbon emissions and related offsets, and its application of the EP (1, 27). Their assurance is performed in accordance with assurance standard ISAE3000 (p. 1). In HSBC selection of material, the bank consulted GRI reporting framework and Financial Services Supplement (p. 1).</p> <p>The assurance report has been prepared for the directors to assist them in reporting HSBC's corporate sustainability performance and activities (p. 27).</p> <p>The assurance report reflected a limited assurance (as required by the HSBC's directors) relevant to a reasonable assurance engagement under ISAE 3000 (p. 27).</p>
-----------------------------------	--	--

	<p>process for prioritising the most material issues to stakeholders;</p> <p>b- in some areas, material issues are not complete, inconsistency across Westpac's different public reports (pp. 22, 23); c- in some areas Westpac has responses that are not conveyed in the Report, such as, the discussion of responsible lending (p. 23).</p> <p>Banarra: Westpac should provide more discussion on specific obstacles that have limited or prevented achievement of its objectives such as responsible lending (p. 23).</p>	
--	---	--

<i>b. Operational performance</i>		
I. Integration of environmental issues into bank's lending process (2008)		
1.Ensuring environmental risks are considered alongside the traditional business risks when lending decisions are made	The bank lends only to people who can demonstrate their ability to repay the money – one of the Group's Responsible Lending Principles (p. 7).	<p>The policies, procedures and controls are in place to manage the risks (p. 4).</p> <p>The operational procedures cover environmental impact and the potential reputational risk (pp. 4, 5).</p>

		<p>Sustainability risk issues are integrated into the Group's risk management processes (p. 5).</p> <p>Integrating environmental issues into decision-making processes (p. 6).</p> <p>Assessing the environmental impact of providing finance to customers has been firmly embedded into the overall risk management processes (p. 16).</p> <p>Lending services to small-scale enterprises and individuals based on cash-flow analysis and the evaluation of customers' repayment ability (p. 19).</p> <p>There is a clearer understanding of the magnitude of the risks the bank faces from climate change (p. 19).</p>
2. Screening the environmental risks		<p>The risk team focuses on mitigating any potential environmental impacts to provide guidance on relevant transactions (p. 16).</p> <p>Sustainability Risk Rating system tracks and rates every corporate customer that operates in sensitive sectors to provide improved data on the bank's exposure to</p>

		sustainability risk (p. 16).
3.Evaluation of environmental risks		
4. Controlling the environmental risks		
5. Environmental monitoring		Exiting relationships if satisfactory progress is not being achieved by the client (p. 16).
6. Specifying the value and number of loans which are environmentally relevant		Loans are specified by numbers, value, and Category A, B, and C (p. 17)
7. Describing the value of environmental portfolio according to specific region and industry		Reporting on the proportion of the lending portfolio subject to the bank's risk sector policies (p. 1). Loans are categorised by regions and industry (p. 17).
8. Applying the Equator Principles		Adopting EP in 2003. Advisory work offers the bank the ability to influence projects at an early stage and to adhere to good environmental standards. A number of transactions were formally declined under the EP (pp. 16, 17).
9. Spotting potential environmental benefits and opportunities		The policies, procedures and controls in place to promote business opportunity (p. 4).

		<p>The business development team in Group Corporate Sustainability leads a Group-wide effort to identify and evaluate business opportunities that have an environmental benefit (p. 16).</p> <p>The HSBC Climate Change Benchmark Index has responded to investment opportunity by providing a comprehensive data on companies focused on developing solutions to combat the effects of climate change (p. 18).</p>
II. Environmental pioneering projects (2008)		
1.Financing projects with high environmental benefits and innovative characteristics		<p>Climate change presents different types of risk for business and clients. It also brings the potential for stimulating a new era of growth, innovation and development. There are opportunities in energy efficiency, renewable energy and carbon management and adaptation (pp. 9, 16).</p> <p>Financing renewable projects for Acciona, which works across a range of renewable energy technologies and has considerable assets in wind, mini-hydro, biomass,</p>

		photovoltaic solar, solar thermal, biodiesel and bioethanol projects (p. 19).
2. Specifying the value and number of loans which are relevant to environmental pioneering projects		
3. Describing the value of the environmental portfolio according to a specific region and sector		
4. The bank explicitly designs loans to address an environmental issue		

<i>c-Motivational drivers</i>		
I. Managerial drivers (2008)		
1.Complying with environmental regulations	Complying with the introduction of mandatory emissions reporting under the National Greenhouse and Energy Reporting Act 2008 (p.16).	HSBC reviews the physical impacts and the likely regulatory changes presented by climate change for banks and customers (p. 16).
2.The ethical and environmental stance of management		Environment provides the fundamental building blocks for the development of communities (p. 14).
3. Meeting stakeholders	Westpac's consumers have driven	In 2007, the dominant issues for

expectations and avoiding their pressure	the demand for more sustainable products and services (p.16)	<p>HSBC and its stakeholders were climate change, forestry and sustainable finance, including the lending policies (p. 1). In 2008 they were about providing more balance between economic, social and environmental issues (p. 1).</p> <p>A 2008 survey showed that the bank's stakeholders want to see more information on the implementation of sector policies, focusing on material issues and the process of making difficult decisions (p. 1).</p>
4.Enhancing the bank's reputation and brand		Sustainability is a significant factor in the recruitment and retention of committed and motivated employees (p. 2).
II. Financial drivers (2008)		
1.Mitigating environmental risks represented in three types of risks: direct, indirect and reputational		The global economic and financial crisis has brought challenges to a sustainable business (p. 2).
2. Managing environmental risks which have potential lender liability as well as potential bank liability		<p>Responsible lending approach is based on a conservative advances-to-deposits ratio, and on the customer's ability to repay the loans (pp. 2, 10).</p> <p>Engagement with clients is vital where sensitive sector transactions exist (p. 16).</p>
3.Pricing the credit which reflects		

the underlying environmental risk		
4. Gaining market advantage and building profitability	Westpac believes that carbon technologies represents a significant new market with a strong potential for growth (p.16)	Operating a profitable business is HSBC first priority. This is a prerequisite for all other contributions it makes to the economy, society and the environment (p. 9). Low-carbon technologies present opportunities and drive the bank's growth and competitiveness (p. 19).
5. Exploiting opportunities available from financing environmental pioneering projects		Opportunities associated with climate change and renewable technologies (p. 19).
III. Environmental drivers (2008)		
1.Pursuing a sustainable environment and committing to environmental protection	<p>The CEO: New Zealanders are becoming increasingly conscientious about looking after their environment. The bank has plans to reduce CO2 (p. 1).</p> <p>CEO: Caring for natural assets (p.1).</p> <p>Building a head office which incorporates environmentally sustainable principles (pp. 1, 17).</p> <p>One of the key areas of focus for 2008-2009 is leadership in environmental and social</p>	Reporting on the environmental performance with regard to the direct impact of HSBC's operations such as energy, waste, travel and water (pp. 20-26).

	<p>responsibility (p. 3).</p> <p>Encouraging environmental awareness- the Sir Peter Blake Trust's Care For Our Coast initiative (p. 21).</p>	
<p>2. Lending activities can have an impact on the environment</p>		<p>HSBC's impact arises indirectly through the business of its customers (p. 9). Therefore, the bank is working with customers to reduce the impact of their business on natural resources through the EP and other sector policies (p. 9).</p>

Appendix F: Interpretation of stakeholder reports

Interpretations of Evidence of HSBC and Westpac stakeholder reports 2007 and 2008

a) Management performance

This major category provides the findings of management performance under three sub-categories; board of directors and senior management, training, and auditing.

