Accountability and efficiency and the decision of whether to appoint the incumbent audit firm to provide non-audit services

Colleen Hayes

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ACCOUNTABILITY AND EFFICIENCY AND THE DECISION OF WHETHER TO APPOINT THE INCUMBENT AUDIT FIRM TO PROVIDE NON-AUDIT SERVICES

Colleen Hayes
B. Bus; Grad Dip Ed Admin; MAcc

This thesis is submitted in fulfillment of the requirements for the degree of Doctor of Philosophy

Faculty of Business and Law
Edith Cowan University

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USE OF THESIS

The Use of Thesis statement is not included in this version of the thesis.
ABSTRACT

The purpose of this thesis was twofold. Firstly, the impact of the following independence (accountability) factors on stakeholder perception of auditor independence and willingness to appoint the incumbent audit firm to provide non-audit services (NAS) was examined experimentally: (i) the financial threat to auditor independence from recurring NAS; and (ii) the structural strength of the board of directors.

Secondly, an analysis of the nature and source of the efficiencies that may accrue from appointing the incumbent audit firm to provide NAS was undertaken in the process of laying the groundwork for the foregoing experimental study. Qualitative evidence of issues of efficiency and accountability impacting stakeholder willingness-to-appoint was also obtained prior to conducting the experiment. The evidence was obtained in a preliminary study using protocol analysis as the method of inquiry.

The results of the experimental study are as follows.

The financial threat from recurring NAS adversely affected participant perceptions of auditor independence and their choice of the audit firm to provide NAS, but not the third response variable, strength of preference for the audit firm. All three response variables were adversely affected where the monitoring strength of the board was weak. Further, participant perceptions of auditor independence were more likely to be affected by recurring NAS, when the monitoring strength of the board of directors was weak than when it was strong. The interaction did not, however, hold for the remaining two response variables.
DECLARATION

I certify that this thesis does not, to the best of my knowledge and belief:

(i) incorporate without acknowledgement any material previously submitted for a degree or diploma in any institution of higher education.

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Last, but not least, my sincere thanks to the many individuals who participated in the study via pre-tests, verbal protocols or completion of case study questionnaires.

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## TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF TABLES</td>
<td>xi</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>xv</td>
</tr>
<tr>
<td><strong>CHAPTER 1: INTRODUCTION</strong></td>
<td></td>
</tr>
<tr>
<td>1.0 Chapter Content</td>
<td>1</td>
</tr>
<tr>
<td>1.1 Background</td>
<td>1</td>
</tr>
<tr>
<td>1.2 Research questions</td>
<td>5</td>
</tr>
<tr>
<td>1.3 Motivation and importance</td>
<td>8</td>
</tr>
<tr>
<td>1.4 Contributions</td>
<td>10</td>
</tr>
<tr>
<td><strong>CHAPTER 2: THE AUDIT-NAS DEBATE, THE AUSTRALIAN REGULATORY RESPONSE</strong></td>
<td></td>
</tr>
<tr>
<td>2.0 Chapter content</td>
<td>14</td>
</tr>
<tr>
<td>2.1 Audit-NAS debate</td>
<td>14</td>
</tr>
<tr>
<td>2.2 Australian regulatory approach to the joint provision of the audit and NAS</td>
<td>26</td>
</tr>
<tr>
<td>2.2.1 Professional regulation – PF 1</td>
<td>27</td>
</tr>
<tr>
<td>2.2.1.1 Underlying concepts</td>
<td>28</td>
</tr>
<tr>
<td>2.2.1.2 Implementation principles</td>
<td>38</td>
</tr>
<tr>
<td>2.2.2 Statutory regulation of auditor independence and the audit-NAS strategy</td>
<td>40</td>
</tr>
<tr>
<td>2.3 Theory of Independence Risk</td>
<td>46</td>
</tr>
<tr>
<td>2.3.1 Incentives</td>
<td>49</td>
</tr>
<tr>
<td>2.3.2 Opportunity</td>
<td>50</td>
</tr>
<tr>
<td>2.3.3 Auditor Integrity</td>
<td>54</td>
</tr>
<tr>
<td>2.4 Market incentives to preserve independence</td>
<td>60</td>
</tr>
</tbody>
</table>
5.2.2 Client specific resources ........................................ 136
  5.2.2.1 Technological advantages .............................. 137
  5.2.2.2 Knowledge spillovers ................................. 138

5.3 Efficiencies and the empirical component of this study 139

CHAPTER 6: STUDY 1: PROTOCOL ANALYSIS

6.0 Chapter content .................................................. 142
  6.1 Introduction ...................................................... 142
  6.2 Prior empirical research ...................................... 148
  6.3 Theoretical & empirical foundation of study ............ 152
    6.3.1 Background .................................................. 152
    6.3.2 Constructionist perspective on reading comprehension .................................................. 153
    6.3.3 Benefits of protocol analysis .......................... 156
    6.3.4 Protocol analysis and comprehension .................. 157
    6.3.5 The case studies as narrative text .................... 160
      6.3.5.1 Definition of narrative ............................. 160
      6.3.5.2 Levels of communication ......................... 163
  6.4 Research method ............................................... 168
    6.4.1 Case information ......................................... 168
    6.4.2 Participants ............................................... 169
    6.4.3 Task .......................................................... 171
    6.4.4 Data analysis .............................................. 173
      6.4.4.1 Modelling & scanning ................................ 174
      6.4.4.2 Scoring .................................................. 182
  6.5 Discussion of results .......................................... 192
  6.6 Implications of study .......................................... 198

CHAPTER 7: STUDY 2: THE EXPERIMENTAL STUDY

7.0 Chapter content .................................................. 200
  7.1 Introduction ...................................................... 201
  7.2 Research method ............................................... 206
    7.2.1 Task .......................................................... 206
    7.2.2 Case scenario .............................................. 207
    7.2.3 Independent variables .................................... 209
7.2.3.1 Recurring (non-recurring) NAS ............ 210
7.2.3.2 Strength of board of directors .............. 211

7.2.4 Dependent variables ................................. 213

7.2.4.1 Auditor independence ......................... 213
7.2.4.2 Willingness-to-appoint ....................... 213

7.2.5 Post-experimental questionnaire ............... 214

7.2.6 Demographic information .......................... 216

7.2.7 Participants ........................ ................... 216

7.2.8 Manipulation checks ............................... 219

7.2.8.1 Threat of self-interest ......................... 219
7.2.8.2 Strength of board of directors .............. 220

7.3 Results of the main experiment .................... 221

7.3.1 Auditor independence ............................... 222
7.3.2 Choice of NAS provider ........................... 224
7.3.3 Strength of preference for audit firm .......... 226

7.4 Post-experimental questionnaire ................... 228

7.4.1 The first set of post-experimental questions .... 228

7.4.1.1 Factors affecting overall assessment of corporate governance ....................... 229
7.4.1.2 Reanalysis of the hypotheses using alternative measures of the independent variables ................... 232

7.4.2 The second set of post-experimental questions .. 243

7.5 Discussion of results .................................. 249

7.6 Implications of the study ............................. 250

CHAPTER 8: SUMMARY & CONCLUSIONS ...................... 252

REFERENCES: .................................................. 270
<table>
<thead>
<tr>
<th>Appendix</th>
<th>STUDY 1</th>
<th>STUDY 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix A</td>
<td>- set of case studies</td>
<td>282</td>
</tr>
<tr>
<td>Appendix B</td>
<td>- letter of solicitation</td>
<td>313</td>
</tr>
<tr>
<td>Appendix C</td>
<td>- instruction script</td>
<td>314</td>
</tr>
<tr>
<td>Appendix D</td>
<td>- example of coded transcript</td>
<td>315</td>
</tr>
<tr>
<td>Appendix E</td>
<td>- set of case studies</td>
<td>321</td>
</tr>
<tr>
<td>Appendix F</td>
<td>- introductory page</td>
<td>334</td>
</tr>
<tr>
<td>Appendix G</td>
<td>- questions 1 and 2</td>
<td>335</td>
</tr>
<tr>
<td></td>
<td>- question 3</td>
<td>336</td>
</tr>
<tr>
<td></td>
<td>- question 4</td>
<td>337</td>
</tr>
<tr>
<td>Appendix H</td>
<td>Biographical information</td>
<td>338</td>
</tr>
</tbody>
</table>
LIST OF TABLES

Table 1  Threats to independence identified in Professional Statement (PF) .......................................................... 30
Table 2  Sources and examples of safeguards identified in PF ........................................ 32
Table 3  User-based studies and wealth incentives .......................................................... 65
Table 4  User-based studies and separation of duties .......................................................... 67
Table 5  Economics of audit quality studies and recurring NAS ........................................ 71
Table 6  Audit committee structural strength and financial reporting reliability .......................................................... 75
Table 7  Audit committee structural strength and audit quality ........................................... 76
Table 8  Audit committee structural strength and managerial discretionary decision making .................................................. 77
Table 9  Audit committee structural strength and the structural strength of the board .......................................................... 78
Table 10 Other audit committee effectiveness studies .......................................................... 79
Table 11 Concepts that define the structure to independently verify and safeguard the integrity of a corporation’s financial reporting .......................................................... 104
Table 12 The relationship between the sources of competitive advantage in the product market and the distinguishing attributes of the audit firm as determinants of competitive advantage at the conceptual level .......................................................... 121
Table 13 Sources and nature of the efficiencies that may accrue from appointing the incumbent audit firm to provide NAS .......................................................... 124
Table 14 Relationship between the efficiencies accruing to the client, the sources of the efficiencies in the product market and the distinguishing attributes of the audit firm .......................................................... 135
Table 15 Prior empirical research associated with the development of written communication .......................................................... 150
Table 16 Manipulation of the strength of the board of directors – Study 1 ........................................... 167
Table 17 The framework and coding of the draft case studies – Study 1 ........................................... 169
Table 18 Profile of the participants - Study 1 .......................................................... 171
Table 19 Identification of the transcripts vis-à-vis the independent variables .......................................................... 173
LIST OF TABLES continued

20 Task Code: framework of explicit text and content code .......... 176
21 Transcript Code of verbal statements ........................................ 177
22 Summary of topic lines/statements per participant and in total ..... 182
23 Regression coefficients .......................................................... 184
24 Task Code and number and location of anomalies .................... 185
25 Cross-sessional summary of anomalies ....................................... 187
26 Protocol responses and the co-context of the case studies .......... 189
27 Confirmatory statements and the implicit dimension of the case studies .......................................................... 190
28 Cross-sessional sample of confirmatory statements dealing with accountability issues .............................................. 196
29 Cross-sessional summary of confirmatory statements dealing with efficiency issues .................................................... 198
30 Manipulation of the strength of the board of directors – Study 2 .... 212
31 Summary of research design – Study 2 ................................. 214
32 Demographic characteristics of participants by group ............... 217
33 Chi-square tests for level of education ...................................... 218
34 Levene’s test of equality of error variances – dependent variables 221
35 Descriptive statistics for auditor independence .......................... 222
36 ANOVA for auditor independence ............................................. 223
37 Multiple comparison of group means for auditor independence .... 223
38 Descriptive and frequency statistics and choice of audit firm by group .......................................................... 225
39 ANOVA for choice of auditor .................................................... 226
40 Descriptive statistics for strength of preference for audit firm to provide NAS .................................................... 227
41 ANOVA for strength of preference for auditor to provide NAS ... 227
LIST OF TABLES continued

42 Summary of the relation between the hypotheses and significance tests – main experiment .................................................. 228

43 Correlations for standard of corporate governance framework and independent variables .................................................. 230

44 Descriptive statistics for standard of corporate governance and independent variables .................................................. 231

45 Summary of the coefficients of the independent variables ................................................................. 232

46 Descriptive statistics and coefficients between variables ................................................................. 233

47 Summary of the coefficients of the independent variables ................................................................. 234

48 Summary of the coefficients of the independent variables where the strength of the board of directors is strong .................................................. 235

49 Summary of the coefficients of the independent variables where the strength of the board of directors is weak .................................................. 235

50 Correlations for choice of NAS provider ................................................................. 236

51 Summary of the variables for choice of NAS provider ................................................................. 237

52 Classification Table choice of audit firm ................................................................. 237

53 Summary of the coefficients of the independent variables ................................................................. 238

54 Summary of the relations between the hypotheses and significance tests – reanalyses .................................................. 239

55 Summary of the coefficients of the independent variables ................................................................. 240

56 Summary of the coefficients of the independent variables where the strength of the board of directors is strong .................................................. 241

57 Summary of the coefficients of the independent variables where the strength of the board of directors is weak .................................................. 241

58 Descriptive statistics for strength of preference for specialist firm to provide NAS .................................................. 242

59 ANOVA for strength of preference for the specialist firm to provide NAS .................................................. 242

60 Descriptive statistics for second set of questions in post-experimental questionnaire .................................................. 244

61 Descriptive statistics for second set of questions by treatments .................................................. 245
LIST OF TABLES continued

62 Summary of participant responses to the open-ended question by groups .......................................................... 248

63 RQ 1 and the hypotheses, statistics, statistical tests and main findings .............................................................. 262

64 RQ 2 and the hypotheses, statistics, statistical tests and main findings .............................................................. 264
**LIST OF FIGURES**

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Major changes to the accounting and non-audit services framework in Australia</td>
<td>25</td>
</tr>
<tr>
<td>2</td>
<td>Taxonomy of the safeguards of auditor independence</td>
<td>34</td>
</tr>
<tr>
<td>3</td>
<td>A Framework for Understanding the Antecedents and Consequences of Independence Risk</td>
<td>47</td>
</tr>
<tr>
<td>4</td>
<td>Model of Risk of Impaired Auditor Independence with examples</td>
<td>48</td>
</tr>
<tr>
<td>5</td>
<td>Antecedents of incentives (threats)</td>
<td>50</td>
</tr>
<tr>
<td>6</td>
<td>The antecedents of opportunity</td>
<td>53</td>
</tr>
<tr>
<td>7</td>
<td>Evidential Diagram for Independence Risk</td>
<td>57</td>
</tr>
<tr>
<td>8</td>
<td>Unilateral relationships that comprise propositions R$_{1,3}$</td>
<td>58</td>
</tr>
<tr>
<td>9</td>
<td>Evidential Diagram for Independence Risk (modified)</td>
<td>87</td>
</tr>
<tr>
<td>10</td>
<td>A corporate governance framework: the internal and external architecture</td>
<td>94</td>
</tr>
<tr>
<td>11</td>
<td>Typical duties of directors</td>
<td>96</td>
</tr>
<tr>
<td>12</td>
<td>The objectives of the audit committee</td>
<td>99</td>
</tr>
<tr>
<td>13</td>
<td>Audit committee responsibilities</td>
<td>101</td>
</tr>
<tr>
<td>14</td>
<td>Determinants of audit committee effectiveness (ACE)</td>
<td>105</td>
</tr>
<tr>
<td>15</td>
<td>A model (taxonomy) of competitive advantage</td>
<td>118</td>
</tr>
<tr>
<td>16</td>
<td>The conceptual interface between the factors that differentiate the audit firm from the specialist and the determinants of competitive advantage</td>
<td>119</td>
</tr>
<tr>
<td>17</td>
<td>Comprehension model</td>
<td>154</td>
</tr>
<tr>
<td>18</td>
<td>Genre model</td>
<td>158</td>
</tr>
<tr>
<td>19</td>
<td>Levels of narrative communication</td>
<td>163</td>
</tr>
<tr>
<td>20</td>
<td>Levels of narrative communication (modified)</td>
<td>164</td>
</tr>
<tr>
<td>21</td>
<td>Format for modelling protocols</td>
<td>174</td>
</tr>
</tbody>
</table>
LIST OF FIGURES continued

Figure 22 Framework of the class of statements comprising the Transcript Code ................................................................. 181

23 Percentage of categories of content statements ....................... 183

24 Scatter plot of anomalies and confirmatory statements ............. 183

25 Percentage of categories of anomalies ................................. 186

26 Safeguards designed to mitigate the threat to auditor independence from making executive decisions associated with the provision of IT systems services ........................................ 208

27 Distribution of participants by state (territory) of residence ...... 219
CHAPTER 1

INTRODUCTION

1.0 CHAPTER CONTENT

The purpose of this Chapter is to lay the foundation for the thesis. The Chapter deals with four issues, beginning with the background to the study. The background represents a distillation of issues expanded upon in Chapters 2 and 4 that form an integral part of the thesis. The issues include the audit - non-audit services (NAS) debate, the Australian regulatory response to the debate, and the theory of independence risk. Secondly, the three broad research questions addressed by the study are identified. Thirdly, the motivation for and importance of the research is described. The chapter concludes by identifying the contributions of the research.

1.1 BACKGROUND

This thesis examines issues of accountability and efficiency impacting the decision of whether to hire the incumbent external audit firm to provide non-audit services (NAS), where the decision maker (client) is a listed public corporation. "Accountability" refers to independence factors impacting the decision and "efficiency" the capacity of an audit firm to add value vis-a-vis competitors. Accountability aside. Whilst accountability is ultimately concerned with capital markets efficiency, a distinction is maintained between the terms accountability and efficiency for the purposes of the study, for ease of discussion and analysis. The study falls within the ambit of the body of research that is concerned with examining the relationship between audit quality and independence in appearance, and the user-based perception of independence literature in particular.

Auditors have always been involved in providing clients with NAS (Reed, 1999). The provision of NAS predates the audit (Abbott, 1988). Concern over the implications that the provision of NAS may hold for auditor independence was expressed in the United States as
early as the 1950s. However, it was not until the mid 1970s onwards that the issue began to gain a life of its own as a result of significant changes impacting the market for audit services. The changes involved the deregulation of the audit market and the advent of the global economy. Deregulation heightened competition in the market for the audit resulting in reduced profit margins. The advent of the global economy resulted in an increase in corporate demand for NAS, generally, and an expansion in the range of professional services sought. The auditing profession, for reasons identified in Chapter 2, played a major role in meeting that demand.

The decline in audit profit margins and the expansion in the scope of NAS combined to result in a significant increase in the relative economic importance of NAS vis-a-vis the audit, to public accounting firms, including the market for the joint services, during the 1980s and 1990s. Further, by the mid 1990s the nature of the NAS provided included services traditionally held to be the function of management. The provision of the NAS challenged the principle of separation of duties traditionally held to be a necessary condition of independence, the hallmark of the profession.

The foregoing changes represented heightened incentives for the auditor to assume greater independence risk in the conduct of the audit, i.e., to compromise his/her public interest role. The threat from the scope-of-services issue was compounded by an increasing network of financial, employment and business relationships between audit firms and public corporate clients (Walker, 1999).

Concern over the threat to auditor independence from the provision of NAS, per se, was brought to a head in the United States (US) in 2000. In June of that year, the Securities and Exchange Commission (SEC) proposed regulating audit independence by placing severe limitations on the NAS that US accounting firms could offer to audit clients. The SEC proposal served to fuel the debate, worldwide, over the audit-NAS strategy and the related issue of government intervention in the regulation of the profession. The audit-NAS debate is underpinned by issues of economic (allocative) efficiency (cost - benefit analysis) and ultimately the appropriate mechanisms for regulating/safeguarding auditor independence.
Those same issues are at the heart of the decision of whether to hire the incumbent audit firm to provide NAS that is the subject of this thesis.

The role of government in the regulation of the audit-NAS strategy has also been brought to a head in the last four years as a result of a spate of international corporate financial scandals. The scandals were led by the collapse of the US energy giant, Enron and with it the premier audit firm, Arthur Andersen, in 2002; and, locally, the prominent insurer, HIH, in 2001. The series of events precipitated significant changes in the audit-NAS market and in the regulation of corporate governance, generally, worldwide.

The Australian regulatory response to the audit-NAS strategy, which was instituted in response to the foregoing developments, is of immediate interest to this study. The regulation consists of a combination of best practice codes and law. From the supply side of the market for the joint services, the regulation of the provision of NAS to corporate audit clients, vests with the profession. The regulation is contained in Professional Statement (PF) 1, which forms an integral part of the profession’s Joint Code of Conduct that deals with independence. The Code is underpinned by Auditing Standards (AUS) 108, which deals with independence. The profession has rejected a rules-based approach to the regulation of independence, including assurance independence, in favour of a principles-based approach contained in a three-stage conceptual framework.

The principles-based approach provides that an audit firm (assurance provider) may provide a client with NAS, subject to any threat to auditor independence being reduced to an acceptable level. Implementing the standard involves identifying threats, assessing their significance, and where a threat is deemed to be significant, applying appropriate safeguards to either eliminate or reduce the threat to an acceptable level. The responsibility for giving effect to the principles-based approach vests with the assurance provider and relies on professional judgement. To that extent, the approach involves self-regulation at the level of the assurance provider. However, the professional code plays a significant role

1 The profession is represented here by CPA Australia (CPA) and the Institute of Chartered Accountants in Australia (CA)
in establishing minimum standards of accountability at the operational level, through the application of the concepts and implementation principles to specific situations.

The principles-based approach compels the auditor (assurance provider) to take an introspective perspective in assessing the capacity of relationships and activities to compromise his/her independence; and to assess how the relationships and activities would appear to (reasonable and informed) others. The latter assessment is concerned with the appearance of independence. Independence in appearance forms an integral part of the auditor independence debate and is of immediate interest to this study.

The professional code, and, therefore, the principles-based approach, as it relates to auditor independence, is underpinned by statute, on both the supply and demand sides of the market for the joint services, on the basis of five key amendments to the Corporations Act (2001) which took effect from July 1, 2004. The amendments provide for the following:

(i) a general standard of auditor independence;

(ii) an obligation on the part of an auditor to declare, annually, to the board of directors, in writing, that he/she has met the independence requirements of the Act and applicable codes of conduct;

(iii) legal status for the Auditing Standards (AUS) and, therefore, those dealing with independence:?

where the audit client is a listed company, the annual directors’ report must include

(iv) disclosure of the fee paid to the audit firm for all NAS, and a description of the services; and

(v) a statement by the directors whether they are satisfied that the provision of NAS does not compromise the auditor’s independence, and their reasons for believing that to be the case.

2 There will be a two year holding off period to enable the standards setter to re-issue the standards in a form suitable for legal enforcement.
Item (v) is consistent with a board’s overriding responsibility for the integrity of the financial statements, under the Corporations Act (2001). Further, in effect, the provision renders the board of directors (i) the key statutory regulatory safeguard of auditor independence with respect to the threat from the provision of NAS; and (ii) ultimately responsible for corporate policy with respect to hiring the incumbent audit firm to provide NAS. The professional code also recognises directors as an important mechanism for safeguarding auditor independence. The safeguarding role of the board is of primary interest to this study, where the threat from the provision of NAS is wealth based – specifically, the continuity of fees associated with recurring NAS.

Corporate best-practice, emanating, for example, from the Australian Stock Exchange (ASX) and related empirical corporate governance research (e.g., DeZoort, Hermanson, Archambeault & Reed, 2002) suggests that the effectiveness of a board in fulfilling its financial reporting safeguarding function relies on it possessing certain structural attributes. The safeguarding role of the board of directors is examined here from the perspective of the strength of those attributes. The threat – safeguarding variables are investigated using an experimental approach. Evidence of the effect of the independence factors on stakeholder perceptions of auditor independence and willingness to hire the incumbent audit firm to provide NAS is sought. The rationale for the choice of the independence variables is discussed in section 1.3 below, which deals with the motivation and importance of the study.

The foregoing scenario leads to the research questions of interest to this study, which follow.

1.2 RESEARCH QUESTIONS

This study attempts to address three broad research questions in the context of the decision of whether the incumbent audit firm should be hired to provide given NAS. The first two questions are empirical and are distinguished on the basis of the dependent variables involved. The third research question is descriptive.
The first empirical question is concerned with independence (accountability) factors affecting stakeholder perceptions of auditor independence risk. The independence factors, as mentioned earlier, involve the financial threat to auditor independence from recurring NAS and the structural (monitoring) strength of the board of directors as a safeguard of auditor independence. Accordingly, the first research question is as follows:

**RQ1** Does financial threat to auditor independence from recurring NAS and the structural strength of the board of directors affect stakeholder perceptions of auditor independence?

The second empirical research question concerns independence (accountability) factors impacting stakeholder willingness to appoint the incumbent audit firm to provide NAS. Again, the independence factors involve the financial threat to auditor independence from recurring NAS and the structural strength of the board of directors as a safeguard of auditor independence. Accordingly, the second research question is as follows:

**RQ2** Does financial threat to auditor independence from recurring NAS and the structural strength of the board of directors affect stakeholder willingness to appoint the incumbent audit firm to provide NAS?

The foregoing research questions will be addressed using an experimental approach, wherein a listed (public) corporation has chosen to outsource NAS and the incumbent external audit firm is one of two likely contenders. The alternative choice is a specialist NAS provider. Stakeholder willingness-to-appoint the incumbent audit firm to provide NAS is examined by asking participants to indicate whom they would choose to provide the NAS; and the strength of their preference for the alternative providers.

Examining willingness-to-appoint invokes issues of efficiency as well as accountability. The potential NAS providers in this study differ in relation to the following criteria, which hold implications for the capacity of the respective parties to add value:

1. audit technology as a capability;
2. incumbency vis-à-vis the client;
(iii) a multi-disciplinary organisational structure; and
(iv) formal professional status.

The existing audit literature centres on the efficiencies of the audit-NAS strategy on the supply side of the market and their implication for independence in appearance. The efficiencies accrue to the audit firm from technological advantages (e.g., Beck, Frecka & Solomon, 1988a) and knowledge spillovers (e.g., Simunic, 1984). The foundation of the resources is incumbency and incumbency as a multi-discipline provider to the client, respectively. The resources represent client specific investment, and give rise to ex-post advantage. The opportunity for the audit client to participate in the efficiencies relies on competitive pricing and/or enhanced quality of service emanating from the provider. However, the decision of whether to hire the incumbent audit firm to provide NAS that is central to this study is, of course, concerned with the demand side of the equation. Further, the decision choice arises in the initial market for NAS. The process of choosing between competing service providers in the initial market for NAS begins with firm specific resources held by the providers, and, may or may not be impacted by client specific assets.

Firm specific assets are the subject of a literature dedicated to identifying the demand determinants of quality professional services, including the audit (e.g., Beattie & Fearnley, 1995; Carcello, Hermanson & McGrath, 1992; Eichenseher & Shields, 1983). However, the nature and role of the resources as a source of efficiency in the market for joint audit-NAS has largely been overlooked in the accounting literature to date. This study will attempt to redress that deficiency.

A unified approach to identifying the nature and source of the efficiencies impacting the decision of whether to hire the incumbent audit firm to provide NAS – one that is inclusive of firm and client specific assets - is adopted. Such an approach is considered essential in guiding the development of the case studies (data instruments) that will drive stakeholders’ decision choice in the context of the present study. The four fundamental factors that differentiate the incumbent audit firm from the specialist provider in terms of their capacity to add value are expressed through firm specific and client specific resources.
Accordingly, the third research question is as follows.

**RQ 3 What are the nature and sources of the efficiencies that may accrue from appointing the incumbent audit firm to provide NAS?**

The foregoing question will be examined in the first instance at a general theoretical level and, therein, with specific reference to the present study. Further, qualitative evidence of efficiencies impacting stakeholder willingness to appoint the incumbent audit firm to provide NAS will also be sought in a preliminary empirical study using protocol analysis as the method of inquiry.

### 1.3 MOTIVATION AND IMPORTANCE

The motivation for this research derives from the opportunity to examine issues that are central to the current Australian co-regulatory principles-based approach to the audit-NAS strategy, which enables a balance to be struck between the issues of accountability and efficiency impacting the strategy; and at the same time extend the existing associated academic literature.

The Australian government considers that wealth incentives – the fees for NAS – to be the most significant threat to auditor independence arising out of the audit-NAS strategy (Commonwealth Law and Economic reform Program (CLERP) 9 Report, 2002). Further, analytical research suggests that the real threat to auditor independence from fees lies with recurring NAS (e.g., Simunic, 1984; Beck et al., 1988a). Recurring NAS signals the presence of client-specific investment, the value of which relies upon a future income stream of quasi-rents, i.e., a continued relationship with the client (e.g., Simunic, 1984). From an agency theory perspective, the fees (relationship) provide a mechanism by which management may exact auditor compliance in the domain of residual opportunism. However, the results of empirical studies that have sought to identify the relationship between the continuity of fees for recurring NAS and auditor independence, on both the supply and demand sides of the market for joint audit-NAS, are mixed (e.g., Beck, Frecka
So, Solomon, 1988b; Parkash & Venables, 1993). The present study provides the opportunity to examine this important issue further, from a user-based perspective.

As the foregoing discussion associated with the fees for NAS suggests, financial threat is not a sufficient condition for an auditor to assume heightened independence risk, but relies for its effect on pressure from management. The relationship between financial threat from the provision of NAS and managerial opportunism has largely dominated prior audit quality studies dealing with auditor independence. However, more recent developments, for example, in the market for joint audit-NAS, the regulatory principles-based approach to auditor independence and empirical studies, beg the question of the relationship between non-financial threat and auditor independence, and the role of safeguards in ameliorating a threat, generally. The capacity to examine these issues has been advanced by recent significant academic theoretical developments that model independence risk (e.g., Johnstone, Sutton & Warfield, 2001; Mock, Srivastava & Turner, 2005). The models represent independence risk (IR) as a function of the following elements: incentives and opportunity, and depending upon the model, auditor integrity/attitude.

The Johnstone et al. (2001) and Mock et al. (2005) IR models provide an important means of examining the relationship between the threat - safeguarding independence factors of interest to this study. The models, together with the Australian regulatory conceptual approach to auditor independence, will be deployed to assert that the board of directors has a central role to play in safeguarding auditor independence from the threat from the provision of NAS; and, at the same time striking a balance between accountability and efficiency. The user-based experimental component of the study provides the opportunity to examine the signalling quality of the structural attributes of the board of directors as a buffer to effectiveness in circumstances where IR opportunity is high and the threat to auditor independence is from wealth incentives.

Johnstone et al. (2001, p. 15) identify examining the relationship between the determinants of independence risk as a key area for research. The authors assert that by identifying "factors and their relationships within the (independence risk) framework, the auditing
profession, auditing firms, regulators, and researchers should be better able to respond to the practice and policy implications of independence risk” (Johnstone et al., 2001, p. 15). The present study also provides the opportunity to advance our understanding of the nature and role of efficiencies associated with firm specific assets in the context of the principles-based approach.

Thus, in concluding this part, it is suggested that the overall importance of this study lies in its capacity to provide valuable evidence on key issues that are part of the current, worldwide debate surrounding the joint provision of the audit and NAS, including regulatory developments. The audit-NAS strategy is not dead in the water, at least in Australia. The code - statutory principles-based approach vests the use and responsibility for the strategy vis-à-vis its implications for the independence of the audit in the hands of the market players. Regulation serves to anchor responsibility for the strategy on the supply and demand sides of the market and at the same time establish and promote a framework of mechanisms for preserving independence.

1.4 CONTRIBUTIONS

The contributions of this research are fivefold. Firstly, examining user perceptions of the financial threat to auditor independence from recurring NAS represents an important extension of prior user-based perception studies. Prior user-based studies have centred on stakeholder perceptions of the relative magnitude of NAS fees to audit fees for auditor independence (e.g., Pany & Reckers, 1988; McKinley, Pany & Reckers, 1985). However, as the foregoing discussion suggests, stakeholder perceptions of the threat to auditor independence from the continuity of fees (recurring NAS) is central to the issue of financial incentives and auditor independence.

Secondly, examining user perceptions of the mitigating strength of the board of directors as a safeguard of auditor independence also represents an important extension of prior user-based perception studies. Prior user-based studies have centred on separation of duties as a safeguard of auditor independence (e.g., Swanger & Chewning, 2001; Lowe, Geiger & Pany, 1999). Separation of duties trades off accountability for efficiency. The board of
directors, on the other hand, as the discussion in Chapters 2 and 4 reveals, represents an important mechanism for striking a balance between accountability and efficiency. The board is also at the pinnacle of the regulatory corporate governance structures that have been established to preserve the integrity of the auditor’s public interest role in Australia and elsewhere.

Thirdly, examining the effect of independence factors on stakeholder willingness to appoint the incumbent auditor to provide NAS also represents an extension of prior user-based studies. The prior studies focus on issues of accountability impacting stakeholder perceptions of auditor independence, per se (e.g., McKinley et al., 1985; Swanger et al., 2001; Lowe et al., 1999). Examining willingness-to-appoint, invokes issues of efficiency impacting the decision choice and in that respect introduces additional context to the independence decision making process than that reflected in prior user-based studies. The ISB (2001), for example, acknowledges the importance of cost – benefit analysis in independence decision making. Efficiencies foregone represent indirect costs of reduced independence risk and, therefore, safeguards. Context is also recognised as important in overcoming the demand effects of earlier user based studies (e.g., McKinley et al., 1985; Pany & Reckers, 1987).

Fourthly, the approach adopted in identifying the nature and sources of the efficiencies from firm specific assets impacting the audit-NAS strategy, represents an important theoretical extension of existing research. The approach draws on the resource based theory of competitive advantage described in the strategic management literature (e.g., Teece, Pisano & Shuen, 1997). The approach is, at the descriptive level, compatible with the economics of audit quality literature dealing with client specific assets. Thus, it facilitates a unified approach to examining the firm specific – client specific issue. The framework, which is described in detail in Chapter 5, provides a springboard for further research.

Finally, protocol analysis is used to test a set of case studies designed to examine stakeholder perception of the issues of accountability and efficiency, of interest to this study, impacting the decision of whether to hire the incumbent audit firm to provide NAS
The results of the study form an integral role in the development of the set of case studies used in the experimental component of the thesis (Study 2). Protocol analysis has traditionally been used to trace human information processing directed at arriving at a decision choice, including the area of auditor judgement (e.g., Bedard, Mock, & Boritz, 1992; Klersey & Mock 1989; Biggs & Mock, 1983). However, in the past 20 years, the verbal report technique has also been used to test and develop written communication, including data instruments (e.g., Midanik, Hines, Greenfield & Rogers, 1999; Flower, Hayes & Swarts, 1983; Benbunan-Fich, 2001). The theoretical basis for using the technique for that purpose is grounded in contemporary communications theory and reading comprehension research. The ‘think aloud’ technique is recognised as the foremost method of correcting for response error attributable to impediments to comprehension inherent in written communication (e.g., Mantei & Teorey, 1989). Protocol analysis has not previously been used for that purpose in audit/accounting research, nor in the process of testing and developing case studies, generally.

Examining willingness-to-appoint experimentally, gives rise to a multi-faceted study that invokes a broad ranging set of prior empirical research and extant regulatory corporate governance literature and is exploratory in nature. Protocol analysis is recognised as an important method of inquiry in gaining preliminary evidence on issues impacting a decision choice under those circumstances (Kuusella & Paul, 2000). The study also provides preliminary qualitative evidence of issues of accountability and efficiency impacting the decision of whether to appoint the incumbent audit firm to provide NAS.

The remainder of the thesis is organised as follows. Chapter 2 describes the debate surrounding the joint provision of the external audit and non-audit services (NAS) to corporate audit clients, the Australian regulatory response to the issue, and the theory of independence risk (IR). The Australian regulation and the theory of IR provide the broad theoretical setting for the research. Chapter 3 reviews prior empirical research impacting the accountability variables of interest to the study. Chapter 4 provides the theoretical development of the empirical accountability hypotheses and the rationale for the descriptive research question dealing with efficiency. Chapter 5 provides an analysis of the nature and sources of efficiencies that may accrue from appointing the incumbent audit
firm to provide NAS. The empirical component of the study is dealt with in Chapters 6 and 7. Chapter 6 describes Study 1, which involves the protocol analysis. Chapter 7 describes the research method, empirical results and conclusions of Study 2. Chapter 8 concludes the thesis by providing an overall summary and conclusion, including the limitations of the research and opportunities for further research.
CHAPTER 2

THE AUDIT-NAS DEBATE,
THE AUSTRALIAN REGULATORY RESPONSE TO THE DEBATE
AND THE THEORY OF IR

2.0 CHAPTER CONTENT

The purpose of this Chapter is to lay the theoretical foundation for the thesis. The Chapter deals with three issues, beginning with the debate over the joint provision of the external audit and NAS to audit clients, which provides the background to the thesis. The discussion surrounding the debate addresses the economic arguments for and against the strategy, the altered economic circumstances that lead to its prominence, and the broad regulatory response to the strategy, emphasising the Australian position. Secondly, the contemporary Australian regulatory approach to the audit-NAS strategy will be described. Thirdly, the theory of independence risk (IR) is described. The discussion dealing with the Australian regulation and the theory of IR lays the groundwork for the theoretical framework of the thesis, beginning with the issue of accountability. The theoretical framework is extended in Chapter 4 in the process of developing the accountability hypotheses, and, subsequently, Chapter 5, which deals descriptively with the issue of efficiency. The chapter concludes by outlining market-based incentives to preserve auditor independence.

2.1 THE AUDIT-NAS DEBATE

The purpose of this thesis is to examine issues of accountability and efficiency that are integral to the current worldwide debate surrounding the joint provision of the external audit and non-audit services (NAS) by public accounting firms to public, corporate audit clients. The implication of the provision of NAS for auditor independence is, inter alia, the subject of recent professional and statutory regulatory developments, worldwide. From an Australian professional regulatory perspective, the issue falls within the ambit of the regulation of independence and the provision of assurance services, generally. From a statutory perspective it falls within the ambit of the regulation of corporate financial reporting, impacting both the supply (external auditor) and demand (e.g., directors) for the joint provision of the services. The Australian professional and statutory response to the
debate, instituted over the past three years, has been precipitated by a series of related events including international regulatory developments, the "Enron factor" and the collapse of local high profile corporations at the beginning of the new millennium. The Australian regulation provides a balanced solution to the debate surrounding the joint provision of the audit and NAS.

The argument against the audit-NAS strategy views independence as the *raison d'être* of the profession and centres on the capacity of the incentives that NAS hold for auditors to assume heightened independence risk which adversely impacts investor perception of financial information risk, and, therefore, the cost of capital. The relationship between the perception of independence risk and the cost of capital is underpinned by agency theory. The separation of corporate ownership and control gives rise to an agency relationship between investors (principal) and management (agent) (Jensen & Meckling, 1976). Investors (shareholders or debt holders) delegate to management the authority to manage economic resources on their behalf. However, both parties are assumed to be self-interested utility maximisers, which in the presence of imperfect contracting, results in a divergence of interests, investor wealth losses from managerial opportunism, and the agency problem. That is, the problem of aligning management's interest with that of investors i.e., minimising managerial opportunism. Control is provided, in part, by the independent external audit, which is intended to alter the opportunity for *ex post* managerial opportunism (Jensen et al. 1976). The external audit is intended to provide credibility to the financial representations of management, which may be lost in the process of management reporting on its own performance. Where investors perceive that the auditor has incentives to assume heightened independence risk, their perception of information risk may also rise and negatively impact the cost of capital and, therefore, capital market efficiency. Under those circumstances the ""value of the audit function itself might well be lost"" (United States v. Arthur Young & Co., cited in Briloff, 1996. p. 3).