I - Board and senior management performance: under this sub-category, the interpretations of evidence of the board and senior management performance are detailed under eight indicators. These are as follows:

Indicator 1: environmental roles and responsibilities

2007: Regarding Westpac, its environmental roles and responsibilities and the organizational chart were only disclosed in the Group financial reports (see, for example, 2007 Annual Report, pp. 23, 26, 29). However, the HSBC report featured an organizational chart which depicts the HSBC's various committees, including the Corporate Sustainability Committee (p. 7). In subsequent pages HSBC reported the CEO's, the Group Head Office's and Sustainability Risk Managers' responsibilities (pp. 7, 8, 24).

2008: The 2008 Westpac Report did not appropriately identify the Board's and senior management's environmental roles. Also, the assurance provider, Banarra, indicated that the appointment of a Head of Corporate Responsibility represented a key response to the development of a sustainability strategy. However, Banarra's view is that Westpac needs to provide more discussion on how such an appointment supports the bank's overall sustainability agenda (p. 23).

In comparison, HSBC's Board has five committees, one of which is the Corporate Sustainability Committee (CSC) (p. 4). The report also indicated that it is the Board's responsibility to supervise, and management's to embed, a sustainable culture into the organization (p. 2). In addition, the report referred to the Group

Reputational Risk Committee which oversees the existing and potential reputational issues, including environmental issues (p. 4). Also, the bank appointed heads of sustainability in HSBC's regions, who report directly to senior management and the CSC (p. 5).

Indicator 2: recognition of environmental risks and opportunities

2007: In his statement, Westpac's CEO acknowledged the bank's management's commitment to environmental responsibilities and its accountability for the bank's actions in this regard (p. 3). In addition, the bank recognized its impact on climate change (p. 3).

On the other hand, HSBC was more explicit in reflecting on sustainable lending. It stated that finance and sustainable lending are dominant issues for both the bank and its stakeholders (p. 1). In addition, the bank recognized that sustainable lending is associated with risks and opportunities (p. 1), and therefore it introduced policies that cover all types of lending, regardless of the value of transaction (p. 24), and integrated environmental issues into decision-making processes (p. 2).

2008: It can be deduced from the foregoing that Westpac's report did not strongly evidence environmental risk as a contemporary issue in its activities. Also, the bank's acknowledgment of its major impact on the environment and being accountable to stakeholders (p. 20) was not stated in specific terms.

In contrast, it was HSBC's expressed view that sustainable business requires managing the environmental impact of its operations (pp. 2, 4) and evaluating risks and opportunities arising from environmental issues such as climate change (pp. 1, 4, 6). Therefore, the bank considered the implementation of sustainable lending and finance policies as priorities (p. 1).

Indicator 3: promoting sustainable environmental practices

2007: Westpac reported offering its home loan customers vouchers which can be redeemed to receive environmentally sound products at a discounted price (p. 3).

Emphasis was placed on developing environmental programs to help reduce the impact of climate change (p. 11).

HSBC, in turn, reported its strategies, incentives, policies and units to promote sustainable practices, for example: supporting clients who are developing clean technologies and non-fossil fuel energy solutions (p. 15); promoting managers according to balance scorecards which include a sustainability aspect (p. 3); establishing the Climate Change Centre of Excellence to assess the opportunities and risks associated with a lower carbon economy (p. 14); launching a green equipment financing product to provide an incentive for businesses to switch to low-carbon and energy-efficient technologies; offering borrowers benefits from an interest rebate and credit fees (p. 17); and updating the forestry sector policy to not support clients whose activities have a high level of environmental impact (p. 25).

2008: Westpac reported its promotion of environmental practices through, for example, launching the green Home Loan voucher scheme -Westpac Ecoshop (p. 9), organizing and sharing in clean-up events (p. 18), and striving to work more collaboratively and transparently with environmental organizations (p. 20). In contrast, HSBC reported the creation of products and services that provide environmental benefits (p. 11).

Indicator 4: environmental policy

2007: Environmental policy was not available in Westpac's and HSBC's stakeholder reports for 2007. Westpac Group's approved policy was available only in the 2005 Stakeholder Report (p. 39). On the other hand, HSBC communicates its business principles through the Group Standards Manual, which is updated annually, and is mandatory reading for all employees (p. 7). The Manual provides links to Equator Principles, the bank's sustainability risk sector policies and environmental risks (pp. 7, 22).

2008: Both banks' reports did not make an environmental policy available. However, HSBC's Report indicated that the bank has developed a series of policies for environmentally sensitive sectors, including Forest Land and Forest

Products, Mining and Metals, Chemicals, Freshwater Infrastructure and Energy (p. 16).

Indicator 5: communicating with stakeholders

2007: Westpac communicates with its stakeholders through contributions in the form of sponsorship and community investment initiatives (p. 3). In addition, the bank established the Community Consultative Council to respond to stakeholders' views on emerging trends and sensitive issues, for example, managing the bank's environmental footprint (p. 5). However, Banarra Sustainability Assurance and Advice recommended that Westpac should develop formal criteria for prioritizing material issues (p. 18). It was Banarra's view that this would ensure that the areas of greatest concern to stakeholders received the most attention. In addition, Banarra stated that a shorter Stakeholder Report has resulted in a less complete New Zealand account (p. 19).

In contrast, HSBC's Report contained more in-depth reporting on sustainability policies, practices, targets and performance (pp. 9, 10, 20 - 24). Also, HSBC engaged in wide interaction and dialogue with various stakeholders through researches and surveys (pp. 3, 7, 9). Sustainable finance and lending were identified by stakeholders' surveys and research as key issues to be addressed (p. 9). Despite the constraints of confidentiality and legal details, HSBC appears to be transparent regarding the implementation of environmental aspects, especially the Equator Principles (p. 10). Furthermore, HSBC's stakeholders could consult the Sustainability Report to obtain information about climate change opportunities and risks, and to compare regional performance (p. 10), and, in turn, HSBC reassured stakeholders that the bank's implementation of sustainability policies was strengthened by dialogue with them (p. 26).

2008: Westpac's CEO stated that the Report summarizes the health of the bank's relationships with its key stakeholders, and documents new initiatives taken to ensure Westpac is a corporate leader in sustainability best practice (p. 1). As a result of regular dialogue with stakeholders, two main issues were identified: responsible lending and environmental leadership (p. 4).

In contrast, the HSBC's Report is intended for stakeholders (p. 1). HSBC regularly conducts surveys to gauge stakeholders' views on the most important sustainability issues for the bank to address and the effectiveness of its reporting (p. 7).

Indicator 6: environmental performance is monitored

2007: Both banks reported thoroughly on the direct impact of their activities on the environment, and commissioned an external party to assure their Stakeholders Reports.

The Westpac Board's Corporate Responsibility and Sustainability Committee's preference was to disclose Westpac's New Zealand sustainability performance in the Group Report.

However, HSBC assign to the CEO responsibility to comply with the Group Standards Manual, which includes a chapter on corporate sustainability (p. 8). In addition, HSBC reviews the progress made by its clients towards meeting sustainability policies (p. 26). Furthermore, HSBC commissioned a third party to assure the Report contents by having access to conducting interviews, analysing a wide range of documentation, including the environmental database, and reviewing feedback from stakeholder engagement workshops and reports on HSBC's sustainability performance (p. 34).

2008: Westpac's monitoring of its environmental performance is limited to the direct impact of its operations (pp. 5, 14, 15). In contrast, HSBC monitors the direct (pp. 20-23) and indirect impact of its operations on the environment (pp. 16-19).

Indicator 7: environmental policy is reviewed

2007: According to the external assurance provider, Banarra, first, Westpac did not comply with GRI guidelines in spite of claiming its commitment to GRI principles and, second, updating lending policies and performance appraisal structures was not discussed in the Report (p. 19).

In contrast, the external assurance provider, Det Norske Veritas (DNV), reported the compliance of HSBC with the content of the Report regarding materiality, completeness and responsiveness, which are included in the GRI G3 principles (p. 35). In addition, HSBC reviewed and updated the effectiveness of the bank's sustainability policies, for example, those regarding energy, mining and metals, forestry and water finance (pp. 1, 25). Furthermore, the Corporate Sustainability Committee has the responsibility of undertaking an annual review of such policies (p. 7). However, DNV urged HSBC to expand updating other sector policies to the same level of detail as, for example, forestry policy (p. 35).

2008: Westpac updates the business' progress and shares best practice with the newly created 2008 Sustainability Council, which consists of representatives of business units who are responsible for managing the sustainability agenda and performance (p. 3). In contrast, HSBC has voluntarily agreed to abide by UNEP FI (cover page), supported a number of international principles in relation to lending activity (p. 2), and conducted a review of its sectors' policies to reflect changes in legislation, regulatory environment, new research and developing technologies, and international best practice (pp. 6, 16).

Indicator 8: top management includes members who have environmental knowledge and experience and hold regular meetings where environmental issues are on their agenda

2007: The Westpac Stakeholder Report did not contain any information as to whether the top management includes members with environmental knowledge and/ or experience and/ or held meetings where environmental issues were on their agenda. However, the bank's group financial reports from 2004 to 2008 regularly reflected on such issues, e.g., Westpac 2007 Annual Report (pp. 26, 34, 35).

In contrast, HSBC's Corporate Sustainability Committee (CSC) met five times in 2007 (p. 7). In addition, the bank appointed a Special Advisor on Economic Development and Climate Change to support the Group Chairman (p. 13).

2008: Westpac's Report did not contain any information on whether the top management includes members with environmental knowledge and/ or experience, and/ or held meetings where environmental issues were on their agenda. However, the bank's group financial reports from 2004 to 2008 regularly reflected on such issues, e.g., Westpac's 2007 Annual report (pp. 26, 34, 35).

In contrast, HSBC's board consists of five committees, one of which is the CSC, composed of non-executive directors and non-director members (p. 4). In addition, the bank has invested in a network of sustainability risk managers and has recognized the importance of having expertise in this area (p. 16).

II- Training

Indicator 1: environmental training

2007: Westpac did not specifically report on environmental training. In supporting this analysis, Banarra identified the need for increased training on responsible lending for frontline staff (p. 19).

In comparison, the HSBC Report confirmed that the bank has a clear strategy towards educating and embedding consistent sustainability learning across all strategic training programs at all staffing levels (pp. 2, 3, 12, 13, 27, 28). These programs include learning and updated training about climate change (p. 13), sustainability risk and the application of HSBC's sector policies (pp. 24, 27), and the Equator Principles (p. 24). More emphasis on such programs is aimed at giving participants a greater awareness and understanding about how the decisions of organizations impact a variety of stakeholders (p. 27).

2008: Westpac did not provide evidence that the bank promotes environmental training for its staff.

In comparison, HSBC emphasized specific issues relevant to sustainability training and development. Examples include: the bank has made the Group Standards Manual, which includes a chapter on corporate responsibility, mandatory reading for all employees (p. 4); the manual directs the employees to

Functional Instruction manuals, which set out detailed policies and procedures for specific functions, including compliance, credit and risk, finance and human resources (p. 4); recognizing that reputational risks form an integral part of the training process (p. 4); and embedding consistent sustainability learning and development as a key element of the graduate and employee induction and senior management training programs (pp. 5, 6). In fact, with regard to the latter aspect, seven out of ten employees, according to a 2008 survey, were actively taking part in environmental initiatives (p. 12). Also the bank emphasized the need for implementing specialist training on sustainability risk (p. 18).

III- Auditing

2007: Westpac did not report a clear policy regarding internal audit policies and responsibilities. However, an external assurance is in place, by which the bank's systems and processes are assured against the AA1000 Assurance Standard in terms of materiality, completeness and responsiveness (p. 18). In this regard, Westpac claimed compliance with GRI G3 reporting guidelines, which includes ten principles, but Banarra conducted the assurance against the AA1000 Assurance Standard, which includes only three.

In contrast, HSBC had an internal audit and external assurance in place; explicitly, the Group Sustainability Department underwent an internal audit by the Group Audit function (p. 7). The internal audit ensured, for example, that the bank has a number of effective sustainability lending policies in place (p. 7), and that the CEO complies with the bank's Standard Manual and the Functional Instruction Manuals, in one of which there is a chapter on sustainability issues (p. 8).

HSBC has engaged DNV to provide independent third party assurance of the contents of the report (p. 1). This assurance includes the accuracy and completeness of environmental performance data, analysis and achievement of the environmental targets and implementation of the Equator Principles (p. 34). Specifically, DNV was requested to concentrate on the issues most material for both HSBC and its stakeholders, i.e., sustainable lending, including the Equator Principles, environmental performance and targets (p. 34).

DNV's assurance engagement was performed against the principles of the AA1000 Assurance Standard (AA1000AS). However, in the Executive Summary (p. 1), the Report stated that GRI G3 and AA1000 were also consulted to determine material issues. Therefore, it is important for consistency that DNV should consider both guidelines in determining the material issues. Moreover, the GRI G3 reporting guidelines include ten principles regarding the content and quality of sustainability reporting, not the less stringent three principles which underlie the AA1000 Assurance Standard. Furthermore, the Report stated that DNV had been commissioned by HSBC to provide the assurance statement, and was requested to perform this work concerning subjects already identified by the bank. This limitation compelled DNV to claim it was not responsible for any third party decisions regarding investment or otherwise based upon this assurance statement.

Both banks' reports did not reflect on how their management responded to the independent third party assurance notifications.

2008: The assurance provider, Banarra, was commissioned by Westpac Limited to assure its Stakeholder Impact Report 2008 against the AA1000 Assurance Standard (2003). Banarra's approach assures the Report in terms of materiality – addressing the most important issues, completeness – the information presented is complete and reliable, and responsiveness – the information presented is meaningful and contains the majority of Westpac's key responses to material issues (p. 22). It is Banarra's view that the Report represents Westpac's material sustainability performance in a way that allows stakeholders to make informed decisions (p. 22). However, Banarra identified some specific issues worthy of further consideration, viz.: a- Westpac does not have a formal process for prioritising issues most material to stakeholders; b- in some areas, material issues are not complete, causing inconsistency across Westpac's different public reports (pp. 22, 23); c- Westpac has responses to issues that are not conveyed in the Report (p. 23). Banarra reported these issues to the bank's management so that they could provide stakeholders with a further explanation for Westpac's not

achieving such objectives as responsible lending (p. 23). However, the report did not provide management's responses to Banarra's advice.