The changing nature and growing economic importance of NAS to public practice, worldwide, during the 1980s and ‘90s raised concerns over the impact that the altered relationship with business (management) could have on auditor independence, in fact, and
on public perception of auditor independence, in particular. The threat to auditor independence posed or heightened by the provision of "full-service accounting/consulting" (Walker, 1999, p. 48) is grounded in circumstances where the auditor is perceived to have the incentives and opportunity to engage in high-risk behaviour.

Antagonists of the audit–NAS strategy call for management consulting to be spun-off from the audit i.e., for the audit to stand alone, except to the extent that the services “would be required to be performed as an incident to fulfillment of the independent audit” (Briloff, 1996, p. 9).

The argument in favour of appointing the incumbent audit firm to provide NAS, on the other hand, centres on the economic efficiencies of the strategy, and the capacity of ex post safeguards to preserve auditor independence in the presence of the strategy. Proponents of the audit – NAS strategy reject the one-size-fits-all/blanket prohibitionist stance of the antagonists on the basis that it may result in a cost greater than any benefit that may accrue from preserving the appearance of auditor independence.

Concern over the impact of the scope of services on audit independence was expressed in the US, for example, as early as 1957 in a report of the United States (US) Securities and Exchange Commission (SEC). The issue gained momentum from the mid-1970s onwards, beginning with Congressional hearings into the efficiency and effectiveness of the audit industry, held in the US. Concerns were raised again in the 1980s and 1990s, evidenced, for example, by the Dingell enquiry (1985-1986) and the establishment by the Public Oversight Board (POB) in 1994, of the Advisory Panel on Auditor Independence, to look into “expressed concern for the independence and objectivity of the auditing profession” (POB, 1994, p. 1).

The foregoing events, from the mid-1980s onwards, were paralleled by changes within the accounting industry worldwide that increased the industry's exposure to the market place. Three of the changes have had significant implications for auditor independence. Firstly,
the repeal of rules against competitive practice resulted in a significant increase in the competition for clients, including price competition. Price competition reduced profit margins for the external audit and, according to some (Walker, 1999, p. 46), the resources that are dedicated to the task. Further, according to Benston (cited in Briloff, 1996) the commodification of the audit\textsuperscript{3}, which he alleges has reduced the skill of the auditor, \textit{per se}, to the auditee, also squeezed profits.

The second major factor affecting the accounting industry was the rapid expansion in the provision of NAS that has resulted in the decline in the relative importance of the external audit as a source of revenue to the industry and increased profitability. In the US, the audit and accounting fees of the largest accounting firms as a percentage of their total revenue decreased significantly from 70\% of total revenue in 1976 for the Big Eight to 34\% of total revenue \ldots (merged into the Big Five) in 1998\footnote{Commodification refers to situation where expertise is vested in technology rather than the individual.} (Turner, 2000, p. 4). In the UK, at the start of the 1980s the audit provided approximately 70\% of the total fees generated by the then Big Six firms. By 1993, it had declined to slightly less than 40\%. Similar patterns emerged across the European Community (EC) states over the course of the 1980s (Hanlon, 1996).

The change in the macro-structure of the market was also reflected in the market for the joint services. The average non-audit (to audit) fee ratio in the US in the period 1979 to 1981 ranged from 29.2 per cent to 30.7 per cent (Glezen and Miller, 1985). However, by 2001 the figure in relation to the US Fortune 1000 companies had risen to 269 per cent (Raghunandan, 2003). In terms of the Australian experience, according to Buffini (2001, p. 24), a review of Australian corporate annual reports revealed that in 2000, 20\% of Australia's largest companies paid to audit firms, on average, 250\% more for consulting services ($104 million) than for audit work ($40.2 million).

The decline in the relative economic importance of the audit within the market for the joint provision of the services held implications for auditor independence. That is, the significant increase in the relative economic importance of NAS could be construed as providing an
audit firm with wealth incentives to assume heightened independence risk. This issue was compounded in the US, for example, during the 1990s, by other factors that the SEC considered reflected an increasing network of business and financial relationships between audit firms and corporate clients. These included the presence of strategic business alliances with audit clients, the ownership by audit partners of satellite businesses established to perform services for audit clients that regulation prohibited audit firms, per se, from performing, and audit partners holding investments in clients (Walker, 1999).

The increase in the demand for NAS, generally, is attributed to the advent of the global economy whose complexity increased corporate demand for professional expertise in such areas as taxation, information technology, finance, market studies and human resource management (Hanlon, 1996). Heightened competition in the global economy also prompted many corporations to outsource non-essential services to improve margins and allow management to concentrate on core competencies with a view to developing and maintaining a strategic edge.

The rationale for the expansion in the provision of NAS, by the accounting profession, per se, is grounded in the foregoing changes. Walker (1999), for example, suggests that the declining profitability of the audit threatened the survival of the profession and drove the search for alternative more profitable markets. Arrunada (1999), on the other hand, views the provision of NAS as a natural consequence of modern auditing. He maintains that with the advent of the global economy, audit firms needed to contract professional NAS experts to help them understand increasingly complex undertakings. Thus, they "found themselves in the position of being able to satisfy an increasingly wide range of demand in the field of advice, and, in general, the provision of many professional services" (Arrunada, 1999, p. 73). Further, providing the experts with the opportunity to provide NAS services is also recognised as an important means of attracting, retaining and training such personnel, whose skills are, in turn, essential to providing a quality audit - an argument in support of joint provision.
The third factor affecting the accounting industry was the change in the microstructure of the market i.e., the product mix offered by audit firms. In 1981, management (consulting) advisory services (MAS) for US audit firms represented approximately 15% of their total revenue, by 2000 MAS accounted for 40% of revenue (Turner, 2000). Further, by the mid-1990s the expansion in the provision of the services by public practice had "taken on new dimensions" (Sutton, 1997, p. 88) with respect to the nature of the NAS. The list of services included the following: investment banking and other equity-raising activities; strategic planning and operational consulting services; assistance in finding business partners or acquisition candidates and regulatory approval for major transactions; outsourcing services; and other traditional management activities (Sutton, 1997).

The altered product mix, in the context of the market for audit and NAS, represented the capacity for the audit firm to lack independence from the subject matter of the audit and, similarly, management. The increased size and mobility of the modern professional workforce, which holds implications for employee relationships between the audit firm and clients, compounded the problem.

The changes in the macro and micro structure of the market for audit firm services combined to suggest a shift in ethos in public practice from professionalism in the sense of serving the public interest, to one of commercialism. That is, the pursuit of profit and serving management (Hanlon, 1996) – a sentiment reflected, in part, in the following claim. “These firms no longer advertise themselves as auditing firms, but rather as one-stop financial service firms that offer a full range of services” (Turner, 2000, 4).

Despite these developments, no solid evidence has been adduced to suggest a link between audit failures and impaired independence (e.g., Melancon, 2000). However, in the US, at the end the 1990’s, the SEC expressed growing concern over the impact that the altered relationship between the audit firm and client could have on investor perception of auditor independence at a time when the significance of the audit to the capital markets had increased. For example, in the period between 1970 and 1998 total capitalisation of the US security market grew 20fold from $651 billion to $13.3 trillion; whilst the number of direct
public shareholders increased 2.5-fold from 32 million in 1973 to around 79 million in 2000 (Turner, 2000, p. 2). In Australia the total capitalisation of the equities market in the period between 1992 and 2000 increased 2.6-fold from $389 billion to $1,005 billion (Australian Stock Exchange (ASX), 2003); whilst the number of direct public shareholders increased 20-fold from 173,000 in 1991 to 3,500,000 in 2000 (ASX, 2000). Under these circumstances, independence in appearance is considered to assume particular significance (Turner, 2000).

The foregoing developments also highlighted the fact that statutory provisions and the self-regulatory structure of the profession, reflected in professional codes of conduct instituted in the 1970s, had not kept pace with the dramatic changes that had taken place in the industry since that time (Turner, 2000). That is, the rules and roles of the professional accountant in the modern era of multi-disciplinarity were ill defined. As a result the restructuring that took place in the market place during the 1980s and 90s has had its equivalent in the regulatory domain since the beginning of the new millennium.

Major reviews of audit independence regulation globally were given prominence by the following events:

(a) the release, in November 2000 by the US, Independence Standards Board (ISB) of an exposure draft on independence concepts that were to form the basis of a conceptual framework for auditor independence. (The ISB was disbanded prior to reviewing the comments received. However, the exposure draft was issued as a staff report in July 2001.);

(b) the release, in December 2000, by the European Commission, of a consultative paper on statutory auditor independence, designed to achieve greater uniformity in the requirements in force in the Member States of the European Community (EC); and

(c) the release, in April 2001, by the accounting profession’s peak international body, the International Federation of Accountants (IFAC), of a re-exposure draft intended to update its ethical requirements on professional independence including the provision of assurance services, generally.4

4 The document was a re-release of an exposure draft, released in June 2000, which was re-written as a result of comments received.
The publications focus on the following four core factors that have traditionally been recognised by regulators, including the profession, to be of significance to auditor independence, and which were the subject of the altered circumstances within the accounting industry described earlier:

(i) financial relationships;
(ii) business relationships;
(iii) employment relationships; and
(iv) the provision of NAS.

Threat to auditor independence may emanate in the context of the audit-NAS strategy from financial, business or employment relationships attaching to members of the assurance team. However, threat to auditor independence emanating from the provision of NAS, per se, is of immediate relevance to this thesis.

Whilst there is some variation in the detail of the foregoing publications, each adopts a principles-based as opposed to a rules-based approach to auditor independence and, therein, the provision of NAS. The rules-based approach to auditor independence is typically associated with the prohibition of certain relationships and activities between the audit firm and client, by a regulatory authority independent of the audit firm or profession. The approach reflects what Kinney (1999, p. 70) refers to as “The Constraint View” of auditor independence. The principles-based approach, on the other hand, involves a theoretical framework of concepts and principles and the use of professional judgement on the part of those vested with the responsibility of applying the theory in the process of defining/establishing the operating rules (ISB. 2000). The responsible parties represent independence decision-makers. The principles-based approach is more closely aligned with Kinney’s (1999, p. 71) alternative view of auditor independence, “The Core Value View”, which advocates self-regulation at the audit firm level.

The principles-based approach to auditor independence holds immediate relevance for the Australian regulatory position. The IFAC (2001) publication was formally adopted by the profession in March 2002 – forming part of its joint code of conduct, as Professional Statement F.1 (PF 1). The best-practice statement also has, in effect, the status of an
auditing standard by virtue of section .14 of Auditing Standard (AUS) 108, which reads as follows:

Professional accountants must . . . observe the requirements of Professional Statement F1 in the Code which includes a requirement to be independent when conducting an assurance engagement.

The principles-based approach to professional independence, as it relates to audit assurance, was subsequently ratified by statutory developments, beginning with the Ramsay (2001) review. The review was established for the purpose of examining the adequacy of Australian, statutory and professional regulatory, auditor independence requirements. It was prompted by the foregoing professional regulatory developments and the collapse of high profile corporations, such as Onetel and HIH, in Australia in the first half of 2001. The review culminated in the publication of the Ramsay report in October 2001.

Ramsay’s (2001) approach to dealing with the four factors of significance to auditor independence, identified above, sought to preserve the prevailing (then as now) Australian co-regulatory position, involving statutory, professional and other best-practice regulatory authorities. Firstly, the report sought to upgrade the existing statutory (Corporations Act, 2001) rules-based provisions dealing with employment and financial relationships, identifying a non-exclusive list of such relationships “which, if they exist, mean that the auditor is not independent” (Ramsay, 2001, p. 7). The regulation of business relationships and the provision of NAS, on the other hand, were to remain with the profession, with supporting statutory recommendations. The recommendations included an inaugural general standard of auditor independence, and provided for increased market transparency and independent regulatory oversight of the audit. The recommendations associated with NAS, per se, called for the provision of the services to be dealt with by the following means:

(a) revised and updated professional ethical rules;

(b) mandatory disclosure of non-audit services and the fees paid for th(e) services;

(c) mandatory declaration by the auditor to the directors of his/her independence;

(d) strengthening the role of the audit committees (board of directors);
(e) mandatory disclosure by the board of directors of whether the provision of NAS is compatible with maintaining auditor independence; and

(f) the establishment of an Auditor Independence Supervisory Board (AISB) which would have among its functions, the task of monitoring the adequacy of disclosure of non-audit services. (Ramsay, 2001, p. 10)

Ramsay (2001, p. 80) recommended that the responsibility for mandating and defining the structure of audit committees vest with the ASX, to be incorporated in the ASX Listing Rules. The review also called for the AISB to be constituted outside the control of the profession.

The recommendations contained in the Ramsay (2001) report were followed by the release in September 2002, by the Australian Commonwealth Treasury, of its report titled Corporate disclosure: Strengthening the financial reporting framework. The report represented stage 9 of the Government’s Commonwealth Law and Economic Reform program (CLERP 9) which commenced in the early 1990s. The report is referred to here as the CLERP 9 Report (2002). The CLERP 9 Report (2002) embraced the Ramsay (2001) recommendations. Although, it contained an overriding proposal to replace the regulatory oversight of the audit (and, similarly the development of auditing standards) within the existing statutory framework, headed by the Financial Reporting Council (FRC), rather than establishing the AISB. Further, whilst the Ramsay (2001) report dealt solely with the issue of auditor independence, the CLERP 9 Report (2002) extended to the proposed reform of other areas impacting the strength of corporate financial reporting. They included issues of auditor liability, the adoption of international accounting standards, financial analyst independence and advice, continuous disclosure, enforcement of accounting and auditing requirements, and shareholder participation and information. The latter developments reflected the Commonwealth legislature’s response to what was described worldwide as a crisis in corporate governance, revealed by a spate of international financial scandals, beginning with the collapse of the US energy giant, Enron, and with it the premier audit firm, Arthur Andersen, in 2002.
The CLERP 9 Report (2002) proposals having statutory import were re-released in the form of an exposure draft, titled the CLERP (Audit Reform and Corporate Disclosure) Bill (CLERP 9 Bill), in October 2003. The provisions provided for a rules-based approach to the regulation of auditor independence with respect to financial and employment relationships. However, notwithstanding a succession of prominent overseas financial scandals post Enron, the CLERP 9 Bill (2003), unlike the Sarbanes-Oxley Act (2002) in the US, did not adopt a rules-based, prohibitive approach to the provision of NAS to audit clients. Instead, it sought to strengthen the professional principles-based approach to the audit-NAS strategy, embodied in the profession’s code of conduct, on both the supply and demand sides of the market for the joint services, in line with Ramsay (2001) and the CLERP 9 Report (2002).


The Australian regulatory, professional code – statute principles-based approach to auditor independence and the provision of NAS to audit clients underpins the theoretical setting for the research questions of interest to this study. However, before considering the nature of the underlying framework, it is important to note the changes in the market place that took place in relation to the audit-NAS strategy in line with the foregoing corporate and regulatory developments.

Firstly, with respect to the relative economic importance of NAS vis-à-vis the audit, in Australia non-audit fees as a proportion of total fees paid by the top 100 companies to their auditors eased from around 70% in 2000, to 54% by 2002 (Gettler, 2002, p. 38). Audit fees increased, on average, in the same period by 27% (Gettler, 2002). Secondly, major
changes to the accounting and non-audit services framework, per se, included the sale or spin-off of the consulting arms of each of the Big 4 audit firms. A summary of the major changes in the framework, which took place at the turn of the new millennium, is provided in Figure 1.

**Figure 1: Major changes to the accounting and non-audit services framework in Australia**

**KPMG**
- Instituted voluntary internal independence structures: Ethics & Conflicts Committee (majority KPMG management); external academic review of independence, conflict resolution and quality control procedures – available to clients only.
- Spun off its consulting arm as KPMG Consulting in October 2001, containing business and technology consulting, systems design, applications implementation and system integration.
- KPMG retained assurance, tax, legal, corporate recovery, corporate finance, transaction services and forensic accounting.
- Listed in US on NASDAQ.

**Deloitte Touche Tohmatsu**
- Spun off consulting services as a private company (Braxton) by the end of 2002.
- No longer offers internal audit outsourcing services.
- Retained security, actuarial, corporate finance, and tax services.

**Ernst & Young**
- Sold its consulting arm to Cap Gemini in May 2000.
- Retained assurance, corporate finance, tax, legal, and advisory businesses.
- 75 per cent of Arthur Andersen accounting and audit in Australia merged with Ernst & Young.

**PricewaterhouseCoopers**
- Sold IT consulting arm to IBM Global Services (July 2002), and withdrew plans to spin off and list.
- Established Audit Standards Oversight Board in May 2002 to examine quality control and processes for ensuring audit independence.

**Arthur Andersen**
- Spun off Accenture in August 2000.
- Subsequently built a business consulting division that has since joined with KPMG Consulting (75 per cent) and William Buck (25 per cent).
- Ceased operation in August 2002.

Many second tier accounting firms experience business growth through non-audit services and the acquisition of non-audit service providers.

Source: adapted from CLERP 9 Report (2002, p. 31-32)
Notwithstanding the foregoing market changes, regulatory support for a principles-based as opposed to a rules-based approach to the provision of NAS to audit clients is viewed by some commentators as falling short of what is required (e.g., Citron, 2003; Briloff, 2002). The rationale for the principles-based approach, however, is provided in the following statement.

New developments in business, the evolution of financial markets, rapid changes in information technology, and the consequences for management and control, make it impossible to draw up an all inclusive list of all situations when providing non-assurance services to an assurance client might create threats to independence and of the different safeguards that might reduce these threats to an acceptable level (IFAC, cited in Ramsay, 2001, p. 193).

The statement acknowledges the inevitability of the audit-NAS strategy and that the principles-based approach is necessary to accommodate (i) the external forces, referred to earlier, by which the brave new world has been shaped; and (ii) “innovation in organisation and service delivery” (CLERP 9 Report, 2002, p. 39). Further, “audit firm projections show (NAS) are the engine for their business growth” (CLERP 9 Report, 2002, p. 29).

The principle-based approach is intended to strike a balance between the partisans and antagonists of the NAS strategy, and relies for its success in that respect on the effectiveness of the framework of safeguards that have been established to preserve the integrity of the audit.

2.2 THE AUSTRALIAN REGULATORY APPROACH TO THE JOINT PROVISION OF THE AUDIT AND NAS

As the foregoing discussion indicates, PF 1 supported by AUS 108, and the Corporations Act (2001), as amended, reflect the professional and statutory positions associated with the regulation of auditor independence in Australia. The aspects of the respective sets of regulation that provide the groundwork for the theoretical framework for this study will now be considered – beginning with PF1. The specific variables of immediate interest to the study will be identified in the process of the discussion.
2.2.1 Professional regulation – PF 1

Professional regulation of the joint provision of the audit and NAS strategy falls within the ambit of the regulation of independence and the provision of assurance services generally. An assurance engagement is defined as one that is conducted to “enhance the credibility of information about a subject matter” to “provide either a high or a moderate level of assurance” (PF 1, 1.2).

The provision of services to assurance clients is founded on the following general rule:

... a firm may provide services beyond the assurance engagement provided any threats to independence have been reduced to an acceptable level (PF 1, 2.71).

Reducing “threats to independence ... to an acceptable level” reflects the professional principles-based approach to independence. The latter approach is described in PF1 as “tak(ing) into account threats to independence, accepted safeguards and the public interest” (PF 1, 1.8). Thus, the key concepts involved in the process are fourfold:

(i) independence,
(ii) threats,
(iii) safeguards, and
(iv) the public interest.

Formal definition of the concepts is confined to the notion of independence. The interpretation of the remaining three variables is a matter of professional judgement on the part of the assurance provider, given the circumstances of each case. However, a substantial amount of guidance on the nature of the three concepts is provided in PF 1.

Constraints or limitations imposed on the application of the principles-based approach, and, therefore, the general rule, are evident in the foregoing reference to “accepted” safeguards, and the related issue of an “acceptable level” of threat.

The assurance provider is vested with the responsibility of giving effect to the principles-based approach (PF 1, 0.16). The assurance provider includes one or more of the assurance
team, firm or network firm, depending upon the nature of the assurance service – all three in the case of audit assurance (PF 1, 1.13). The implementation process is founded on three key principles.

The nature of the four independence concepts and the three procedural principles will now be considered in detail.

2.2.1.1 Underlying concepts
The concepts underpinning the general rule guiding the provision of NAS to an assurance client are, again, independence, threats, safeguards and public interest.

2.2.1.1.1 Independence
The profession’s definition of independence, per se, provides two separate perspectives of the concept. The first prescribes the attitude or state of mind that the assurance provider must maintain in the conduct of the audit, and is referred to as “independence of mind”. The second perspective, “independence in appearance”, is concerned with the state of mind of the observer i.e., third-party stakeholders. The assurance client and assurance provider represent the first and second parties.

The profession’s definition of independence reads as follows:

**Independence** is:

(a) Independence of mind – the state of mind that permits the provision of an opinion without being affected by influences that compromise professional judgment, allowing an individual to act with integrity, and exercise objectivity and professional scepticism; and

(b) Independence in appearance – the avoidance of facts and circumstances that are so significant a reasonable and informed third party, having knowledge of all relevant information, including any safeguards applied, would reasonably conclude a firm’s, or a member of the firm’s, integrity, objectivity or professional scepticism had been compromised. (PF 1, 0.14).
Independence in appearance, as it relates to external audit assurance, is of immediate relevance to this thesis. The “facts and circumstances” to which the definition of independence in appearance refers, include threats to and safeguards of auditor independence.

2.2.1.1.2 Threats

Threats to independence represent circumstances that provide the assurance provider with incentives to assume heightened independence risk in the conduct of an assurance service, in fact and appearance. The threats essentially derive from the relationships and activities impacted by the altered professional environment identified earlier: financial, business and employment relationships and the provision of NAS. PF 1 provides the following non-exclusive classification of the threats: self-interest, self-review, advocacy, familiarity and intimidation. The description and examples of each of the threats provided in PF 1 are identified in Table 1.

The specific form of threat that may ensue from the provision of NAS is reflected in the following examples of self-interest, self-review and advocacy, drawn from Table 1.

<table>
<thead>
<tr>
<th>Threat</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-interest</td>
<td>• undue dependence on total fees from an assurance client;</td>
</tr>
<tr>
<td></td>
<td>• concern about the possibility of losing the engagement.</td>
</tr>
<tr>
<td>Self-review</td>
<td>• performing services for an assurance client that directly affect the subject matter of an assurance engagement;</td>
</tr>
<tr>
<td></td>
<td>• preparation of original data used to generate financial statements or preparation of other records that are the subject matter of an assurance engagement.</td>
</tr>
<tr>
<td>Advocacy</td>
<td>• dealing in, or being a promoter of, shares or other securities in an assurance client; and</td>
</tr>
<tr>
<td></td>
<td>• acting as an advocate on behalf of an assurance client in litigation or in resolving disputes with third parties.</td>
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</tbody>
</table>

The threat associated with the fees for recurring NAS that is of interest to this study, falls within the ambit of self-interest; and with respect to the foregoing examples, in effect, “concern about the possibility of losing the engagement”.
<table>
<thead>
<tr>
<th>Threat</th>
<th>Description</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-interest</td>
<td>Occurs when a firm or a member of the assurance team could benefit from a financial interest in or other self-interest conflict with an assurance client.</td>
<td>a direct financial interest or material indirect financial interest in an assurance client or a related entity; a loan to or from an assurance client or any director, officer or controlling owner of an assurance client; concern about the possibility of losing the engagement; undue dependence on total fees from an assurance client; having a close business relationship with an assurance client; potential employment with an assurance client; and contingent fees relating to assurance engagements.</td>
</tr>
<tr>
<td>Self-review</td>
<td>Occurs when (1) any product or judgment of a previous assurance engagement or non-assurance engagement needs to be re-evaluated in reaching conclusions on the assurance engagement or (2) when a member of the assurance team was previously a director or officer of the assurance client or was an employee in a position to affect the subject matter of the assurance engagement.</td>
<td>a member of the assurance team being, or having recently been, a director or officer of the assurance client; a member of the assurance team being, or having recently been, an employee of the assurance client in a position to affect the subject matter of an assurance engagement; performing services for an assurance client that directly affect the subject matter of an assurance engagement; and preparation of original data used to generate financial statements or preparation of other records that are the subject matter of an assurance engagement. dealing in, or being a promoter of, shares or other securities in an assurance client; and acting as an advocate on behalf of an assurance client in litigation or in resolving disputes with third parties.</td>
</tr>
<tr>
<td>Advocacy</td>
<td>Occurs when a firm, or a member of the assurance team, becomes an advocate for or against an assurance client’s position or opinion to the point that objectivity is, or is perceived to be impaired.</td>
<td>a member of the assurance team having an immediate family member or close family member who is a director or officer of an assurance client; a member of the assurance team having an immediate family member or close family member who, as an employee of an assurance client, is in a position to affect the subject matter of an assurance engagement; a former partner of the firm occupying a policy making position with the assurance client; long association of a senior member of the assurance team with the assurance client; and acceptance of gifts or hospitality, unless the value is clearly insignificant, from an assurance client, its directors, officer or employees. threat of replacement over a disagreement with the application of an accounting principle; and pressure to reduce the extent of work performed in order to reduce fees.</td>
</tr>
<tr>
<td>Familiarity</td>
<td>Occurs when, by virtue of a close relationship with an assurance client, its directors, officers or employees, a firm or a member of the assurance team becomes too sympathetic to the client’s interests.</td>
<td></td>
</tr>
<tr>
<td>Intimidation</td>
<td>Occurs when a member of the assurance team may be deterred from acting objectively and exercising professional scepticism by threats, actual or perceived, from the directors, officer or employees of an assurance client.</td>
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</table>
PF 1 provides that the significance of threats to independence depends upon the "characteristics of the individual engagement" (PF 1, 1.10) taking into account "qualitative as well as quantitative factors" (PF 1, 1.16). The "factors" include the nature of the threat and assurance engagement, and the scope of public interest in the assurance client. The implications of the factors for the significance of the threats to independence are identified in the ensuing discussion and in section 2.3 dealing with the theory of IR.

2.2.1.3 Safeguards

Safeguards represent mechanisms designed to insulate the auditor from threat(s) to independence, where a threat is significant. Professional regulation identifies the source of safeguards as threefold:

(a) safeguards created by the profession, legislation or regulation;
(b) safeguards within the assurance client; and
(c) safeguards within the firm’s own systems and procedures (PF 1, 1.29).

Examples of the form that the safeguards may take at each level are identified in Table 2, which is constructed from Appendix 1 of PF 1. The safeguards have either general application in promoting and preserving independence, or are assurance engagement-specific.
TABLE 2: SOURCES AND EXAMPLES OF SAFEGUARDS IDENTIFIED IN PF 1

<table>
<thead>
<tr>
<th>Source of safeguards</th>
<th>Examples of safeguards</th>
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</thead>
<tbody>
<tr>
<td>The audit firm</td>
<td>Firm-wide safeguards:</td>
</tr>
<tr>
<td></td>
<td>(a) firm leadership that stresses the importance of independence and the expectation that members</td>
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<td>of assurance teams will act in the public interest;</td>
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<td></td>
<td>(b) policies and procedures to monitor and implement quality control of assurance engagements;</td>
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<td></td>
<td>(c) documented independence policies regarding the identification of threats to independence, the</td>
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<td>evaluation of the significance of these threats and the identification and application of</td>
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<td></td>
<td>safeguards to reduce the threats, other than those that are clearly insignificant, to an acceptable</td>
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<td></td>
<td>level;</td>
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<tr>
<td></td>
<td>(d) internal policies and procedures to monitor compliance with firm policies and procedures as</td>
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<td></td>
<td>they relate to independence;</td>
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<td></td>
<td>(e) policies and procedures that will enable the identification of interests or relationships as</td>
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<td>between the firm or members of the assurance team and assurance clients;</td>
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<td></td>
<td>(f) policies and procedures to monitor and, if necessary, manage the reliance on revenue received</td>
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<td>from a single assurance client;</td>
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<td></td>
<td>(g) using different partners and teams with separate reporting lines for the provision of non-</td>
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<td>assurance services to an assurance client;</td>
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<td></td>
<td>(h) policies and procedures to prohibit individuals who are not members of the assurance team</td>
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<td>from influencing the outcome of the assurance engagement;</td>
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<tr>
<td></td>
<td>(i) timely communication of a firm’s policies and procedures, and any changes thereto, to all</td>
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<td>partners and professional staff, including appropriate training and education thereof;</td>
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<td></td>
<td>(j) designating a member of senior management as responsible for overseeing the adequate</td>
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<td>functioning of the safeguarding system;</td>
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<tr>
<td></td>
<td>(k) means of advising partners and professional staff of those assurance clients and related entities</td>
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<tr>
<td></td>
<td>from which they must be independent;</td>
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<tr>
<td></td>
<td>(l) a disciplinary mechanism to promote compliance with policies and procedures; and</td>
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<tr>
<td></td>
<td>(m) policies and procedures to empower staff to communicate, to senior levels within the firm,</td>
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<td></td>
<td>any issue of independence and objectivity that concerns them; this includes informing staff of</td>
</tr>
<tr>
<td></td>
<td>the procedures open to them</td>
</tr>
<tr>
<td>Engagement specific safeguards:</td>
<td></td>
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<tr>
<td></td>
<td>(a) involving an additional professional accountant to carry out reviews of the work done or</td>
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<td></td>
<td>otherwise advise as necessary. This individual could be someone from outside the firm or</td>
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<tr>
<td></td>
<td>network firm, or someone within the firm or network firm, who was not otherwise associated</td>
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<tr>
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<td>with the assurance team;</td>
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<td></td>
<td>(b) consulting a third party, such as a committee of independent directors, a professional</td>
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<td>regulatory body or another professional accountant;</td>
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<tr>
<td></td>
<td>(c) rotation of senior personnel;</td>
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<td></td>
<td>(d) disclosing to the audit committee or others charged with governance, the nature of the services</td>
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<tr>
<td></td>
<td>provided and extent of fees charged;</td>
</tr>
<tr>
<td></td>
<td>(e) disclosing to the audit committee, or others charged with governance, the nature of services</td>
</tr>
<tr>
<td></td>
<td>provided and extent of fees charged;</td>
</tr>
<tr>
<td></td>
<td>(f) policies and procedures to ensure members of the assurance team do not make, or assume</td>
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<td></td>
<td>responsibility for, management decisions for the assurance client; an</td>
</tr>
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<td></td>
<td>(g) involving another firm to perform or re-perform part of the assurance engagement;</td>
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<td></td>
<td>(h) involving another firm to re-perform the non-assurance service to the extent necessary to</td>
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<td>enable it to take responsibility for that service; and</td>
</tr>
<tr>
<td></td>
<td>(i) removing an individual from the assurance team, where that individual’s financial interests or</td>
</tr>
<tr>
<td></td>
<td>relationships create a threat to independence;</td>
</tr>
<tr>
<td>The audit client</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(a) when the assurance client’s management appoints the firm, persons other than management to</td>
</tr>
<tr>
<td></td>
<td>ratify or approve the appointment;</td>
</tr>
<tr>
<td></td>
<td>(b) the assurance client has competent employees to make managerial decisions;</td>
</tr>
<tr>
<td></td>
<td>(c) policies and procedures that emphasise the assurance client’s commitment to fair financial</td>
</tr>
<tr>
<td></td>
<td>reporting;</td>
</tr>
<tr>
<td></td>
<td>(d) internal procedures that ensure objective choices in commissioning non-assurance engagements;</td>
</tr>
<tr>
<td></td>
<td>(e) a corporate governance structure, such as an audit committee, that provides appropriate</td>
</tr>
<tr>
<td></td>
<td>oversight and communications regarding a firm’s services</td>
</tr>
<tr>
<td>Professional, legislative or Other regulatory environment</td>
<td>(a) educational, training and experience requirements for entry into the profession;</td>
</tr>
<tr>
<td></td>
<td>(b) continuing education requirements,</td>
</tr>
<tr>
<td></td>
<td>(c) professional standards and monitoring and disciplinary processes;</td>
</tr>
<tr>
<td></td>
<td>(d) external review of a firm’s quality control system; and</td>
</tr>
<tr>
<td></td>
<td>(e) legislation governing the independence requirements of the firm.</td>
</tr>
</tbody>
</table>
Safeguarding independence involves the following two broad strategies:

(i) eliminating threat; or
(ii) reducing the significance of threat to an "acceptable level" (PF 1, 1.28).

The two strategies form the foundation of the taxonomy of safeguards depicted in Figure 2. The taxonomy, drawn from an analysis of PF 1, provides order to the ensuing discussion and facilitates the analysis of safeguards, generally. The taxonomy includes the following:

- the principles upon which the foregoing strategies are founded - separation of duties, materiality and governance;
- whether the principles involve ex ante or ex post incentive alignment – see the legend in Figure 2;
- where separation of duties is involved, the organisational level at which the principle may be implemented; and
- a non-exhaustive list of the form that governance mechanisms may take.

The nature of the two broad strategies will now be considered.

**Strategy 1: Elimination**

Elimination involves separating the provision of the assurance service from the source of the threat and, therefore, the principle of separation of duties. The organisational level at which the safeguard may be implemented differs according to the significance of the threat involved. Elimination may be achieved by trading-off the relationship or activity (NAS) for the assurance service, or vice versa, at the firm or network levels. Separation in that sense is absolute, and is invoked in circumstances where the threat "could not be reduced to an acceptable level" by the application of any (other) safeguard (PF 1, 2.72). Such degree of significance is the basis for regulatory prohibition of relationships or activities.

With respect to the provision of NAS, PF 1 prohibits the following list of activities:

- authorizing, executing or consummating a transaction, or otherwise exercising authority on behalf of the assurance client, or having the authority to do so;
- determining which recommendation of the (audit) firm should be implemented;
FIGURE 2: Taxonomy of Safeguards of Auditor Independence

SAFEGUARDS

Elimination

Separation of duties

Professional

Firm

Network

Team

Reducing the significance of threat

Materiality

Disciplinary Mechanisms

Ethical Culture

Governance

Independent 3rd party oversight

Market mechanisms

Accountability

Legend
Ex-ante
Ex-post
- reporting, in a management role, to those charged with governance; and
- any other activity barred by legislation (for example, acting as a liquidator, provisional liquidator, controller, scheme manager, official manager or administrator of the assurance client within the previous two years). (PF I, 2.68)

However, separation of duties may also be used in circumstances where a threat is not “so significant” as to result in an absolute trade-off of the relationship or activity (NAS) for the assurance service at the firm (network) level. This may involve, for example, the separation of the provision of NAS and external audit service intra-firm (PF I, 2.72), i.e., at the assurance team level. Such an approach gives rise to the notion of Chinese walls or firewalls, between separate service teams/divisions, within a firm.

**Strategy 2: Reducing threat to an acceptable level**

Whilst elimination involves removing the source of a threat, reducing a threat to an acceptable level involves the following two options:

(i) reducing the threshold of a threat; or

(ii) deploying mechanisms for altering the opportunity for a threat to take effect, i.e., in the presence of a threat.

The former strategy is concerned with the principle of materiality. Reducing the threshold (materiality) of threats, and elimination operate at the level of the threat itself. Thus, they achieve ex ante incentive alignment between the auditor and the public (investors) and are identified here as ex ante safeguards of auditor independence.

Altering the opportunity for a threat to auditor independence to take effect, on the other hand, involves ex post as opposed to ex ante safeguards. The determinants of opportunity are dealt with in detail in the discussion dealing with the theory of IR below (section 2.3). Suffice it to say at this point, that opportunity is grounded in the power of discretionary decision making on the part of management, which holds implications for payoffs to claimholders. That discretionary power is the basis of the
demand for the independent (external) audit, both of which have their origin in the separation of ownership and control. The role of the auditor is to monitor management's discretionary decision making on behalf of investors. Fulfilling that role also calls for discretionary decision-making on the part of the auditor. Independence in the exercise of the auditor's discretionary power is the currency of the profession. Thus, safeguarding auditor independence excludes the notion of reducing the foregoing antecedents of opportunity, and, therefore, ex ante incentive alignment in that respect.

The ex post category of safeguard involves the principle of governance. Governance mechanisms represent strategies for mediating equitable exchange (Bowen & Jones, 1986); in this instance between the auditor and investors (the public). That is, ensuring auditor integrity in the conduct of his/her public interest role, notwithstanding the presence and significance of the relationship or activity (NAS) that is the basis of the threat.

Examples of the form that governance may take are evident in Table 2 (page 32) and Figure 2 (page 34). Whilst numerous, the underlying mechanisms include the following:

- an ethos of ethical accounting behaviour, supported by leadership and formal standards, policies and procedures designed to promote and monitor such a spirit;\(^5\)
- disciplinary mechanisms;
- independent third-party roles involving oversight and communication, brokerage and verification; and
- accountability.

The ex post approach to safeguarding auditor independence, specifically independent third-party oversight and communication, is of empirical interest to this study.

\(^5\) It is acknowledged that an ethical culture may, from the perspective of independence in appearance at least, include ex ante safeguards, such as prohibition.
The use of safeguards, as mentioned earlier, is conditional under the regulatory principles-based approach to the extent that they must be “acceptable” (PF1:1.27). The regulatory examples of the safeguards identified in Table 2, and their application to specific circumstances contained in Appendix 2 to PF 1, provide the foundation for what is acceptable to the profession. However, the acceptability, and in that sense effectiveness, or otherwise, of the mechanism to other stakeholders is integral to the issue of independence in appearance. This is reflected, for example, in the “reasonable and informed third party” test included in the definition of independence in appearance identified on page 28.

Further, section 1.28 of PF 1 directs the assurance provider to take into consideration “what a reasonable and informed third party . . . would reasonably conclude to be unacceptable”, and, the following when assessing the appropriateness of safeguards:

- the significance of the threat,
- the nature of the assurance engagement,
- the intended users of the assurance report and the structure of the firm.

Third-party perceptions of the appropriateness of safeguards - a measure of the effectiveness of safeguards - is of immediate interest to this thesis. The particular safeguard concerns the board of directors. Australian corporate law (the Corporations Act, 2001, Part 2M.3, Division 1) holds the board of directors ultimately responsible for the integrity of the financial statements of a corporation. As a result it is the ultimate internal governance mechanism for facilitating (ensuring) auditor independence. This issue is pursued in greater detail in the discussion dealing with the theory of IR (e.g., Johnstone et al., 2001; Mock et al., 2005) in section 2.3. below; and again in Chapter 4 (see 4.2.2).

2.2.1.1.4 Public interest

Public interest is concerned with the scope of stakeholder interest in the assurance client, which is assessed with respect to a client’s “business, . . . size or . . . corporate status” (PF 1. 1.20). Public interest in the assurance client is identified in PF 1 as an integral part of assessing the significance of any threat to independence. This issue is pursued in greater detail in the ensuing discussion.
2.2.1.2 Implementation principles

The three key principles to be followed by the assurance provider in giving effect to the principles-based approach to independence are as follows:

(a) identifying the threats to independence;

(b) evaluating whether the threats are clearly insignificant; and

(c) in cases, when the threats are not clearly insignificant, identifying and applying appropriate safeguards to eliminate or reduce the threats to an acceptable level (PF I, I.17).

Thus, again, safeguards are invoked in circumstances where threat is significant.

The foregoing concepts and implementation principles apply to all assurance engagements. However, PF I also stipulates that the significance of threats and, therefore, the applicability of safeguards will differ according to whether the assurance engagement is an audit engagement or otherwise (PF I, I.10) and, as mentioned earlier, the level of public interest in the assurance client. The document provides that the scope of public interest and, therefore, independence in appearance, assume particular significance in evaluating the significance of threats and the appropriateness of safeguards where the assurance engagement is the audit and the audit client is a listed entity (PF I, I.20). A listed entity is defined as follows:

An entity whose shares, stock or debt are quoted or listed on a recognized stock exchange, or are marketed under the regulations of a recognized stock exchange or other equivalent body (PF I, 0.14).

The interface between threats and safeguards within the audit assurance–NAS setting, involving a listed company, provides the focus of this study. The audit assurance – listed company scenario, as the foregoing discussion suggests, heightens the significance of threat to independence from NAS. The theoretical basis for that proposition is identified in the context of the discussion dealing with the theory of IR (section 2.3).
The professional, regulatory principles-based approach strikes a balance between the antagonists and protagonists of the audit - NAS strategy. To that end PF 1 identifies a non-exclusive list of nine NAS the provision of which to a listed audit client "may create threats . . . so significant that no safeguard could eliminate or reduce the threat to an acceptable level" (PF 1, 2.75). The NAS are as follows:

- Preparing accounting records and financial reports
- Valuation services
- Internal audit services
- Provision of IT services
- Temporary staff assignments
- Litigation support services
- Legal services
- Recruitment of senior management
- Corporate finance and similar activities

The nature of the NAS reflects regulatory concern for the audit firm occupying a position of conflict of interest vis-à-vis its public interest role, which is concerned with the governance (control) of management. However, unlike the US Sarbanes-Oxley (2002) Act, which prohibits an audit firm from providing the foregoing list of services outright, PF 1 provides that a firm may provide the services subject to certain safeguards. The alternative positions reflect the rules-based versus principles-based approaches, respectively.

From a professional perspective – prohibition accepted - the general rule relating to the provision of services to assurance clients, identified on page 27, and iterated below, applies.

... a firm may provide services beyond the assurance engagement provided any threats to independence have been reduced to an acceptable level (PF 1, 2.71).

Thus, with respect to the audit-NAS strategy, the principles-based approach to independence provides the opportunity for economic efficiencies to prevail in the market for NAS, subject to external audit accountability being met in the market for equity. The principles-based approach to independence, embodied in PF 1, is considered, for the purposes of this thesis, to provide the professional ground rules for
meeting accountability in the market for joint audit and NAS. From that perspective, accountability is met where the following conditions prevail:

1. any threat to auditor independence from NAS is insignificant at the outset; or

2. the threat to auditor independence from NAS is significant but safeguards have the effect of reducing the threat to an acceptable level.

Therefore, from the perspective of this thesis, the professional general principle relating to the provision of NAS to audit clients, identified above, might also read as follows:

... a firm may provide NAS beyond the audit engagement provided accountability is met.

However, the question remains as to the implications that statutory regulation of the external audit and the demand side of the market for the joint services, holds for the professional principles-based approach to auditor independence. This issue will now be dealt with.

2.2.2 Statutory regulation of auditor independence and the audit-NAS strategy

The changes to Australian legislation impacting the principles-based approach to auditor independence and, therefore, the provision of NAS to audit clients, including the demand side of the market for the joint services, are evident in the Audit Reform and Corporate Disclosures Act (2004), which amends the Corporations Act 2001. The Audit Reform and Corporate Disclosures Act (2004), as with its predecessors, the Ramsay review (2001) and the CLERP 9 Report (2002) and Bill (2003), supports a co-regulatory approach to auditor independence, and is designed to strengthen professional regulation. The document deals specifically with the issues of financial and employment relationships between the auditor and the auditee, including their significance for the provision of NAS. The regulation of business relationships and the provision of NAS, on the other hand, remain with the profession. The latter position was initially confirmed by reform provision 6 of the CLERP 9 Report (2002, p. 3), which called for the "immediate application" of PF 1.
However, the foregoing vesture and status of the PF I requirements are underpinned, legislatively, on both the supply and demands sides of the market for joint audit-NAS.

Supply side

Amendment 307C (1 to 3) of the Corporations Act (2001) calls for the annual audit report to be accompanied by a declaration to directors that the auditor (individual or lead auditor in the case of an audit firm or company) has not contravened the following:

S307C (1) (i) the auditor independence requirements of th(e) (Corporations) Act; and
(ii) any applicable codes of professional conduct in relation to the audit.

Subsection (1) (ii) embraces the requirements of PF I. Further, with respect to subsection (i), professional auditing standards including those impacting auditor independence, will form part of the requirements of the Corporations Act (2001), in 2006. The auditor independence requirements of the Corporations Act (2001) referred to in S307C (1) (i) above also include a general standard of auditor independence. The standard is grounded in the notion of the auditor not being in a “conflict of interest situation” vis-à-vis the auditee (amendment S324CA (1) (b)).

A conflict of interest situation is defined in amendment S324CD (1) as existing in circumstances where because of circumstances that exist at the time:

(a) the auditor, or a professional member of the audit team, is not capable of exercising objective and impartial judgment in relation to the conduct of an audit of the audited body; or
(b) a reasonable person, with full knowledge of all the relevant facts and circumstances, would conclude that the auditor, or a professional member of the audit team, is not capable of exercising objective and impartial judgment in relation to the conduct of an audit of the audited body.

The standard establishes the appearance of independence as a necessary condition of independence. Further, the concepts identified in the standard, including the notion of “a reasonable person, with full knowledge of all the relevant facts and circumstances” are
important in defining the legal, and, therefore public expectations of auditors. Overall, the provisions underpin the role of independence in relation to “audit business risk” – an important safeguard of auditor independence emanating from the audit firm that includes the related risks of litigation and loss of reputation (e.g., Huss, Jacobs & Patterson, 1993).

Demand side

Amendments to the Corporations Act (2001) also serve to strengthen the professional principles-based approach to the provision of NAS to audit clients on the demand side of the market via increased market transparency and oversight of the audit-NAS strategy. Amendment 300 (11B) provides that the directors’ annual report for listed companies must include the following statements under the heading “Non-audit services”:

(11B) (a) details of the amount paid or payable to the auditor for non-audit services provided during the year, by the auditor (or another person or firm on the auditor’s behalf);

(b) a statement whether the directors are satisfied that the provision of non-audit services, during the year, by the auditor . . . is compatible with the general standard of independence for auditors imposed by (the) Act;

(c) a statement of the directors’ reasons for being satisfied that the provision of those non-audit services, during the year, by the auditor . . . did not comprise the auditor independence requirements of (the) Act.

The foregoing two statements must be made in accordance with advice provided by the company’s audit committee or a resolution of the directors in the absence of an audit committee (Section 300 (11D) of the Act, 2001).  

Sub-sections (b) and (c) of S300 (11B) above have the effect of rendering directors independence decision-makers and ultimately responsible to the public on the issue of auditor independence and the provision of NAS. The capacity to fulfil that
responsibility would rely on directors ensuring that appropriate systems are in place to screen for the selection of the audit firm in the market for NAS, an *ex ante* perspective, and safeguard audit independence in the presence of NAS, an *ex post* (governance) perspective.

Directors occupy an interesting position in relation to the *ex ante/*screening role. A board could serve to safeguard auditor independence by instituting a policy of rejecting the auditor as a provider of NAS – a prohibitionist stance. However, such an approach may result in “destroying value for shareholders and introducing costs much higher than the benefits” (Long, cited in Buftini and Tingle, 2002, p. 4). The benefits to which Long (2002) refers are those efficiencies that accrue from reduced independence risk. For auditees the benefits may include, for example, reduced cost of capital and litigation; for auditors, reduced litigation and enhanced reputation; and for investors, improved resource-allocation decisions (ISB, 2001). The benefits are at the heart of the argument against joint provision of the external audit and NAS referred to earlier. Notably, the benefits underpin the fact that a major objective of accountability is capital market efficiency. However, as stated earlier, the issue of capital market efficiency is referred to in terms of accountability in this thesis, for ease of discussion.

The costs to which Long (2002) refers, on the other hand, at the audit client level, include the loss of economic efficiencies from not appointing the incumbent audit firm to provide NAS. That is, circumstances where the audit firm offers maximum value for shareholders vis-à-vis competing NAS providers, taking into consideration accountability. Net benefits may accrue from enhanced quality of service in relation to the audit and/or NAS; and/or savings in transaction costs. Thus, the provision of NAS by the incumbent audit firm may represent both a source of efficiency and a threat to accountability.

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6 Audit committees are mandatory for companies included in the S & P All Ordinaries Index at the beginning of the financial year under the ASX Listing Requirements, section 12.7.
Therefore, the decision of whether the incumbent auditor should be chosen to provide NAS represents a double-edged sword where issues of efficiency and accountability prevail. However, in circumstances where the threat to auditor independence is significant, rules-based regulation (prohibition) aside, the decision need not result in a trade-off of efficiency for accountability or vice-versa. The capacity to take advantage of efficiencies where the NAS also hold incentives to assume downside independence risk lies with safeguards that alter the opportunity for the incentives to take effect and/or preserve auditor integrity. This issue is highlighted in the discussion on the theory of IR in the following section of the Chapter (2.3).

Prohibition trades-off efficiency for accountability. The costs alluded to by Long (2002) are attributable to the exercise of the safeguard of prohibition. The issue of the costs of safeguards (reduced independence risk) is recognised by the ISB (2001) as a basic tenet to be considered by independence decision makers in the analysis of auditor independence:

Independence decision makers should conclude that the benefits of reduced independence risk from applying safeguards exceed their costs (ISB, 2001, section 31).

The costs to which the ISB (2001) refers include the loss of economic efficiencies in circumstances where the audit firm represents the best choice for the job, which are of the nature of indirect costs, and the direct costs associated with the safeguards, per se. Such costs are at the heart of the argument in favour of joint provision. The direct costs of safeguards represent a third facet of the issue of economic efficiency that underpins the decision of whether the incumbent audit firm should be chosen to provide NAS. In circumstances where the audit firm represents the most efficient choice of provider for a given NAS, optimal efficiency would appear to lie with those safeguards of auditor independence for which indirect and direct costs are minimal. An analysis of the nature and sources of the indirect costs of reduced independence risk are provided in this study (see Chapter 5). However, the issue of the direct costs of safeguards falls outside the scope of the study.
The foregoing ISB (2001) principle is directed at regulators - the document from which it is drawn represents a staff report. However, it is no less applicable to other independence decision-makers. For example, in Australia, decision-making by directors, generally, is impacted by a best-practices principle that provides that they are responsible for maximising efficiency subject to meeting accountability (e.g., Bosch, 1995; Hilmer, 1993).

Further, prohibition holds particular significance in Australia where “with only four major firms, there’s a scarcity of skilled advisers and ruling out auditors diminishes supply significantly” (John Hall, the president of the Australian Institute of Company Directors (AICD), cited in Buffini et al. 2002, p. 4). Notably, as mentioned earlier, unlike the US Sarbanes-Oxley Act, the Corporations Act (2001), as amended, does not directly and unconditionally prohibit an audit firm from providing the list of nine prohibited NAS identified earlier. In effect, it defers to the requirements of the profession (PF I) in that respect.

Thus, as the foregoing discussion suggests, the application of the principles-based approach to auditor independence and the provision of NAS, raises important empirical questions on both the supply and demand sides of the market for the joint services. Questions, for example, concerning perceptions of the threats to auditor independence; the acceptability and, therefore, signaling quality, of the safeguards of audit independence; what constitutes an “acceptable level” of independence risk; and the nature and relative benefits and costs of reduced independence risk.

The issues of accountability and efficiency converge in this study by examining, empirically, circumstances where stakeholders face the decision of whether the incumbent audit firm should be chosen to provide NAS, in circumstances where the potential NAS providers are heterogenous. The decision choice is referred to in terms of stakeholder willingness-to-appoint, a phrase coined by Ikin (2001) in the context of modeling the determinants of the demand for NAS, from an economics of audit quality perspective.
2.3 THEORY OF INDEPENDENCE RISK

The capacity to examine the complexities of the principles-based approach to auditor independence has been facilitated by recent significant academic, theoretical developments in the area that model the principles-based approach to independence from the perspective of the notion of independence risk. The developments are twofold. Firstly, the Johnstone et al. (2001) auditor independence risk framework depicted in Figure 3; and secondly, the Mock et al. (2005) model of the risk of impaired independence, depicted in Figure 4.

The Johnstone et al. (2001) and Mock et al. (2005) IR models, together with the professional principles-based approach to addressing the inherent conflict of providing both audit and NAS to a client, provide fundamental tools of analysis for examining how the variables of interest to this study relate.

Johnstone et al. (2001, p. 1) define independence risk (IR) as “the risk that an auditors’ independence may be compromised or may be perceived to be compromised”. Johnstone et al. (2001) frame IR as a function of two elements: firstly, incentives and secondly, opportunity. The two elements are the basis of independence in appearance. Independence of mind (in fact) is unobservable. Independence in appearance is concerned with inferring independence of mind on the basis of “facts and circumstances” (PF 1, 0.14), i.e., evidence. The facts and circumstances represent the contextual independence factors that define IR incentives and opportunity. The factors are either antecedent to the elements, i.e. are a necessary condition for the elements to exist; or of the nature of safeguards, which serve to mitigate independence risk.
FIGURE 3: A Framework for Understanding the Antecedents and Consequences of Independence Risk

What incentives create independence risk?

Necessary Environmental Conditions
- Direct incentives
  - Direct investments
  - Contingent fees
  - Potential employment
  - Financial dependence
- Indirect Incentives
  - Interpersonal relationships
  - Auditing work of self or firm

What judgement-based decisions allow independence risk to affect audit quality?

Pressure on difficult Accounting issues → Pressure on Materiality judgements → Pressure on audit Scope and conduct

What factors may mitigate independence-related environmental conditions?

Corporate Governance Mechanisms
- Boards of directors
- Audit committees
Auditing Firm Policies
- Concurring partner reviews
- Peer reviews
- Within-firm consultations
- Auditor competence programs
- Compensation plans
Regulatory Oversight
- Standard setting
- Enforcement
Auditing Firm Culture and Individual Auditor Characteristics
- Auditing firm emphasis on its public duty
- Auditors' ethical and moral characteristics

How are stakeholders affected if mitigating factors fail?

Auditees → Shareholders and creditors → Individual auditors → Auditing profession → Regulators

What actions should be taken by the auditing profession, auditing firms, regulators, researchers?

FIGURE 4: Model of Risk of Impaired Auditor Independence with Examples

- Safeguards
  - Safeguards created by the profession, legislation or regulation
  - Safeguards within the assurance client
  - Safeguards within the firm’s own systems and procedures

Source: Mock et al., 2005, p 41
2.3.1 Incentives

Incentives represent factors that provide an auditor with a motive(s) to breach independence i.e., his/her integrity, objectivity and/or scepticism. They are a source of pressure for the auditor to assume heightened independence risk. Incentives may be classified as (i) direct: wealth and career prospects; and (ii) indirect: interpersonal relationships and conflict of interest (Johnstone et al., 2001).

Incentives may be viewed as the obverse side of a coin whose reverse side comprises the conceptual threats to auditor independence, which arise in circumstances where:

- the auditor has a mutual or conflicting interest with the audit client;
- audits his or her own firm's work;
- functions as management or an employee of the audit client; or
- acts as an advocate for the audit client (Ramsay, 2001, p. 27).

The foregoing circumstances are the foundation of the non-exclusive list of five subclasses of threat to auditor independence generally: self-interest, self-review, advocacy, familiarity, and intimidation identified in Table 1 (page 30). That is, the analogy of IR incentives in the context of the regulatory principles-based approach to independence is the threats to independence. The incentives (threats) are invoked through financial, business or employment relationships between the audit firm and client and/or activities involving the provision of NAS. The relationship between incentives (threats) and the antecedents of the concept is depicted in Figure 5. The aspects of the diagram that are of immediate relevance to this study are highlighted in green. The source of the threat that is of interest to this study is, of course, the provision of NAS. The particular threat is self-interest, emanating from the fees from recurring NAS, which result in the audit firm having a mutual interest with the audit client as bilateral traders. The incentive, being wealth based, is direct as opposed to indirect in nature.
The mitigation of IR incentives, *per se.*, would involve eliminating or reducing the materiality of the threat (relationship and/or activity) that is the source of incentives, i.e., *ex ante* incentive alignment.

2.3.2 Opportunity

The IR element opportunity, as the name suggests, refers to the presence of circumstances that allow incentives to assume heightened independence risk to take effect. The element plays a critical role in determining the significance of incentives, in that respect, and provides the bridge between incentives and audit quality. De Angelo (1981a) defines audit quality as the probability of detecting errors (a matter of auditor competence); and the probability of reporting errors (a matter of auditor independence).

Johnstone et al. (2001) identify auditor judgement-based (discretionary) decision-making arising in the context of a client-resolution process as the antecedent of opportunity. Auditor judgement-based decision making originates in the context of the knowledge base that defines the boundaries of the profession, and its application to circumstances peculiar to the audit client (e.g., Abbott, 1988). The power of discretion is exercised with respect to issues involving accounting policy choice; materiality; and the scope and conduct of the audit (Johnstone et al. 2001).
A client-resolution process is characterised by managerial opportunism (e.g., Gibbins, Salterio and Webb. 2001). Managerial opportunism has its origins in the separation of ownership and control, which gives rise to an agency relationship between shareholders and managers, and the underlying assumption that all individuals are self-interested wealth maximisers (Jensen et al., 1976). The movement out of profits alters management’s preferences for non-pecuniary benefits and, in the presence of incomplete contracting, provides the opportunity for self-seeking behaviour in the exercise of discretionary decision-making impacting (pecuniary) payoffs to claimholders. The purpose of the independent external audit, as mentioned earlier, is to alter the opportunity for such behaviour (Jensen et al. 1976). Under those circumstances, management must secure the co-operation of the monitoring agent to give effect to self-seeking behaviour (Jensen et al., 1976).

Thus, the Johnstone et al. (2001) reference to client-resolution invokes the notion of auditor judgement-based decision-making under pressure from management; and with it a separate accounting literature dealing with audit-client negotiation of a client’s financial representations (e.g., Magee & Tzeng, 1990; Gibbins et al., 2001). Magee et al. (1990, p. 315) recognise circumstances where “auditors . . . disagree among themselves as to the appropriateness of the reporting policy desired by the client” as antecedent to judgement-based decision-making, and pressure from the client. The former condition is “largely defined by the presence or absence of clear standards” (Gibbins et al., 2001, p. 539). Thus, the client resolution process originates with the knowledge base that characterises the accounting (auditing) profession, and specifically within the domain of discretionary decision making.

Gibbins et al. (2001) model the client-resolution process in the context of a three-element audit-client negotiation model comprising, in order: an accounting issue, auditor-client process and an accounting outcome. Further, the researchers define negotiation as “any context in which two or more parties with differing preferences jointly make decisions that affect the welfare of both (all) parties” (Gibbins et al., 2001, p. 538). Gibbins et al. (2001, p. 538) also portray the negotiators as “self-interested, rational agents”. Thus, the judgement-based/discretionary decisions made as part of the
negotiation process hold implications for payoffs to claim-holders, and the “flow of accounting information to investors and other information users” (Gibbins et al., 2001, p. 536), i.e., audit quality. Under these circumstances, where public interest is high, the independence (integrity, objectivity and scepticism) of the auditor is paramount to investors and others. The circumstances are, in turn, the essence of the role of the external audit - an ex post mechanism for altering the opportunity for managerial self-seeking behaviour (Jensen et al., 1976). However, where NAS involvement provides the auditor with incentives to be dependent, he/she may be perceived, as a self-interested negotiator, to err on the side of management, i.e., to succumb to pressure. The catalyst for seeking auditor co-operation, in fact and appearance, is the IR element incentives.

However, whilst Johnstone et al. (2001) identify the client resolution process as the antecedent of opportunity, it is suggested here that in certain circumstances the pressure for the auditor to compromise audit quality does not rely on that context. This is evident, for example, in the Johnstone et al. (2001, p. 5) discussion of the threat of self-review, which follows:

Self-review might create a situation in which the auditor is unable to critically evaluate his or her own work. It might also create a situation in which the auditor is unwilling to impair a relationship with other members of the auditing firm or the client, thus reducing the auditor’s ability to evaluate audit evidence objectively.

Under those circumstances the pressure on the auditor to impair his/her independence in exercising the power of discretion would derive from the subject matter of the audit, not managerial opportunism, i.e., ultimately, the NAS per se. The inability to “critically evaluate his or her own work” and/or an unwillingness to “impair a relationship”, in fact or appearance, would impair objectivity and/or skepticism in the exercise of the auditor’s discretion with respect to the scope and conduct of the audit. The circumstances underpin Craswell’s (1999, p. 32) suggestion that “auditor independence depends upon an auditor’s incentive . . . to find errors” as well as “to report them”.

52
However, the significance of the foregoing indirect incentives for auditor independence would depend upon the demand for a quality (competent and independent) audit, i.e., the scope for managerial opportunism. Thus, it is suggested here that it is the *scape* for managerial opportunism rather than the client-resolution process, *per se*, that, together with auditor professional discretion, represent the antecedent of IR opportunity. Support for this proposition is reflected in PF 1 with respect to the role of the public interest factor in determining the significance of threats to independence, and overriding regulatory concern (best-practice and statute) for the provision of NAS to public listed entities.

Thus, the antecedents of IR opportunity are identified here as threefold, and, as shown in Figure 6, as follows:

(i) managerial discretionary decision making;

(ii) managerial propensity to act self-interestedly in the exercise of that discretion – referred to here as *managerial opportunism*; and

(iii) auditor discretionary decision making.

**FIGURE 6: The antecedents of opportunity**

<table>
<thead>
<tr>
<th>Antecedents</th>
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<tbody>
<tr>
<td>(i) Managerial discretionary decision-making.</td>
</tr>
<tr>
<td>(ii) Managerial opportunism.</td>
</tr>
<tr>
<td>(iii) Auditor discretionary decision-making.</td>
</tr>
</tbody>
</table>

The source of items (i) and (ii) originate with structure of the audit client, specifically the separation of ownership and control. Item (iii) originates with the knowledge base of the auditing profession and, as stated earlier, its application to the circumstances peculiar to the client. Thus, the structure of the audit client and the knowledge base of the profession may combine to provide significant scope for discretionary decision-making on the part of management and/or the auditor for a given audit engagement. The impact of the audit client’s organisational structure in that respect arises in the context of
the external audit of listed, public corporate entities, i.e., circumstances that invoke the public interest role of the auditor. Under those circumstances, safeguarding auditor independence from any threat to auditor independence via IR opportunity would rely on ex post (governance) mechanisms preserving the integrity of managerial discretionary decision-making, i.e., managerial opportunism. The safeguards may emanate from one or more of the audit firm, the audit client or regulation (professional, legislative or best practice). The board of directors, as the safeguard of interest to this study, is embedded in the governance of the audit client. The monitoring qualities of the board are the subject of best practice.

2.3.3 Auditor integrity

Johnstone et al. (2001) define contextual factors that have an ameliorating effect on IR as mitigating factors. The mitigating factors include a determinant of independence of mind - auditor integrity (Johnstone et al., 2001). The nature and mitigating effect of the latter factor on IR is formally addressed by Mock et al. (2005).

Mock et al. (2005) recognise auditor integrity as a third, fundamental element of IR. The researchers define the element, in an earlier stage in the development of the theory, as the “propensity . . . to engage in inappropriate activity” (Turner, Mock and Srivastava, 2002, p. 3). However, the concept of auditor integrity has more recently been subsumed by the researchers into the construct attitude (Mock et al., 2005). The definition provides the basis for the notion of managerial opportunism, identified earlier as an antecedent of opportunity.

The Mock et al., (2005) IR model is grounded in evidential theory and the notion of inferential problem solving. The model is underpinned by the following equation:

\[ IR = f (\text{incentives, attitude, opportunity}) \]

The paradigm that forms the basis of the mathematical analyses is the Dempster-Shafer theory of belief functions (Mock et al., 2005).
The synthesis of the researchers' model of IR is depicted in Figure 7. The diagram is structured around the following arguments which are identified in Figure 7 by the use of bold and light print respectively:

(i) the structure of the researchers' analytical argument i.e., the relationship between the construct risk of impaired independence (IR) and the three IR elements: the evidence (antecedents and safeguards) and the elements: and the elements, per se; and

(ii) the mathematical arguments that form the bases for the analyses.7

The detailed mathematical arguments are not described in this thesis. However, the structure of the researchers' analytical argument is fundamental to the theoretical development of the hypotheses of interest to the current study. Thus, consideration will now be given to identifying the nature of the relationships that define the structure.

The argument between IR and the three elements accepted, the directional relationships are, essentially, twofold. Firstly, there is a unilateral relationship, moving from left to right, between the evidence and the three elements. This argument holds that all three elements are to be present for IR to exist. That is, IR "implies non-zero" values for "all three components of the independence risk triangle" (Mock et al., 2005, p. 11).

IR attitude has its analogy in independence in fact. However, independence, as a state of mind, is unobservable. Further, given the public interest (social) role of the external audit, the regulation of auditor independence is as much concerned with ensuring that the external audit should be seen to be independent as it is within fact. Australian regulation, professional and statute, renders independence in appearance a necessary condition of independence. Stakeholder perceptions of an auditor's propensity to act inappropriately (dependently) is, again, inferred from the IR element incentives, IR opportunity accepted. The inferential problem of assessing independence in appearance

7 The contrasting density of the print represents a modification to the presentation of the Mock et al. (2004) diagram. The modification is deployed here to facilitate the current analysis.
(the perception of IR) is represented in the Mock, Srivastava and Turner (2004) diagram (Figure 7) by the bi-directional broken lines coded by the authors as propositions $R_{1,3}$.

Proposition 1 ($R_1$) recognises a bi-directional relationship between attitude and incentives; proposition 2 ($R_2$), between attitude and opportunity; and proposition 3 ($R_3$), between opportunity and incentives.
FIGURE 7: Evidential Diagram for Independence Risk

Risk of Impaired Independence (B) AND Attitude (A) AND Opportunity (O)

Incentive (I) \( \rightarrow \) Incentive Safeguards (IS) \( \rightarrow \) Incentive Threats (IT) \( \rightarrow \) Attitude Safeguards (AS) \( \rightarrow \) Attitude Threats (AT) \( \rightarrow \) Opportunity Safeguards (OS) \( \rightarrow \) Opportunity Threats (OT)

Evidence Pertinent to Safeguard Factors Relevant to Incentives
Evidence Pertinent to Threat Factors Relevant to Incentives
Evidence Pertinent to Safeguard Factors Relevant to Lack of Integrity
Evidence Pertinent to Threat Factors Relevant to Lack of Integrity
Evidence Pertinent to Safeguard Factors Relevant to Opportunities
Evidence Pertinent to Threat Factors Relevant to Opportunities

Source: Mock et al., 2004, p. 52.
Each of the bi-directional relationships is separated here into the associated unilateral directional influences between the elements. The pairs of uni-lateral propositions are referred to as \( R_1 \) "a" and "b" respectively, and are depicted in Figure 8. The basis for the coding is as follows:

- The direction coded "a" represents in the case of the auditor, pressure from incentives and opportunity to impair auditor independence; and in the case of management the means of securing auditor co-operation.

- The direction coded "b", on the other hand, captures the aspect of the Mock et al. (2005) model that is concerned with intent. That is, "knowledgeable actions" leading to "intentional impairment" (Turner et al. 2002, p. 1) on the part of the auditor or management, whichever applies.

The sub-classification has been undertaken to facilitate the analysis of the relationships and, ultimately, the fit between the Mock et al. (2005) model and the variables of interest to this thesis.

**Figure 8: Unilateral relationships that comprise propositions \( R_{1a} \).**

The nature of the resulting six sub-propositions is as follows. \( R_{1a} \) recognises the proposition that an auditor’s propensity to act inappropriately is a function of the
strength of incentives. The relationship depicted by \( R_{2i} \) "recognizes that an auditor with an inappropriate attitude may seek to create or increase existing incentives" (Mock et al., 2004, p. 19).

\( R_{2a} \) recognises the proposition that an auditor's propensity to act inappropriately is a function of the scope for opportunities. \( R_{2h} \), recognises that "an auditor with an inappropriate attitude may seek to create or increase existing opportunities" (Mock et al. 2004, p. 20).

\( R_{3a} \) recognises the proposition that managements' propensity to act self-interestedly (opportunism) is a function of the strength of incentives as a means of securing the auditor's co-operation. \( R_{3b} \), recognises that management may take actions to create or increase existing opportunities, for that reason.

The common denominator in the foregoing relationships is human behaviour, specifically the propensity for individuals to act in their own self-interest. Thus, the Mock et al. (2005) model holds the key to understanding how safeguards provide the means of maintaining a balance between efficiency and accountability, direct costs of safeguards aside, in relation to the audit-NAS strategy. The issue of efficiency and threat are inextricably linked to the IR element incentives. Thus, the balance lies with mechanisms that serve to mitigate IR attitude and managerial opportunism as a determinant of IR opportunity.
2.4 MARKET INCENTIVES TO PRESERVE INDEPENDENCE

The discussion of safeguards of independence has to this point been confined to regulatory mechanisms. However, safeguards that serve to mitigate IR also extend to market (economic) incentives.

The major market incentive for auditor's to preserve independence is attributable to reputation assets, for example, brand name, which includes the reputation for competence and independence. The mitigating effect of the assets in the market for NAS is considered in detail in Chapter 5, which describes the nature and source of the efficiencies that may accrue from appointing the incumbent audit firm. Suffice it to say at this point that reputation assets attract a premium that would not be forthcoming in the absence of the asset. Under those circumstances, it is expected that auditors will seek to "maintain and improve independence reputations . . . to enhance their wealth" (Kinney, 1999, p. 70). Thus, reputation assets operate at the level of the Mock et al. (2005) IR element attitude, *ex post*.

The existence of reputation assets as a source of competitive advantage in the audit market is well established (e.g., Palmrose, 1988; Teoh & Wong, 1993; Balvers, McDonald & Miller, 1988; and Beatty, 1989). However, the question remains as to whether an audit firm's audit independence reputation adds value in the market for NAS (Kinney, 1999).

Reputation assets remain the foundation of the argument for self-regulation at the audit firm level with respect to auditor independence (e.g., Kinney, 1999), notwithstanding the altered, contemporary professional environment. However, market incentives to preserve independence are grounded in the assumption that individuals behave rationally. Regulation of the joint provision of the audit and NAS and the notion of independence in appearance, on the other hand, recognise that auditors may not act rationally in auditing their clients. Further, as the discussion to date indicates, the extant regulatory environment continues to become increasingly more sophisticated, worldwide, with the advent of recent significant developments. The developments
include the US Sarbanes-Oxley Act (2002) and in Australia, PF 1 and, more recently, the *Audit Reform and Corporate Disclosure Act* (2004).

The regulatory safeguard of interest to this study, as mentioned earlier, is that of the directors, from an *ex post* perspective. In Australia, the board of directors is vested with the "ultimate responsibility . . . to ensure the integrity of the company's financial reporting" (ASX Corporate Governance Council, 2003, p. 29). The board represents the ultimate internal authoritative governance structure for mediating the actions of management and the internal and external auditors. From the perspective of the Mock et al. (2005) IR model, directors have the capacity to promote the integrity of discretionary decision-making on the part of management (mitigate IR opportunity) and the auditor (mitigate IR attitude). However, best practice regulation (e.g., the ASX *Principles of Good Corporate Governance and Best Practice Recommendations*, 2003) and supporting empirical research (e.g., DeZoort et al. 2002) suggests that the effectiveness of the board relies on key structural attributes. Those attributes centre on the audit committee with respect to a board's responsibility for the integrity of financial statements in the case of a listed corporate entity, which is the business unit of interest to this study. However, the safeguard is constructed and referred to here in terms of the structural strength of the board of directors. These issues are pursued in detail in Chapter 4.
CHAPTER 3

PRIOR EMPIRICAL RESEARCH

3.0 CHAPTER CONTENT

The purpose of this Chapter is to provide a review of prior empirical research impacting the development of the empirical hypotheses relating to accountability, undertaken in Chapter 4. The hypotheses address the relationship between the fees for recurrent NAS and the structural strength of the board of directors on stakeholder perception of auditor independence and willingness-to-appoint.

3.1 INTRODUCTION

The prior research falls into the following three categories:

(i) user-based perception (experimental) studies that examine the relationship between auditor independence and the threat of self-interest, and separation of duties as a safeguard of independence in the face of threat from self-review and/or self-interest emanating from the provision of NAS by the incumbent;

(ii) economics of audit quality studies that examine the differential effect of recurring and non-recurring NAS on the audit-client relationship; and

(iii) corporate governance studies dealing with board (audit committee) effectiveness and the structural attributes of the board.

The three categories also provide the structure for the ensuing discussion. The review of the individual studies in each category is provided in table form, preceded by an introductory overview of the research. A description of individual studies is, however, undertaken in the theoretical development of the empirical hypotheses with which they are associated, in Chapter 4 (see 4.2).
3.2 USER-BASED PERCEPTION STUDIES

The results of user-based perception studies that have examined, *inter alia*, the affect of the provision of NAS on the perception of auditor independence are mixed. Earlier studies by Schulte (1965) and Hartley and Ross (1972) found that the provision of NAS had a positive effect on the perception of auditor independence. Studies by, for example, Titard (1971), Shockley (1981), Gul (1991) and, more recently, Beattie, Brandt and Fearnley (1995), on the other hand, found that the joint provision of the audit and NAS, *inter alia*, adversely impacted user perception of auditor independence. However, all of the foregoing studies are open to the criticism that the results may have been significantly influenced by demand effects associated with the use of surveys and/or repeated measure designs (McKinley et al. 1985; Pany et al. 1987).

Other studies, beginning with McKinley et al. (1985), have sought to overcome the limitations of the method inherent in the foregoing studies by using the between-subjects experimental design and providing context to the decision process involved. The review of the user-based studies here is confined to the latter set of studies. The studies are sub-classified into two groups according to the independent variable involved. The first group involves the threat of self-interest emanating from the magnitude of the fees for NAS. The second group concerns the use of separation of duties as a safeguard of auditor independence from the threat of self-review and/or self-interest.

3.2.1 Threat of self interest emanating from the magnitude of the fees for NAS

The studies that examine the relationship between auditor independence and the threat of self-interest emanating from the magnitude of the fees for NAS are twofold: Pany et al. (1988) and McKinley et al. (1985). The threat of self-interest is operationalised in both studies via the magnitude of the fees for NAS as a percentage of the audit fee. The participants involved in the Pany et al. (1988) study were bank loan officers and financial analysts (investors). The experimental task required the parties to make a loan (investment) decision; and evaluate the reliability of the financial statements and auditor independence. The participants' perception of reliability and independence was measured by asking the participants to rate their confidence in the issues involved. The case materials cenfred on
historic and forecast financial data relating to the corporate loan applicant (investment
target), an evaluation of management and background information on the corporation.

The McKinley et al. (1985) study involved bank loan officers only. The task was similar to
that used in the Pany et al. (1988) study vis-à-vis the corporate loan applicant.

The results of the studies suggest a lack of stakeholder concern for the associated threat of
self-interest. A review of the studies is provided in Table 3. The table is structured around
the following dimensions of the studies:

<table>
<thead>
<tr>
<th>Researcher(s) &amp; year</th>
<th>Participants</th>
<th>Threat</th>
<th>NAS type</th>
<th>Dependent variables</th>
<th>Independent variables</th>
<th>Results</th>
</tr>
</thead>
</table>

64
TABLE 3: User-based studies and wealth incentives

<table>
<thead>
<tr>
<th>Researchers &amp; year</th>
<th>Participants</th>
<th>Threat</th>
<th>NAS type</th>
<th>Dependent variables</th>
<th>Independent variable</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pany et al. (1988)</td>
<td>192 loan officers</td>
<td>Self-interest: magnitude of NAS fees to audit fee. Internal control design</td>
<td>Loan decision. Financial statement reliability. Auditor independence.</td>
<td>NAS fees. Levels: 0%, 25%, 60% and 90% of audit fee</td>
<td>With respect to the loan officers', the only dependent measure affected was the loan decision (approve (not approve)). The group at the 25% level of audit fee approved the loan at a much higher rate (71%) than the groups at the zero, 60% and 90% levels.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>104 investors (financial analysts)</td>
<td>as above</td>
<td>as above</td>
<td>As above</td>
<td></td>
<td></td>
</tr>
<tr>
<td>McKinley et al. (1985)</td>
<td>261 bank loan officers</td>
<td>Self-interest: magnitude of NAS fees to audit fee. Internal control design</td>
<td>Loan decision. Financial statement reliability. Auditor independence.</td>
<td>NAS fees. Levels: 0% and 30% of audit fee</td>
<td>The NAS variable did not significantly affect the loan decision or the perception of auditor independence. The variable was significant with respect to reliability, but led to increased confidence that the financial statements were free of fraud, rather than the expected opposite direction. The researchers suggested that the respondents may have perceived that the NAS lead to improved internal control.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(The study also examined the affect of audit firm type and size on the dependent variables.)</td>
<td></td>
</tr>
</tbody>
</table>
3.2.2 Separation of duties as a safeguard of auditor independence

The studies that examine separation of duties as a safeguard of independence emanating from the provision of NAS are threefold: Geiger, Lowe & Pany (2002); Swanger et al. (2001); and Lowe et al. (1999). The studies are concerned with examining the affect of the outsourcing of the internal audit function (IAF) on stakeholder loan decisions and perception of financial statement reliability and auditor independence (Geiger et al. 2002; Lowe et al. 1999); and stakeholder perception of auditor independence and the investing public view of auditor independence (Swanger et al. 2001).

The Geiger et al. (2002) and Lowe et al. (1999) studies examine separation of duties as a safeguard of the threat to auditor independence from the perspective of the threat of self-review. However, Swanger et al. (2001) examine the safeguard from the perspective of the threat from self-interest (wealth incentives) and self-review. The participants involved in the Geiger et al. (2002) and Lowe et al. (1999) studies were bank loan officers. The participants in the Swanger et al. (2001) study, on the other hand, were financial analysts. Further, the Swanger et al. (2001) study, unlike the remaining two studies, involved a two-phase as opposed to a single-phase undertaking.