Regarding HSBC, the bank appointed PricewaterhouseCoopers LLP (in 2007 the assurance provider was Det Norske Veritas) to provide independent assurance on selected information in the bank's Sustainability Report 2008, covering carbon emissions and related offsets and their application of the Equator Principles (pp. 1, 27). The assurance was performed against the Assurance Standard ISAE3000 (p. 1); however, the bank also consulted the GRI reporting framework and Financial Services Supplement (p. 1). No explanation was provided for using a different approach for performing the assurance. Furthermore, the limited assurance which was required by the directors reflected that a limited assurance is relevant to a reasonable assurance engagement under ISAE3000 (p. 27). Notwithstanding this fact, the aim of the assurance remained, to assist the bank's directors in reporting HSBC's corporate sustainability activities and performance (p. 27).

IV - Interpretation for management of operational performance

This section outlines the interpretation of evidence of the banks management's performance with regard to their environmental practices under the following two sub-categories:

1 - Integration of environmental issues into banks' lending process

This sub-category outlines the interpretation of evidence of the banks environmental performance under eight indicators. These are as follows:

Indicator 1: environmental risks are considered

2007: Westpac's Report did not indicate that environmental risk was considered alongside other traditional risks. However, Westpac's previous Stakeholder Report 2004 identified this risk and considered it part of the bank's daily business activities.

With regard to HSBC, the report indicated explicitly that environmental risk is considered along with other business risks (p. 22).

2008: One of Westpac's major concerns is to make sure that the borrower has the ability to repay the loan, and this is one of the bank's Responsible Lending principles (p. 7). In contrast, HSBC makes sure that policies, procedures and controls are in place to manage the risks (p. 4). The bank clearly identified that their operational procedures cover environmental impact and the potential reputational risk (pp. 4, 5). Also, the bank reported that sustainability risk issues, including environmental issues, are integrated into the risk management decisions and processes (p. 5). In addition, more assurance was provided in the report that assessing the environmental impact of providing finance to customers has been firmly embedded into the overall risk management processes (p. 16). At the same time, the bank still considers that cash-flow analysis and evaluation of customers' repayment ability are vital (p. 19). Overall, the bank reflected a clearer understanding of the magnitude of the risks the bank faces from environmental causes (p. 19).

Indicator2: screening

This process includes assessing environmental risk and implementing an initial environmental risk rating (low, medium, or high) and rejecting activities on the environmental exclusion list.

2007: Such information on screening environmental risks is not available in Westpac's report.

With regard to HSBC, the report indicated that environmental risks are assessed when agreeing new businesses with customers, a process similar to analysing other types of business risks (p. 22). Examples include assessing the risks of climate change for HSBC's wider client business (p. 1) and assessing environmental risks through applying the Equator Principles (p. 22), where an environmental assessment is undertaken for all Categories A and B projects. Also, the bank's policies define activities that it will not support (prohibited) and those it will support only if undertaken to a high standard (restricted) (p. 24).

2008: Westpac did not report on any screening approach used to identify the environmental risks. In contrast, HSBC uses a Sustainability Risk Rating system,

which tracks and rates every customer who operates in sensitive sectors, to provide improved data on the bank's exposure to sustainability risk (p. 16). In this regard, the bank assured stakeholders that it is important to not only have sound policies in place but to also implement them transparently (p. 16). In practice, the risk team in Corporate Sustainability focuses on mitigating any potential environmental impacts, and provides specialist guidance on relevant transactions (p. 16).

Indicator 3: evaluation

This process includes site visits, further investigation by bank staff, an environmental review by internal and/or external experts, and preparation of the final environmental report. An external expert confirms whether the project financed meets the environmental policy and other principles the bank is committed to, e.g., Equator Principles.

2007: Such information on the evaluation of environmental risks is not available in Westpac's Report.

In contrast, HSBC assesses the scale of potential impacts which a client's activities may have on the environment, by using sustainability risk ratings (SRRs) and by determining whether the client meets the bank's policies (p. 2). In accordance with SRRs the bank classifies potential clients as compliant, near-compliant or non-compliant (p. 26). Where there is doubt regarding a client's compliance, the bank seeks independent expert advice (p. 26).

2008: Both banks' reports did not provide information in this regard.

Indicator 4: controlling the risk

This third step of credit appraisal includes reviewing the final environmental report, ensuring that the risk and level of environmental knowledge is acceptable, and applying environmental conditions to credit agreements. The credit agreement may include identifying the risks and the appropriate controls and actions to be taken by clients when carrying out the financed project.

2007: Such information on controlling environmental risks is not available in Westpac's Report.

With regard to HSBC, a project will be financed only if the bank considers the environmental impacts to be acceptable and the client's ability to manage them satisfactory (p. 23). As this stage is the last in the approval process, approving the loan agreement is conditional on the project's being in accordance with the Equator Principles (p. 23). Many loans were declined, as the managers identified unacceptable projects at an early pre-screening stage (p. 23).

2008: Both banks' reports did not provide information in this regard.

Indicator 5: environmental monitoring

This stage includes monitoring environmental compliance, and changes in legislation and clients' business activities, as well as considering the potential for environmental liability before the bank takes possession of any assets.

2007: Such information is not available in Westpac's report. In contrast, HSBC identified 335 transactions which were considered to have high sustainability risks. Where satisfactory and continued progress is not made, the bank will terminate its relationships with clients. In 2007, fifteen transactions were declined because their potential impacts could not be managed to the standards required by the bank's policies and the Equator Principles (p. 24). Also, the report stated that the bank monitors the environmental impacts of large projects throughout the life of the loan using Equator Principles guidelines (pp. 22, 23).

2008: Westpac did not report on this issue. HSBC's report provided information in this regard and reported that the bank exits relationships if satisfactory progress is not being achieved by the client (p. 16).

Indicator 6: sum and number of loans

2007: Specification of loans is not available in Westpac's Report. In contrast, in addition to the number of declined transactions, HSBC loans transactions are screened by number and value (p. 22).

2008: Such information is available only in HSBC's report. The bank described the loans by numbers, their value, and by Category A, B and C (p. 17).

Indicator 7: region and industry

2007: A description of loans is not available in Westpac's report. In contrast, HSBC described the value and number of loans by region and sector (p. 23).

2008: HSBC reported the proportion of the lending portfolio which is subject to the bank's risk sector policies (p. 1). The bank described the loans by region and industry (p. 17).

Indicator 8: Equator Principles

2007: Westpac's report did not comment on the application of the Equator Principles. On the contrary, HSBC adopted the Equator Principles in 2003 (p. 22), and the assurance provider has found the Equator Principles' implementation is satisfactory (p. 24).

2008: Westpac's report did not comment on any application of the Equator Principles. In contrast, HSBC's report extensively referred to the Equator Principles as a guide in dealing with environmental aspects. A number of transactions were formally declined under the Equator Principles' applications (p. 17).