The results of the studies suggest that separating the provision of the IAF from the audit impacts favourably on independence-related perceptions. A review of the studies is provided in Table 4. The Table is structured around the following dimensions of the studies:

<table>
<thead>
<tr>
<th>Researcher(s) &amp; year</th>
<th>Participants</th>
<th>Threat</th>
<th>NAS type</th>
<th>Dependent variables</th>
<th>Independent variables</th>
<th>Results</th>
</tr>
</thead>
</table>

66
## TABLE 4: User-based studies and separation of duties

<table>
<thead>
<tr>
<th>STUDY</th>
<th>Participants</th>
<th>Threat</th>
<th>NAS type</th>
<th>Dependent variables</th>
<th>Independent variable</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geiger et al. (2002)</td>
<td>145 Loan officers</td>
<td>Self review.</td>
<td>Internal audit function.</td>
<td>Loan approval. Financial statement reliability. Auditor independence.</td>
<td>Outsourcing (OS). Levels: 1. No OS. 2. OS to the incumbent auditor, without staff separation and where the provision of the NAS included the performance of management functions. 3. OS to the incumbent audit firm – without staff separation. 4. OS to the incumbent audit firm – with staff separation.</td>
<td>Participant perception of auditor independence and financial statement reliability, and loan acceptability were negatively affected where the auditor assumed management functions in performing the IAF. Separation of duties had a positive effect on participant perception of auditor independence and financial statement reliability and loan acceptability. The perception of auditor independence was significantly different across the three types of outsourcing arrangement.</td>
</tr>
</tbody>
</table>

Continued...
Table 4 continued: User-based studies and separation of duties

<table>
<thead>
<tr>
<th>Researcher &amp; year: Swanger et al. (2001)</th>
<th>Participants</th>
<th>Threat</th>
<th>NAS type</th>
<th>Dependent variables</th>
<th>Independent variable</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td>153 financial analysts</td>
<td>Self interest</td>
<td>Internal audit function (IAF)</td>
<td>Confidence in auditor independence</td>
<td>Outsourcing (OS). Levels: 1. No OS. 2. OS to another external audit firm. 3. OS to incumbent audit firm - without staff separation.</td>
<td>Analysts' perceptions of auditor independence were greater when the auditee does not outsource the IAF or outsourced to a different external audit firm than when the incumbent audit firm performs the IAF.</td>
</tr>
<tr>
<td>Phase 2</td>
<td>117 financial analysts</td>
<td>Self interest</td>
<td>Internal audit function (IAF)</td>
<td>Confidence in auditor independence</td>
<td>Outsourcing (OS). Levels: 1. Full OS to incumbent audit firm - with staff separation. 2. Full OS to incumbent audit firm - without staff separation. 3. Partial outsourcing - with staff separation. 4. Partial outsourcing - without staff separation.</td>
<td>Analysts' perceptions of auditor independence are higher when the internal audit services were provided by a different division of the incumbent audit firm compared to the no-staff separation treatment. Perceptions did not differ between full and partial outsourcing treatments.</td>
</tr>
</tbody>
</table>

Continued...
Table 4 continued: User-based studies and separation of duties

<table>
<thead>
<tr>
<th>Researcher(s) &amp; year</th>
<th>Participants</th>
<th>Threat</th>
<th>NAS type</th>
<th>Dependent variables</th>
<th>Independent variable(s)</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Howe et al. (1999)</td>
<td>177 bank loan officers</td>
<td>Self review</td>
<td>Internal audit function</td>
<td>Loan approval, Financial statement reliability, Auditor independence</td>
<td>Outsourcing (OS). Levels: 1. No OS. 2. OS to another external audit firm. 3. OS to incumbent audit firm - without staff separation and the provision of the NAS included the performance of management functions. 4. OS to incumbent audit firm - without staff separation. 5. OS to incumbent audit firm - with staff separation.</td>
<td>Auditor performance of management functions had a significantly negative impact on users' perception of auditor independence and financial statement reliability and loan approvals. However, the separation of audit firm staff performing the outsourced IAF from those performing the external audit had a significantly positive impact on financial statement users' perceptions and loan approvals.</td>
</tr>
</tbody>
</table>
3.3 ECONOMICS OF AUDIT QUALITY AND RECURRING NAS

The economics of audit quality studies of immediate interest to this study are those that examine the differential effect of recurring and non-recurring NAS on the audit-client relationship. The empirical studies considered here are threefold: Beck et al. 1988b; DeBerg, Kaplan and Pany (1991) and Parkash et al. (1993). The motivation for the studies originates with the Beck et al. (1988a, p. 51) analytical model which demonstrates that the strength of the economic bond between auditor and client depends on “whether or not the (NAS) engagement is recurring”.

The variables used as a measure of auditor independence differ between the studies. Recurring NAS represent a measure of the presence of client specific investment. Client specific investment is synonymous with incumbency as a multi-discipline provider to the audit client. The value of the investment relies upon the future income stream i.e., a continued relationship between the parties. The Beck et al. (1988b) and DeBerg et al. (1991) studies are based on the expectation of a significant positive relation between the provision of recurring NAS and auditor tenure and auditor switching, respectively. Such an outcome would suggest the presence of a strong economic bond between auditor and client, which may hold implications for auditor independence in fact and/or appearance. The results of the studies provide limited support for the respective researchers’ expectation.

The Parkash et al. (1993) study is grounded in agency theory and evidence of audit client sensitivity to the adverse implications that the joint provision of the audit and NAS may hold for auditor independence and, therefore, agency costs. The study was conducted on the expectation of a positive relationship between agency costs and the demand for recurring NAS. The results of the study support the expectation.

A review of the studies is provided in Table 5. The table is structured around the following dimensions of the studies:

<table>
<thead>
<tr>
<th>Researcher(s) &amp; year</th>
<th>Method</th>
<th>Companies/subjects</th>
<th>Variables used as a measure of auditor independence</th>
<th>Results</th>
</tr>
</thead>
</table>


<table>
<thead>
<tr>
<th>Researcher(s) &amp; year</th>
<th>Method</th>
<th>Companies/subjects</th>
<th>Variables used as a measure of auditor independence</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beck et al. (1988b)</td>
<td>Archival</td>
<td>50 US listed companies in 1978 and 1979.</td>
<td>Auditor tenure.</td>
<td>Limited support was found for increased bonding and decreased independence in the case of some of the recurring NAS categories in the 1978 sub-sample. However, the results were not replicated in the 1979 sub-sample. The difference in the means of audit tenure in the high NAS groups varied only slightly in absolute terms with that of the low groups although the differences were significant. No significant results were found in relation to non-recurring NAS.</td>
</tr>
<tr>
<td>DeBerg et al. (1991)</td>
<td>Archival</td>
<td>All listed companies that changed auditors between September 1978 and February 1982 (treatment group) and similar companies that did not switch auditors in that time frame (control group).</td>
<td>Auditor switches.</td>
<td>The results did not find any significant differences in the levels of total NAS, recurring NAS and non-recurring NAS between the treatment and control groups.</td>
</tr>
<tr>
<td>Parkash et al. (1993)</td>
<td>Archival</td>
<td>250 Fortune 500 listed companies for 1978, 1979 and 1980.</td>
<td>Agency theory measures: management ownership, outside investment concentration and leverage.</td>
<td>In an extension to the principal research question, the researchers investigated whether the decision to change auditors was related to changes in the purchase of NAS. Levels of NAS before and after the auditor switches were examined. The results indicated that lower levels of total NAS and recurring NAS were purchased from the successor auditor vis-à-vis the predecessor and also to the no-change group of companies. The findings indicated that variables related to expected agency costs (management ownership, outside investment concentration and leverage) significantly explained cross-sectional differences in the demand for recurring NAS. Overall agency costs did not explain the level of non-recurring NAS purchased from the auditor. The data also indicated that auditees purchased higher levels of recurring NAS from the incumbent audit firm when they were an industry specialist of the largest provider of NAS.</td>
</tr>
</tbody>
</table>
3.4 CORPORATE GOVERNANCE

The present study examines the effect of the structural strength of the board of directors on stakeholder perception of auditor independence and willingness-to-appoint. The study in effect examines the signalling quality of structural strength as a measure of board effectiveness in discharging its financial reporting responsibility. The relationship between structural strength and the financial reporting effectiveness of the board has its analogy in audit committee effectiveness studies (ACE). Thus, prior ACE studies are the subject of this discussion.

DeZoort et al. (2002) provide a synthesis of empirical literature dealing with ACE. The synthesis is framed by a four-element taxonomy of the structural determinants of ACE. The four elements and their dimensions are as follows:

<table>
<thead>
<tr>
<th>Elements</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composition</td>
<td>expertise, independence, integrity, objectivity</td>
</tr>
<tr>
<td>Authority</td>
<td>responsibilities, influence (derived from full of board of directors, federal law and exchange listing requirements)</td>
</tr>
<tr>
<td>Resources</td>
<td>adequate number of members: access to management, external auditors and internal auditors</td>
</tr>
<tr>
<td>Diligence</td>
<td>incentive, motivation, perseverance</td>
</tr>
</tbody>
</table>

(DeZoort et al. 2002, p. 42)

The DeZoort et al. (2002) article provides the basis for the summary of the review of the literature, updated by ACE studies published since that time. However, an alternative approach to classifying the studies is adopted here. The alternative approach is centred on identifying relationships between structural strength and measures of monitoring effectiveness that are integral to the theoretical development of the board-of-directors safeguarding hypotheses. However, structural strength, *per se*, is ultimately defined in the thesis by the DeZoort et al. (2002) elements composition, authority, resources and diligence. Thus, the alternative classification scheme includes the DeZoort et al. (2002) taxonomy.

*The basis for this proposition is dealt with in Chapter 4 (see 4.2.2).*
The ACE studies are grouped into five categories. The first two related categories are concerned with the relationship between structural strength and financial reporting reliability and audit quality, respectively and are titled as follows:

(i) *The structural strength of the audit committee and financial reporting reliability.*

(ii) *The structural strength of the audit committee and audit quality.*

The third category is concerned with the relationship between structural strength and managerial discretionary decision making, and is titled as follows:

(iii) *The structural strength of the audit committee and managerial discretionary decision making.*

The fourth category is concerned with the relationship between the structural strength and effectiveness of the audit committee and the structural strength of the board, and is titled as follows:

(iv) *The structural strength (effectiveness) of the audit committee and the structural strength of the board.*

The review of categories (i) to (iv) is provided in Tables 6 to 9, respectively. The Tables are structured around the following dimensions of the studies.

<table>
<thead>
<tr>
<th>Researcher(s) &amp; year</th>
<th>Method</th>
<th>Companies/subjects</th>
<th>Comp</th>
<th>Structural strength</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Auth</td>
<td>Res</td>
</tr>
</tbody>
</table>

The studies identified in categories (i) to (iv) - Tables 6 to 9 - establish that all four structural elements (composition, authority, resources, diligence) impact effectiveness. However, there is an emphasis on composition and diligence, which is driven by the nature of the studies.
The fifth and final category of studies does not have a direct bearing on the hypotheses dealing with the safeguarding role of the board of directors. However, the studies hold implications for ACE generally and for that reason they are included in the process of rounding out the review of the literature. The category is titled as follows:

(v) Other ACE studies.

The review of the literature is provided in Table 10, which is structured around the following dimensions of the studies.

<table>
<thead>
<tr>
<th>Researcher(s) &amp; year</th>
<th>Method</th>
<th>Companies/subjects</th>
<th>Domain</th>
<th>Results</th>
</tr>
</thead>
</table>

Finally, with the exception of the first study (Krishnamoorthy, Wright & Cohen, 2002) the studies listed in Table 10 were not reviewed by the researcher beyond the information provided in the DeZoort et al. (2002) article. The studies are identified by an asterisk in Table 10, and are not end-text referenced here.
### TABLE 6: Audit committee structural strength and financial reporting reliability

<table>
<thead>
<tr>
<th>Researcher(s) &amp; year</th>
<th>Method</th>
<th>Companies/subjects</th>
<th>Structural strength</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Klein (2002a)</td>
<td>Archival</td>
<td>692 firm-years on S&amp;P 500</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>McDaniel, Martin &amp; Maines (2002)</td>
<td>Experimental</td>
<td>20 audit managers and 18 executive MBA graduates</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Beasley, Carcello, Hermanson &amp; Lapides (2000)</td>
<td>Archival</td>
<td>66 fraud companies in three industry groups</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>McMullen &amp; Raghunandan (1996)</td>
<td>Archival</td>
<td>51 companies with reporting problems</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

**Results**

- Audit committee independence was negatively associated with abnormal accruals, and reductions in audit committee independence were associated with large increases in abnormal accruals.
- When evaluating financial reporting quality, financial experts tended to focus more on recurring, less-prominent issues, while financial literates focused more on nonrecurring, prominent issues.
- Companies with audit committees composed of independent directors that met at least twice a year were less likely to be sanctioned by the SEC for fraudulent or misleading financial reporting.
- Fraud companies in technology, healthcare, and financial services industries had less independent audit committees and internal audit support and held fewer audit committee meetings than the industry benchmarks. In addition, fraud companies had a lower percentage of audit committees composed of all outside directors than did non-fraud companies.
- Companies with financial reporting problems were less likely to have (i) audit committees composed entirely of outside directors; (ii) CPAs on the audit committee; and (iii) frequent audit committee meetings.

Source: adapted from DeZoort et al., 2002, p.38-71.
<table>
<thead>
<tr>
<th>Researcher(s) &amp; year</th>
<th>Method</th>
<th>Companies/subjects</th>
<th>Structural strength</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abbott &amp; Parker (2000)</td>
<td>Archival</td>
<td>500 NYSE, AMEX, or NASDAQ companies</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Archambeault &amp; DeZoort (2001)</td>
<td>Archival</td>
<td>30 companies with suspicious auditor switches</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Raghunandan, Read &amp; Rama (2001)</td>
<td>Survey</td>
<td>114 chief internal auditors (CIAs)</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Carcello &amp; Neal (2000)</td>
<td>Archival</td>
<td>223 financially distressed companies</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Cohen &amp; Hanno (2000)</td>
<td>Experimental</td>
<td>96 external auditors</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>DeZoort (1998)</td>
<td>Experimental</td>
<td>87 AC members from NYSE, AMEX and NASDAQ companies</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Scarborough, Rama &amp; Raghunandan (1998)</td>
<td>Survey</td>
<td>72 CIAs from Canada</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

Companies with audit committees that did not include employee members and that met at least twice a year were more likely to use specialist auditors.

Companies that made suspicious auditor switches had a smaller percentage of independent audit committee members and fewer committee members with experience in accounting, auditing, or finance than matched non-switching counterparts.

Audit committees with only independent directors and at least one member with an accounting or finance background were more likely to have longer meetings with CIAs, to provide private access to CIAs, and to review internal audit proposals and results.

The greater the percentage of affiliated (inside or grey) directors on the audit committee, the lower the probability that a financially distressed firm will receive a going concern opinion from the auditor.

Companies with audit committees that lacked resources and technical experience were more likely to receive unfavourable audit planning judgments from auditors.

Audit committee members with auditing and internal control evaluation experience made internal control judgments more like experts than members who lacked such experience.

Audit committees consisting solely of non-employee directors were more likely to (1) meet frequently with the CIA and (2) review internal audit programs and results of internal audits than were audit committees comprised of one or more insiders.

Source: adapted from DeZoort et al., 2002, p. 38-71.
TABLE 8: Audit committee structural strength and managerial discretionary decision making

<table>
<thead>
<tr>
<th>Researcher(s) &amp; year</th>
<th>Method</th>
<th>Companies/subjects</th>
<th>Comp</th>
<th>Auth</th>
<th>Rev</th>
<th>Dilig</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ng &amp; Tan (2003)</td>
<td>Experimental</td>
<td>101 US audit managers</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>The results indicate that the availability of authoritative guidance (accounting standards) and independence of the audit committee from management interact to jointly affect auditors' propensity to concede to the client's preferred position.</td>
</tr>
<tr>
<td>DeZoort &amp; Salterio (2001)</td>
<td>Survey</td>
<td>68 Canadian AC members</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>Independent director experience and audit knowledge were associated with audit committee member support for an auditor who advocates a &quot;substance over form&quot; approach in a dispute with client management.</td>
</tr>
<tr>
<td>Raghunandan &amp; McHugh (1994)</td>
<td>Survey</td>
<td>426 chief internal auditors</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>Audit committees that were involved in chief internal auditor hiring/firing decisions met more often with the CIA and were perceived to have greater ability to get management to act on auditing findings.</td>
</tr>
<tr>
<td>Knapp (1984)</td>
<td>Experimental</td>
<td>179 AC members</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>Big 8 audit firm use was associated with increased support for the auditor in auditor-management disagreements. In addition, committee members who were practicing corporate managers were more likely to support the auditor in a dispute with management, than committee members without a managerial background or retired executives. Further, audit committee members were more likely to support the auditor when the issue was the subject of objective professional standards and when the auditee was in a poor financial condition.</td>
</tr>
</tbody>
</table>

Source: adapted from DeZoort et al., 2002, p. 38-71.
### TABLE 9: Audit committee structural strength and the structural strength of the board

<table>
<thead>
<tr>
<th>Researcher(s) &amp; year</th>
<th>Method</th>
<th>Companies/subjects</th>
<th>Structural strength</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Klein (2002b)</td>
<td>Archival</td>
<td>803 firm-years on S&amp;P 500</td>
<td>✓</td>
<td>Audit committee independence was positively associated with board size and board independence and negatively associated with growth opportunities and firms with losses.</td>
</tr>
<tr>
<td>Cohen, Krishnamoorthy, &amp; Wright (2002)</td>
<td>Interview</td>
<td>42 US auditors</td>
<td>✓</td>
<td>The effectiveness of the audit committee is subject to independence from the CEO.</td>
</tr>
<tr>
<td>Beasley &amp; Salterio (2001)</td>
<td>Archival</td>
<td>627 publicly traded Canadian companies</td>
<td>✓</td>
<td>Voluntary increase in the number of outside audit committee members’ collective financial reporting and audit committee knowledge and experience was positively related to board size, the proportion of outsiders on the board, and separation of board chair and CEO/president.</td>
</tr>
<tr>
<td>Collier and Gregory (1999)</td>
<td>Survey and Archival</td>
<td>141 UK companies</td>
<td>✓</td>
<td>Presence of insiders on the audit committee and a dominant CEO was negatively related to the level of annual audit committee activity (number of meetings and duration of meetings).</td>
</tr>
<tr>
<td>Menon and Williams (1994)</td>
<td>Archival</td>
<td>200 randomly selected OTC companies</td>
<td>✓</td>
<td>As the proportion of outside directors on the board increases, firms are more likely to exclude insiders from the audit committee. Audit committee independence is a proxy for the board’s reliance on the audit committee.</td>
</tr>
<tr>
<td>Kalbers &amp; Fogarty (1993)</td>
<td>Survey</td>
<td>EAs, Ias, and CFOs from 90 US companies</td>
<td>✓ ✓</td>
<td>Audit committee effectiveness included oversight of financial reporting, external auditors and internal control. Audit committee power within the organization came from a combination of written authority and the clear support of top management.</td>
</tr>
</tbody>
</table>

Source: adapted from DeZoort et al., 2002, p. 38-71.
<table>
<thead>
<tr>
<th>Researcher(s) &amp; year</th>
<th>Method</th>
<th>Companies/subjects</th>
<th>Domain</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Krishnamoorthy et al. (2002)</td>
<td>Interview</td>
<td>36 Australian auditors</td>
<td>External auditing</td>
<td>Auditors viewed corporate governance as centered around management, rather than the board. Auditors viewed corporate governance considerations as particularly important in client acceptance decisions and in international settings. Finally, many of the auditors viewed audit committees as weak and ineffective.</td>
</tr>
<tr>
<td>Vafeas (2001)*</td>
<td>Archival</td>
<td>262 non-executive AC members</td>
<td>Audit committee member selection</td>
<td>New audit committee members generally had fewer years of service on the board, served on fewer board committees, and were more independent than the control group of other non-audit committee directors. Audit committee appointments were not significantly related to stock ownership and the number of other directorships held.</td>
</tr>
<tr>
<td>DeZoort, Friedberg &amp; Reisch (2000)*</td>
<td>Survey</td>
<td>18 internal audit directors</td>
<td>Audit committee member training</td>
<td>Internal audit directors suggested that structured communications programs between internal auditors and audit committees could improve the quality of corporate governance.</td>
</tr>
<tr>
<td>Collier and Gregory (1999)*</td>
<td>Survey and Archival</td>
<td>141 UK companies</td>
<td>Meeting activity</td>
<td>Presence of insiders on the audit committee was negatively related to the level of annual audit committee activity (number of meetings and duration of meetings).</td>
</tr>
<tr>
<td>Turpin &amp; DeZoort (1998)*</td>
<td>Archival</td>
<td>33 companies disclosing an AC report</td>
<td>Audit committee report disclosure</td>
<td>Results indicated significant positive associations between voluntary audit committee report disclosure in annual reports and company size, proportion of outside directors, leverage, and trade on a major stock exchange.</td>
</tr>
<tr>
<td>DeZoort (1997)*</td>
<td>Survey</td>
<td>112 AC members from NYSE, AMEX and NASDAQ companies</td>
<td>Audit committee responsibilities</td>
<td>Audit committee members recognised the importance of having expertise in accounting, auditing and law with some members admitting they lacked sufficient expertise in these areas. Internal control evaluation was consistently ranked as the most important oversight responsibility.</td>
</tr>
<tr>
<td>Researchers &amp; year</td>
<td>Method</td>
<td>Companies/subjects</td>
<td>Domain</td>
<td>Results</td>
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<tr>
<td>--------------------</td>
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</tr>
<tr>
<td>Lee &amp; Stone (1997)*</td>
<td>Archival</td>
<td>100 US multi-national companies</td>
<td>Audit committee responsibilities</td>
<td>Results indicate a mismatch between stated audit committee responsibilities and the level of audit committee member &quot;instrumental&quot; experience (related to accounting, auditing, and control issues).</td>
</tr>
<tr>
<td>Coopers &amp; Lybrand (1995)*</td>
<td>Survey</td>
<td>Members from 250 ACs</td>
<td>Audit committee responsibilities</td>
<td>The scope of audit committee activity expanded considerably over the two decades prior to the study, and most of the sampled audit committees conducted a wide range of oversight duties.</td>
</tr>
<tr>
<td>Vicknair, Hickman &amp; Carnes (1993)*</td>
<td>Archival</td>
<td>100 NYSE companies</td>
<td>Audit committee membership independence.</td>
<td>A significant presence of &quot;grey&quot; directors was noted on the audit committees of the sample companies. Specifically, interlocking directorships and other related party transactions constituted the most prevalent sources of independence questions.</td>
</tr>
<tr>
<td>Kalbers (1992)*</td>
<td>Survey</td>
<td>50 external auditors and 52 AC members</td>
<td>Audit committee responsibilities.</td>
<td>External auditors had significantly lower opinions of audit committee members’ expertise in oversight areas than did audit committee members. Audit committee members and auditors disagreed with the suggestion that the audit committee has very little authority, although audit committee members disagreed more than auditors.</td>
</tr>
<tr>
<td>Rittenburg &amp; Nair (1993)*</td>
<td>Survey</td>
<td>62 AC members, 94 CPAs, and 42 IA directors</td>
<td>Audit committee characteristics.</td>
<td>Many members recognised that they needed to better understand their specific responsibilities.</td>
</tr>
<tr>
<td>Abdolmohammadi &amp; Levy (1992)*</td>
<td>Survey</td>
<td>69 AC members</td>
<td>Audit committee responsibilities.</td>
<td>Although audit committee members had varied perceptions of their responsibilities, several broad areas emerged, including oversight, relationships with external auditors, relationships with internal auditors, and financial disclosure. Management and audit committee chairs had significant differences in perceptions about financial statement disclosure and accounting procedure choice.</td>
</tr>
<tr>
<td>Haka &amp; Chalos (1990)*</td>
<td>Survey</td>
<td>External auditors, internal auditors, CEOs, and AC chairs from Fortune 500 companies</td>
<td>Financial reporting.</td>
<td></td>
</tr>
</tbody>
</table>

Source: adapted from DeZoort et al., 2002, p. 38-71.
The review of the corporate governance literature concludes this Chapter.

Attention now turns to Chapter 4 and the development of the accountability hypotheses.
CHAPTER 4

THEORETICAL DEVELOPMENT OF ACCOUNTABILITY HYPOTHESES AND THE RATIONALE FOR THE EFFICIENCY RESEARCH QUESTION

4.0 CHAPTER CONTENT

The primary purpose of this Chapter is to provide the theoretical development of the hypotheses that proceed from the two empirical research questions identified in Chapter 1.

The research questions read as follows:

**RQ1** Does financial threat to auditor independence from recurring NAS and the structural strength of the board of directors affect stakeholder perceptions of auditor independence?

**RQ2** Does financial threat to auditor independence from recurring NAS and the structural strength of the board of directors affect stakeholder willingness to appoint the incumbent audit firm to provide NAS.

The hypotheses are tested statistically in the experimental study (Study 2) described in Chapter 7. The Chapter concludes by providing the rationale for the third and final research question identified in Chapter 1. The question, which is descriptive in nature, represents a natural progression from the formulation of the accountability hypotheses and reads as follows:

**RQ 3** What are the nature and sources of the efficiencies that may accrue from appointing the incumbent auditor to provide NAS?

Question 3 is examined conceptually in Chapter 5.
4.1 INTRODUCTION

The experimental component of the thesis (Study 2) involves an experimental, user-based perception study. Thus, prior user-based studies provide the springboard for the development of the hypotheses. However, the theoretical framework involved is essentially drawn from elsewhere. The development of the hypotheses dealing with recurring NAS derives from the economics of audit quality research dealing with auditor independence and the Mock et al. (2005) IR model. The development of the hypotheses dealing with the safeguarding role of the board of directors draws on the conceptual framework of independence, the Mock et al. (2005) IR model and corporate governance best-practice regulation, supported by findings from the corporate governance stream of audit research.

The empirical accountability – descriptive efficiency dimensions of the decision of whether to hire the incumbent audit firm to provide NAS provide the structure for the ensuing discussion.

4.2 DEVELOPMENT OF ACCOUNTABILITY HYPOTHESES

The hypotheses dealing with stakeholder perceptions of independence risk and willingness-to-appoint, concern the financial threat to auditor independence from recurring NAS and the safeguarding role of the board of directors.

4.2.1 Recurring NAS hypotheses

The financial threat to auditor independence from recurring NAS falls within the ambit of the threat of self-interest.

According to PF 1, the threat of self-interest occurs in the following circumstances.

when a firm or a member of the assurance team could benefit from a financial interest in or other self-interest conflict with an assurance client (PF 1. 1.22).
The reference to a “financial interest” refers to the threat to auditor independence from a financial relationship (as investor or borrower) with the audit client. Wealth incentives associated with the fees for NAS, on the other hand, fall within the ambit of “other self-interest conflict” (PF 1.1.22).

Prior user-based studies have operationalised the threat of self-interest via the relative magnitude of fees for NAS as a percentage of the audit fee. McKinley et al. (1985) indicate that NAS equal to 30% of the audit fee did not significantly affect bank loan officer perceptions of auditor independence, the reliability of the financial statements or loan decisions. Pany et al. (1988) examined a situation in which NAS ranged from 0 to 90% of average audit fees over a period of three consecutive years. The results gave no strong indication that users (bank loan officers and financial analysts) perceived an independence problem.

Notwithstanding the foregoing results, there are grounds for further research on user perceptions of the threat of self-interest. They include the issue of the heightened awareness of audit independence, generally, in the post-Enron era and the fact that financial dependence is not confined to the issue of relative magnitude. Johnstone et al. (2001) identify wealth incentives associated with the provision of NAS as emanating not only from the magnitude of NAS fees, but also the source and continuity of fees, and low-balling. This study is concerned with the issue of continuity of NAS fees, which is, in turn, grounded in the issue of client specific assets.

Client specific assets are the basis of wealth incentives for the auditor to assume heightened independence risk. The assets are the focus of the economics of audit quality literature dealing with independence in appearance (e.g., Simunic, 1984; Beck et al. 1988a & b).

Client specific resources are identified in the accounting literature as specialised technological advantages (e.g., Beck et al. 1988a) and knowledge spillovers (e.g., Simunic, 1984). They accrue from incumbency and incumbency as a multi-discipline provider to the
client, respectively. Technological advantages derive from the presence of NAS start-up costs to the service provider and client switching costs associated with recurring NAS (e.g., Beck et al. 1988a).

Specialised knowledge spillovers, on the other hand, represent a by-product of the joint production of the audit and NAS peculiar to the client (e.g., Simunic, 1984). The externalities may take the form of cost savings (economies of scope) or tacit knowledge (scope of knowledge). Scope of knowledge may or may not result in cost savings to the service provider (Simunic, 1984). This issue is addressed in Chapter 5. However, both sets of resources are of the nature of a specialised investment and represent a source of competitive advantage to the incumbent, _ex post._

Beck et al. (1988a) and Simunic (1984) demonstrate, analytically, that to the extent that both sets of resources are enduring and the associated gains (cost savings) are not passed on to the customer through competitive pricing, including low-balling at the initial contract stage, they represent a source of future quasi-rents. A quasi-rent represents the “excess of revenues over avoidable costs including the opportunity cost of (servicing) the next best alternative” (De Angelo, 1981b, p. 116). It is assumed for the purposes of this thesis that competitive, not monopolistic terms prevail. The alternative states hold implications for whether rents are quasi or monopolistic in nature (De Angelo, 1981b).

The value of the specialised investment to the incumbent relies on the future income stream from client specific quasi-rents and, therefore, a continued relationship with the client. The incumbent is able to protect the future income stream at the contract renewal stage through exercising limit pricing - the “value of incumbency” (Magee et al., 1990, p. 315). The benefit to the client derives from the opportunity to share in the value (efficiencies), _via_ competitive pricing.

However, where an auditor is earning client specific economic rents from the provision of NAS, he/she faces a “higher marginal expected loss from truthful reporting in . . . situations
involving conflicts between the auditor and client” (Simunic, 1984, p. 680). This, in turn, gives rise to a higher probability that the auditor will conceal ““bad news” from shareholders” (Simunic, 1984, p. 680). Simunic’s (1984, p. 680) reference to “conflicts between the auditor and client”; and a “higher marginal expected loss from truthful reporting”, brings into issue IR opportunity and IR incentives and attitude.

The relationship-specific, future rent stream represents a catalyst by which management may exact auditor compliance/elicit auditor co-operation, in the domain of IR opportunity, to give effect to self-seeking behaviour. The presence of a future quasi-rent stream, upon which the value of the client specific investment relies, invokes the professional conceptual self-interest threat associated with “concern about the possibility of losing the engagement” (PF 1, 1.22). The structure of the argument, from the evidence (antecedents) to IR incentives and subsequently from incentives to attitude and opportunity, using the Mock et al. (2005) evidential model, is shown in green in Figure 9. The antecedents of IR opportunity, as defined in this thesis, are also identified in green.
FIGURE 9: Evidential Diagram for Independence Risk (modified)

Incentives

\[ \text{Incentive Safeguards (IS)} \]
\[ \text{Incentive Threats (IT)}: \quad \text{Self-interest} \]
\[ \text{Incentive Threats (IT)}: \quad \text{Client-specific investment future client stream} \]

Attitude

\[ \text{Attitude Safeguards (AS)} \]
\[ \text{Attitude Threats (AT)} \]
\[ \text{Attitude Threats (AT)}: \quad \text{Relevant to Lack of Integrity} \]

Opportunity

\[ \text{Opportunity Safeguards (OS)} \]
\[ \text{Opportunity Threats (OT)}: \quad \text{Managerial and auditor discretionary decision-making} \]
\[ \text{Opportunity Threats (OT)}: \quad \text{Managerial opportunism} \]
\[ \text{Opportunity Threats (OT)}: \quad \text{Listed public company diffuse shareholder base discretionary dimension of accounting knowledge} \]

Evidence Pertinent to Safeguard Factors Relevant to Incentives

Evidence Pertinent to Threat Factors Relevant to Incentives

Evidence Pertinent to Safeguard Factors Relevant to Lack of Integrity

Evidence Pertinent to Threat Factors Relevant to Lack of Integrity

Evidence Pertinent to Safeguard Factors Relevant to Opportunities

Evidence Pertinent to Threat Factors Relevant to Opportunities

Source: adapted from Mock et al., 2005, p. 46.
Recurring NAS may be viewed as a measure of the presence of enduring client specific investment/resources on the part of the audit firm, and the fees for the NAS, as an annuity that approximates a future quasi-rent stream (Parkash et al., 1993). Empirical evidence of the impact of the recurring/non-recurring issue on the supply/demand for NAS is confined to the economics of audit quality literature dealing with auditor independence (e.g., Beck, et al., 1988b; DeBerg et al., 1991; Parkash et al., 1993). The results of the studies are mixed.

Beck et al. (1988b) tested the relationship between various levels of NAS fees (by recurring and non-recurring categories) and audit tenure on US listed companies in 1978 and 1979. They selected 50 companies in both years with high levels of different categories of NAS and compared them with a control sample of companies with low levels of NAS. Overall the results of the study are mixed. Limited support was found for increased bonding – decreased independence in the case of some of the recurring NAS categories in the 1978 sub-sample. However, the result was not replicated in the 1979 sub-sample. No significant results were found in respect of the non-recurring NAS.

DeBerg et al. (1991) tested the assertion that companies with higher levels of recurring NAS would switch their auditors less often than companies with lower levels of NAS. Using a matched pair research design, they compared levels of NAS for all listed US companies that changed auditors between September 1978 and February 1982 with levels of NAS fees reported by similar companies that did not change auditors in that time period. The researchers did not find any significant differences in the levels of total NAS, recurring NAS and non-recurring NAS between the treatment and control groups. In an extension to their primary research question, DeBerg et al. (1991) investigated whether the decision to change auditors was related to changes in the purchase of NAS. Levels of NAS before and after the auditor switches were analysed. The results indicated lower levels of total NAS and recurring NAS were purchased from the successor auditor compared to the predecessor auditor and also the non-change company group.
Notwithstanding the foregoing mixed results, agency-related, audit quality literature suggests that audit clients are sensitive to independence in appearance. Firstly, research confirms that the demand for audit quality is a function of the principal-agent conflict between management and shareholders (e.g., DeFond, 1992). Secondly, a set of studies dedicated to identifying the demand and/or supply drivers of NAS fees (e.g., Parkash et al., 1993; Firth, 1997; Craswell, Guz and Francis, 2000) suggests that audit clients manage NAS according to variables related to expected agency costs.

Specifically, the latter studies suggest the existence of an inverse relationship between the quantity of NAS provided by the incumbent audit firm and expected agency costs. Expected agency costs refer to the increase in the cost of capital from perceived, impaired auditor independence. The expected agency costs are represented in the studies by two or more of the following auditee characteristics, as a measure of the separation between ownership and control: managerial ownership, ownership diffusion and leverage (Parkash et al., 1993; Firth, 1997; Craswell et al., 2000). The auditee characteristics have their analogy in the IR element opportunity, specifically managerial discretionary decision making and managerial opportunism: the quantity of NAS, measured financially, IR (wealth) incentives.

However, again the results of the foregoing studies are not definitive with respect to the role of recurring versus non-recurring NAS in establishing the presence, or otherwise, of wealth incentives. Parkash et al. (1993) find a significant positive relation between the level of recurring NAS and levels of auditee characteristics that proxy for agency costs (the cost of capital); and, conversely, that agency costs do not explain the level of non-recurring NAS. However, the Firth (1997) and Craswell et al. (2000) studies do not address the recurring/non-recurring nature of the NAS involved.

The present study will examine the recurring - non-recurring differential further, by examining the impact of the continuity of fees on stakeholder perceptions of auditor independence and willingness-to-appoint, using an experimental approach. Willingness-to-
appoint is measured by asking stakeholders to indicate whom they would choose to provide the NAS (audit firm or specialist firm); and the strength of their preference for the respective providers.

The foregoing discussion gives rise to the following three hypotheses, which are expressed in the alternative format. The hypotheses are underpinned by propositions $R_{1a}$ and $R_{3a}$ depicted in Figure 9 (page 87), which recognise a positive relationship between the strength of IR incentives and auditor and management propensity to act self-interestedly.

\[ H_1 \] Stakeholder perceptions of auditor independence will be lower when the NAS is recurring than when it is non-recurring.

\[ H_2 \] Stakeholders will be less likely to choose the audit firm to provide the NAS when the NAS is recurring than when it is non-recurring.

\[ H_3 \] Stakeholder strength of preference for the audit firm will be lower when the NAS is recurring than when it is non-recurring.

4.2.2 Strength of the board of directors hypotheses

From the perspective of the theory of IR, the foregoing studies centre on threat as the antecedent of the element incentives. However, the broader literature surrounding the joint provision of the audit and NAS begs the question of the mitigating effect of safeguarding mechanisms on independence risk. That literature includes the following:

- the regulatory conceptual approach to auditor independence (e.g., PF 1);
- the theory of IR (e.g., Johnstone et al. 2001; Mock et al., 2005); and
- economics of audit quality studies (e.g., Ikin, 2001).

Empirical evidence of the effect of safeguards on user-based perceptions of auditor independence is confined to a small set of user-based studies dealing with separation of duties as a mechanism for mitigating the threat of self-review (Geiger et al., 2002; Swanger et al., 2001; and Lowe et al., 1999). The threat was associated with the outsourcing of the internal audit function (IAF).
Lowe et al. (1999) found that the separation of audit firm staff performing the IAF from those performing the external audit had a significant positive effect on user perceptions of independence and financial statement reliability and loan approvals. Swanger et al. (2001) found that user perceptions of auditor independence were higher when a separate division of the incumbent audit firm, as opposed to where no staff separation was employed, performed the IAF. The Geiger et al. (2002) study was similar to the Lowe et al. (1999) study in relation to the method and outcomes. The results indicated that the users perceived auditor independence, financial statement reliability and loan acceptability more positively where separate personnel from those performing the external audit performed the IAF.

The present study extends the foregoing studies by examining the effect of the safeguarding role of the board of directors on stakeholder perceptions of auditor independence and willingness to appoint the incumbent auditor to perform NAS.

Separating the provision of the NAS from the audit mitigates the threat to audit independence - the antecedence of IR incentives. Thus, separation of duties represents an ex ante means of incentive alignment. However, the benefits of appointing the incumbent audit firm to provide NAS that derive from client specific investments, per se, are inextricably linked to the IR element incentives. The benefits are the product of incumbency and joint production. Separation of duties trades off efficiencies for accountability. The means of breaking the stalemate - allowing the efficiencies to take effect, in the presence of incentives - lies with (ex post) governance mechanisms, which operate at the level of the IR elements attitude and opportunity (managerial opportunism).

The incentive for the auditor to assume heightened independence risk in the exercise of his/her professional discretion in this study is, of course, wealth based. However, notwithstanding the source of the incentive, a significant formal mechanism exists within the broader corporate governance framework for resolving the underlying agency problem: auditor - investor and, manager - investor. The mechanism is the board of directors of a company in discharging their financial reporting function. Directors have the capacity to alter the opportunity for management and the auditor to act inappropriately in the exercise
of discretionary power that has implications for pay-offs to claimholders. From the perspective of the Mock et al. (2005) IR model and the appearance of independence, it is argued here that the board of directors has the capacity to negate the articulation between incentives and attitude \( (R_1) \); attitude and opportunity \( (R_2) \); and incentives and opportunity \( (R_3) \). The articulation, and, therefore, perception, accepts that discretionary decision-making is subject to the self-serving bias, in the face of incentives. From the perspective of the threat to auditor independence from the continuity of fees that is of interest to this study, the board of directors has the capacity to negate the propagation from incentives to attitude \( (R_{1a}) \) and opportunity \( (R_{3a}) \) - as shown in Figure 9 on page 87 – by mitigating IR attitude and managerial opportunism, i.e., the propensity of the parties to act self-interestedly. It is important to note at this point that the Mock et al. (2005, p. 3) IR model involves a “closed-form analytical formula”. To suggest that the board of directors represents a means of mitigating both IR attitude and opportunity is to suggest also that assessing IR involves a network rather than a closed-form inferential problem. However, Mock et al. (2005, p. 24) assert, on the basis of prior research, that their “model is a good, conservative approximation of the exact network model”.

Support for the proposition that the board of directors has the capacity to mitigate IR attitude and managerial opportunism is provided by the following set of regulatory circumstances:

(i) Australian statutory regulation that vests directors of publicly listed corporations with the overriding responsibility for the integrity of financial reporting.

(ii) Best-practice principles that are dedicated to defining the duties and responsibilities of directors in that respect. The principles establish that discharging the responsibility involves monitoring the functions of management and the external (and internal) auditor, including communicating with the parties concerned.

However, best-practice principles also identify key structural attributes as a buffer to director effectiveness. Further, the results of empirical research support the relationship between structural strength and effectiveness.
The effectiveness of the safeguarding role of the directors is, as mentioned earlier, operationalised in this study in terms of its structural strength, which spills over to the audit committee. The governing role of directors generally, and as a safeguard of auditor independence in particular, including the significance of the strength of structural attributes, will now be considered in the process of developing the related hypotheses.

4.2.2.1 Governing role of directors

Corporate governance may be defined as "the system by which companies are directed and managed" (ASX Corporate Governance Council, 2003, p. 3). In its narrowest sense, governance may be viewed as the "set of arrangements internal to the corporation that define the relationships between managers and shareholders" (World Bank, 1999, p. 6). In Australia, the internal arrangements are embedded in the Corporations Law and the terms of corporate documents, for example, the Corporate Charter, negotiated among the key players. At the centre of the arrangements are the directors who are the delegates of shareholders, and who have the "overriding responsibility to ensure the long-term viability of the firm and to provide oversight of management" (World Bank, 1999, p. 6). The responsibility for managing the core functions of the business is delegated by the board of directors to management, and the chief executive officer is accountable to the board in that respect.

In the broadest sense of the term, the internal perspective of corporate governance is strengthened by an external dimension consisting of external laws, rules and institutions that "provide a level, competitive playing field and discipline the behaviour of insiders, whether managers or shareholders" (World Bank, 1999, p. 6). The internal and external dimensions together provide the framework of corporate governance, depicted in Figure 10.
FIGURE 10: A CORPORATE GOVERNANCE FRAMEWORK: THE INTERNAL AND EXTERNAL ARCHITECTURE

INTERNAL

Shareholders

Board of Directors

Reports to

Appoints and monitors

Management

Operates

Core functions

EXTERNAL

Private

Stakeholders

Regulatory

Standards
(e.g., accounting and auditing)

Laws and Regulations

Financial sector
- Debt
- Equity

Markets
- Competitive factor and product markets
- Foreign direct investment
- Corporate control

Reputational agents1.
- Accountants
- Lawyers
- Credit rating
- Investment bankers
- Financial media
- Investment advisors
- Research
- Corporate governance analysts

1. Reputational agents refer to private sector agents, self-regulating bodies, the media, and civic society that reduce information asymmetry, improve the monitoring of firms, and shed light on opportunistic behaviour.

The construction of the roles and relationships of directors and internal and external auditors is the subject of best practice principles that form an integral part of the discipline of corporate governance. A major social stimulus for improvements in and the evolution of corporate governance best-practice principles lies with major corporate collapses. For example, the stock market crash of 1987 prompted major reviews of corporate governance both in Australia and overseas. The reviews resulted in the publication, over the ensuing 10 to 15 years, of reports and guides that have played a major role in defining best-practice with respect to the duties and responsibilities of directors, managers, and auditors (internal and external). The publications include the following:

- Australia, Bosch Committee (Bosch), *Corporate Practices and Conduct*, 1995.

The overriding consensus of these documents, and others, is that from a corporation’s perspective, governance is concerned with “maximising value subject to meeting the corporation’s financial and other legal and contractual obligations” (World Bank, 1999, p. 4). Achieving that goal calls for a partnership between the directors and management, whose task, as the foregoing statement suggests, is twofold - enhancing performance and accountability (Hilmer, 1993). However, the overriding internal responsibility for corporate governance vests with the directors, who exercise their function through giving direction and exercising judgement in setting the corporation’s objectives, and “monitoring their implementation” (Bosch, 1995, p. 8).
The implementation of aspects of the best practice principles embodied in the foregoing documents has been expedited in recent times as a part of the current scrutiny of corporate governance worldwide. The scrutiny has been brought about by the financial reporting scandals surrounding entities such as Enron, Oracle, Tyco International, Microsoft and Worldcom, and locally HIH and Onetel.

The ASX Corporate Governance Council established in August 2002, provides the most recent description of the typical functions of Australian directors in the publication titled *Principles of Good Corporate Governance and Best Practice Recommendations*, released in March 2003. The publication is referred to hereafter as the *ASX CG Recommendations*, 2003. The Ramsay (2001) review recommended that the task of defining good corporate governance be devolved to the ASX. The Commonwealth Government, as part of the CLERP 9 reform program, subsequently ratified the recommendation. A description of the directors' functions described in the *ASX CG Recommendations* (2003) is provided in Figure 11.

**FIGURE 11: Typical duties of directors**

Usually the board would be responsible for:

1. Oversight of the company, including its control and accountability systems.
2. Appointing and removing the chief executive officer (or equivalent).
3. Ratifying the appointment and, where appropriate, the removal of the chief financial officer (or equivalent) and the company secretary.
4. Input into and final approval of management's development of corporate strategy and performance objectives.
5. Reviewing and ratifying systems of risk management and internal compliance and control, codes of conduct, and legal compliance.
6. Monitoring senior management's performance and implementation of strategy, and ensuring appropriate resources are available.
7. Approving and monitoring the progress of major capital expenditure, capital management, and acquisitions and divestitures.
8. Approving and monitoring financial and other reporting.

Source: ASX Corporate Governance Council, 2003, p. 16.

4.2.2.2 The board as a safeguard of auditor independence

The duty of the directors that is of immediate relevance to this study concerns item 8 above. That is, their responsibility for approving and monitoring corporate financial
reporting obligations - specifically, the "ultimate responsibility of the board to ensure the integrity of the company’s financial reporting" (ASX Corporate Governance Council, 2003, p. 29). The Council asserts that “particularly for larger companies, an audit committee can be a more efficient mechanism than the full board for ... verifying and safeguarding the integrity of the company’s financial reporting” (ASX Corporate Governance Council, 2003, p. 29). The experimental setting for this study includes an audit committee.


The *BPG – AC Guide* (2001) represents one of a number of publications issued worldwide in the past five years that defines best practice with respect to the objectives and responsibilities of effective audit committees. The remaining publications of significance include the following:

- US, *Report and Recommendations of the Blue Ribbon Committee on Improving the Effectiveness of Corporate Audit Committees* (1999), Blue Ribbon Committee.


Research that considers directors and internal and external auditors as belonging to a set of mechanisms for monitoring management, views the parties as either *complementary* or *substitutes* (e.g., Anderson, Francis & Stokes, 1993). The distinction between the two

⁹ The Guide was published by the Auditing & Assurance Standards Board of the Australian Accounting Research Foundation, the Institute of Internal Auditors, and the Australian Institute of Company Directors, in August 2001.
enhancing quality, or . . . meeting essential functions, is the issue of complementarity versus substitutability.

Substitution assumes that the roles of the monitoring agents are orthogonal, i.e., the choice of the quantity of one, is made independently of the other(s) (Anderson et al., 1993). However, it is argued here that notwithstanding directors overriding responsibility for ensuring the integrity of corporate financial statements, substitution is inconsistent with the relative positioning of directors in the regulatory corporate governance framework in Australia. That is, regulation reflects the monitoring role of directors (audit committee) as complementary. Support for this stance is contained in regulation that defines the roles and relationships of directors and internal and external auditors.

The BPG – AC Guide (2001, p. 6), for example, states that the objective of the audit committee is to facilitate the “maintenance of the independence of the external auditor”, i.e., not to act as a substitute. The facilitating role is also expressly supported by PF 1, the proposals contained in the Ramsay Report (2001) and the CLERP 9 Report (2002). Further, the objectives of the audit committee, as defined by BPG – AC Guide (2001, p. 6) and contained in Figure 12, clearly establish that the role of a committee is not to act as a “quasi-auditor” (Hilmer, 1993, p. 57). The wording of the duties centres on the key phrases “assisting”, “improving”, “facilitating”, “strengthening” and “fostering” - emphasising the advisory and overseeing role of the committee.
The main objectives of an appropriately established and effective audit committee would usually include the following.

- Assisting the board of directors to discharge its responsibility to exercise due care, diligence and skill in relation to the entity’s:
  - reporting of financial information to users of financial reports;
  - application of accounting policies;
  - financial management;
  - internal control system;
  - risk management system;
  - business policies and practices;
  - protection of the entity’s assets; and
  - compliance with applicable law, regulations, standards and best practice guidelines.

- Improving the credibility and objectivity of the accountability process (including financial reporting), especially where the role of the audit committee and its membership by independent non-executive directors is disclosed to shareholders and the public.

- Providing a formal forum for communication between the board of directors and senior financial management.

- Improving the efficiency of the board of directors by delegating tasks to the committee and thus allowing more time for issues to be discussed in sufficient depth.

- Improving the effectiveness of the internal and external audit functions and being a forum for improving communications between the board of directors and the internal and external auditors.

- Facilitating the maintenance of the independence of the external auditor.

- Providing a structured reporting line for internal audit and facilitating the maintenance of the objectivity of the internal auditor.

- Improving the quality of internal and external reporting of financial and non-financial information.

- Improving the correlation between related financial and non-financial information and reports.

- Strengthening the role and influence of non-executive directors.

- Fostering an ethical culture throughout the entity.


The mitigating effect of the audit committee in the context of the Mock et al. (2005) model is evident in the description of a committee’s responsibilities provided in the BPG - AC Guide (2001. p. 22-23). The responsibilities, which centre on the oversight of external reporting, internal control and risk managements, are identified in Figure 13. The responsibilities clearly vest in the committee the capacity to alter the opportunity for self-seeking behaviour on the part of management and, in doing so, indirectly facilitating auditor integrity; and the auditor.
The capacity of the audit committee (board) to mitigate managerial opportunism as an antecedent of IR opportunity is evident, for example, in the following responsibilities that define the external reporting function identified in Figure 13.

- Consider the appropriateness of the entity’s accounting policies and principles and any changes, as well as the methods of applying them, ensuring that they are in accordance with the stated financial reporting framework. To do this the committee will need to request management to inform the committee of:
  - whether the methods chosen by management are consistent with Accounting Standards, Accounting Concepts and Urgent Issues Group (UIG) Consensus Views;
  - any changes in significant accounting policies or their applications during the reporting period;
  - the methods used to account for significant unusual transactions or transactions in emerging areas for which there may be no specific accounting standards, including management’s reasoning in determining the appropriateness of those methods; and then request the internal and external auditors to inform the committee of their views in relation to the above.

- Assess significant estimates and judgements in financial reports by enquiring of management about the process used in making material estimates and judgements and then enquire of the internal and external auditors the basis for their conclusions on the reasonableness of management’s estimates.

- Assess information from internal and external auditors that affects the quality of financial reports (e.g., actual and potential material audit adjustments, financial report disclosures, non-compliance with the laws and regulations, internal control issues).
FIGURE 13: Audit committee responsibilities

The audit committee’s main responsibilities can be divided into the following areas (noting that some responsibilities and/or areas may not apply if some things, such as internal audit function, do not exist).

External Reporting

- Consider the appropriateness of the entity’s accounting policies and principles and any changes, as well as the methods of applying them, ensuring that they are in accordance with the stated financial reporting framework. To do this the committee will need to request management to inform the committee of:
  - whether the methods chosen by management are consistent with Accounting Standards, Accounting Concepts and Urgent Issues Group (UIG) Consensus Views;
  - any changes in significant accounting policies or their applications during the reporting period;
  - the methods used to account for significant unusual transactions or transactions in emerging areas for which there may be no specific accounting standards, including management’s reasoning in determining the appropriateness of those methods;

and then request the internal and external auditors to inform the committee of their views in relation to the above.

- Assess significant estimates and judgements in financial reports by enquiring of management about the process used in making material estimates and judgements and then enquire of the internal and external auditors the basis for their conclusions on the reasonableness of management’s estimates.

- Review management’s processes for ensuring and monitoring compliance with laws, regulations and other requirements (including Australian Accounting Standards, the Corporations Act 2001 and the Australian Stock Exchange and, where applicable, those of other countries) relating to the external reporting by the entity of financial and non-financial information.

- Ensure that a comprehensive process is established by the entities management to capture issues for the purposes of continuous reporting to the Australian Stock Exchange.

- Assess information from internal and external auditors that affects the quality of financial reports (e.g. actual and potential material audit adjustments, financial report disclosures, non-compliance with the laws and regulations, internal control issues).

- Ask the external auditor for an independent judgement about the appropriateness, not just the acceptability, of the accounting principles used and the clarity of the financial disclosure practices used or proposed to be used by the entity as put forward by management.

- Review documents and reports to regulators and make recommendations to the board on their approval or amendment.

- Assess the management of non-financial information in documents (both public and internal) to ensure the information does not conflict inappropriately with the financial statements and other documents and assess internal control systems covering information releases that have the potential to adversely reflect on the entity’s conduct.

- Review for completeness and accuracy the reporting of the entity’s main corporate governance practices as required under the Australian Stock Exchange listing rules.

- Recommend to the board whether the financial and non-financial assessments should be signed based on the committee’s assessment of them.

The role of the audit committee in that respect is also mirrored in the following provision of the *HPC - AC Guide* (2001, p. 28), that defines the responsibility of the external auditor vis-à-vis the audit committee:

> The external auditor’s role and responsibilities in relation to the effective interaction with an audit committee include the following:

- Informing the committee of any significant unresolved and resolved issues revealed by the audit or areas of significant disagreement with management, the corrective action taken and the current status of the issues. These issues include errors, problems, weaknesses, disagreements with management, accounting treatments, estimates and judgements.

Mitigating managerial opportunism (IR opportunity) has direct implications for the significance of the threat to IR from wealth incentives and, indirectly, IR attitude (the auditor’s propensity to act inappropriately).

The capacity for the committee to mitigate auditor attitude, directly, is evident in the following auditor responsibility identified in the *HPC - AC Guide* (2001, p. 28).

> The external auditor’s role and responsibilities in relation to the effective interaction with an audit committee include the following:

- Informing the committee on an ongoing basis of relationships and services (both within the entity and with other parties) that the committee needs to be made aware of so the committee can assess the auditor’s independence.

Section 2.73 of PF 1 also states that “discussing independence issues related to the provision of (NAS) with those charged with governance, such as the audit committee” may be “particularly relevant in reducing to an acceptable level threats created by the provision of (NAS) to assurance clients”. The mitigating effect would operate at the level of the Mock et al. (2005) IR element attitude.

Thus, the audit committee (directors) represents a critical *ex post* strategy for managing the tensions, actual or perceived, that arise in the interface between an audit firm providing NAS and providing the audit.
4.2.2.3 Structural strength of board

The ASX *CG Recommendations* (2003) and the *BPAC – AC Guide* (2001) also identify key attributes that an audit committee ought to possess as a buffer to effectiveness. The attributes as they are identified in the ASX CG Recommendations (2003) are fourfold: a charter, independence, technical expertise, and active involvement. Guidance on the meaning of the concepts, drawn from an analysis of the respective publications, is provided in Table 11. The charter is concerned with formalising the committee’s role and responsibilities, composition, structure, power, authority and membership requirements. Independence is measured in terms of relationships: financial, business and employment. Technical expertise is concerned with financial literacy. Active involvement is referred to in terms of frequency of meetings.

However, as stated in Chapter 3, DeZoort et al. (2002) offer an alternative, four-element taxonomy of the structural determinants of audit committee effectiveness (ACE) to that identified above. The four elements and their dimensions are iterated below:

<table>
<thead>
<tr>
<th>Elements</th>
<th>Dimensions</th>
</tr>
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<tbody>
<tr>
<td>Composition</td>
<td>- expertise, independence, integrity, objectivity;</td>
</tr>
<tr>
<td>Authority</td>
<td>- responsibilities, influence (derived from full of board of directors, federal law and exchange listing requirements);</td>
</tr>
<tr>
<td>Resources</td>
<td>- adequate number of members; access to management, external auditors and internal auditors; and</td>
</tr>
</tbody>
</table>

The taxonomy embraces the issues identified in the ASX guidelines. The element *authority* is consistent with the subject matter of the ASX *charter; composition, independence* and *technical expertise*, and *diligence, active involvement*.

However, the DeZoort et al. (2002) taxonomy unlike the ASX description represents a systematic attempt to model the determinants of effectiveness and, therefore, better facilitates analysis. Thus, the DeZoort et al. (2002) taxonomy is used here as the basis for defining the structural strength of the board of directors.
TABLE 11: Concepts that define the structure to independently verify and safeguard the integrity of a corporation's financial reporting

**Charter**
The charter should clearly set out the audit committee's role and responsibilities, composition, structure and membership requirements.

The audit committee should be given the necessary power and resources to meet its charter. This will include rights of access to management and to auditors (external and internal) without management present and rights to seek explanations and additional information.

**Independence**
An independent director is a non-executive director (i.e., is not a member of management) and:

1. is not a substantial shareholder of the company or an officer of, or otherwise associated directly with, a substantial shareholder of the company
2. within the last three years has not been employed in an executive capacity by the company or another group member, or been a director after ceasing to hold any such employment
3. within the last three years has not been a principal of a material professional adviser or a material consultant to the company or another group member, or an employee materially associated with the service provided
4. is not a material supplier or customer of the company or other group member, or an officer of or otherwise associated directly or indirectly with a material supplier or customer
5. has not material contractual relationship with the company or another group member other than as a director of the company
6. has not served on the board for a period which could, or could reasonably be perceived to, materially interfere with the director's ability to act in the best interests of the company
7. is free from any interest and any business or other relationship which could, or could reasonably be perceived to, materially interfere with the director's ability to act in the best interest of the company.

Family ties and cross-directorship may be relevant in considering interests and relationships which may compromise independence, and should be disclosed by directors to the board.

**Technical expertise**
The audit committee should include members who are all financially literate (i.e., able to read and understand financial statements); at least one member who has financial expertise (i.e., is a qualified accountant or other financial professional with experience of financial and accounting matters); and some members who have an understanding of the industry in which the entity operates.

**Active involvement**
The audit committee should meet often enough to undertake its role effectively.
DeZoort et al. (2002) deploy the taxonomy to model ACE as an input-process-output system as shown in Figure 14.

![Figure 14: Determinants of Audit Committee Effectiveness (ACE)](image)

The researchers also provide the following definition of ACE.

*An effective audit committee has qualified members with the authority and resources to protect stakeholder interests by ensuring reliable financial reporting, internal controls, and risk management through its diligent oversight efforts* (DeZoort et al., 2002, p. 41).

The definition recognises the best-practice elements (composition, resources, authority and diligence) as a necessary condition of ACE. Empirical support for their position, and, therefore, the associated best-practice recommendations, is provided in the empirical audit committee literature. A summary of the literature is provided in Chapter 3. The research questions addressed in the studies are diverse, as are the methods involved. However, a number of the studies that hold immediate implications for the theoretical development of the current research question are reviewed below. The
studies are grouped and discussed on the basis of the following three relationships identified in Tables 6, 8 and 9 in Chapter 3:

(i) structural strength of the audit committee and financial reporting reliability;

(ii) structural strength of the audit committee and managerial discretionary decision-making; and

(iii) structural strength of the audit committee/ACE and the structural strength of the board.

Structural strength of the audit committee and financial reporting reliability

Klein (2002a) found that audit committee independence was negatively associated with abnormal accruals, and reductions in audit committee independence were associated with large increases in abnormal accruals. Abbott et al. (2000) found that companies that have audit committees comprised of independent directors that meet at least twice a year are less likely to be “sanctioned from fraudulent or misleading reporting”. Beasley et al. (2000) found that fraud companies in technology, healthcare and financial services industries had a lower percentage of audit committees composed entirely of outside directors, held fewer committee meetings and has less internal audit support, than did non-fraud companies. McMullen et al. (1996) found that companies with financial reporting problems were less likely to have audit committees composed entirely of outside directors, CPAs as committee members and held less frequent meetings.

Structural strength of the audit committee and managerial discretionary decision-making

The threat to auditor independence from the provision of NAS in this study derives from wealth incentives, which provide a catalyst by which management may exact compliance in the context of audit-client negotiation. Here, as discussed earlier, the audit committee has the capacity to safeguard auditor independence through controlling the aberrant behaviour of management, as an antecedent of opportunity, at the same time, mitigating IR attitude. The findings of studies conducted by Ng et al. (2003), DeZoort et al. (2001) and Knapp (1985) provide evidence of a link between the
monitoring quality of the audit committee and its mitigating role in the presence of "pressure" from managerial opportunism. Ng et al. (2003) found that audit committee independence and the availability of authoritative guidance on an accounting treatment interacted to jointly affect auditors’ propensity to concede to an auditee’s preferred position on the accounting treatment. DeZoort et al. (2001) found that audit committee members with greater experience as independent directors and greater audit knowledge, are more likely to support an auditor promoting “substance over form” in a client dispute, whereas executive directors are more likely to support management. Knapp (1985) found that audit committee members who were practicing managers were more likely to support auditors over management in a client dispute, than retired executives or committee members from a non-managerial background.

**Structural strength of the audit committee and the structural strength of the board**

However, the role and effectiveness of the audit committee cannot be divorced from that of the board. The overriding responsibility for corporate governance vests with the full board of directors: “(t)he existence of an audit committee should not be seen as implying a fragmentation or diminution of the responsibilities of the board as a whole” (ASX Corporate Governance Council, 2003, p. 30). Further, the board defines the composition, operation and responsibilities of the committee. Consequently, the audit committee is nested in the structure of the board of directors in this study. The key defining relationship is the level of influence of the chief executive officer (CEO).

The findings of studies conducted by Klein (2002b), Cohen et al. (2002), Beasley et al. (2001), Collier et al. (1999), Menon et al. (1994) and Kalbers et al. (1993) provide evidence of a link between the structural strength of the AC/ACE and the monitoring quality of the board. Klein (2002b) found audit committee independence was positively associated with board size and independence. Cohen et al. (2002) provide evidence that the effectiveness of the audit committee is subject to independence from the CEO. Beasley et al. (2001) found that voluntary increases in the breadth of outside audit committee members’ collective financial reporting and audit committee knowledge and experience were positively related to board size, the proportion of outsiders on the board and the separation of board chair and CEO. Collier et al. (1999) found that the
presence of a dominant CEO and the inclusion of insiders on the audit committee were negatively related to the level of audit committee activity. Menon et al. (1994) found that as the proportion of outside directors on the board increases, firms are more likely to exclude insiders from the audit committee. Kalbers et al. (1993) found that audit committee power within an organisation came from a combination of written authority and the clear support of top management.

The present study looks to add to the foregoing studies by examining the effect of the monitoring quality of the board of directors on stakeholder perception of auditor independence and willingness-to-appoint where the auditor has incentives and the opportunity to engage in high-risk behaviour. Under those circumstances the structural attributes assume the nature of assurance properties with respect to the board’s effectiveness in discharging its responsibility for safeguarding (ensuring) the integrity of financial reporting.

The effectiveness of the audit committee vis-à-vis the board is reflected in the DeZoort et al. (2002) ACE authority element. Thus, the present study is as much concerned with examining the effect of the monitoring quality of the audit committee as the board of directors on stakeholder perceptions of auditor independence and willingness-to-appoint.

The foregoing discussion gives rise to the following three hypotheses, which are stated in the alternative form.

\[ H_4 \] Stakeholder perceptions of auditor independence will be lower when the structural strength of the board of directors is weak than when it is strong.

\[ H_5 \] Stakeholders will be less likely to choose the audit firm to provide the NAS when the structural strength of the board of directors is weak than when it is strong.

\[ H_6 \] Stakeholder strength of preference for the auditor will be lower when the structural strength of the board of directors is weak than when it is strong.
Hypotheses 4 to 6 predict a main effect on stakeholder perception of auditor independence and willingness-to-appoint. The basis for that proposition is, again, attributable to the belief that the structural strength of the board of directors acts as a signal of the board’s effectiveness in discharging its responsibility for ensuring the integrity of the financial statements. A strong board of directors has the capacity to negate the propagation from IR incentives to attitude and opportunity. Thus, one might also expect an interactive effect on stakeholder perceptions of auditor independence and willingness-to-appoint between recurring NAS and the weak form of the board of directors. The opportunity to test for the interactive effect is facilitated by the fact that the experimental design deployed in Study 2 involves a full-factorial, between-subjects design.

The possible interactive effect is formalised by the following set of hypotheses, which are expressed in the alternative form:

\[ H_7 \quad \text{Stakeholder perceptions of auditor independence are more likely to be affected by the recurring NAS when the structural strength of the board of directors is weak than when it is strong.} \]

\[ H_8 \quad \text{Stakeholder choice of the audit firm is more likely to be affected by the recurring NAS when the structural strength of the board of directors is weak than when it is strong.} \]

\[ H_9 \quad \text{Stakeholder strength of preference for the audit firm is more likely to be affected by the recurring NAS when the structural strength of the board of directors is weak than when it is strong.} \]

Following on from the foregoing discussion, it is suggested that where accountability is perceived to be met, i.e., where the strength of the corporate governance is strong, stakeholders may choose the audit firm to provide the NAS. If so, this would suggest that the parties concerned considered that there were net benefits (efficiencies) to be obtained in appointing the audit firm. The key to identifying the nature of the benefits lies in the factors that differentiate the potential NAS providers and the implications of the factors for the capacity of the respective parties to add value. This brings us then, to
the issue of efficiencies impacting on stakeholder willingness-to-appoint the incumbent auditor to provide NAS.

4.3 EFFICIENCY RESEARCH QUESTION

The nature and source of the benefits that may accrue from appointing the incumbent auditor to provide NAS is considered in detail in Chapter 5. The efficiencies derive from the superior capacity of a professional service provider to meet the needs of a client, relative to competitors. Superior capacity is, in turn, synonymous with competitive advantage (e.g., Jones, Hesterly, Fladmoe-Lindquist & Borgatti, 1998). Thus, the efficiencies involved are reciprocal. That is, they represent the capacity to add value for the residual claimants on both the demand (shareholders) and supply sides (professional partners) of the market.

From a resource based perspective of competitive advantage, the capacity to deliver services better than rival firms derives from a set of distinctive organisational capabilities/resources (e.g., Jones et al., 1998; Teece et al., 1997). The resources also represent the criteria for choosing a professional service provider on the demand side of the market for NAS. The resources may be classified according to whether they are firm specific or client specific to the service provider. The dichotomisation of the resources is reflected in the economics of audit quality literature (e.g., De Angelo, 1984; Beck et al., 1988b & b). Simunic (1984), for example, classifies knowledge spillovers as general and specific. The former are inherent in the service provider, i.e., non-transaction specific. The latter, on the other hand, are transaction (client) specific.

Empirical research into the existence or otherwise of the cost-savings is embedded in a body of studies dedicated to examining the presence or otherwise of an association between the fees for NAS and audit fees (e.g., Simunic, 1984; Beck et al., 1988b; Palmrose, 1986). The weight of the evidence suggests a significant and positive relation between NAS and audit fees on the supply side of the market for the joint services. However, no evidence is provided of the cost savings accruing to audit clients given
that in all instances audit fees, as the dependent variable, are found to be higher in the presence of the joint provision of the audit and NAS.

The foregoing studies are comparatively limited in number, which is attributed to the fact that the benefits and costs of the joint provision of the audit and NAS are reciprocal, and it is difficult to "model and test the ... interactions" between the services (Dopuch & King, 1991, p. 61). However, anecdotal evidence of the existence of the economies also exists. From the supply side of the market for the joint services, such evidence includes the "prominence of management consulting services in the largest CPA firms" (Antic and Demski, 1991, p. 1). From the demand side of the market, it is the fact that the profession has played a leading role in the provision of NAS services (Hanlon, 1996; Dezalay, 1991). Support for this proposition is also provided in the following response, in June 2000, of the then President of the American Institute of CPAs, to the SEC proposal to place severe limitations on the NAS that US firms could offer to audit clients.

clients want accounting firms to provide (NAS) because this achieves economic efficiencies which will be lost if clients are denied this choice (Melancon, 2000, p. 27).

The present study will look to add to the foregoing empirical literature in two ways. Firstly, by identifying the benefits (efficiencies) that may accrue from appointing the incumbent auditor to provide NAS i.e., the demand side of the market for the joint services. Secondly, the investigation will not be confined to the benefits that may accrue from client specific resources, but extend to those that may accrue from firm specific resources. Firm specific resources feature as part of the ex ante (initial) bidding competition for professional services. The decision of whether the incumbent audit firm should be chosen to provide NAS that underpins the experimental task in this study arises in the context of that market. Further, the potential NAS providers are heterogeneous with respect to criteria that hold implications for the parties' competitive advantage, i.e., the superior capacity to add value. Thus, a unified approach to identifying, analytically, the nature and source of benefits/efficiencies in the market for NAS is warranted. The approach facilitates examining the implications that the
fundamental factors that differentiate the potential NAS providers hold for the parties’ capacity to add value, and that are expressed through firm and client specific assets.

The foregoing discussion gives rise to the following research question.

**RQ** What are the nature and sources of the efficiencies that may accrue from appointing the incumbent audit firm to provide NAS?

The nature and source of the efficiencies are dealt with in the following Chapter (Chapter 5).
CHAPTER 5

THE NATURE AND SOURCES OF EFFICIENCIES IMPACTING WILLINGNESS TO APPOINT THE INCUMBENT AUDIT FIRM TO PROVIDE NAS

5.0 CHAPTER CONTENT

The purpose of this Chapter is twofold. Firstly, an analysis of the nature and source of economic efficiencies impacting the decision of whether to hire the incumbent audit firm to provide NAS is undertaken. Secondly, the implications of the efficiencies for the empirical component of the study are addressed. This Chapter is prepared in response to the research question concerning the nature and source of efficiencies impacting on stakeholder willingness-to-appoint the incumbent audit firm to provide NAS.

5.1 INTRODUCTION

Abdel-khalik (1993, pp. 297 – 298) states that acquiring NAS is “(U)nlike audits ... a purely discretionary activity” that involves “a two-sequence decision:

1. Whether to develop the service internally . . . or to hire task-oriented consultants; and
2. Whether the outside management consultant should be hired from the incumbent auditing firm”.

This thesis is concerned with examining factors that impact the latter stage of the two-sequence decision in circumstances where the audit client has chosen to outsource the NAS and the incumbent audit firm is one of two final contenders to provide the NAS. The audit firm is a multi-discipline professional service provider. The alternative provider is represented as a single-discipline professional service provider – described, in the experimental materials, as a specialist provider. The use of the term specialist provider in
that sense is separate from the notion of industry specialisation as defined in the audit quality literature (e.g., Craswell, Francis & Taylor, 1995).

The decision of whether to hire the incumbent audit firm, whilst complex, is assessed for the purposes of this thesis on two dimensions: accountability in the equity capital markets and efficiency in the market for joint audit-NAS. The framework for examining the issue of accountability, which centres on the regulatory conceptual approach to auditor independence, and the theory of IR (e.g., Johnstone et al., 2001; Mock et al., 2005) was dealt with in Chapters 2 and 4. The framework for examining the issue of the efficiencies that may accrue to the client from the audit-NAS strategy is the subject of this Chapter.

From the perspective of the private enterprise corporation, each stage of the Abdel-khalik (1993) two-sequence decision can be assumed to be driven by the pursuit of economic (allocative) efficiency, i.e., profit maximisation. Simunic (1984, p. 682), for example, views consulting services as “factors of production purchased for the purpose of increasing the profits of the firm”. Economic efficiency requires “either the maximum in value to be received from a given cost or the least cost for a given value received – in short . . . least-cost decisions” (Lindblom, 2001, p. 129). Under those circumstances, a cost-benefit framework would drive the decision choice. Thus, it is assumed here that with respect to phase two of the Abdel-khalik (1993) decision process, the contract to provide NAS would be awarded to the service provider who offers the projected least cost/largest net gain vis-à-vis competitive bidders, where accountability is met. The superior capacity of a professional service provider to meet the needs of a client in that respect, derives, from a resource based perspective of competitive advantage, from a set of distinctive organisational capabilities (e.g., Teece et al., 1997).
resources, "rather than from tactics which deter entry and keep competitors off balance" (Teece et al., 1997, p. 513).

Resource-based competitive advantage is reflected in the quasi-rent – economic bonding issue that is the subject of the economics of audit quality literature dealing with independence in appearance. The resources comprise technological advantages (e.g., Beck et al., 1988a) and knowledge spillovers (e.g., Simunic, 1984, Beck et al., 1988a & b). The resources are client specific, of an enduring nature, and give rise to a lack of parity in favour of the incumbent vis-à-vis competitors, ex post. However, client specific assets are not a sufficient condition for competitive advantage in the initial market for NAS, which is of interest to this study. Competitive advantage in the initial market for professional services, and, therefore, NAS, begins with firm specific assets, i.e., ex ante advantage.

Firm specific assets are the subject of the empirical literature dealing with the demand determinants of quality professional services including the audit (e.g., Williams, 1988; Beattie et al., 1995; Craswell et al., 1995; Carcello et al., 1992; Eichenseher et al., 1983) and accounting services (e.g., Higgins & Ferguson, 1991); and best-practice literature (e.g., International Organization for Standardization (ISO)). The assets include expertise and reputation (e.g., Craswell et al., 1995). The literature is partially relied upon here to describe the nature of and provide empirical support for the role of firm specific assets as demand determinants. However, the literature lacks a conceptual/structural framework. Therefore, it does not provide the best opportunity to deal with the fundamental criteria that differentiate the potential NAS providers of interest to this study and that are ultimately the basis of the relative strengths and weaknesses of the contenders.

The fundamental criteria, attributable to the audit firm, are fourfold:

(i) audit technology as a capability;
(ii) incumbency vis-à-vis the client;
(iii) a multi-disciplinary organisational structure; and
(iv) formal professional status.
Factors (i) to (iii) are, as stated earlier, the Achilles heel of the audit firm with respect to the independence of the audit. They are the source of the audit firm's public interest role and, as such, the strength of the specialist firm. However, where accountability is met, all four factors represent possible sources of competitive advantage to the audit firm vis-à-vis the specialist. That is, the factors represent a basis and explanation for choosing the incumbent audit firm to provide NAS, where accountability is met. Examining willingness to appoint and therein the board of directors as an *ex post* safeguard of auditor independence anticipates such an outcome.

The opportunity to capture the implications of the differentiating factors on the relative competitive advantage of the parties of interest to this study is provided in the resource based (RB) theory of competitive advantage (e.g., Jones et al., 1998; Teece et al., 1997). The RB literature includes a conceptual approach to identifying the dynamic capabilities that "undergird(s)" resource based competitive advantage (Teece et al., 1997, p. 517). According to Teece et al., (1997, p. 513) "(c)ompetitive advantage lies 'upstream' of product markets". The conceptual approach allows a distinction to be drawn between resources, such as expertise, and the foundation of the resources. The distinction may be illustrated with respect to client specific assets. Client specific resources comprise technological advantages and knowledge spillovers. However, the foundation of the resources is incumbency and incumbency as a multi-discipline provider to the client, respectively. Incumbency and multi-disciplinarity fall within the ambit of what Teece et al. (1997, p. 521) refer to as *structural assets* of a professional service provider.

Structural assets accrue from the manner in which economic activity within a firm is organised/co-ordinated (Teece et al., 1997). Enduring client specific investment accruing from incumbency renders the client and service provider bi-lateral traders (Williamson, 1996). Thus, incumbency is concerned with the boundaries of a firm's economic activity (Teece et al. 1997). Multi-disciplinarity, on the other hand, represents a firm-based form of organising economic activity that is designed to facilitate innovation (Teece et al., 1997). Empirical support for the relationship between structural assets and firm performance is provided by Garvin (1988, cited in Teece et al., 1997) and Clark and Fujimoto (1991, cited in Teece et al., 1997).
Structural assets, in turn, represent a dimension of *positions* as one of three elements that Teece et al. (1997) identify as fundamental to competitive advantage. The remaining two elements are *processes* and *paths*. Teece et al. (1997) do not attempt to model their theory diagrammatically. However, a synthesis of the researchers' conceptual approach is depicted in Figure 15.

The model provides context and order to the ensuing discussion. The structure depicted in Figure 15 traces the conceptual origins of competitive advantage via a taxonomy and is therefore unilateral in direction. The origin of competitive advantage, moving from left to right, lies with *conceptual assets*, which can be traced to three *conceptual elements* and subsequently to *firm specific* and *client specific assets* in the product market. The broad nature of the assets vis-à-vis the conceptual elements, is as follows:

- **Processes** is defined by internal organisational systems associated with co-ordination, integration, learning and adaptation.

- **Positions** refers to the specific asset base of an entity, which includes an organisation's technology, organisational structure and institutional environment.

- **Paths** refers to the evolution of an entity with respect to its past investments and routines.

The element *positions*, is of immediate interest to this study. The four variables that differentiate the potential providers of interest to this study fall within the domain of three classes of asset that define *positions*. The assets are referred to by Teece et al. (1997, p. 521-522) as *technological, structural and institutional.*

Audit know-how falls within the domain of *technological assets*; incumbency and multidisciplinarity, as stated earlier, *structural assets*; and the formal professional status of the audit firm the *institutional environment*. Thus, the four fundamental factors that differentiate the NAS providers hold implications for the superior capacity of the audit firm to add value vis-à-vis the specialist. The factors are, again, expressed, to varying degrees, through firm specific as well as client specific resources (e.g., Jones et al., 1997). The broad nature of the latter relationship is depicted in Figure 16.
FIGURE 15: A model (taxonomy) of competitive advantage

Conceptual assets

- Coordination/integration
- Learning
- Adaptability
- Technology
- Structure
- Institutional environment
- Other
- Past investments & routines

Conceptual elements

- Processes
- Positions
- Paths

Product market

- Firm and client specific resources
- Competitive advantage
FIGURE 16: The interface between the factors that differentiate the audit firm from the specialist and the determinants of competitive advantage

Differentiating factors (antecedents) → Conceptual assets → Conceptual element of competitive advantage → End product Resources

Audit know-how → Technology

Incumbency vis-à-vis the client → Structure → POSITIONS

Multi-disciplinarity → FIRM SPECIFIC RESOURCES

Formal professional status → Institutional environment → CLIENT SPECIFIC RESOURCES
The relationship between firm and client specific resources as sources of competitive advantage in the product market and the distinguishing attributes of the audit firm as determinants of competitive advantage at the conceptual level is identified in Table 12. The only asset type for which the factors do not hold implications is the firm-specific asset, reputation – for reasons explained later in the Chapter. The classification of the firm and client specific resources shown in Table 12 pre-empts the discussion in section 5.2.

Suffice it to say at this point, that the basis for the classification of the client specific resources and their relationship to the differentiating factors has been drawn from the economics of audit quality literature (e.g., Simunic, 1984; Beck et al., 1988a). However, the classification of firm-specific resources and their relationship to the differentiating factors shown in Table 12 is less certain – highlighting the exploratory nature of the present research in that respect. The basis for arriving at the classification and relationships has been drawn from an analysis of the RB literature (e.g., Teece et al., 1998; Jones et al., 1997); empirical studies dealing with the demand determinants of auditing services (e.g., Williams, 1988; Beattie et al., 1995; Craswell et al., 1995); and literature dealing with the economics of transactions costs (e.g., Williamson, 1996). The influence of the respective sets of literature in that respect is identified in the process of describing the nature of the firm-specific assets in section 5.2.