2- Environmental pioneering projects

This second sub-category provides the interpretation of evidence of the effectiveness of the banks' practices with regard to financing projects that have high environmental benefit, under four indicators. These are as follows:

Indicator 1: financing projects with high environmental benefits

2007: Westpac did not indicate whether opportunities were available for lending to environmentally-friendly companies or report on whether the bank financed projects with innovative characteristics. In contrast, HSBC reported its evaluating the risks and opportunities arising from climate change (pp. 2, 12). For example,

the report stated that the estimated size of the market for renewable and clean energy was US\$117 billion in 2007 (p. 14), and financing long-term sustainable forestry exceeded US\$300 billion (p. 16). In addition, HSBC referred to a study by the Organization for Economic Co-operation and Development, which found that as much as US\$35 trillion worth of infrastructure and assets could be exposed to damage as a result of climate change. According to the report, this will produce new opportunities in the renewable energy and low-carbon sectors (p. 16).

HSBC also reports actions to reduce greenhouse emissions through financing low-carbon technologies (pp. 12, 13). Moreover, the bank indicated that opportunities exist with companies providing underlying technologies, such as wind turbine manufacturers and solar photovoltaic cell suppliers, as well as with clean energy generation, low carbon and renewable energy technologies, and with individual consumers taking environmentally beneficial actions in their homes (p. 15).

2008: Westpac's report did not identify opportunities arising from lending to clients who invest in projects where environmental issues are relevant, or from financed projects with high environmental benefit. In contrast, HSBC has put in place policies, procedures and controls to promote business opportunity (p. 4). The bank's business development team identifies and evaluates business opportunities that have an environmental benefit (p. 16); for example, the HSBC Climate Change Benchmark Index is a response to investment opportunity that provides a comprehensive overview of companies focused on developing solutions to combat the effects of climate change (p. 18).

Also, HSBC recognised that climate change presents different types of risks for both its business and its clients, while, at the same time, having the potential for stimulating a new era of growth. The report points out, for example, that there are opportunities available from energy efficiency, renewable energy, and carbon management and adaptation (pp. 9, 16). In practice, the bank financed renewable projects for Acciona, which works across a range of renewable energy technologies and has considerable assets in wind, mini-hydro, biomass, photovoltaic solar, solar thermal, biodiesel and bioethanol processes (p. 19).

Indicator 2: sum and number of loans

2007 and 2008: Such information was not available in both banks' reports.

Indicator 3: region and sector

2007 and 2008: Such information was not available in both banks' reports.

Indicator 4: designing loans to address an environmental issue

2007: Westpac introduced the Green Home Loan initiative to allow customers to take a step towards addressing climate change. The initiative allows Westpac's customers to receive environmentally sound products at a discounted price (p. 3).

HSBC reflected on the size of the US\$706 billion market for renewable and clean energy between 2007 and 2050 (p. 14) and shows the opportunities involved in designing loans that respond to environmental issues. However, the report did not provide evidence that particular loans were designed to address a specific environmental issue.

2008: Such information was not available in both banks' reports.

Interpretation of motivational drivers

This third major category details the findings of the motivation behind the banks integrating environmental issues into their lending decisions under three sub-categories; managerial, financial and environmental.

I. Managerial drivers

This sub-category presents the interpretations of evidence of what motivates the banks to integrate environmental issues in their lending decisions under four indicators. These are as follows:

Indicator 1: environmental regulations

2007: Westpac did not indicate that considering environmental issues in the lending process is a response to environmental regulations or laws by government

and/ or non-governmental organizations. In contrast, HSBC perceived that governments are shaping new regulations to combat environmental issues, which, in turn, according to HSBC, create new business risks and opportunities (p. 14).

2008: Westpac has been actively involved in the development of environmental regulatory frameworks for establishing carbon markets in New Zealand, and has positioned the bank to respond in compliance with the mandatory emissions reporting scheme under the National Greenhouse and Energy Reporting Act 2008 - Australia (p. 16).

In contrast, HSBC reviews the physical impacts and the likely regulatory changes for banks and customers presented by climate change (p. 16). It is observed that both banks are significantly influenced by the climate change issues.

Indicator 2: ethical stance

2007: Westpac voluntarily promotes environmental protection by investing NZ\$5 million into the New Zealand community through various community and environmental initiatives (p. 11). HSBC also showed commitment to sustainable principles, and, according to the Chairman, these should be part of a company's culture, permeating every level of the organization (p. 3).

2008: the bank recognizes its responsibility to reduce the direct impact of its operations on the environment, and to respond to climate change risks and opportunities (pp. 16, 17).

HSBC has a similar view to Westpac, and acknowledged that the environment provides the fundamental building blocks for the development of communities (p. 14).

Indicator 3: meeting stakeholders' expectations and avoiding their pressure

2007: A customer research revealed that Westpac's clients showed interest in receiving deals for energy efficient and eco-friendly products as part of Westpac's home loan deal (p. 13). In contrast, HSBC's management recognised their stakeholders' pressure as they demanded more in-depth information about

sustainability issues (p. 1), and the Chairman's introduction to the report represented a response to the stakeholders' requests for more transparency and bolder action on issues of particular importance to them, viz., climate change, forestry and sustainable lending (p. 3), and reporting on Equator Principles' projects regarding the number, region and sector of loans (p. 23). In this regard, it is important to note that stakeholders needed an increased assurance on the implementation of the Equator Principles, even though they understood that financial details of such projects are commercially sensitive (p. 25). Also, HSBC recognised that the pace of action to combat climate change is increasing as a result of growing public demand (p. 14).

2008: Westpac's consumers have driven the demand for more sustainable products and services from the bank. However, the report did not identify what these products and services were. In contrast, HSBC pointed clearly to certain stakeholders' issues. For example, in 2007, the dominant issues were climate change, forestry, and sustainable finance, including the lending policies (p. 1). In 2008, stakeholders demanded more balance in economic, social and environmental issues (p. 1). In addition, a 2008 survey showed that the stakeholders demanded more information on the implementation of sector policies, focusing on material issues and the process of making difficult decisions (p. 1).

Indicator 4: reputation

2007: Enhancing Westpac's reputation and brand was not reported as a driver for considering environmental practices in their lending decisions. However, HSBC reported that it perceives that embedding sustainability into the business strengthens the bank's brand (p. 6).

2008: There was no indication that Westpac incorporates environmental issues into its lending process in order to enhance reputation and brand. In contrast, HSBC reported that sustainability is a significant factor in the recruitment and retention of committed and motivated employees (p. 2).

II- Financial drivers

This second sub-category outlines the interpretation of evidence for financial reasons for incorporating environmental issues into the banks' lending decisions, under five indicators. These are as follows:

Indicator 1: environmental liabilities

2007: Westpac's report did not indicate that environmental risks motivated the bank to consider environmental issues as a financial factor in the lending process. However, HSBC recognized the importance of considering these risks, by adopting the Equator Principles, which stipulate that loans are to be classified into three categories to minimize the environmental risk of a potential environmental liability (p. 22).

2008: Such information was not in evidence in Westpac's Report. In comparison, HSBC recognized that the global and financial crisis has brought challenges to sustainable business (p. 2).

Indicator 2: borrower liability

2007: Westpac's report did not reflect this issue as a reason for considering environmental risks in the lending process. In contrast, HSBC assesses potential environmental risks when agreeing new business with customers (p. 22).

2008: Both reports did not explicitly elaborate on this aspect. However, HSBC is aware that a responsible lending approach is based on a conservative advances-to-deposits ratio, and on the customer's ability to repay the loan (pp. 2, 10). Also, the bank recognised that engagement with clients is vital where sensitive-sector transactions exist (p. 16).

Indicator 3: pricing the credit risk

To reserve credit for the potential loan default resulting from potential environmental risks, borrowers may be charged a premium, based on their expected loss.

2007 and 2008: Both banks did not report on this issue.

Indicator 4: profitability

2007: Westpac's report did not report on this issue. In contrast, HSBC considered that financial success and business competence in the global economy depend on managing and addressing non-financial considerations (pp. 1, 6). Also, the bank recognised that understanding environmental issues such as climate change creates business development opportunities (p. 14).

2008: Westpac recognized that carbon technology represents a significant new market with a strong potential for growth (p. 16). In contrast, HSBC stressed the fact that operating a profitable business is a first priority, as this is a prerequisite for all other contributions it makes to the economy, society and the environment (p. 9). In addition, the bank stated that low-carbon technologies present opportunities and drive the bank's growth and competitiveness (p. 19).

However, both banks did not elaborate on their comments by providing evidence of how this factor contributes to their financial performance.

III. Environmental drivers

This third major category provides the interpretation of evidence of the environmental reasons for incorporating environmental issues into the banks' lending decisions, under two indicators. These are as follows:

Indicator 1: environmental protection

2007: Westpac considered itself a leader in its approach to sustainability (p. 3). For example, the bank makes contributions through sponsorship and community initiatives, supports the Sir Peter Blake Trust (p. 3), and launched a conservation initiative, Care for our Coast (p. 11). In addition, the report focused on the direct impact of the bank's operations on the environment and its environmental performance (p. 16).

In comparison, HSBC claims to ensure that business decisions maintain balance between the environment, society and the economy, to ensure long-term business success (p. 3). Therefore, its view is to be aware of the challenge of balancing the use of natural resources to support economic development with the environmental impact from this use (p. 25). For example, it reports that 24% of the bank's donations are to support environmental protection (p. 29). Also, HSBC is a partner with a number of environmental organizations, helping them to achieve their goals and drawing on their expertise to achieve its own (p. 30).

The HSBC Report extensively reflects on the direct impact of the bank's operations and its environmental performance (pp. 18, 20, 21). Furthermore, the assurance provider, DNV, assured stakeholders of HSBC's commitment to embed sustainability in its business strategy (p. 35).

2008: The Westpac CEO's introduction, stating that New Zealanders are becoming more conscientious about looking after the environment reflected the bank's interest in caring for the environment and natural assets (p. 1). However, Westpac's report focuses principally on the direct impact of the bank's operations and performance (pp. 14-17). For example, Westpac's head office building incorporates environmentally sustainable principles (pp. 1, 17). HSBC, also, extensively reported on the bank's direct environmental impact and performance with regard to energy, waste, travel and water (pp. 20-26).

Indicator 2: lending activities can make an impact on the environment

2007: By launching the Westpac Green Home Loan Westpac recognised the importance of reducing the environmental impact of climate change (p. 13). However, HSBC perceived that clients' commercial activities could have a potentially high environmental impact (p. 25). Therefore, the bank put in place policies of not financing projects that have an adverse impact on the environment.

2008: Westpac's report did not reflect on this issue. In contrast, HSBC explicitly claimed that the bank's impact occurs indirectly through the business of its customers (p. 9). And, in more specific terms, the report stated that HSBC is

working with customers by employing the Equator Principles and other sector policies to reduce the impact of their businesses on natural resources (p. 9).

Appendix G: Interview transcript

Location: Westpac, Victoria St Hamilton

4th of June 2009

1. Describe the lending appraisal process and how it addresses environmental concerns.

The lending appraisal process addresses environmental concerns by referring to environmental clauses in the loan application form. If an environmental issue is a matter of concern and forms a threat to the environment the loan will be declined. Consideration of loan applications usually involves site visits. If the loan application is approved, then credit officers may make site visits to ensure that the borrower's activities do not have negative impact on the environment and that they are managing the environmental issues in compliance with the loan conditions. Furthermore, additional investigations are sometimes made within upper levels of the bank, depending on the size of the project.

Westpac will:

- **Not** make a loan where the purpose is to do something that breaches environmental law
- **Not** become involved where we are unwilling to incur the risk in a problem management situation
- **Not** do anything ancillary to its role as a lender that might lead to the causing of environmental harm
- Expect customers to comply with all laws, including environmental laws, but not:
 - Direct the manner in which customers comply with laws relating to the environment
 - Control or take part in the management of customers' environmental affairs
 - Provide environmental advice to a customer
 - Aid any breach of environmental law by our customers.

More information on our Group website

<http://www.westpac.com.au/internet/publish.nsf/Content/WICRCU+Identifying+and+mitigating+environmental+risks>

2. How successful do you think you have been in incorporating environmental issues into lending decisions?

<http://www.westpac.com.au/internet/publish.nsf/Content/WICREV+Equator+principles>

The bank undertakes an environmental analysis as part of the lending process wherever there are indications environmental factors and issues exist.

3. How does the bank (at a regional level) evaluate environmental performance from a lending perspective?

The bank has an environmental standard that potential borrowers performances are measured against. If the borrowers do not reach the minimum acceptable standard the application will not proceed. There are some instances where applications were declined.

4. What are the biggest challenges for branch management in incorporating environmental issues into lending decisions?

The bank considers itself a leader in sustainability.
<http://www.westpac.com.au/internet/publish.nsf/Content/WICRPSCR+Ratings+and+awards#> The bank ensures that every loan approved should be fully environmentally, socially and ethically acceptable. The biggest challenge for the bank is that it cannot be responsible for all borrowers' behaviour, some of which may be inconsistent with bank expectations.

5. Are there any complexities for branches in addressing particular environmental lending concerns?

The balance between lending to farmers whose activities are necessary for their continuity and generating an acceptable return for the New Zealand economy and the bank's shareholders and, at the same time the environmental issues which farmers face, such as animal wastes, wash down water, spilled milk, detergents from dairy milking sheds and discharge of treated wastes from oxidation ponds as a result of farms' activities. It is a complex issue.

6. What environmental training do the credit officers receive?

The credit officers usually receive environmental training throughout their careers alongside other credit appraisal processes training programmes.

Westpac Australia have also established a Carbon and Water Forum in Australia. Carbon risk training has been delivered across institutional and business banking .

Westpac Australia have also launched a carbon intranet resource featuring research reports along with regular updates on carbon markets.

7. What are the keys to successful environmental training for lending staff?

Educating the lending staff about the lending policies and procedures is the key.

Accessibility is also important - we have just launched an internal sustainability plan and have an interactive intranet site – useful tool for sharing ideas on all aspects of sustainability, e.g. presentations and speeches. We will be using this as a way for staff to access information to help them in their roles – environmental education is one area that we will be focusing on over the next couple of years.

8. Describe any environmental policy and environmental management system used in the region.

Regionally there is no specific environmental policy or environmental management system in place. However, the bank is inherently and culturally aware of the environmental issues that should be addressed if environmental concerns arise when lending decisions are being made. Policy will not be fully effective unless the individual staff have environmental awareness and understanding and are self-motivated to cultivate this.