The RB theory also provides the opportunity to address the relationship between firm specific assets and economic efficiencies on the demand side of the market for professional services. The economic approach is at a descriptive level similar to that reflected in the economics of audit quality literature dealing with client specific assets. Thus, it facilitates adopting a unified approach to identifying the nature and source of efficiencies impacting the decision of whether to appoint the incumbent audit firm to provide NAS.
TABLE 12: The relationship between the sources of competitive advantage in the product market and the distinguishing attributes of the audit firm as determinants of competitive advantage at the conceptual level

<table>
<thead>
<tr>
<th>SOURCES OF COMPETITIVE ADVANTAGE in the product market</th>
<th>Distinguishing attributes of the audit firm</th>
</tr>
</thead>
<tbody>
<tr>
<td>FirM SPECIFIC RESOURCES</td>
<td>Technological assets</td>
</tr>
<tr>
<td>Technological resources</td>
<td>Asset type</td>
</tr>
<tr>
<td>• Distinctive Expertise</td>
<td>Audit</td>
</tr>
<tr>
<td>• Information benefits</td>
<td>Incumbency</td>
</tr>
<tr>
<td>Contractual Assets</td>
<td>Multi-disciplinarity</td>
</tr>
<tr>
<td>• Reputation</td>
<td></td>
</tr>
<tr>
<td>• Exclusivity</td>
<td></td>
</tr>
<tr>
<td>CLIENT SPECIFIC RESOURCES</td>
<td>Technological advantages</td>
</tr>
<tr>
<td>• Start-up costs</td>
<td></td>
</tr>
<tr>
<td>• Client switching costs</td>
<td></td>
</tr>
<tr>
<td>Knowledge spillovers</td>
<td></td>
</tr>
<tr>
<td>• Economies of scope</td>
<td></td>
</tr>
<tr>
<td>• Scope of knowledge</td>
<td></td>
</tr>
<tr>
<td>Institutional assets</td>
<td></td>
</tr>
<tr>
<td>Formal professional status</td>
<td></td>
</tr>
</tbody>
</table>

Finally, before concluding this section it is important to remember that the firm specific versus client specific asset issue also holds important implications for economic bonding between the audit firm and client vis-à-vis the audit-NAS strategy. Whilst an adjunct to the stated main purpose of this Chapter, the matter of economic bonding will also be discussed in the process of dealing with the respective categories of assets.
5.2 NATURE AND SOURCES OF EFFICIENCIES

The firm versus client specific categories of resources provides the structure for the discussion in the remainder of this section, beginning with the former category of asset. The discussion centres on identifying the nature and sources of the efficiencies that may accrue from appointing the incumbent audit firm to provide NAS, and the relationship between those variables and the distinguishing attributes of the audit firm, which are driven by the experimental setting of the empirical component of the thesis.

A description of the nature of the efficiencies that may accrue from appointing the incumbent audit firm to provide NAS and the sources of the efficiencies is provided in Table 13, which appears on pages 124 – 125. Table 13, as with Table 12, has been prepared as a guide to the ensuing discussion.

5.2.1 FIRM SPECIFIC RESOURCES

Firm specific assets feature as part of the *ex ante* (initial) bidding competition for a NAS contract. They represent an investment in assets that are not client specific. Therefore, they can be transferred “without a net loss to some alternative use” (Simunic, 1984, p. 680) or users. Unlike client specific resources, the assets do not accrue from incumbency. Thus, no direct advantage accrues to the incumbent (audit firm) in that respect. Further, assuming a diversified client base, the value of the assets is not dependent on a continued relationship with the client, but a continued presence in the broader market. Under these circumstances, where the incumbent audit firm is chosen to provide the NAS, the “marginal benefits and costs of misrepresenting audit findings will be independent of the (NAS) situation” (Simunic, 1984, p. 680). That is, the NAS do not give rise to wealth incentives. Thus, firm-specific resources have important implications for any attempt to place a blanket prohibition on the provision of NAS by audit firms to audit clients. However, any non-financial threat emanating from, for example, the subject matter of the NAS (e.g., self-review, advocacy) and/or proximity to management (e.g., familiarity) remains.

The resources are identified here as fourfold as follows:
The nature of the efficiencies that may accrue to the client from the resources differs. Distinctive expertise and information benefits represent technological assets. Thus, they are a source of productive efficiency to the client. Productive efficiency is concerned with the "ratio of valuable output to valuable input" (Lindblom, 2001, p. 124). Reputation and exclusivity, on the other hand, are a source of savings in transaction costs to the client and following the lead of Arrunada (1999) are classified here as contractual assets. The technological – contractual classification is maintained for the purposes of the ensuing discussion of the four types of resources.
TABLE 13: Sources and nature of the efficiencies that may accrue from appointing the incumbent audit firm to provide NAS

<table>
<thead>
<tr>
<th>SOURCES OF THE EFFICIENCIES attaching to the supplier</th>
<th>NATURE OF THE EFFICIENCIES TO THE CLIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FIRM SPECIFIC ASSETS</strong></td>
<td><strong>Asset type</strong></td>
</tr>
<tr>
<td>Technological resources</td>
<td>Distinctive Expertise</td>
</tr>
<tr>
<td>Information benefits</td>
<td>Information benefits</td>
</tr>
<tr>
<td>Contractual assets</td>
<td>Reputation</td>
</tr>
<tr>
<td>Exclusivity</td>
<td>As for reputation.</td>
</tr>
</tbody>
</table>

Legend:
- Applicable ✓
- Not-applicable x.

Continued....
TABLE 13 continued: Sources and nature of the efficiencies that may accrue from appointing the incumbent audit firm to provide NAS

<table>
<thead>
<tr>
<th>SOURCES OF THE EFFICIENCIES attaching to the supplied NATURE OF EFFICIENCIES TO THE CLIENT</th>
<th>CLIENT SPECIFIC ASSETS</th>
<th>Asset type</th>
<th>Asset description</th>
<th>Productive efficiency</th>
<th>Savings in transaction costs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Technological advantages</strong></td>
<td></td>
<td>Start-up costs</td>
<td>Investment in gaining an understanding of the client's operations and, possibly, industry</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Client switching costs</td>
<td>Transactions costs associated with switching suppliers, including those involved in adapting operations to auditor change</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Knowledge spillovers</strong></td>
<td></td>
<td>Economies of scope</td>
<td>Cost savings that arise where the audit and NAS utilise the same set of information and/or professional qualifications</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scope of knowledge</td>
<td>Client-specific expertise – tacit knowledge – that the auditor gains from providing NAS to the audit client, resulting in improved understanding of the client's business.</td>
<td>✓</td>
<td>X</td>
</tr>
</tbody>
</table>
5.2.1.1 Technological assets

Technological assets are identified here as twofold: distinctive expertise and information benefits.

Distinctive expertise

Professional service providers are “hired for their expertise and skills enabling them to produce an outcome that clients either use or sell” (Jones et al., 1998, p. 397). Distinctive expertise is central to competitive advantage. Gaining entry to a competitive arena relies on a firm possessing distinctive expertise (Jones et al., 1998). The role of expertise as a demand determinant for audit services, for example, is provided by various studies (e.g., Beattie & Fearnley, 1998a; Eichenseher et al., 1983).

Expertise, per se, is defined in the audit literature as “task-specific superior performance” that is a function of technical knowledge, experience and innate ability (Bonner, Lewis & Marchant, 1990, p. 2). Technical knowledge refers to the codified knowledge that defines the boundaries of a discipline/profession (Jones et al., 1998). Experience, on the other hand, refers to tacit - non-codified knowledge - gained from workplace experience (Jones et al., 1998). Specialised industry knowledge is also recognised as a component of expertise (Craswell et al., 1995; Chapman, 1999).

The foregoing conception of expertise emphasises technical knowledge. However, the RB and best-practice literatures suggest that the notion of expertise/superior performance extends to skills that facilitate the effective delivery of expertise (Chapman, 1999). The skills are in that sense “complementary assets” (Teece et al., 1997). They are reflected, for example, in the following list of attributes that Chapman (1999), drawing on ISO guidance on the evaluation of auditors, identifies as key attributes of a quality consultant: philosophy, flexibility, creativity, listening and observation skills and empathy. The latter qualities are vested in the individual and are recognised as the product of personality, experience and training (Chapman, 1999).
Expertise would represent a criterion for choosing the incumbent auditor to provide NAS in circumstances where the audit firm possesses superior operating capabilities in the NAS arena vis-à-vis competitors. Overall efficiency would come from using the best resources available to perform the task. Jones et al. (1998, p. 401) maintain that a measure of distinctive expertise is a provider’s “depth of experience in an area”. Thus, an audit firm may be perceived to possess the superior capacity to add value vis-à-vis non-audit providers for those NAS that involve core audit technology (competencies). Kinney (1999, p. 75) suggests that two such competencies are “expertise in measurement and competence in (the) application of standardized measurement rules”. This also suggests that the type of NAS sought may impact the choice of professional service provider.

However, as stated earlier, with respect to the incumbent audit firm, screening for non-financial threats emanating from the NAS would need to take place at this point. Notably, three of the non-exclusive list of nine prohibited NAS identified in PF 1 - preparing accounting records and financial statements, valuation services and internal audit services – fall within the domain of auditor competencies.

*Information benefits*

Information benefits represent a sub-set of the capability referred to in the resource based literature as “structural holes” (e.g., Jones et al., 1998).\(^{10}\) The benefits represent the improved knowledge and skills gained from the opportunity to transfer knowledge between and practice disparate disciplines. The benefits represent an externality and are analogous to scope of knowledge, as a by-product of joint production. However, they are of the nature of the “general” (firm specific) as opposed to “client specific” knowledge spillovers referred to by Simunic (1984, p. 681). Jones et al. (1998) identify the resource as accruing to professional service providers in the process of providing a single NAS across disparate markets, leading to enhanced creative problem solving for clients as the provider serves as a broker “between previously unconnected sources of technical knowledge” (Jones et al., 1998, p. 403).

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\(^{10}\) “The term “structural hole” refers to the absence of a direct connection between a pair of actors that can be exploited by a third actor that is connected to the other two” (Jones et al., 1998, p. 402).
Efficiencies from information benefits accrue to the client in the form of improved quality of service, i.e., enhanced value for money. Thus, the resource is of the nature of distinctive expertise, and, similarly, concerned with productive efficiency. However, information benefits may also accrue to a multi-disciplined professional service provider, as opposed to a single-discipline provider, through the transfer of knowledge intra-firm. The multi-discipline organisational structure is driven by the opportunity to draw on a diverse set of specialist expertise in order to provide innovative quality services required to meet the complex demands of global corporate entities, efficiently (Arrunada, 1999). Multi-disciplinarity is invoked in this study: (i) indirectly, by describing the incumbent audit firm as one of the Big 4; and (ii) directly by nominating the firm as an existing provider of taxation services to the client and as a possible contender for the NAS currently being sought. The Big 4 hold themselves out as “having firm-wide operations organized along industry lines, standardized national training, and standardized audit programs” (Ferguson, Francis & Stokes, 2003, p. 432-433). Ferguson et al. (2003 p. 432-433) go on to state that “(i)f (this) is descriptive of how accounting firms operate . . . strong positive network externalities” should ensue. Teece et al. (1997, p. 520) maintain that “learning requires common codes of communication and coordinated search procedures” and that the “knowledge generated by such activity resides in new patterns of activity”. Multi-discipline audit firms dedicate considerable resources to the development, centrally, of cutting-edge technology (Arrunada, 1999). Further, employee mobility and technology also facilitate learning through the transfer of knowledge firm-wide.

Thus, with respect to the present study the multi-disciplinary organisational structure of the incumbent audit firm may serve as a signal of service quality. The unavailability of specialist services has, for example, been found to be a primary threshold criterion for excluding firms during the auditor selection stage (e.g., Beattie & Fearnley, 1998b), albeit in the pre-Enron era.

In the event that information benefits result in cost-savings to a service provider, the client may also have the opportunity to share in the efficiencies through competitive pricing.
5.2.1.2 Contractual assets

Whilst technological assets are a source of productive efficiency to clients, contractual assets are a source of savings in transaction costs. Where there is a competitive market for a commodity, then price will be sufficient to guide consumer choice. A competitive market exists where the following circumstances prevail. A commodity is standardised, buyers are fully informed about the prices of the product offered by the competing suppliers, and each supplier is a price-taker as they do not have sufficient share of the market to control price (Lindblom, 2001). Under those circumstances price, which incorporates a standard contract, provides market participants with sufficient information to ensure an equitable exchange, and the identity of the exchange partners may remain anonymous.

However, not all of the foregoing conditions prevail in the market for corporate professional services. Professional consulting services are by their very nature intangible, and typically customised, complex tasks (Jones, et al., 1998). That is, the commodities are not standardised and as a result buyers lack information about the technology involved, which gives rise to information asymmetry between buyer and seller. As a result the buyer faces the problems of *ex ante* adverse selection and *ex post* opportunism (Bowen et al., 1986), i.e., market uncertainty. Market uncertainty is a source of increased transaction costs to the client.

*Ex ante* adverse selection derives from performance ambiguity, which refers to the inability of a client to measure the performance of a service provider or accurately value a service. Performance ambiguity arises in circumstances where the client is at an information disadvantage with respect to the inputs needed to produce a commodity and where the commodity in question is a service (intangible) as opposed to being a good (tangible). Increasing intangibility gives rise to credence qualities, i.e., search qualities that “a consumer may find impossible to evaluate, even after purchase and consumption” (Bowen et al., 1986, p. 431). These circumstances may give rise to increased “search and information costs, bargaining and decision costs” (Hodgson, 1993, p. 82, citing Dahlman, 1979). That is, the costs of “discovering and heeding true costs and revenues and agreeing upon the division of profits” (Klein, Crawford & Alchian. 1978, p. 300).
The second source of transaction costs, referred to as goal incongruence, does not centre on the difference between goods and services. but is common to commodities of a specialised nature. Goal incongruence gives rise to *ex post* opportunism, which Williamson (1996, p. 378) defines as “(s)elf-interest seeking with guile, to include calculated efforts to mislead, deceive, obfuscate, and otherwise confuse”. Under these circumstances, clients face increased monitoring and enforcement costs.

Market uncertainty and, therefore, increased transaction costs, are driven, as the foregoing discussion suggests, by the shift out of general purpose technology into special-purpose technology. Under these circumstances, the pursuit of economic efficiency goes beyond issues of productive efficiency, to include strategies for minimising transaction costs (Williamson, 1996). The key to minimising transaction costs lies with implicit contracting (Klein et al., 1978).

Contracting may take one of two forms: explicit or implicit. Explicit contracting contemplates comprehensive contracting and legal enforcement of the contract by the government or other external institution. However, explicit contracting is generally considered to be a costly solution as it entails the “costs of specifying possible contingencies and the policing and litigation of detecting violations and enforcing the contract in the courts” (Klein et al., 1978, p. 303). Further, the process is, in any event, constrained by human bounded rationality – limited “knowledge, foresight, skill and time” (Simon, 1957, cited in Williamson, 1996, p. 36). For those reasons parties to an exchange typically rely on implicit contracting (Williamson, 1996). Implicit contracting is synonymous with incomplete contracting, and the presence of *ex post* safeguards designed to promote effective and efficient exchange.

The safeguards of interest to this study are the market-based contractual assets vested in the service provider, which act as collateral for contractual performance. Contractual assets consist of attributes of service providers that market participants rely on to draw inferences about the quality of a provider’s commodity and likely future performance. However, the theoretical conception of the attribute(s) differs according to whether
scholars adopt an economic (e.g., Shapiro, 1983) or a social structural orientation (e.g., Podolny, 1994). A wider analysis of the literature suggests that in relation to the experimental setting for this thesis, the attributes concerned are twofold: reputation and exclusivity. Both, however, are associated with the notion of status. Status may be defined as a firm’s “hierarchical rank within some social grouping . . . involv(ing) behavioural expectations that guide interactions” (Jones et al., 1998, p. 401).

Before considering the nature of the foregoing assets, it is important to note, in the context of the demand for professional services, that whilst technical expertise is the pre-requisite to gaining entry to a market, a client will not compete for a provider's services, under conditions of market uncertainty, unless the firm has high status (Jones et al. 1998).

Reputation

The problem of adverse selection and opportunism represent impediments to economic exchange and as such provide an incentive for a firm to offer “markedly higher quality and performance” (Teece et al., 1997, p. 513) as a commodity at a price. The economic conception of that commodity is reputation (e.g., Shapiro, 1983).

According to Shapiro (1983, p. 660) a “seller who chooses to enter the high quality segment must invest in his reputation via the production of quality merchandise. During this investment period such a seller must sell his product at less than cost: he cannot command those prices associated with high quality . . . until his reputation is established.” This situation also “implies that, in equilibrium, high quality items must sell for a premium above their cost of production” (Shapiro, 1983, p. 660). The premium (quasi-rent) represents the return to the initial investment. Thus, the value of the investment relies on a continued presence in the market and according to Klein et al. (1978, p. 306) – dealing specifically with the issue of ex post opportunism - is “highly specific to contract fulfilment by the firm”. Thus, reputation assumes the quality of a brand name.
Reputation derives from past demonstrations of performance in a given market, the benefits of which accrue in the future. Therefore, reputation would represent a basis for choosing an entity to provide NAS where it holds a superior reputation in a given market vis-à-vis competitors. The existence of reputation assets as a source of competitive advantage in the audit market is, as stated earlier, well-established (e.g., Teoh et al., 1993; Balvers et al., 1988; Palmrose, 1988; and Beatty, 1989). However, as the foregoing discussion indicates, reputation is market specific. Thus, reputation in the market for audit does not necessarily transfer to the market for NAS.

However, it is important to note in the context of the overall discussion in this section, that Arrunada (1999, p. 73) suggests that auditors’ existing reputation - which is grounded in the notions of competence and independence (integrity and objectivity) – may place an audit firm at a “comparative advantage” over specialist competitors in the market for NAS, particularly in relation to new services, i.e., circumstances where service providers have yet to establish a reputation. The comparative advantage would be cost-based, through brand-stretching from the audit to NAS market. The benefit to the client may accrue through competitive pricing and, again, directly, through savings in transaction costs. This issue does not hold immediate implications for the present study, because of the research questions that underpin the thesis and, therefore, the experimental research design.

Reputation effects “may and will in general flow both ways, from audit to non-audit services and vice-versa” (Arrunada, 1999, p. 76). Thus, the value of the resource to the audit firm in the market for NAS and the audit, respectively, hinges on quality and contractual performance in the respective markets. Withdrawal of future business would have adverse implications for the future income streams from all remaining sources of competitive advantage (De Angelo, 1981a). Thus, wealth incentives associated with reputation represent the overriding market mechanism for safeguarding auditor independence (Kinney, 2001).
The source of reputation, upstream, is past performance in a given market, rather than the attributes that distinguish the audit firm from the specialist firm in this study – audit technology, incumbency, multi-disciplinarity and formal professional status. Thus, the asset does not hold immediate implications for the present study.

**Exclusivity**

The economic conception of reputation centres on past performance in a given market, as a signal of future quality and contractual performance. However, Podolny (1994), in line with RB theory, offers a conception of status that is grounded in the social structural position of an organisation vis-à-vis its exchange partners. Podolny (1994, p. 460) states that status derives “not only from past demonstrations of quality” but the standing of a potential professional service provider’s exchange partners. Thus, *exclusivity* represents an extension of the notion of reputation as it is defined in the economic literature, rather than a substitute.

Podolny (1994) posits that the higher the market uncertainty the more likely an organisation will trade with the following parties:

(i) those with whom they have had transactions in the past; and  
(ii) those of similar status.

Status is assessed with respect to prestige, economic or political power of a potential provider’s exchange partners (Jones et al., 1998).

Podolny (1994, p. 459) offers “satisficing search behaviour” as an explanation for transacting with those with whom one has had transactions in the past. He uses the notion of satisficing in the sense of choosing the set of potential exchange partners about whom one has the greatest knowledge, gained from previous exchanges, and choosing the best from that set. Further, he asserts that the higher the market uncertainty the more likely it is that buyers will enter into exchanges with those of high status. The status of the acquiring entity is, in turn, “contingent on the status of his or her affiliates” (Podolny’s, 1994, p. 459).

The notion of exclusivity is also evident in the auditing literature. Parkash et al. (1993) found that auditees purchased higher levels of recurring NAS from the incumbent audit firm, notwithstanding the implications for wealth incentives, where the audit firm was an industry specialist or the largest overall provider of NAS. Parkash et al. (1993, p. 114) attribute the finding to a “quality signal” to the market “that allows an auditee to purchase higher levels of recurring (NAS) than would normally be expected”.

Exclusivity also appears to be at the heart of Kinney’s (2001) question of whether auditor reputation in the market for audit, may also add value to management in the market for NAS by signalling the "competence and objectivity" of its information systems/assurance services "to outside parties" (Kinney, 2001, p. 74) - leading to "lower(ing) the costs of capital, acquisition, production, distribution and sales" (Kinney, 2001, p. 276).

Reputation in the market for a given NAS accepted, with respect to the present study, the incumbency of the audit firm holds implications for the satisficing criterion, and, in that respect, provides a possible basis of comparative advantage vis-à-vis a specialist provider. The notion of exclusivity, like reputation, is pitched at the level of the individual firm. However, reputation in the market for a given NAS accepted, the professional status of an audit firm may also act as a signal of quality and performance in the NAS environment vis-à-vis competitors that lack such status. According to Reed (1999, p. 18) “professionalism is an attitude – a voluntary commitment to achieve excellence and serve the public interests". That position may be bolstered by institution-wide standards of performance that include a code of ethics (Arrunada, 1999).
Williamson (1996) dealing specifically with *ex post* opportunism, also acknowledges that such institutional-trust may have a role to play in securing a credible commitment to contractual performance. The role of the institutional environment is implicit in the present study with respect to the incumbent audit firm, described simply as one of the Big 4. The specialist firm does not have that direct association.

Notably, efficiency from contractual assets may not be limited to savings in transaction costs, but may accrue to the client in the form of increased revenue, where the perceived quality of inputs leads to increased client turnover and/or increased mark-up (Dietrich, 1993).

Thus, in concluding the discussion of firm specific assets, it is suggested that the nature of the efficiencies that may accrue to the client from firm specific assets are twofold: production efficiencies and savings in transactions costs. The sources of the production efficiencies are distinctive expertise and information benefits. The source of the savings in transactions costs are reputation and exclusivity. The four factors that differentiate the audit firm from the specialist provider in the present study are a source of three of the four asset types, up stream, and, therefore, possible sources of competitive advantage. The relationship between the efficiencies accruing to the client, the sources of the efficiencies in the product market and the distinguishing attributes of the audit firm as determinants of competitive advantage at the conceptual level is depicted in Table 14. Audit technology holds implications for distinctive expertise; incumbency and the professional environment, exclusivity; and multi-disciplinarity, information benefits.

<table>
<thead>
<tr>
<th>Firm specific assets</th>
<th>Distinguishing attributes of the audit firm as determinants of competitive advantage at the conceptual level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature of efficiencies to client</td>
<td>Source of the efficiencies in the product market</td>
</tr>
<tr>
<td>Production efficiencies</td>
<td>Audit technology</td>
</tr>
<tr>
<td>Saves in transaction costs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Distinctive Expertise</td>
</tr>
<tr>
<td></td>
<td>Information benefits</td>
</tr>
<tr>
<td></td>
<td>Reputation</td>
</tr>
<tr>
<td></td>
<td>Exclusivity</td>
</tr>
</tbody>
</table>

TABLE 14: Relationship between the efficiencies accruing to the client, the sources of the efficiencies in the product market and distinguishing attributes of the audit firm.
5.2.2 CLIENT-SPECIFIC RESOURCES

Client specific resources represent *ex post* capabilities of an enduring nature that accrue from incumbency and/or incumbency as a multi-discipline provider. Incumbency and multi-disciplinarity are limited to the incumbent audit firm as a potential NAS provider in this study. Client specific resources are identified in the accounting literature in terms of technological advantages (e.g., De Angelo, 1981a; Beck et al. 1988a) and client-specific knowledge spillovers (e.g., Simunic, 1984), respectively. The assets are referred to as “winners advantages”, as they give rise to a lack of competitive parity, in the first instance, at the contract renewal interval (Williamson, 1996); and possibly in the initial market for NAS sought by the client, post incumbency. Lack of parity, generally, derives from the opportunity to provide one or more of the following: (i) a lower price from the sunk costs associated with start-up costs and/or economies of scope from knowledge spillovers; (ii) higher service quality from scope of knowledge; and (iii) savings in switching costs. Items (i) and (ii) represent sources of production efficiency to the client, item (iii) savings in transaction costs.

The *ex-post* category of competitive advantage is, as stated earlier, the basis of providing the incumbent audit firm with wealth incentives to assume heightened independence-risk. The value of the resources relies upon a future stream of quasi-rents from assets exclusive to the client, i.e., a continued relationship with the client. Thus, the resources represent a mechanism by which client management, acting in the domain of residual opportunism (IR opportunity) may exact compliance from the audit firm with respect to the conduct of the audit. How quasi-rents are shared, and, therefore, the relative level of economic bonding between the parties (auditor-client) and, similarly, the extent to which the client participates in the economies, depends on the level of competition including any low balling/discounting at the initial contract stage (e.g., DeAngelo, 1981b; Simunic, 1984). Efficiencies accruing to the client from client-specific assets held by the provider also involve productive efficiency and savings in transaction costs. However, the ensuing discussion of the resources that gives rise to the benefits is structured around the manner in which the resources are classified in the economics of audit quality literature - technological advantages and knowledge spillovers - which reflects a service provider perspective.
5.2.2.1 Technological advantages

Technological advantages arise in circumstances where competition exists, NAS are recurring, and the NAS involve start-up costs to the supplier of the services and switching costs to the client. Under those circumstances, start-up and switching costs are indicative of the presence of client-specific investment of a durable nature, i.e., specialised resources. The advantages derive from incumbency

**Start-up costs**

Start-up costs are incurred by a service provider in the process of gaining an understanding of the client’s operations and, possibly, industry (Craswell, Price & Taylor, 1989). The investment in start-up costs represents a sunk cost (cost savings) to the incumbent and, therefore, a source of competitive advantage vis-à-vis competitors in negotiating the price for the services at the contract renewal stage. The investment may also be a source of competitive advantage in the initial market for NAS sought by the client post incumbency, to the extent that the costs are specific to the client rather than the NAS. The comparative advantage would be cost-based, through knowledge spillovers from one market to another e.g., audit to NAS or NAS to NAS. The opportunity for the client to participate in the benefits relies on competitive pricing.

**Switching costs**

Switching costs to the client include transaction costs of the nature of those referred to earlier in dealing with contractual assets, and the “internal costs of adapting operations to auditor change” (Abdel-khalik, 1993, p. 296). Incumbency is a source of contractual advantage to the incumbent in that respect.

Beck et al. (1988a) demonstrate, analytically, that in the presence of recurring NAS, wealth incentives from technological advantages may be impacted by the presence or otherwise of client specific knowledge spillovers giving rise to economies of scope. The significance of the externalities for economic bonding depends upon the relative magnitude of the audit versus NAS start-up and switching costs.
Beck et al. (1988a) also demonstrate, analytically, that enduring economies of scope, impacting normal audit costs, from non-recurring NAS increase auditor-client economic bonding.

Competitors may employ low-balling in the initial market for services in order to gain incumbency, and subsequently exercise limit pricing to undercut the bids of competitors at contract renewal intervals (Beck et al., 1988a). The associated discount also represents a form of sunk cost, the return to which relies on a continued relationship with the client. Thus, whilst, the initial winning bidder may or may not have had real \textit{ex ante} technological or contractual advantage, the implications for economic bonding referred to above apply.

5.2.2.2 Knowledge spillovers

Knowledge spillovers represent benefits that accrue to the incumbent from “interdependencies or interactions between the production functions for . . . two services” (Simunic, 1984, p. 680). Thus, the origin of the resources is incumbency as a multi-discipline provider to the client. The benefits may take the form of economies of scope or scope of knowledge. Economies of scope involve cost savings. Scope of knowledge involves client-specific information benefits, which may or may not result in cost savings to the provider. Knowledge spillovers are a source of production efficiency to both the service provider and client.

\textit{Economies of scope}

Economies of scope refer to cost savings that arise where, for example, the audit and NAS utilise the same set of information and/or professional qualifications. According to Simunic (1984, p. 681) the “cost of interdependency can be complex” for the following reasons:

Specifically: (1) knowledge may flow form auditing to MAS, or MAS to auditing, or in both directions; (2) the fixed cost, variable cost, or both costs of the services can be affected; (3) the knowledge spillover may be client-specific or general (Simunic, 1984, p. 681).
General knowledge spillovers represent firm-specific resources and were dealt with earlier from the perspective of information benefits.

**Scope of knowledge**

Scope of knowledge refers to client-specific expertise (tacit knowledge) that the auditor, for example, gains from providing NAS to the audit client, resulting in improved understanding of the client's business, which may enhance the quality of the audit. From the demand side of the market for the joint services, scope of knowledge represents "enhance(d) quality of information for investors" (Melancon, 2000, p. 26), which may translate to reduced cost of capital. Importantly, the benefits of scope of knowledge may also work in the direction of NAS and between NAS.

Scope of knowledge may or may not lead to cost savings. The benefits of appointing the incumbent audit firm to provide NAS emanating from knowledge spillovers are associated with production efficiency.

Thus, in concluding this section it is suggested that the nature of the efficiencies accruing to the client form client specific assets are twofold: production efficiency and savings in transaction costs. The source of the efficiencies vis-à-vis the provider are technological advantages and knowledge spillovers. The sources of the efficiencies, upstream, are again, incumbency and incumbency as a multi-discipline provider to the client, respectively – two of the four attributes that distinguish the audit firm from the specialist firm in this study.

**5.3 EFFICIENCIES AND THE EMPIRICAL COMPONENT OF THIS STUDY**

The following Table is an iteration of Table 12 (page 121) which provides a summary of the relationship between the sources of competitive advantage in the product market and distinguishing attributes of the audit firm as determinants of competitive advantage at the conceptual level.
TABLE 12: The relationship between the sources of competitive advantage in the product market and the distinguishing attributes of the audit firm as determinants of competitive advantage at the conceptual level

<table>
<thead>
<tr>
<th>SOURCES OF COMPETITIVE ADVANTAGE in the product market</th>
<th>Distinguishing attributes of the audit firm</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRM SPECIFIC RESOURCES</td>
<td>Technological assets</td>
</tr>
<tr>
<td>Technological resources</td>
<td>Audit</td>
</tr>
<tr>
<td>Technological resources</td>
<td>✓</td>
</tr>
<tr>
<td>Contractual Assets</td>
<td>✓</td>
</tr>
<tr>
<td>Technological resources</td>
<td>• Distinctive Expertise</td>
</tr>
<tr>
<td>Contractual Assets</td>
<td>• Information benefits</td>
</tr>
<tr>
<td>Technological resources</td>
<td>• Reputation</td>
</tr>
<tr>
<td>Contractual Assets</td>
<td>• Exclusivity</td>
</tr>
<tr>
<td>CLIENT SPECIFIC RESOURCES</td>
<td>Structural assets</td>
</tr>
<tr>
<td>Technological advantages</td>
<td>Audit</td>
</tr>
<tr>
<td>Technological advantages</td>
<td>✓</td>
</tr>
<tr>
<td>Knowledge spillovers</td>
<td>✓</td>
</tr>
<tr>
<td>Technological advantages</td>
<td>• Start-up costs</td>
</tr>
<tr>
<td>Knowledge spillovers</td>
<td>• Client switching costs</td>
</tr>
<tr>
<td>Knowledge spillovers</td>
<td>• Economies of scope</td>
</tr>
<tr>
<td>Knowledge spillovers</td>
<td>• Scope of knowledge</td>
</tr>
</tbody>
</table>

With respect to the firm specific category of resources, the audit firm may be perceived to have the superior capacity to add value via distinctive expertise originating with audit technology, depending upon the nature of the NAS involved; and information benefits via the multi-disciplinary nature of the firm. Further, the incumbency and professional status of the firm, embedded in exclusivity, may be perceived as sources of savings in transaction costs to the client. The potential NAS providers are described in the scenarios as comparable with respect to their expertise and reputation in the NAS market, per se.

However, with respect to the client-specific assets, not all of the asset types hold implications for the empirical component of the thesis – studies 1 and 2 – due to the experimental setting. The superior capacity to add value via scope of knowledge is mitigated by invoking separation of duties with respect to the provision of the NAS and audit services intra-firm. The use of Chinese walls breaks the nexus between incumbency and multi-disciplinarity as the antecedents of knowledge spillovers. Further, the price for the NAS vis-à-vis the respective potential NAS providers is the same, negating any advantage from savings in start-up costs. Therefore, it is suggested, that any benefit to the
audit client from client specific assets is confined to costs savings associated with switching costs.

Thus, in concluding this Chapter, it is considered that the factors that differentiate the audit firm from the specialist firm, taking into consideration the nature of the scenarios that will drive stakeholder choice, may be perceived to vest in the audit firm the superior capacity to add value with respect to the following resources:

**Firm specific resources:**

(i) distinctive expertise emanating from audit technology, subject to the nature of the NAS;
(ii) information benefits emanating from multi-disciplinarity; and
(iii) exclusivity emanating from incumbency and formal professional status.

**Client specific resources:**

(iv) client switching costs, emanating from incumbency.

The first of the empirical studies (Study 1), described in the ensuing chapter, is, in part, undertaken with a view to obtaining preliminary evidence on the foregoing propositions.
CHAPTER 6

STUDY 1: PROTOCOL ANALYSIS

6.0 CHAPTER CONTENT

The purpose of this Chapter is to provide a description of the first (Study 1) of the two studies that comprise the empirical component of the thesis. The study involves the use of verbal protocol analysis to facilitate evaluating a set of draft case studies. The case studies are designed to examine the issues of accountability and efficiency impacting stakeholder willingness to appoint the incumbent auditor identified in the preceding Chapters. Study 1 also represents a precursor to the second empirical study (Study 2) which is discussed in Chapter 7.

The remainder of the Chapter is organised in the following manner. The next section provides the introduction to Study 1, which includes the purpose, research question, motivation, importance and contributions of the study. The introduction is followed by a review of prior empirical studies that have used verbal protocol analysis to evaluate written forms of communication. Following this, the theoretical foundation for the study is provided along with supporting empirical evidence. Next, the research method is described. The description includes details of the experimental design that underpins the case studies, the participants, task and data analysis. Subsequently, the results of the data analysis are presented. The Chapter concludes with a discussion of the key findings and implications. The limitations of the study are discussed in the final chapter of the thesis (Chapter 8).

6.1 INTRODUCTION

Protocol analysis is a qualitative method of inquiry used by researchers to trace human information (cognitive) processing (Ericsson & Simon, 1993). The technique is typically used to investigate patterns and sequences in a continuous stream of problem solving behaviour directed at arriving at a decision choice (Kuusella et al., 2000). The method
involves subjects verbalising the thoughts that enter their attention (thinking aloud) in the process of solving a problem/generating an answer to a question. The thoughts enter short-term memory (STM) and are referred to as “heeded information” (Ericsson et al., 1993, p. 133). Verbalisation can take place either during or, in the case of tasks of limited duration (0.5 to 10 seconds), immediately after the performance of the task (Ericsson et al., 1993, p. xvi). The two approaches are referred to by Ericsson et al. (1993) as Type 1 and Type 2 verbalisation, respectively; and give rise to concurrent and retrospective data, respectively. The verbalisation is recorded using either audio or video equipment.

Empirical studies in various disciplines, including accounting and auditing, have successfully used protocol analysis to examine various aspects of cognitive processing including explanation use (e.g., Mao & Benbaset, 2000); knowledge acquisition (e.g., Van Someren, Barnard & Sandberg, 1994); decision making strategies (e.g., Biggs et al. 1983); expert performance (e.g., McCauley, King & Carr, 1998); information use (Frishkoff, Frishkoff & Bouwman, 1984); and reading comprehension (e.g., Graesser, Singer & Trabasso, 1994).

Protocol analysis is also used in an applied capacity to, for example, assist in model formulation (e.g., Sen & Vinze, 1997); improve the functionality of information systems design (e.g., Mantei et al. 1989); and improve the effectiveness of various forms of written communication (e.g., Benbunan-Fich, 2001; Willis, Royston & Bercini, 1991; Flower et al., 1983). This study is directed at identifying cognitive strategies employed by participants (e.g., Flower et al., 1983) and cognitive problems experienced by participants in the process of comprehending a given form of written communication (e.g., Benbunan-Fich, 2001; Willis et al., 1991). The goal of the research is to incorporate a reader-based principle into evaluating and developing the effectiveness of written communication.

The objective of the present study is to incorporate a reader-based principle into evaluating the effectiveness of a set of case studies (data instruments) in communicating to the reader (participant) the message intended by the author (researcher). The intended message concerns the issues of accountability and efficiency of interest to this thesis, impacting the
decision of whether to hire the incumbent audit firm as opposed to a specialist firm to provide NAS. The issues and decision choice are woven into a form of written narrative. The narrative centres on a fictional, listed Australian company (Baudin Ltd) that is in need of NAS that is to be outsourced; and the series of events leading up to the point where the choice of service provider is to be made.

The case studies are underpinned by a between-subject, experimental design which is described in detail in section 6.4. Each case study consists of between two and three pages of text, depending upon the nature of the variables involved.

The case studies provide the basis of addressing the following questions associated with willingness-to-appoint the incumbent audit firm to provide NAS.

1. Whom would you choose to provide the service?
2. What is the strength of your preference for the respective providers?

Each case study is intended to provide the complete set of stimuli to the problem represented by the foregoing questions and on that basis represents a written text. Written texts are by definition “whole pieces of writing which hang together as complete products” (Feez & Joyce, 1998, p. 1). However, the case studies rely on knowledge-based input from the participants to complete the formulation of the problem. The input is driven by the implicit dimension of the instruments associated, for example, with the cues used to manipulate the independent variables. The case studies and aspects of the experimental design that defines the instruments are, in that respect, premised on the constructionist approach to communication and reading comprehension.

The constructionist approach holds that the effectiveness of communication is a function of the “three major components of a communication system: the author, the text and the reader” (Graesser et al., 1994, p. 374). From a constructionist perspective written communication proceeds in the following manner: “(w)riters compose the content and wording of text in service of their communication goals. (and) readers attempt to recover the writer’s goals” (Graesser et al. 1994, p. 374). The text provides the interface. The
paradigm also holds that when a reader attempts to recover the writer’s goals, he/she constructs a mental (situation) model of the meaning of the text. The situation model is the product of the text, the knowledge the reader brings to the text and the setting.

Communication (comprehension) succeeds where there is harmony among the author’s intended meaning, the explicit text and the reader’s constructed meaning (Graesser et al., 1994, p. 374). Conversely, communication (comprehension) “breaks down to the extent that there is discord among the author’s intended meaning, the explicit text, and the reader’s constructed meaning” (Graesser et al., 1994, p. 374).

Protocol analysis provides the opportunity to evaluate the existing design of the case studies, which portray the researcher’s representation of the issues of accountability and efficiency impacting the question of whether to appoint the incumbent audit firm to provide NAS, against the cognitive approach that informed participants would bring to the task.

Study 1 is guided by the following research question:

**RQ Do the data instruments serve the researcher’s communication goals?**

The overriding purpose of Study 1 is to identify any problems with the case studies that undermine the “successful transmission of information from author to reader” (Graesser et al., 1994, p. 374). Flower et al. (1983, p. 43) maintain that protocol analysis “tends to capture just those places where readers encounter difficulty and have to resort to conscious processing of the prose”.

The study is concerned with cognition, not obtaining feedback on structural or mechanical aspects of the documents. Structural or mechanical issues are typically readily identified through a simple pre-test (Willis et al., 1991). Further, given the purpose of the study, the analysis of the data will be directed at the substantive level of the protocols. That is, the
study is concerned with the **product** of comprehension rather than eliciting the cognitive process/activity involved.

The motivation for Study I is essentially threefold. Firstly, notwithstanding the broad principles of cost–benefit analysis, the economics of audit quality literature and the theory of IR that have shaped the case studies¹¹, there is no definitive theory guiding the decision of whether to hire the incumbent audit firm to provide NAS. Examining the decision choice involves exploratory research and calls for the development of an original set of data instruments. The advantage of protocol analysis under those circumstances is that “(a)s the verbal protocols trace the decision-making process, they also explain it” (Kuusela et al., 2000, p. 388) – subject to the participants possessing the requisite knowledge.

The participants in this study involve experienced corporate directors with extensive executive experience. That is, individuals experienced in the issues of accountability and efficiency impacting the decision choice, and for whom the issues hold considerable significance. Thus, the study provides the opportunity to obtain preliminary evidence on the broader research question that underpins the decision choice, i.e., the issues of accountability and efficiency impacting the decision of whether to hire the incumbent audit firm to provide NAS.

Secondly, the study represents an important phase in the development of the case studies that will be used in Study 2. Protocol analysis is recognised as the foremost method of identifying problems with an interface - in this instance, data instruments - that are attributable to cognition (e.g., Flower et al., 1983; Mantei et al., 1989).

Thirdly, protocol analysis involves comparatively low start up costs and offers a high degree of “flexibility and efficiency” vis-à-vis the additional empirical approach to data instrument design involving the use of controlled experiments and hypothesis testing (Willis et al., 1991, p. 255). The present study involves an “evaluative approach to
cognition" where the purpose of the research is to test and develop a particular set of data instruments rather than extract a reader-based principle that is applicable to all such instruments (Willis et al., 1991, p. 255). The evaluative method also allows for an iterative (test, retest) approach – an anathema to the controlled experimental approach (Willis et al., 1991).

The results of the study will play an important role in framing the scenario for the set of case studies to be used in the experimental study that comprises Study 2. Thus, the importance of the study lies with the unique opportunity that protocol analysis provides to control for response error attributable to impediments to comprehension inherent in the data instruments vis-à-vis Study 2. Impediments to comprehension adversely impact a reader's meaning representation of text, and the "quality of the reader's representation has a large impact on determining the efficiency, elegance and precision of subsequent processing needed for problem solving" (Rabinowitz & Glaser, 1985, p. 85). The "efficiency, elegance and precision of . . . processing", in turn, has implications for the validity and reliability of the experimental data obtained.

The contributions of the study are twofold. Firstly, it contributes to the body of accounting and auditing research that uses protocol analysis to examine human information processing (e.g., Bedard et al., 1992; Klersey et al., 1989; Bouwman, 1985; Frishkoff et al., 1984; Biggs et al., 1983). Protocol analysis has not previously been used in that domain for the purpose of testing and developing data instruments. This study introduces to the literature the theoretical and empirical foundation for using the technique for that purpose. The theoretical and empirical material represents a blend of reading comprehension and protocol analysis research, supplemented by the theory of the narrative form of discourse. The study also demonstrates that the application of the method involves a systematic attempt to gain evidence on the research question.

The second contribution of Study 1 is to the broader literature dealing with protocol analysis as a technique for developing written communication. The method has not, to my

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11 The theory of IR was in its infancy at the time this particular study was undertaken – late 2001, early
knowledge, previously been used to test and develop case studies as text, *per se*. The case studies fall within the ambit of the narrative genre of discourse. Prior studies, on the other hand, deal with non-narrative (decontextualised) functional forms of communications, i.e., survey questionnaires, government regulation and the interactive dialogue of commercial web sites. Study 1, unlike the prior empirical studies, also exploits the theory and empirical research surrounding reading comprehension in the process of developing the theoretical foundation for the study. Finally, the study also has the capacity to provide evidence on the appropriateness of protocol analysis in evaluating case studies as narrative text.

6.2 PRIOR EMPIRICAL RESEARCH ASSOCIATED WITH THE DEVELOPMENT OF WRITTEN COMMUNICATION

The prior empirical research associated with the development of written communication is classified into three groups for the purposes of this study. The classification scheme is based on the form of communication involved. The first group of studies involves survey questionnaires. The questionnaires predominately relate to the health industry. The studies are directed at identifying “retrieval strategies” and “comprehension problems” encountered by participants (Midanik et al., 1999, p. 673). Midanik et al. (1999, p. 273) found that the participants employed “anchoring and “context” strategies in answering the survey questions involved.

A comprehensive review of the studies in the survey domain is beyond the scope of this study. However, a review of a cross-section of the studies, along with the remaining two classes of study identified below, is provided in Table 15.

The second class of study involves functional documents. There would appear to be only one study in this area, which was conducted by Flower et al. (1983). Flower et al. (1983, p. 41) define functional documents as those that individuals read “only in order to act”. The following types of text are provided as examples of functional documents: contracts, manuals, procedures and regulations. The experiment involved the use of an excerpt of government regulation as the representative sample of the text type. The study was directed

2002. Publication in the academic press at that time was confined to the Johnstone et al. (2001) article.
at identifying strategies the participants used to comprehend functional documents. The goal of the research was to identify a reader-based principle that could be incorporated into the writing of such documents. The results of the study revealed that the dominant strategy used by the participants was the scenario principle. The scenario principle "states that functional prose should be structured around a human agent performing actions in a particular situation" (Flower et al., 1983, p. 42).

The third class of study involves the interactive dialogue of commercial web sites. Empirical research in the area would appear to be limited to the following two studies: Benbunan-Fich (2001) and Tilson, Dong, Martin & Kieke (1998). The Tilson et al. (1998) study was directed at identifying usability principles for evaluating the interactive dialogue of commercial web sites in general. Benbunan-Fich (2001) subsequently deployed the 15 criteria identified by Tilson et al. (1998) to evaluate the useability of the dialogue of certain commercial web sites. Useability is concerned with the "extent to which the user and the system can "communicate" clearly and without misunderstanding through the interface" (Benbunan-Fich, 2001, p. 152).

The present study looks to extend the foregoing literature, at the practical level, by using protocol analysis to examine the useability of a set of draft case study questionnaires. The analysis of the protocols, as with the Benbunan-Fich (2001) study and the bulk of the studies in the survey domain, is, again, directed at evaluating a particular set of case studies, rather than identifying a general rule that holds for all such instruments. The studies by Flower et al. (1983) and Tilson et al. (1998) on the other hand, were directed at generating general rules.
<table>
<thead>
<tr>
<th>Study</th>
<th>Year</th>
<th>Participants</th>
<th>Domain</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benbunan-Fich</td>
<td>2001</td>
<td>8 experienced computer and web users</td>
<td>Commercial website.</td>
<td>The protocols provided evidence of usability problems with respect to three key web site evaluation parameters: content, navigation and interactivity. The parameters were developed from a mapping of the 15 usability principles identified in the Tilson et al. study (1998).</td>
</tr>
<tr>
<td>Tilson et al.</td>
<td>1998</td>
<td>16 experienced computer and web users</td>
<td>Commercial web sites – four in total.</td>
<td>On the basis of the results, the researchers identified the following 15 usability principles for commercial web sites: simplicity of product menus; simplicity of the path to products; helpful categorisation of inventory; support for personalizing or narrowing product lists; availability of product pictures; availability of product descriptions; obvious order buttons/links; a feature for facilitating comparison; optimal number of security messages; help in understanding the ordering process; versatility of the ordering process; feedback on saving items; obviousness and accessibility of running total; ease of use for repeat buyers; and reversibility of actions.</td>
</tr>
<tr>
<td>Midanik et al.</td>
<td>1999</td>
<td>39 heavier drinkers</td>
<td>Survey instrument</td>
<td>The protocols revealed that the participants employed two strategies in responding to the survey questions: anchoring and context.</td>
</tr>
<tr>
<td>Study</td>
<td>Year</td>
<td>Participants</td>
<td>Domain</td>
<td>Results</td>
</tr>
<tr>
<td>-----------------</td>
<td>------</td>
<td>-------------------------------------</td>
<td>----------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Jobe</td>
<td>1990</td>
<td>18 aged community dwellers</td>
<td>Survey questionnaire</td>
<td>The researcher found that protocol analysis was useful in detecting cognitive problems with the survey questions and suggesting alternative wording which would promote the validity and reliability of the data.</td>
</tr>
<tr>
<td>Willis et al.</td>
<td>1991</td>
<td>24 experienced assistive device users</td>
<td>Survey questionnaire</td>
<td>The researchers found that protocol analysis was useful in detecting a range of questionnaire flaws relating to cognitive processes, associated with both survey instruments.</td>
</tr>
<tr>
<td>Questionnaire 1</td>
<td></td>
<td>19 subjects</td>
<td>Survey questionnaire</td>
<td>The researchers found that respondents were more likely to use anchoring and adjustment strategies and context strategies in arriving at their answers.</td>
</tr>
<tr>
<td>Subject: Assistive devices</td>
<td></td>
<td>(defining attributes not provided)</td>
<td></td>
<td>The findings support the use of what is termed the “scenario principle” in the writing of such documents.</td>
</tr>
<tr>
<td>Midanik &amp; Hines</td>
<td></td>
<td>29 drinkers</td>
<td>Survey questionnaire</td>
<td></td>
</tr>
</tbody>
</table>
THEORETICAL AND EMPIRICAL FOUNDATION OF THE STUDY

The theoretical foundation for the study is grounded in the constructionist cognitive perspective on reading comprehension, the methodology of protocol analysis and the narrative genre of discourse. The ensuing discussion begins by providing the background to the constructionist approach to communication. The background is followed by a discussion of the following issues:

- a description of the constructionist cognitive perspective on reading comprehension;
- the benefits of protocol analysis as a method of inquiry into cognition;
- the regurgitation problem associated with using the think aloud technique to examine text comprehension and its implications for the present study; and
- the case studies as narrative text.

6.3.1 Background

The trend towards using protocol analysis in evaluating and developing the effectiveness of written communication is grounded in the shift in paradigm in communications theory, from a scientific to a constructivist orientation, during the 1980s and 1990s. The scientific perspective viewed communication as a unilateral process, where meaning and effectiveness vested with the writer. Under those circumstances, the formula for effective writing was essentially concerned with the "logic behind the structure of a text – from syntactic structures . . . up to the top-level organisation of ideas" (Flower et al., 1983, p. 42). The readability of text was assessed against formulae comprising linguistic variables, rather than variables that underpinned the reading process, *per se* (Huckin, 1983).

Under the constructionist approach, on the other hand, whilst the formula for effective writing is still product-oriented, it includes a reader-based principle that acknowledges the comprehension (cognitive) processes that readers bring to the task (Huckin, 1983). The method of inquiry for capturing the comprehension process as it is taking place is protocol analysis (Kucan & Beck, 1997). Thus, protocol analysis plays a critical role in informing the process of writing. The investigative → facilitative role of protocol analysis in that respect reflects the essence of Study 1.
Kucan et al. (1997) outline the evolutionary development in the theoretical representation of reading towards the contemporary constructivist perspective – a process that started in the late 1970s. The period began with the representation of reading as a problem solving activity. Most problems investigated in problem-solving research are “well-defined” (Kucan et al., 1997, p. 274). However, reading is identified as belonging to the “general class of “ill-defined” problems” (Kucan et al., 1997, p. 274).

An ill-defined problem, unlike a well-defined problem, is one the goal of which may not be certain at the outset and that may develop and undergo change during the process of addressing the given problem (Kucan et al., 1997). The representation of reading as problem solving brought “thinking aloud” as a method of inquiry to the foreground of reading comprehension research. The pivotal role of verbal protocols in demonstrating the strategies that individuals bring to problem solving has its origins in the seminal work of Newell and Simon (1972, cited in Kucan et al., 1997).

The focus of the researchers’ attention in the reading-as-problem-solving era was the strategies readers used to engage with the text (Kucan et al., 1997). The strategic reader was considered to filter his/her engagement with text via strategies. The strategies included “top-down” and “bottom-up” processing (Paran, 1997). However, significant developments in the theory of discourse comprehension (e.g., Kintch, 1988) and the results of empirical studies conducted in the problem solving era, using protocol analysis, contributed to refining the representation of reading from the comparatively narrow perspective of strategic problem solving to a “more holistic effort to construct meaning” (Kucan, 1997, p. 285). The shift in emphasis marked the advent of the contemporary constructionist era.

6.3.2 Constructionist perspective on reading comprehension

The constructionist paradigm embraces the notion of reading as problem solving. However, unlike the strategic problem solving perspective it “foregrounds the reader’s direct engagement with text ideas” (Kucan et al., 1997, p. 284). The paradigm holds that when an individual attempts to comprehend text, he/she constructs a cognitive representation/mental
model of the meaning of the text. The representation is the product of the interaction of the following three elements, as shown in Figure 17:

(i) the text;
(ii) knowledge based inferences; and
(iii) the “pragmatic context” of the text (Graesser et al., 1994, p. 373).

Figure 17: Comprehension model

![Comprehension model diagram]

Adapted from the Guide to Curriculum Planning in Reading, Wisconsin Department of Public Instruction, cited in Knuth and Jones, 1991.

The text represents the author’s expression of his/her intended message and provides the “raw material from which a mental representation of the meaning of that discourse is constructed” (Kintch, 1988, p. 180). The reader’s existing knowledge base – schemata – provides part of the context within which the text is interpreted (Kintch, 1988). Schemata consist of structural patterns of generic and specific knowledge that are stored in long-term memory (LTM) as a result of past social and perceptual experiences (Graesser et al., 1994). Knowledge based inferences are “constructed when background knowledge structures in LTM are activated, and a subset of this information is encoded in the meaning
representation of the text” (Graesser et al., 1994, p. 374). The elicitation of knowledge based inferences from LTM during comprehension is driven by the text i.e., “content words, combinations of content words, and interpreted text constituents” (Graesser et al., 1994, p. 374). Thus, a reader’s mental representation of discourse combines “two sources of information: the text itself and (his/her) knowledge—knowledge about language as well as knowledge about the world” (Kintch, 1988, p. 180). The latter dimension of knowledge is of immediate interest to this study and includes domain specific knowledge.

The remaining part of the context in which the interpretation of text takes place is the setting, i.e., the pragmatic context (Graesser et al., 1994, p. 373). The pragmatic context takes into consideration all of the phenomena that impact on the comprehension process and that ultimately determine the quality of a reader’s meaning representation of text. The phenomena include the following variables, which are of immediate interest to this study.

who wrote the text, why it was written, who read the text and why it was read (Graesser et al., 1994, p. 373).

The issue associated with who wrote (who read) the text takes into consideration the level of sophistication that the author’s (reader’s) knowledge of language and the world have on comprehension and, therefore, the effectiveness of communication. The effect of a reader’s knowledge on comprehension is reflected, for example, in the results of studies dealing with expert versus novice performance (e.g., Mao et al., 2000; Biggs et al., 1983). The superior problem solving performance of experts is attributed to the fact that they have “easy access to . . . relevant knowledge” which “frees up attentional resources that can then be directed to other aspects of (a) task”, leading to a “more elaborate mental representation of a problem” (Rabinowitz et al., 1985, p. 91).

The issues of why a text was written and why it was read are concerned with the communication goals of the author and the reader, respectively. The author’s communication goals, for example, to persuade, inform or entertain - are served by the text and determine the genre of discourse involved. The reader’s goals are typically, but not
necessarily, mirrored in those of the author. An exception would be, for example, where a text is read for the purpose of correcting for spelling errors, rather than comprehension.

### 6.3.3 Benefits of protocol analysis in examining cognition

Notwithstanding the shift in the representation of reading from strategic problem solving to one of constructive-integration, protocol analysis has maintained its role as the premier method of inquiry in reading comprehension research. The strength of the method lies in its unique capacity to capture mental processing as it happens, i.e., from direct memory (Ericsson et al., 1993). Capturing comprehension in real time leads to more complete and reliable data vis-à-vis techniques that involve retrospective reporting on cognition, which is why protocol analysis is recognized as the foremost method of process tracing (e.g., Ericsson et al., 1993; Kuusela et al., 2000).

The time delay involved in retrospective reporting on information heeded during cognition undermines the completeness and the reliability of the data – Type 2 verbalisation aside. The lack of completeness and reliability is attributable to memory failure, limited accessibility to information stored in LTM, variability in individual memory performance and behavioural biases (Kuusela et al., 2000). Further, retrospective reporting on cognition involves probing on the part of the researcher via verbal and/or or written questions. The questions invite the following types of response biases:

(i) accessing similar but not the actual schemata elicited during cognition; and

(ii) the rationalisation of choice behaviour rather than tracing the actual information heeded (Ericsson et al., 1993).

Further, where the research is exploratory, probing may be constrained by the knowledge of the researcher (Willis, 1999).
6.3.4 Protocol analysis and comprehension

The effectiveness of the case studies that are the focus of this study is to be assessed on the basis of the extent to which there is compatibility between the following three factors:

(i) the researcher’s understanding of the problem, i.e., the issues of accountability and efficiency impacting the decision of whether to appoint the incumbent audit firm to provide NAS;

(ii) the text; and

(iii) the participants’ representations of the problem.

The success of the study in that respect rests with the quality (information content) of the participants’ representations and the verbalisation of that information. The strategies used to promote verbalisation are described in Section 6.4, which deals with the research method. However, the issue of the information content of the protocol data will now be addressed.

The results of studies that have examined text comprehension using protocol analysis indicate that “easy well-written text” leads to little more than a regurgitation of the text by the reader in the absence of strategies designed to slow down the reading process (Ericsson et al., 1993, p. xxxvi). Ericsson et al. (1993) delimit what constitutes “easy well-written text” by defining difficult text. The latter is defined in terms of “difficult material, poor writing and organization, and (an) unfamiliar writing style” (Ericsson et al., 1993, p. xxxvi).

Ericsson et al. (1993) offer the following two-pronged explanation for the regurgitation problem. The explanation is premised on the understanding that the reader is one for whom reading is a highly automated skill. Firstly, the authors suggest that where the reader’s mental representation of the message is consistent with that of the writer, the inference involved is readily accessed by the reader and comprehension proceeds rapidly and smoothly—without conscious effort—leading to a lack of “verbalization of additional information;” (Ericsson et al., 1993, xxxvi). Conversely, inconsistencies between
representations lead to conscious retrieval and thinking which slows down the reading process.

However, Ericsson et al. (1993) also suggest that the genre of discourse has a role to play in the regurgitation problem. The genre of discourse refers to the form that communication takes. The present study draws on the taxonomy provided by Jahn (2003) and depicted in Figure 18, as the basis for analysing genre, beginning with the narrative - non-narrative dichotomy.

**FIGURE 18: Genre model**

The genre of discourse alluded to by Ericsson et al. (1993) was the non-narrative category, which, as Figure 18 shows, includes description and argument (exposition). Ericsson et al. (1993) observed the regurgitation problem in a study in which the participants read essays. Essays involve exposition. The reader of such texts typically lacks "extensive background knowledge about the topics" (Graesser et al., 1994, p. 372). Under those circumstances, all other things being equal, the reader may adopt a passive approach to comprehension. That is, the reader may allow his/her construction of the meaning of the text to be guided by the writer, leading to a lack of conscious retrieval and thinking (Ericsson et al., 1993).
Thus, from the perspective of protocol analysis and cognitive process, the informativeness of verbal data lies in the active retrieval and thinking of knowledgeable readers. From the perspective of the constructionist approach to comprehension, that process takes place in the realm of the interface between the text and the reader’s existing knowledge base. Further, from the constructionist perspective the quality of the product is a function of the pragmatic context. How easy and well-written material is depends upon the knowledge base (including language skills) of the reader and writer respectively, i.e., who read and who wrote the text. The genre of discourse is inextricably linked to why a text was written, which spills over to why a text is read.

The impact of the pragmatic context on the comprehension of data instruments is fundamental to the scientific approach to behavioural research generally and the issue of internal validity in particular (e.g., Kerlinger & Lee, 2000); and is at the heart of the motivation for this study.

The success of the present study in terms of the information content of the protocol data lies with the research method. The knowledge that the author and the reader bring to the task, rests with the researcher and the choice of participant, respectively. The reader’s goals will be determined by the demands of the research task. Finally, the case studies have been written in the service of the researcher’s goals. The goals are twofold. Firstly, the case studies are the instruments for obtaining evidence on the issues of accountability and efficiency, of interest to this study, impacting the question of whether to hire the incumbent audit firm to provide NAS. Secondly, they have been written in the service of the validity of the evidence obtained. The case studies in serving those goals fall within the ambit of the narrative genre of discourse. In relation to Jahn’s (2003) genre model, the case studies would provide a fifth arm of the printed/written form of narrative.

Graesser et al. (1994) hold that the constructionist search-after-meaning perspective on reading comprehension is best suited to the narrative style of text. Narrative text more than the non-narrative genre of discourse, speaks to the readers’ existing perceptual and social experiences, i.e., their existing knowledge base (Graesser et al., 1994, p. 372). Shared
schema avoids the need for the writer to expound on the meaning of concepts, resulting in a deep implicit dimension to such text. The implicit dimension of text has the capacity to evoke a cognitive representation that is rich in inference, subject to the reader possessing the requisite knowledge base.

Graesser et al. (1994, p. 391) employing constructionist theory and protocol analysis, provide empirical support for the proposition that readers generate “rather rich situation models” during the comprehension of narrative text, again, subject to the reader possessing the requisite knowledge structures. The situation model is not, however, complete. That is, it does not produce a “lifelike rendition of the text . . . (i)nstead a . . . subset of the situation is preserved” (Graesser et al. 1994, p. 391).

6.3.5  The case studies as narrative text

The basis for identifying the case studies under review as narrative text centres on two related criteria. Firstly, the definition of narrative, i.e., what makes a text narrative; and secondly, the levels of communication involved in a narrative – each of which will now be considered.

The set of eight case studies used in the study are provided in Appendix A. The research design that underpins the case studies is discussed in section 6.4.1.

6.3.5.1. Definition of narrative

Ryan (2003) defines a narrative in the following manner. Firstly, a “(n)arrative is . . . a mental image, or cognitive construct, which can be activated by various types of signs”. The present researcher’s cognitive construct of the story th..t defines the case studies is fictional and is, of course, activated through the written word.

Secondly, Ryan (2003) goes onto characterise narrative in the following manner.
This image consists of a world (setting) populated by intelligent agents (characters). These agents participate in actions and happenings (events, plot), which cause global changes in the narrative world. Narrative is thus a mental representation of causally connected states and events which captures a segment in the history of a world and of its members.

The relationship between key defining characteristics of a narrative – a setting, characters, events and changes – and the case studies will now be addressed.

**Setting and characters**

The setting for the case studies involves the Australian corporate environment in the financial year 2001 to 2002. The characters are fivefold and as follows:

(i) A corporation, Baudin Ltd. Baudin Ltd is characterised by, *inter alia*, its listing on the stock exchange, its size, year of establishment, industry, principal location, geographical and commodity markets and corporate governance structure.

(ii) The board of directors of Baudin Ltd. The Board is characterised by its size, its independence, or otherwise, from management, and the monitoring quality of the audit committee. Independence is operationalised using the following cues: the ratio of executive to non-executive directors; the source of authority for the nomination of board members; and the absence or otherwise of relationships between the directors and the company.

(iii) The incumbent audit firm. The firm is described as a member of the Big 5, an industry specialist, and the external auditor to Baudin Ltd for five years.

(iv) The NAS division of the incumbent audit firm. The division is characterised on the basis of its separation from the audit division, its expertise and reputation, and the year of establishment.

(v) The specialist NAS provider. The specialist is characterised on the basis of its expertise and reputation, and the year of establishment.

The characters as business entities acquire their intelligence through management. The role of management is explicit in relation to Baudin Ltd.

---

13 The study was commenced prior to the collapse of Arthur Andersen.
**Events and change**

The events that are the catalyst for change provide the story-line of a narrative. The story-line is typically characterised by an *orientation* (who, when and where); a *complication* that is caused by the characters; and a *resolution* of the complication (Jahn, 2003). The *orientation* (introduction) as it relates to the present set of case studies is encapsulated in the following excerpts from the documents.

Baudin Ltd is a large Australian owned organisation, with an annual sales turnover of approximately $5 billion. The company, founded in 1978, is headquartered in Sydney, and it employs approximately 9,400 people worldwide. Baudin is primarily involved in the manufacture of chemical products for use in mining, agriculture, industry and the consumer sector. The products are sold both domestically and overseas.

Baudin Ltd experienced a modest growth in profit before tax in the five years to the 30 June 2001, notwithstanding the highly competitive nature of the industry. Senior Management believes, given current social trends, that implementing and promoting socially responsible principles will be important in maintaining a competitive advantage, operationally and financially, in the industry in future.

The *complication* and *resolution* of a narrative attach to the characters and are acted out through the events that are the catalyst for change - all of which form part of the primary story-line. The primary story line (events and change) associated with the case studies, whilst minimalist, is encapsulated in the following description:

Baudin Ltd’s management opts to outsource NAS. Three professional NAS providers are approached to submit proposals. The contenders are reduced from three to two, including the incumbent audit firm.

The narrative *complication* arises out of the fact that the two final contenders differ in their capacity to add value, in terms of accountability and efficiency – beginning with the audit firm’s incumbency as external auditor. However, in this instance, the *resolution* of the complication is the task of the participants, not the researcher (author). The *resolution* ultimately lies with each participant’s perception of the net benefits of hiring the audit firm versus the specialist firm. The net benefits are a function of perceived auditor independence and the perceived benefits of hiring the incumbent audit firm to provide NAS.
6.3.5.2 Levels of communication

The levels of communication involved in a narrative also distinguish the genre and, in the present situation, as mentioned earlier, hold the key to the depth of the readers' meaning representation of a text, including inference.

Jahn (2003, N2.3.1) maintains that a narrative must involve the "interplay of at least three communicative levels", which are depicted in Figure 19, using Chinese boxes.

![FIGURE 19: Levels of narrative communication](image)

Source: Jahn (2003, N2.3.1).

The model "distinguishes between the levels of action, fictional mediation, and nonfictional communication, and establishes useful points of reference for key terms like author, reader, narrator, and narratee/addressee" (Jahn, 2003, N2.3.1).

All three levels are present in the case studies under review. The nonfictional communication level is concerned with reality. The author of the case studies is the researcher, and the reader(s) the participant(s). Given that the author and reader do not communicate in the text itself, their level of communication is referred to as "extratextual" (Jahn, 2003, N2.3.1). However, the remaining two levels of communication are "intratextual" (Jahn, 2003, N2.3.1). The level of fictional mediation associated with the case studies involves a third-person narrator, as opposed to a first or second-person
narrator. The narratees are anonymous witnesses to the story line. Finally, at the level of action, the communication is between Baudin Ltd represented by its senior management and the prospective NAS providers.

However, notwithstanding the fictional nature of the case studies under review, they are designed to represent reality, i.e., speak to the participants' existing knowledge base as experienced directors and executives. The cues are drawn from reality – the regulation and analytical and empirical research that are the subject of the preceding chapters. Further, the scenarios depicted in the case studies are, as mentioned earlier, intended to provide the complete stimuli to the problem of whether to hire the incumbent audit firm to provide NAS. However, notwithstanding the presence of comparatively strong textual cues, the issues of accountability and efficiency of interest to the thesis are implicit. The case studies hold, in that sense, an underlying (global) message. The implicit message gives rise to dual levels of communication at the intratextual level – an explicit and an implicit level. The explicit and implicit dimensions operate at the fictional mediation level (narrator to narratee). The implicit dimension of the case studies gives rise to a fourth level of narrative communication, which is represented in Figure 20, by the shaded area.

Figure 20: Levels of narrative communication (modified)

The implicit nature of the data instruments, language aside, is driven by attributes of the experimental design that underpins the instruments. Firstly, the case studies are written in a manner that is designed to avoid demand effects emanating from the problem of saliency
associated with treatments (e.g., Pany et al., 1987). The treatments in this instance involve, of course, the following issues:

- financial dependence emanating from recurring NAS; and
- the monitoring strength of the board of directors.

Saliency of treatments signals a researcher’s intent and as a result may bias participants’ responses. That is, the participant’s behaviour may conform to the researcher’s hypotheses for reasons that are independent of the hypotheses the experiment was designed to test (Kanter, Kohlenberg & Loftus, 2002). Rendering the treatment cues implicit rather than explicit in nature provides a means of controlling for demand effects.

The implicit dimension of the financial dependence treatment, relating to recurring NAS, is embodied in the following explicit text taken from the case studies dealing with the provision of non-financial key performance indicators:

The successful contender will assist in the preparation of the (sustainable development) report for the first three years, with an option to renew at the end of that time at the discretion of Baudin Ltd.

The implicit dimension of the monitoring strength of the board of directors (strong or weak) is embodied in the explicit text which appears in Table 16. The participants’ perception of strength or weakness relies on inference associated with the following criteria:

- the independence of the board from management, and
- the strength of the composition, authority, resources and diligence of the audit committee.

Secondly, the implicit dimension of the text also extends to the antecedents of IR opportunity and the capacity of the contenders to add value (efficiencies). The scenarios that constitute the case studies are intended to convey the following underlying message as a whole:

IR opportunity (the demand for an independent audit) is high.
The threat to audit independence from self-interest (wealth incentives) emanating from the fees for recurring NAS is high (low).
The structural strength of the board of directors is strong (weak).
The distinguishing attributes of the prospective providers (incumbent audit firm; specialist NAS provider) hold differing implications for their respective capacity to add value.

Finally, in concluding this section, the underlying theme is embedded in rich co-context. Co-context is separate from the notion of the pragmatic context (context of situation) referred to earlier (Bloor, 2004). The co-context comprises the text surrounding those passages of the case studies that are intended to convey the underlying message, and includes the following:

- The narrative orientation (the company description and need for NAS).
- A description of the NAS
- The basis for outsourcing the NAS.
- The basis for inviting submission from providers.
- The rationale for choosing between the submissions.

The purpose of the co-context is twofold. Firstly, it is also recognised as being important in overcoming the demand effects associated with saliency (e.g., Pany et al., 1987).

Secondly, the co-context is intended to achieve the following with respect to the case studies:

- as narrative text, anchor the scope of each scenario in time and space;
- as data instruments, control for extraneous independent variables; and
- as data instruments, ensure that the overall task – whether to hire the incumbent audit firm to provide the NAS. or otherwise – is adequately specified.

The meaning of the underlying message is in part dependent on the co-context and vice-versa (Bloor, 2004). Thus, the present study is concerned with obtaining evidence on the effectiveness of the case studies as a whole.
<table>
<thead>
<tr>
<th>Criteria</th>
<th>Strong treatment</th>
<th>Weak treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independence of the board from management</td>
<td>The entity is governed by a ten-member Board of Directors, comprised of three executive members, including the company’s Chief Executive Officer, and seven non-executive members. The Chairman of the Board is a non-executive director. The Board is assisted in the discharge of its duties by a number of sub-committees, all of whom are accountable to the Board.</td>
<td>The entity is governed by a ten-member Board of Directors, comprised of six executive members, including the company’s Chief Executive Officer, and four non-executive members. The Chief Executive Officer is the Chairman of the Board. The Chairman has significant input into the nomination of members to the Board. The Board is assisted in the discharge of its duties by a number of sub-committees, all of whom are accountable to the Board.</td>
</tr>
<tr>
<td>Composition of the audit committee</td>
<td>The Board is assisted in the execution of its accounting and auditing responsibilities, by an Audit Committee. The three-member Audit Committee is comprised of non-executive directors. Two of the Committee members hold senior Australian professional accounting qualifications.</td>
<td>The Board is assisted in the execution of its accounting and auditing responsibilities, by an Audit Committee. The three-member Audit Committee is comprised of two non-executive directors and one executive director, who chairs the Committee. The executive director, unlike the non-executive directors, holds an Australian professional accounting qualification.</td>
</tr>
<tr>
<td>Authority of the audit committee</td>
<td>The role of the Committee is as follows: 1. to advise on the establishment and maintenance of a framework of internal control and appropriate ethical standards for the management of the company. Thus, it assists the Board in fulfilling its responsibilities for the quality and reliability of financial information, including reporting in financial statements; 2. to monitor the management of identified risks, identify any new risks and recommend action to be taken for their control; 3. to review the scope of the external audit, and to review findings and issues brought to its attention; and 4. to review the appointment and remuneration of the external auditors.</td>
<td>The role of the Committee is to advise on the establishment and maintenance of a framework of internal control, and, in that way, it assists the Board in fulfilling its responsibilities for the quality and reliability of financial information, including reporting in financial statements.</td>
</tr>
<tr>
<td>Resources and diligence of the audit committee</td>
<td>The Committee meets with the external and internal auditors and senior management to review the half yearly and annual financial statements and reports, and at such other times as may be necessary to consider specific issues or matters which may arise from the internal and external audit process. The external auditors have direct access to the Committee, if necessary, without management involvement. The Committee reports to the Board after each Committee meeting.</td>
<td>The Committee meets once every four months. The internal and external auditors are invited to meetings at the discretion of the Committee. The Committee reports to the Board after each Committee meeting.</td>
</tr>
</tbody>
</table>
6.4 RESEARCH METHOD

A pilot study involving two separate protocol sessions, directors and case studies was undertaken prior to conducting the formal protocols. The purpose of the pre-trial was to gain preliminary feedback on the useability of the case studies, generally, and to test the understandibility of the protocol instruction. Significant changes were made to the case studies as a result of the data obtained. The participants and the data associated with the sessions are not included in the ensuing discussion, which is based on the altered texts.

6.4.1 Case information

The case studies involve three types of NAS. The three NAS involve the following types of professional services:

1. non-financial, sustainable development key performance indicators (KPIs);
2. information systems (IS) design and implementation; and
3. market research.

The provision of the NAS by the incumbent audit firm involves a separate division to the audit, invoking separation of duties as a safeguard of audit independence. However, notwithstanding the safeguard, the NAS types may be perceived by stakeholders to give rise to the threat of self-review – arguably at three levels: high, moderate-low and low. The threat of self-review concerns the re-evaluation of the NAS (product and/or judgement) in reaching conclusions on the audit engagement (PF 1). The threat associated with the KPIs would result from the audit of the non-financial indicators by the incumbent external audit firm; and in the case of the IS service, the system would produce financial information subject to the external audit. The threat from the market research service would be negligible. Notably, the different types of NAS may also hold implications for the respective service providers’ capacity to add value.

The threat of self-review does not feature in the accountability hypotheses developed in Chapter 4. and, therefore, Study 2. However, notwithstanding the tentative nature of the threat it is subsequently identified as part of the underlying message involved in the case studies for the purpose of the data analysis.
The three NAS types, together with the accountability variables of immediate interest to this thesis and Study 2 [recurring NAS (high or low); monitoring strength of the board of directors (strong or weak)] gave rise to 12 case studies. The framework of the case studies including the numerical code used to identify each variable and, ultimately, case study, is depicted in Table 17. The shaded areas in the chart in the right-hand column of the table signify the sample of the eight case studies that form the basis of the data analysis.

<table>
<thead>
<tr>
<th>TABLE 17: The framework and coding of the draft case studies - Study 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NAS type</strong></td>
</tr>
<tr>
<td>----------------------------------</td>
</tr>
<tr>
<td>Sustainable development (KPIs)</td>
</tr>
<tr>
<td>High</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Information systems design and implementation</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Market research</td>
</tr>
<tr>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

6.4.2 Participants

Eleven protocol sessions were conducted. Eight participants produced usable protocols. The recording quality of one of the remaining protocols was too poor to be transcribed; and the two remaining participants experienced difficulty in verbalising concurrently. The
description of the participants is confined to the eight individuals who produced the usable protocols.

Notwithstanding the fact that there were 12 different case studies, the eight usable protocols were sufficient to develop the final instruments for Study 2. The eight protocols involved the three different types of NAS as well as the each of the independent variables that were under consideration for use in Study 2. The modifications are discussed in Chapter 7.

The participants were experienced, practicing company directors. The participants’ average number of years of experience as directors was 12 years: the range 2 to 20 years.

Participants were contacted by letter seeking their co-operation to participate in the study. A member of the researcher’s family wrote the letter to business associates whom he knew first-hand to be experienced, practicing company directors. Each letter was personalised to the individual concerned. However, the section of the letter that described the task was standardised. A pro-forma copy of the letter, without the identification of the parties involved, is provided in Appendix B.

All remaining stages of the study were conducted by the researcher.

The letter was followed by a telephone call to confirm the individuals’ willingness to participate and from there make an appointment to conduct the session. Each participant was studied in an individual session. All of the sessions were conducted at the principal office of each of the participants, without distractions.

The participants were given no information about what the process would entail prior to meeting, beyond that contained in the letter provided.
All individuals who were contacted participated. The participants were given a bottle of "fine" wine referred to in the letter of solicitation, at the conclusion of each session. The wine represented a token of appreciation, not an incentive to participate.

The participants were identified on the basis of the numerical coding of the case studies involved, and the numbers P1 to P8. The profile of the participants is provided in Table 18. The professional background of the participants, identified in the right hand column, represents their first discipline. All of the participants are in the workforce, with the exception of P3 who is retired. However, all occupy directorships.

<table>
<thead>
<tr>
<th>Identification</th>
<th>Directorships</th>
<th>Years of Experience as a director</th>
<th>Professional background</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Case study</td>
<td>Exec</td>
<td>Non-exec</td>
</tr>
<tr>
<td>P1</td>
<td>1.1.1</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>P2</td>
<td>1.1.0</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>P3</td>
<td>1.01</td>
<td>n/a</td>
<td>✓</td>
</tr>
<tr>
<td>P4</td>
<td>2.1.0</td>
<td>✓</td>
<td>n/a</td>
</tr>
<tr>
<td>P5</td>
<td>2.0.0</td>
<td>✓</td>
<td>n/a</td>
</tr>
<tr>
<td>P6</td>
<td>3.1.1</td>
<td>✓</td>
<td>n/a</td>
</tr>
<tr>
<td>P7</td>
<td>3.1.0</td>
<td>n/a</td>
<td>✓</td>
</tr>
<tr>
<td>P8</td>
<td>3.0.1</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

6.4.3 Task

The task involved concurrent (Type 1) verbalisation.

A standard instruction script was used to introduce the task to the participants. The script describing the task and the think-aloud method is presented in Appendix C.