Westpac does have a group wide Environmental Policy.

Our Environmental Policy Statement was first published in 1992, and reviewed and re-released in 2001.

The policy and related management systems covers the management of our ecological footprint, the measurement and reporting of our performance, and the incorporation of environmental considerations into our risk management framework.

Also included in the policy is a commitment to meet or exceed relative standards in each country we operate in and to respond to community expectations in environmental responsibility.

We also have a set of Group-wide Principles which covers responsible lending - its called Our Principles for Doing Business .

9. Do branches collate the following information?

- Â the number and value of loans that are environmentally relevant and of those with high environmental benefit?
- Â the proportion of loans that are environmentally relevant according to region and sector?
- Â the return and the profit which is generated from loans that are environmentally relevant?

The value of the loans portfolio is broken down by specific sectors only, for example, agriculture, forestry and fishing.

10. Describe any BOD and CEO statements or policies pertaining to environmental outcomes that impact decision-making within the region.

Some statements exist in the Stakeholder Report.

11. Are bank staff familiar with the Equator Principles?

Bank staff gain environmental knowledge through familiarising themselves with lending policies and procedures and through their own background information-gathering. Staff have been advised of the Equator Principles.

12. Describe any information about lending decisions affecting the environment that the branch reports back to the BOD, the CEO and/ or senior management.

If there is concern about a project that has a potentially major impact on the environment, the branch reports to the upper levels for more investigations to be carried out.

13. Describe the process of engagement between Head Office and the region regarding lending practices and environmental risks and opportunities.

It is part of normal management and reporting.

14. What are the keys to successful environmental auditing by the bank?

Exclude this question please

15. Do the branches receive any feedback from environmental auditing?

The branch receives feedback in case of violations of the loan requirements and regulations.

16. What do you think are the bank's primary drivers of bank lending policies - from an environmental perspective?

- The banks reputation and the branches ethical stance are very important;
- Shareholders expect a sound return on their shares for their investment in Westpac;
- Environmental damage may cause risk to the banks financial position and the environment alike.
 - o Leadership in sustainability by integrating environmental considerations into our core business activities.

17. Is there anything else the researcher should know about Westpac's environmental performance?

The bank would like to assure the public that every one of its lending transactions is environmentally, socially and ethically acceptable. The bank assures its stakeholders that it does what it is obliged to do with their interests at heart. However, the bank also calls for similar assurances from others to be conscientious in complying with environmental standards and regulations.

We (Regional Manager) have committed to reducing our own environmental impact and support our staff, suppliers and customers in their own efforts.

More information can be found on our website:

<http://www.westpac.co.nz/olcontent/olcontent.nsf/Content/Sustainability>

<http://www.westpac.co.nz/olcontent/olcontent.nsf/Content/Reducing+carbon+emissions>.

Appendix H: Socio-demographic analysis

Management performance

The quantitative data contents of Table 6.13 facilitate interpretation of the management performance relevant to the following themes:

Education

There is no significant difference (0.6, 0.66) in education for both groups regarding management performance.

Employment

This demographic characteristic reveals that there is a significant difference in public set (0.07) between the unemployed ($m=2.04$) and those who work ($m=2.30$). However, this difference (0.11) is slightly not significant in informed people.

Gender

There is a highly significant difference (0.00) between male and female in public. This difference is not significant in the sense of agreement or disagreement but, within the same level of agreement ($m=2.35$, 2.12). However, this difference (0.56) is not significant in informed people.

Age

The results of this indicator show that there is significant difference between the age 70+ and other ages, despite there being no significant difference (0.89) between the ages overall in public. On the other hand, there is significant difference (0.03) in informed people between the age 70+ and the other ages.

Environmental group

There is a highly significant difference (0.00) in public between those who are involved as participants and members ($m=1.91$, 1.89) in environmental activities and those not involved ($m=2.34$). However, there is no significant difference in informed people (0.19).

Community group

This indicator reveals that in public set there is a highly significant difference (0.03) between those who are not involved in community activities and those who are participants. However, in informed people the level of involvement does not significantly affect the level of agreement despite having the highest mean (2.30).

Religious group

There is a highly significant difference (0.03) between those who are not involved in religious activities ($m=2.3$) and the participants ($m=2.1$) in public. In contrast, this difference is not significant (0.49) in informed people.

Trade/business association

There is a significant difference (0.05) between those who are involved as members ($m=2.49$) and those who not ($m=2.24$) in public. Within the same parameters, there is a significant difference (0.08) in informed people.

Trade union

There is highly significant difference (0.004) between those who are involved as participants and members ($m=2.02, 2.09$) and those who are not involved ($m=2.30$) in trade union activities in public. The difference is not significant (0.11) in informed people.

Political party

There is no significant difference (0.13) between those who are involved in political activities and those who are not in public. Informed people reflect a significant difference (0.007) between the members ($m=1.83$) and those who are not involved ($m=2.18$).

Ethnic group

With regard to public, there is a highly significant difference (0.00) between New Zealand/European ($m=2.32$), Maori ($m=1.91$) and others ($m=2.31$). However, there is no significant difference in informed people.

Work sector

There is no significant difference (0.60) between different work sectors in public. However, within the nine sectors, financial institutions' participants score the least ($m=2.39$). On the contrary there is no significant difference (0.85) in informed people.

Region

There is no significant difference (0.86) between different regions in New Zealand in group 1. However, comparing the two groups regarding the Waikato area, group 2 tends to agree more ($m=2.07$) than group 1 ($m=2.37$) that banks' management should consider specific environmental issues when making lending decisions.

Operational performance

From Table 6.16, the following interpretations of the operational performance indicators with regard to the socio-demographic themes are concluded:

Education

There is no significant difference (0.39, 0.64) between each level of education in both groups 1 and 2 respectively. However, the difference between the two values means that the level of that significant difference is lesser in group 2 than in group 1. This is due to the level of agreement between the doctorate qualification ($m=3.05$) and both the post-graduate ($m=2.40$) and high school qualifications ($m=2.47$) in group 1.

Employment

This research found that there is no significant difference (0.11) within group 1. However, there is significant difference in group 2 between the retired ($m=1.2$) and those who work ($m=2.36$).

Gender

There is a highly significant difference (0.0005) in group 1 between male and female. Males tend to be less supportive ($m=2.62$) than female ($m=2.37$).

Age

There is no significant difference in both group1 (0.27) and group2 (0.14).

Environmental group

In group 1 there is a highly significant difference (0.00) between those who are not involved in environmental activities ($m=2.62$) and those who are members ($m=2.20$) and participants ($m=2.17$). However, in group 2, there is no significant difference (0.34).

Community group

There is no significant difference within the two groups (0.22, 0.34).

Religious group

There is no significant difference within the two groups (0.74, 0.19).

Trade business

There is no significant difference in group 1 (0.22). However, there is significant difference (0.06) in group 2 between those who are not involved ($m=2.13$) and members ($m=2.74$).

Trade union

In group 1 there is a significant difference (0.0003) between those who are not involved (m=2.6) in trade union activities and those members (m=2.30) and participants (m=2.18). In contrast, there is no significant difference in group 2 (0.21).

Political party

There is no significant difference in both groups (0.19, 0.11) regardless of whether those respondents are members, participants or are not involved. However, it is observed that those who are not involved in political activities in both groups tend to be less supportive of banks taking practical actions to address environmental issues.

Ethnic group

There is a highly significant difference (0.0) between Maori, and New Zealand/European, other ethnicities and Maori, Asian and New Zealand/European, and other ethnicities and Asian. The most supportive are the Maori (m=2.12) and the least are other ethnicities (m=2.72). In contrast, there is no significant difference within group 2 (0.11).

Work sector

There is no significant difference within the two groups (0.94, 0.77). However the means of the two groups indicate that group 2 tend to be more supportive on insisting that banks take effective actions when making lending decisions regarding environmental issues.

Region

There is no significant difference (0.91) within group 1 regarding the different regions in New Zealand. Comparing the two groups by ways of the two means for the Waikato region indicates that group 2 is slightly more supportive than those in group 1 (m= 2.43, m=2.29).

Motivational drivers

The quantitative contents, regarding motivational drivers, of Table 6.19 help to interpret how each level in each theme is different from others within a certain group. These interpretations as follow:

Education

There is no significant difference within each group.

Employment

There is no significant difference in group 1. However, there is a significant difference in group2 (0.06) between retired and others, but also another slightly significant difference (0.11) between retired and those who work.

Gender

There is a highly significant difference (0.001) in group 1 between males and females but insignificant difference (0.83) in group 2.

Age

There is a slightly significant difference (0.08) in group 2 due to differences between age 50-59 from one side, and both ages 40-49 and 20-29 from the other. However, there is no significant difference in group 1.

Environment group

There is a significant difference (0.005) in group 1 between those who are not involved in environmental activities and those who are participants, but a slight difference with those who are members. In contrast there is no significant difference in group 2.

Community group

There is a significant difference (0.04) in group 1 between those who are not involved in community activities and those who are participants, but a slight difference with those who are members. In contrast there is no significant difference in group 2.

Religious group

There is no significance difference within both group 1 and 2.

Trade business

There is no significance difference within both group 1 and 2, but there is a slightly significant difference between those who are not involved and both participants and members in group 1.

Trade union

There is significant difference (0.01) in group 1 between those who are participants and those who are not involved in union activities. There is no significant difference in group 2.

Political party

There is no significant difference within both groups. However, there is a slight difference between those who are not involved and members in group 1.

Ethnicity

There is a highly significant difference (0.00) between the following:

Asian and New Zealand European and others;

Maori and New Zealand European and others; and

Pacific Islanders and others

However, there is no significant difference within group 2.

Work sector

There is no significant difference within the two groups.

Region

There is no significant difference within the two groups. However, there is a slightly significant difference between the region Otago, Fiordland, Southland, Stewart Island on one side and other regions in New Zealand on the other.

Public and government performance

The quantitative contents of Table 6.22 provide guidelines for interpreting the themes in government and public performance as follows:

Education

There is a significant difference (0.08) within group 1 between those with a doctorate and those with other levels of education, but this difference is higher when compared with those with high school qualification. Respondents with doctorates are more dissatisfied ($m=3.65$) than those with other levels of education regarding the public and government performance. In contrast there is no significant difference in group 2.

Employment

There is no significant difference within each group. However, there is slightly significant difference in group 2 between retired and those who work and retired and others.

Gender

There is a highly significant difference (0.004) between males and females in group 1 compared with no significant difference in group 2.

Age

There is a significant difference (0.04) in group 1 between most of the ages. So, dissatisfaction about the role of the public and government increases as the age increases. In group 2 the level of dissatisfaction is higher than in group 1, but, despite the difference in ages, there is tendency toward dissatisfaction with the government and public roles.

Environment group

There is a significant difference (0.05) in group 1 between those who are not involved and participants in environmental activities. In group 2 the difference hardly exists.

Community group

There is no significant difference within the two groups; however, the difference is weaker in group 1 than in group 2.

Religious group

There is a slightly significant difference (0.1) in group 2 between members and those who are not involved in religious activities. However, in group 1 the difference is hardly noticed at all.

Trade or business

There is a significant difference (0.03) in group 1 between those who are not involved and those who are members of a trade or business. However, in group two there is little indication of such a difference

Trade union

There is a significant difference (0.07) in group 1 between those who are not involved and those who are members of and participants in a trade union. The difference is higher with participants than with members. In contrast, there is no significant difference in group 2.

Political party

There is no significant difference within group 1, although there is a slight indication of difference between members and those who are not involved. However, there is a highly significant difference (0.04) in group 2 between members and participants and between those who are not involved and members.

Ethnic group

There is a highly significant difference (0.00) in group 1 between all ethnic groupings except for that between Asian, Maori and Pacific Islanders respectively. In group 2, there is no significant difference, but some difference is still noticed between the Maori and New Zealand European groupings.

Work sector

There is no significant difference between work sectors in group 1. On the other hand, there is a highly significant difference in group 2 between the university and the agriculture sectors and, to a little extent, between agriculture and other government and public sectors. However, both groups are reluctant to agree or disagree about the public and government performance.

Region

There is no significant difference in group 1. Comparison between the two groups with regard to the Waikato region shows that group 2 tends to range from neutrality to disagreement.

Banks' effectiveness

The quantitative data available from Table 6.25 helps to describe the respondents' attitude toward the banks' effectiveness regarding certain socio-demographic factors as follows:

Education

There is a highly significant difference (0.02) within group 1, especially between doctorate ($m_1=4.1$) and high school ($m_1=2.9$) and doctorate and others ($m_1=2.5$). However, there is no significant difference within group 2.

Employment

There is no significant difference within group 1. In contrast, in group 2 there were only 4 respondents from those who work and consequently the mean is 4.62.

Gender

There is a highly significant difference (0.006) between males and females in group 1. However, there is no significant difference in group 2. Although there is a difference of 0.93 in the mean value for males and females in group 2, the level of significance is only slightly affected (0.27) due to the small number of respondents.

Age

There is no significant difference within group 1. However, in group 2 the level of significance is not known due to the limited number of respondents, but there is a significant difference between the two levels for ages 20-29 and 50-59. Also, in group 2 none of the respondents in ages 60-69 and 70+ admitted to knowing about the effectiveness of banks.

Environment group

There is a significant difference (0.02) in group 1 between those who are not involved and both the participants and members, compared to an insignificant difference in group 2.

Community group

There is no significant difference within the two groups.

Religious group

There is no significant difference in group 1. In group 2, there is not enough data to determine the significance.

Trade/ business

There is no significant difference within both groups.

Trade union

There is no significant difference within group 1, despite a slight difference between those who are not involved and members. In contrast, due the limited

responses in group 2, the data is not sufficient to determine the level of significance.

Political party

There is no significant difference within both groups.

Ethnic group

There is a significant difference (0.08) in group 1, due to the difference between the Pacific Islander grouping and both New Zealand European and other ethnicities. In group 2 the data is insufficient to determine the significance of difference.

Work sector

There is no significant difference within group 1. With regard to group 2, the data is insufficient to determine the level of significance.

Region

There is a slightly significant difference within group 2 relevant to the difference between the two regions, Auckland, Coromandel and Northland on one hand and Bay of Plenty, Central Plateau and East Cape on the other. However, group 2 involved only the Waikato region.