Each participant was advised that the activity involved the following:

*reading a two to three page case study that centres on a company’s decision to seek the services of a professional service provider and the events leading up to the point where the choice of service provider is to be made.*

*The case study is preceded by a single page which provides an introduction to the overall task.*
You will be asked to answer a set of four questions based on the information contained in the actual case study. The nature of the questions is identified in the introductory page.

In addition, we ask that you perform the task through a technique referred to as “verbal protocol analysis”. The technique involves capturing your thoughts as you consider the information provided in the case study in the process of arriving at your answers. Thus, we ask that you speak aloud all of your thoughts as you work on the problem.

My task will be to record your thoughts using a tape recorder.

Your taped thoughts will be transcribed at a later date. The transcript will provide us with important feedback on the case studies. Again, we are interested in all of the thoughts that come to your mind as you work on the problem.

The following supplementary instruction was also provided:

It does not matter if your sentences are not complete, since you will not be explaining to anyone else. Just act as if you are alone in the room speaking to yourself loudly.

The purpose of the instruction was to discourage the participants from explaining their actions, which would interfere with their natural comprehension process (Ericsson et al. 1993).

Each session was tape-recorded. The observer made notes and prompted the subjects to keep talking, where necessary.

The participants reading goals were also set by the following four questions which were identified in the introduction to the task and at the conclusion of the case study:

(i) What factors do you consider are important in choosing between alternative service providers in circumstances such as those facing Baudin Ltd.
(ii) Whom would you chose to provide the service?
(iii) What is the strength of your preference for the alternative providers?
(iv) What factors account for your preference for one provider over the other?
The time spent on the reading task averaged 20 minutes. The total time involved in a session ranged from around 40 minutes to one hour.

6.4.4 Data Analysis

The eight protocols were transcribed. The individual transcripts were identified according to the numbering system allocated to the individual participant and the particular case study involved. The identification of the protocols vis-à-vis the independent variables is depicted in Table 19.

Table 19: Identification of the transcripts vis-à-vis the independent variables

<table>
<thead>
<tr>
<th>Identification</th>
<th>NAS type</th>
<th>Strength of Board</th>
<th>Continuity of Fees</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>1.1.1</td>
<td>KPI</td>
<td>strong</td>
</tr>
<tr>
<td>P2</td>
<td>1.1.0</td>
<td>KPI</td>
<td>strong</td>
</tr>
<tr>
<td>P3</td>
<td>1.0.1</td>
<td>KPI</td>
<td>weak</td>
</tr>
<tr>
<td>P4</td>
<td>2.1.0</td>
<td>IS</td>
<td>strong</td>
</tr>
<tr>
<td>P5</td>
<td>2.0.0</td>
<td>IS</td>
<td>weak</td>
</tr>
<tr>
<td>P6</td>
<td>3.1.1</td>
<td>Market research</td>
<td>strong</td>
</tr>
<tr>
<td>P7</td>
<td>3.1.0</td>
<td>Market research</td>
<td>strong</td>
</tr>
<tr>
<td>P8</td>
<td>3.0.1</td>
<td>Market research</td>
<td>weak</td>
</tr>
</tbody>
</table>

The transcripts contained the exact verbalisations of the participants.

The analysis of the protocols involved modelling (coding), scanning and scoring techniques. The modelling and scanning of the protocol data will now be considered, followed by the scoring phase.
Modelling protocols is not prescriptive, but should be driven by the research question (Ericsson et al., 1993). The research question guiding this study asks whether the data instruments serve the researcher's communication goals. Evidence on the question was gained by assessing the compatibility between the participants' representations of the problem and the solution provided. The analysis was facilitated by compiling, *a priori*, two codes – a Task and a Transcript Code. Each protocol was modelled along the lines of a matrix, as shown in Figure 21. The raw data in each transcript was modelled, going down the page, according to the Task Code. Each modelled transcript was subsequently scanned and its contents classified, going across the page, according to the Transcript Code. The Transcript Code headed each page.

The nature of the two codes and the modelling process will now be considered in detail. The nature of the codes is illustrated by drawing on excerpts from the actual protocol data, notwithstanding the fact that the Codes were developed *a priori*.

A copy of a modelled and scanned protocol is provided in Appendix D. The details associated with the protocol are as follows:
**Task Code**

The Task Code consists of a framework of the explicit text, which is depicted in Table 20. The framework was defined by paragraph number, title and broad content. The text content was subsequently coded according to the number of the paragraph and the order of the item involved, and titled the Content Code.

Each transcript was initially modelled on the Task Code, commencing with the segmentation of the content by paragraph number and name. The speech within each paragraph was parsed by clause or sentence, which ever was applicable, on a line-by-line basis. The resulting clauses (sentences) are subsequently referred to as “topic lines” (Bouwman, 1985, p. 68). The rationale for the choice of a clause/sentence as the unit of measurement was its “usefulness” in improving the “accessibility and manageability of the protocol” (Bouwman, 1985, p. 68) with respect to the application of the Transcript Code.

Examples of topic lines, which represent a sequence of lines from the sample protocol that appears in Appendix D, are as follows:

\[<Hmm>\] This is an interesting board.
Six executive members and
The Chairman is the CEO also.
This is a most unusual structure.
Well it seems to me
That we have a very dominant <\text{uh}> CEO.
Who <\text{uh}> has a board that would have no difficulty in being a tame board.
Because the Chairman puts them on.

The segmented and parsed transcripts were then scanned and each topic line was numbered according to the content code identified in Table 20. Forty four typed pages of transcript were generated (an average of five and one-half pages per subject).
### TABLE 20: Task Code: framework of explicit text and content code

<table>
<thead>
<tr>
<th>No</th>
<th>Name</th>
<th>Paragraph</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Description of company</td>
<td>• Nature, size, location, industry and markets.</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Separation of ownership and control.</td>
<td>1.2</td>
</tr>
<tr>
<td>2</td>
<td>Board of directors</td>
<td>• Size.</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Ratio of exec:non-exec.</td>
<td>2.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Independence of chair.</td>
<td>2.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Independence of nomination process.</td>
<td>2.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Employment, financial, business ties.</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Sub-committees</td>
<td>2.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Overall strength.</td>
<td>2.7</td>
</tr>
<tr>
<td>3</td>
<td>Audit Committee</td>
<td>• Audit committee.</td>
<td>3.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Composition</td>
<td>3.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Authority.</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Resources.</td>
<td>3.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Diligence.</td>
<td>3.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Overall strength.</td>
<td>3.6</td>
</tr>
<tr>
<td>4</td>
<td>Executive experience &amp; Remuneration</td>
<td>• Executive experience.</td>
<td>4.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Remuneration: fixed, bonus, options.</td>
<td>4.2</td>
</tr>
<tr>
<td>5</td>
<td>NAS need, purpose &amp; type</td>
<td>• Modest growth – past 5 years.</td>
<td>5.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Need: profits plateaued, competitive market</td>
<td>5.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Purpose: improve financial performance.</td>
<td>5.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Description of NAS</td>
<td>5.4</td>
</tr>
</tbody>
</table>

**Linking statement**

| 6  | Outsourcing & approach | • Approach to providers. | 6.1 |
|    |      | • Rationale for outsourcing: expertise. | 6.2 |
| 7  | Basis for submission & inviting 3 providers | • Basis for submissions: information. | 7.1 |
|    |      | • Invitation: reputation for excellence. | 7.2 |
| 8  | Criterion for choosing between the proposals | • Criterion: ease of integration. | 8.1 |
|    |      | • Choice reduced to 2 candidates. | 8.2 |
| 9  | Description of Audit firm | • Big 5: Term – 5 years: industry expert. | 9.1 |
| 10 | Separation of duties & Fee for NAS | • NAS performed by separate division. | 10.1 |
|    |      | • Description of division. | 10.2 |
|    |      | • NAS fee - $125,000. | 10.3 |
| 11 | Fees to audit firm for all services | • Total fee: 5% of annual revenue of local audit office. | 11.1 |
|    |      | • Total audit fee: $580,000. | 11.2 |
|    |      | • Tax and super services provided. | 11.3 |
|    |      | • Total fees for NAS: $1,450,000. | 11.4 |
| 12 | Specialist provider | • Description. | 12.1 |
|    |      | • NAS fee $120,000. | 12.2 |
|    |      | • 9% of annual revenue of local audit office. | 12.3 |

**Summary comments**

| 13 | Comparability | • Of proposals & operating capacity. | 13.1 |
|    |      |      | |

**Answers to questions**

|          | Q1 - 4 |
**Transcript Code**

The content of each modelled protocol was subsequently scanned and each topic line grouped according to one of two broad categories of statements that made up the Transcript Code: *meta-statements* and *content statements*. The Code is depicted Table 21. The development of the Code was guided by the following criteria:

(i) the purpose of the study; and

(ii) studies conducted by Flower et al. (1983) and Mao et al. (2000).

The criteria allowed one to anticipate the type of statements that were likely to ensue.

<table>
<thead>
<tr>
<th>TABLE 21: Transcript Code of verbal statements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CONTENT STATEMENTS</strong></td>
</tr>
<tr>
<td>Anomalies</td>
</tr>
<tr>
<td>Confirmatory statements</td>
</tr>
<tr>
<td>Supplementary information</td>
</tr>
<tr>
<td>Translations</td>
</tr>
</tbody>
</table>

| **META-STATEMENTS**                           |
| Statements that do not pertain to the content or meaning of the case studies. |

Meta-statements, unlike content statements, embrace all statements that do not “directly pertain to the explicit text or global meaning of the text” (Flower et al., 1983). They include statements that related to the participants’ cognitive processes, such as:

> well it seems to me;
> my first reaction here is;
> <Ah> I see;
> I'm suspicious;
> I would say it's <uh>;
> Let's move on.

and various other statements, including the following:
in my experience;  
it’s interesting;  
I haven’t sat on the boards of very many mining companies.  
Goodness me.

The content statements were sub-classified by the researcher according to the following constructs: anomalies, confirmatory statements, supplementary information and translations. The nature of each of the constructs will now be considered.

**Anomalies**

Anomalies refer to perceived phenomena associated with the stimuli that impede comprehension (Mao et al., 2000). According to Mao et al. (2000, p. 159) “(e)mpirical studies have shown that the two most significant types of perceived anomalies are the absence of critical information and the presence of contradictions”.

Examples of the two major types of anomaly follow.

**ABSENCE OF CRITICAL INFORMATION**

*I don’t really have enough understanding of the criteria they are using to make the selection.*

Perceived contradictions may be within the body of the text (a lack of local coherence -- Graesser et al., 1993) or between the participant’s knowledge of the problem and the solution provided.

**CONTRADICTIONS**

**Lack of local coherence**

*The remuneration structure for the senior executives
Doesn’t reflect the outcomes in relation to the (KPIs)*

*the structure of the employee compensation plan
is driven solely on financial outcomes.*
Participant's knowledge versus the solution

Original sentence in text:
The initial criterion for choosing between the proposals centred on the ease with which the performance indicators could be integrated into management's current planning and control processes.

Verbal Response:
I'm not sure about the initial criteria
And I think accuracy is more important than integration.

It seems to be more convenient than strategically sensible.

Confirmatory statements

The confirmatory category of statements, on the other hand, refers to those that reflect consistency between the author's intended meaning, the text and the reader's representation. Prior research suggests, as discussed earlier, that consistency may not elicit the inference involved (Ericsson et al., 1993). However, again, the pragmatic context has a role to play in that respect. The case studies, as data instruments, contain various cues that are intended to represent red flags. For example, the bonus elements of senior management's remuneration package and the weak corporate governance structure are intended to signal management's incentive and propensity to act self-interestedly, respectively. It was anticipated that where the cues were perceived as red flags (contradictions) by participants, they would lead to verbalisation and, if so, would represent confirmatory statements.

The segment of protocol that appears at the bottom of page 175 represents an extract of the particular participant's response to the weak form of corporate governance structure. The segment represents a confirmatory statement. The following segment of protocol, provided in response to the description of the share option component of senior management's remuneration package, also represents a confirmatory statement:

Share options are <uh> an interesting way to reward people.

but the hurdle is only at 5% of earnings per share growth

and it's (the company) only had modest returns
so these guys might be drawing out their bonuses.

**Supplementary information**

The supplementary information category of statements refers to “supplementary context information indicative of (participants’) prior understanding and judgment of the problem” (Mao et al., 2000, p. 166) – excluding anomalies and confirmatory statements. The following segment of protocol represents supplementary information. The information was provided by a participant following the individual’s express disapproval of the criterion (integration) identified in the case studies as the basis for choosing between the proposals received from the three service providers involved (see the contradiction at the top of page 179).

*Given that this is the first time the company needs to do this*
*It needs to accept that it has to get across*
*A learning of the issues*
*And identification of the major issues*
*Prioritisation of those which it can have some impact or leverage about.*
*<Umm> Separation of cause and effect.*
*And then think about the notion of integration.*

**Translations**

Finally, translations incorporate restatements of the explicit text and any attempt to translate the text into another form (Flower et al. 1983), such as:

*so the company has got 9,400 people worldwide:
and a $5 billion turnover.*

A summary of the constructs that comprise the Transcript Code is provided in the framework depicted in Figure 22.
The anomalies, confirmatory statements and supplementary information are of particular interest to this study. They provide the key to identifying the participants' representations of the scenarios, and, therefore, assessing whether the case studies meet the researcher's communication goals. The material will also form the basis of the reader based principle to be factored into the development of the case studies to be used in Study 2.
The relationship between the modelled content of each transcript and the anomalies and confirmatory categories of content statements was registered by indicating whether the statements related to the underlying (global) message (G) or co-context (CC) dimensions of the original text. The cross-tabulation of the remaining classes of statement simply involved ticking (✓).

6.4.4.2 Scoring

There were several stages involved in the scoring phase of the analysis of the modelled and scanned protocols. Firstly, the number of topic lines per participant, and class of statements was obtained and totalled. The summary of the information is provided in Table 22.

<table>
<thead>
<tr>
<th>Session</th>
<th>Anomalies</th>
<th>Confirmatory Statements</th>
<th>Supplementary Information</th>
<th>Translations</th>
<th>Meta-statements</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
<td>No</td>
<td>%</td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>P1</td>
<td>35</td>
<td>33</td>
<td>12</td>
<td>6</td>
<td>46</td>
<td>25</td>
</tr>
<tr>
<td>P2</td>
<td>17</td>
<td>12</td>
<td>22</td>
<td>10</td>
<td>21</td>
<td>12</td>
</tr>
<tr>
<td>P3</td>
<td>12</td>
<td>11</td>
<td>39</td>
<td>19</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>P4</td>
<td>9</td>
<td>9</td>
<td>10</td>
<td>5</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>P5</td>
<td>9</td>
<td>9</td>
<td>37</td>
<td>18</td>
<td>33</td>
<td>18</td>
</tr>
<tr>
<td>P6</td>
<td>10</td>
<td>10</td>
<td>45</td>
<td>20</td>
<td>14</td>
<td>8</td>
</tr>
<tr>
<td>P7</td>
<td>8</td>
<td>7</td>
<td>16</td>
<td>8</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>P8</td>
<td>9</td>
<td>9</td>
<td>29</td>
<td>14</td>
<td>42</td>
<td>23</td>
</tr>
<tr>
<td>Total</td>
<td>105</td>
<td>100</td>
<td>210</td>
<td>100</td>
<td>181</td>
<td>100</td>
</tr>
</tbody>
</table>

Content Statements comprised 82% of the total number of statements. The content to meta-statement ratio was 756:154 statements i.e., 4.91:1.

As Figure 23 shows, anomalies accounted for 14%, confirmatory statements 28%, supplementary information 24% and translations 34% of the content statements.
The anomalies and confirmatory statements were used to obtain a ball park measure of whether the case studies as a whole met the researcher's communication goals, notwithstanding the limitations inherent in the small sample size. Firstly, the two scores for each of the eight protocols (Table 22) were plotted using a scatter-plot, which is depicted in Figure 24. Taking into consideration the relationship of the plotted points to the line running through them, six (75%) of the eight protocols confirm the researcher's interpretation of the problem involved.

FIGURE 24: scatter plot of confirmatory and anomalous statements
Secondly, the correlation between the score for the two types of statements for each protocol was obtained using simple linear regression. Table 23 shows the regression results for the analysis. Only the intercept is significant (.008). The adjusted $R^2$ was .005.

<table>
<thead>
<tr>
<th>TABLE 23: Regression coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>anomalies</td>
</tr>
</tbody>
</table>

The remaining analysis of the protocol data is confined to the anomalies and confirmatory categories of statements, each of which will now be dealt with separately, and in that order.

**Anomalies**

The protocols were scanned to identify the sections of the case studies that involved perceived anomalies, based on the textual framework that comprises the Task Code. The number of protocols (incidents) associated with each anomaly was also calculated. Fifteen sections of the text were involved. The sections and the related number of incidents are identified in Table 24.
<table>
<thead>
<tr>
<th>No</th>
<th>Name</th>
<th>Content</th>
<th>Content Code</th>
<th>Number of incidents (protocols)</th>
</tr>
</thead>
</table>
| 1  | Description of company | • Nature, size, location, industry and markets.  
• Separation of ownership and control. | 1.1 | 1.2 |
| 2  | Board of directors | • Size.  
• Ratio of exec:non-exec.  
• Independence of chair.  
• Independence of nomination process.  
• Employment, financial, business ties.  
• Sub-committees  
• Overall strength. | 2.1 | 2.2 | 2.3 | 2.4 | 2.5 | 2.6 | 2.7 | 1 |
| 3  | Audit Committee | • Audit committee.  
• Composition  
• Authority.  
• Resources.  
• Diligence.  
• Overall strength. | 3.1 | 3.2 | 3.3 | 3.4 | 3.5 | 3.6 |
| 4  | Executive experience & Remuneration | • Executive experience.  
• Remuneration: fixed, bonus, options.  
• Modest growth past 5 years.  
• Need: profits plateaued, compet’ market  
• Purpose: improve financial performance.  
• Description of NAS. | 4.1 | 4.2 | 5.1 | 5.2 | 5.3 | 5.4 | 2 |
| 5  | NAS need, purpose & type | • Linking statement  
• Outsourcing & approach  
• Basis for submission & inviting 3 providers  
• Criterion for choosing between the proposals  
• Description of Audit firm  
• Separation of duties & Fee for NAS  
• Fees to audit firm for all services  
• Specialist provider  
• Comparability  |
| 6  | Outsourcing & approach | • Approach to providers.  
• Rationale for outsourcing: expertise. | 6.1 | 6.2 |
| 7  | Basis for submission & inviting 3 providers | • Basis for submissions: information.  
• Invitation: reputation for excellence. | 7.1 | 7.2 |
| 8  | Criterion for choosing between the proposals | • Criterion: case of integration.  
• Choice reduced to 2 candidates. | 8.1 | 8.2 |
| 9  | Description of Audit firm | • Description of Audit firm.  
• Big 5: Term 5 years: industry expert. | 9.1 |
| 10 | Separation of duties & Fee for NAS | • NAS performed by separate division.  
• Description of division.  
• NAS fee - $125,000. | 10.1 | 10.2 | 10.3 | 6 |
| 11 | Fees to audit firm for all services | • Total fee: 5% of annual revenue of local audit office.  
• Total audit fee: $580,000.  
• Tax and super services provided.  
• Total fees for NAS: $1,450,000. | 11.1 | 11.2 | 11.3 | 11.4 |
| 12 | Specialist provider | • Description.  
• NAS fee $120,000.  
• 9% of annual revenue of local audit office. | 12.1 | 12.2 | 12.3 | 6 | 1 |
| 13 | Comparability | • Of proposals & operating capacity. | 13.1 |

* Three of the participants had difficulty in comprehending the overall paragraph, rather than any particular element(s) of the paragraph.
The types of anomalies involved were threefold:

(i) lack of information;
(ii) inconsistencies at the local level and between the participants' representations of the problem and that provided in the solution; and
(iii) structural.

The structural anomaly is not included in the statistics associated with the protocols, *per se*. The problem was not identified by the participants, but by the researcher, both as observer and in the analysis of the protocols concerned. There was an obvious need to identify as early as possible in each case study that the provision of the NAS would be provided by a separate division of the audit firm, as opposed to the audit team. The information was provided later in the case studies and to an extent inhibited comprehension.

The number of each type of anomaly was 8, 11 and 1 respectively. As Figure 25 shows, lack of information accounted for 40%, inconsistencies 55% and the structural problem 5% of the total number of anomalies. A lack of local coherence accounted for 18% of the inconsistencies involved.

A cross-sectional summary of the nature of the anomalies, the section of the text framework to which they relate, the protocol(s) involved, and whether they involve the global message or co-context dimensions of the text is provided in Table 25.
## TABLE 25: Cross-sessional summary of anomalies

<table>
<thead>
<tr>
<th>Paragraph</th>
<th>Sub-section</th>
<th>Protocol</th>
<th>Dimension of text</th>
<th>Type of anomaly</th>
<th>Summary of anomalies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board of directors (BoD)</td>
<td>Overall strength</td>
<td>P8</td>
<td>Global</td>
<td>Lack of information</td>
<td>No reference to checks and balances vi-a-vis weak form of BoD.</td>
</tr>
<tr>
<td>Audit committee (AC): Composition</td>
<td></td>
<td>P8</td>
<td>Global</td>
<td>Lack of information</td>
<td>No direct reference to the qualifications of the non-executive directors.</td>
</tr>
<tr>
<td>Authority</td>
<td></td>
<td>P1</td>
<td>Global</td>
<td>Lack of information</td>
<td>Terms of reference considered a &quot;bit skinny&quot;.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P2</td>
<td>Global</td>
<td>Lack of information</td>
<td>No reference to AC responsibility for monitoring non-financial reporting (KPI NAS involved).</td>
</tr>
<tr>
<td>Resources</td>
<td></td>
<td>P2</td>
<td>Global</td>
<td>Lack of information</td>
<td>No reference to internal auditor access to the AC, and without management involvement.</td>
</tr>
<tr>
<td>Executive experience and remuneration</td>
<td>Remuneration</td>
<td>P1</td>
<td>Co-context</td>
<td>Inconsistency (local coherence)</td>
<td>Executive remuneration structure not linked to non-financial performance indicators (KPI NAS involved).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P3</td>
<td>Global</td>
<td>Lack of information</td>
<td>No identification of the specific type of options involved.</td>
</tr>
<tr>
<td>Need, purpose and type of NAS</td>
<td>Need</td>
<td>P3</td>
<td>Co-context</td>
<td>Inconsistency</td>
<td>Lack of quantitative measure of what constitutes &quot;modest&quot; profit growth, with respect to the company’s past financial performance.</td>
</tr>
<tr>
<td></td>
<td>Type</td>
<td>P8</td>
<td>Co-context</td>
<td>Inconsistency</td>
<td>Dissatisfaction with the title “customer services” consultants provided in relation to the marketing NAS. The term “market research” was considered more appropriate.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P6</td>
<td>Co-context</td>
<td>Inconsistency</td>
<td>The notion that non-financial indicators lead to improved performance is rejected.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P7</td>
<td>Co-context</td>
<td>Inconsistency</td>
<td>The follow-through (recurring) period for the marketing NAS ideally 5 years rather than the nominated 3 years.</td>
</tr>
<tr>
<td>Paragraph</td>
<td>Sub-section</td>
<td>Protocol</td>
<td>Dimension of text</td>
<td>Type of anomaly</td>
<td>Summary of anomalies</td>
</tr>
<tr>
<td>----------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>----------</td>
<td>------------------</td>
<td>-----------------</td>
<td>--------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Rationale for choice of 3</td>
<td></td>
<td>P1</td>
<td>Co-context</td>
<td>Inconsistency</td>
<td>The expectation was that sustainable development providers are more likely to</td>
</tr>
<tr>
<td>service providers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>specialise in one of the three types of KPI rather than possess competencies in all</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P6</td>
<td>Co-context</td>
<td>Inconsistency</td>
<td>The rationale for outsourcing - lack of internal expertise - was rejected as</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>unlikely given the size of the entity.</td>
</tr>
<tr>
<td>Criterion for choosing</td>
<td></td>
<td>P1, P2,</td>
<td>Co-context</td>
<td>Inconsistency</td>
<td>Rejection of integration as the rationale for choosing between the three proposals.</td>
</tr>
<tr>
<td>between the proposals</td>
<td></td>
<td>P3, P4,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>P5, P6,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>P8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consultancy division of</td>
<td></td>
<td>P1, P3,</td>
<td>Co-context</td>
<td>Inconsistency</td>
<td>Inadequacy of the $125,000 fee for the non-audit service sought.</td>
</tr>
<tr>
<td>the firm</td>
<td></td>
<td>P4, P5,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>P7 &amp; P8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fees to audit firm for all</td>
<td></td>
<td>P1, P3,</td>
<td>Co-context</td>
<td>Inconsistency</td>
<td>Lack of clarity of description of fees to audit firm.</td>
</tr>
<tr>
<td>services</td>
<td></td>
<td>P8</td>
<td></td>
<td>(local coherence)</td>
<td></td>
</tr>
<tr>
<td>Specialist provider and</td>
<td></td>
<td>P8</td>
<td>Co-context</td>
<td>Inconsistency</td>
<td>The fee for the NAS as a proportion of the average annual revenue of the local</td>
</tr>
<tr>
<td>fee</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>office of the specialist firm, proved a distraction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P1, P3,</td>
<td>Co-context</td>
<td>Inconsistency</td>
<td>Inadequacy of the $120,000 fee for the non-audit service sought.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P4, P5,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>P7 &amp; P8</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Confirmatory statements

The confirmatory statements, as stated earlier, were analysed according to whether they related to the co-contextual passages in the case studies or the passages dealing with the global message (implicit dimension of the text). As Table 26 indicates, confirmatory feedback on the co-context was confined to the rationale for the choice of NAS.

<table>
<thead>
<tr>
<th>TABLE 26: Protocol responses and the co-context of the case studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Para</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>7</td>
</tr>
<tr>
<td>8</td>
</tr>
</tbody>
</table>

However, the volume of confirmatory statements associated with the implicit dimension of the text, which captures the issues at the heart of the thesis, was substantial. Descriptive statistics dealing with the number of protocols and rate of confirmation associated with the implicit dimension, and whether the issues of accountability or efficiency were involved, are provided in Table 27. The subject matter of the confirmatory statements is reflected in the propositions implicit in the textual material involved. The relationship between accountability and IR incentives, attitude and opportunity (Mock et al., 2005); and efficiency and the sources of competitive advantage is also indicated.
<table>
<thead>
<tr>
<th>Para</th>
<th>Textual element of the case studies</th>
<th>Accountability/efficiency</th>
<th>IR theory/sources of competitive advantage</th>
<th>Implicit propositions</th>
<th>No of cases studies</th>
<th>No of protocols</th>
<th>confirmation %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Separation of ownership and control</td>
<td>accountability</td>
<td>opportunity</td>
<td>Proxy for high agency costs, leading to the need for independent monitoring</td>
<td>8</td>
<td>2</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>strong structure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Board of Directors</td>
<td>accountability</td>
<td>opportunity</td>
<td>weak structure</td>
<td>3</td>
<td>3</td>
<td>100%</td>
</tr>
<tr>
<td>3</td>
<td>Audit Committee</td>
<td>accountability</td>
<td>opportunity</td>
<td>weak structure</td>
<td>3</td>
<td>3</td>
<td>100%</td>
</tr>
<tr>
<td>4</td>
<td>Executive remuneration</td>
<td>accountability</td>
<td>opportunity</td>
<td>Performance based remuneration as an incentive to manipulate earnings</td>
<td>8</td>
<td>3</td>
<td>38%</td>
</tr>
<tr>
<td>5</td>
<td>NAS type</td>
<td>accountability</td>
<td>incentives</td>
<td>Threat of self review from KPIs</td>
<td>3</td>
<td>3</td>
<td>100%</td>
</tr>
<tr>
<td>6</td>
<td>Consultancy division of the audit firm</td>
<td>accountability</td>
<td>attitude</td>
<td>Threat of self review from IS</td>
<td>2</td>
<td>2</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Fees for NAS</td>
<td>accountability</td>
<td>incentives</td>
<td>Threat of self review from market research</td>
<td>3</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>accountability</td>
<td>attitude</td>
<td>Chinese wall implied safeguard of AL</td>
<td>8</td>
<td>2</td>
<td>25%</td>
</tr>
<tr>
<td>11</td>
<td>Fees for audit and non-audit services</td>
<td>accountability</td>
<td>incentives</td>
<td>Non-recurring</td>
<td>4</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>12</td>
<td>Description of current auditor Big 5 member, industry expert. 5 year incumbent</td>
<td>accountability</td>
<td>attitude</td>
<td>Recurring</td>
<td>4</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>efficiency</td>
<td>Audit technology</td>
<td>Implicit safeguards of AL from regulatory environment</td>
<td>8</td>
<td>2</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>efficiency</td>
<td>Incumbency</td>
<td>Distinctive expertise</td>
<td>8</td>
<td>1</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>efficiency</td>
<td>Incumbency</td>
<td>Exclusivity</td>
<td>8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>efficiency</td>
<td>Incumbency</td>
<td>Client switching costs</td>
<td>8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>efficiency</td>
<td>Multi-disciplinarity</td>
<td>Scope of knowledge</td>
<td>8</td>
<td>3</td>
<td>38%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>efficiency</td>
<td>Professional status</td>
<td>Information benefits</td>
<td>8</td>
<td>1</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>efficiency</td>
<td>Professional status</td>
<td>Exclusivity</td>
<td>8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Accountability &amp; efficiency</td>
<td>attitude</td>
<td>Quality signal of independence</td>
<td>8</td>
<td>3</td>
<td>38%</td>
</tr>
</tbody>
</table>
The difference in the volume of verbalisation relating to the implicit dimension of the text as opposed to the co-context is not surprising, for three reasons. Firstly, on a word count, the passages of the case studies dealing with the implicit dimension of the material accounted for approximately 70% of the explicit text – a ratio of implicit-to-co-context in terms of words of approximately 2.44:1. Secondly, the overall analysis of the data revealed that the cues associated with the issues of accountability and efficiencies represented the hot-spots in the comprehension process.

Thirdly, consistent with prior research (e.g., Ericsson et al., 1993; Flower et al., 1983; Mao et al., 2000), contradictions whether they took the form of anomalies or confirmatory statements, triggered longer and more detailed responses than consistencies. This is exemplified in the contrasting nature of the following segments of protocol relating to the strong and weak forms of the board of directors.

**Strong form of Board of Directors (P4)**

* A fairly high weighting of non-exec’s
* There appears to be
* A fair degree of independence of non-exec’s.

*The <umm> audit committee structure seems sound
* Overall seems like <uh, ah, tch, ah> a fairly competent company
* <ah> there don’t seem to be any <uh>
* any skeletons in the closet here.

**Weak form of Board of Directors (P8)**

* The board . . . probably has too many executive members
* The chief executive officer should not be the chairman of the board
* And probably should not have significant input into the nomination of members of the board
* . . .
* That structure would suggest to me
* that the company may run the risk of being overly dominated by one individual.

*The non-executive directors not holding Australian professional accounting qualifications
* Is not an appropriate skill base for this job
* Given the stated role of the committee
* And I fear
* that the executive member might exert undue influence on them
Through superior expertise
And more detailed experience within the company
I'm suspicious
About the degree of involvement of internal and external auditors.

The ratio of the total number of words associated with the foregoing confirmatory protocol segments relating to the weak (P4) versus strong form of corporate governance (P8) is approximately 2.47:1. The same ratio associated with the explicit text contained in the case studies, on the other hand, is approximately 0.58:1.

The broad nature of the confirmatory statements is, as mentioned earlier, reflected in the propositions implicit in the textual material involved, as per Table 27. A closer analysis of the nature of the statements is provided in the ensuing discussion of the results.

6.5 DISCUSSION OF RESULTS

The information contained in the summary and sample segments of protocol provided in the data analysis, point to the success of the present study in eliciting informative data. The data set serves to fulfil the following related functions:

- Inform the immediate research question concerning the effectiveness of the case studies in communicating the researcher's intended message.
- Facilitate the development of the case studies to be used in Study 2.
- Inform the broader question of the issues of accountability and efficiency impacting willingness-to-appoint.

The percentage of participants (75%) agreeing with the researcher's overall interpretation of the scenarios framing the case studies point to the overall effectiveness of the instruments in communicating the researcher’s intended message.

However, notwithstanding the foregoing results, the overriding purpose of this study was to identify problems of a cognitive nature associated with the design of the case studies with a view to promoting the communication effectiveness of the case studies to be used in Study
2. The problems associated with the following sections of the case studies represented a significant impediment to comprehension:

- The criterion for choosing between the proposals.
- The size of the NAS fees.
- The lack of clarity of the description of the fees accruing to the audit firm for the audit and NAS.

The significance of the anomalies is evident on the basis of the following criteria:

(i) the number of protocols involved – 7, 6 and 3 (of the 8) respectively;
(ii) the implications of the anomalies for the effectiveness of the research design; and
(iii) the substance of the participants’ responses, as evidenced by the following excerpts from P2 and P3.

**Criterion for choosing between the proposals**

**Original statement**
The initial criterion for choosing between the proposals centred on the ease with which the performance indicators could be integrated into management’s current planning and control processes.

**P2** *Well that’s OK*
*If the current management and control processes Adequately support the company’s new aspirations And they don’t necessarily.*

The NAS fee.

**P3** *$120(000) . . .
Goodness me.*
*These fees are incredibly low.*

The perceived anomaly associated with the criterion given as the rationale for choosing between the initial set of three submissions detracted from the overall specification of the case studies. However, the inadequacy of the fee for the NAS service, as the following segment of protocol from P4 demonstrates, had adverse consequences for wealth incentives i.e., the treatment associated with the threat of self-interest. The problem elicited a perception of the threat of wealth incentives from low-balling, rather than the continuity of fees.
An ERP for a $5 billion dollar company is going to be a massive exercise. $125,000 is a throw away. You've gotta say where's the big sting coming from.

The problem was compounded in relation to three of the participants who had difficulty interpreting the paragraph describing the fees for the audit and non-audit services.

The foregoing three anomalies, as major impediments to comprehension, will play an integral part in guiding the development of the case studies to be used in Study 2. The remaining 12 anomalies will also play an important part in that respect. However, the implications of the latter set were largely concerned with the underspecification of aspects of the case studies for which there was overall confirmation e.g., the strength of the corporate governance structure and the description of the NAS.

The confirmatory protocol data relating to the global message underpinning the case studies also serve to provide evidence of factors of accountability and efficiency impacting the decision of whether to appoint the incumbent audit firm to provide NAS. At the same time, the data set provides support for the findings of prior empirical research (e.g., Parkash et al. 1993; DeZoort et al. 2002) and best-practice regulation (e.g., PF I; ASX, Corporate Governance Council, 2003) embodied in the specification of the task stimuli.

The key issues of accountability impacting the participants' decision process are described below. The issues are structured according to key elements of the Mock et al. (2005) and Johnstone et al. (2001) IR models. The prior empirical research and/or best-practice regulation to which the data relate are identified in parentheses. A cross-sessional sample of confirmatory segments of protocol data pertaining to the issues, as listed, is provided in Table 28.
The size and status of the firm as a listed corporation was identified as the basis of the demand for an independent audit and, therefore, the significance of the threat from the provision of NAS (e.g., Parkash et al. 1993; PF 1); and

Performance based remuneration was also identified as an incentive to manipulate earnings vis-à-vis managerial opportunism in the exercise of discretionary decision-making.

**Safeguarding IR opportunity (managerial opportunism) and IR attitude**

**Structural strength of the board of directors and independence**

The following independence factors were identified as important in evaluating the strength of the board of directors:

- the ratio of non-executive to executive directors (e.g., Klien, 2002b; ASX Corporate Governance Council, 2003);
- the dominance of the CEO as board chairman and his/her influence over the determination of the composition of the remainder of the board membership (e.g., Cohen et al., 2002; Collier et al., 1999; ASX Corporate Governance Council, 2003); and
- the qualifications of the non-executive directors.

**Structural strength of the audit committee**:

The following ACE factors were identified as important in evaluating the audit committee

- composition: expertise (Beasley et al., 2001); and independence (e.g., DeZoort et al., 2001; ASX, Corporate Governance Council, 2003); and
- resources: access to external and internal auditors (e.g., Kalbers et al., 1993; ASX Corporate Governance Council, 2003);

**IR Incentives**

The following threats were identified:

- the threat of self-review from NAS (specifically KPIs and IS) (e.g., Geiger et al., 2002; Lowe et al. 1999); and
- the threat of self-interest vis-à-vis the magnitude of non-audit to audit fees (e.g., McKinley et al., 1985; Pany et al. 1988).

**IR Attitude**

Here, the safeguarding role of Chinese walls (e.g., Geiger et al., 2002; Lowe et al. 1999) was addressed.
<table>
<thead>
<tr>
<th>IR THEORY</th>
<th>Textual element of the case studies</th>
<th>Implicit proposition</th>
<th>Examples of confirmatory segments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opportunity</td>
<td>Separation of ownership and control</td>
<td>Proxy for high agency costs need for independent monitoring</td>
<td>To me there's not enough independence there. We're talking about a big company. Not a family company.</td>
</tr>
<tr>
<td>Mitigation of IR attitude and managerial opportunism</td>
<td>Executive remuneration</td>
<td>Performance based remuneration as an incentive to manipulate earnings</td>
<td>So they may be biased. Based on the profitability aspect. In order to get bigger salaries.</td>
</tr>
<tr>
<td></td>
<td>Board of Directors</td>
<td>weak structure - independence</td>
<td>The chief executive officer should not be the chairman of the board. And probably not have significant input into the nomination of members of the board. That structure would suggest to me that the company may run the risk of being overly dominated by one individual.</td>
</tr>
<tr>
<td></td>
<td>Audit Committee</td>
<td>strong structure in general</td>
<td>The - umm - audit committee structure seems sound overall. Seems like - uh, ah, teh, ah - a fairly competent company. - uh - there doesn't seem to be any - uh - any skeletons in the closet here.</td>
</tr>
<tr>
<td></td>
<td>Weak structure - expertise</td>
<td>The non-executive directors not holding Australian professional accounting qualification. Is not an appropriate skill base for this job. Given the stated role of the committee.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Incentives</td>
<td>threat of self review from KPIs</td>
<td>The extent to which the work we are seeking from these consultants: If it is carried out by the external audit firm. It could impair. Or be seen to impair. The independence of the external audit firm. The expert division is welcome to tender. Only on the basis that they are independent. If the new service isn't that great. They're not gonna say much. Because they're the ones that put the system in. Goodness me. These auditors ought to go into the accountability section. Of this company.</td>
</tr>
<tr>
<td></td>
<td>Fees for non-audit and audit services</td>
<td>Threat of self review from IS</td>
<td>The non-audit fees. Are they are two and a half times the audit fees. It is interesting that the current audit firm is a bidder on this. You would have to question how independent that is. Whether there is a Chinese wall between this part of the business. And the audit part. It is absolutely clear. You would go for the independent. The specialist sustainable development consultancy.</td>
</tr>
<tr>
<td></td>
<td>Attitude</td>
<td>Consultancy division of the audit firm</td>
<td>Chinese wall implied safeguard of AI</td>
</tr>
<tr>
<td></td>
<td>Accountability &amp; efficiency</td>
<td>Specialist provider &amp; fee</td>
<td>Quality signal of independence</td>
</tr>
</tbody>
</table>
The issues of efficiency identified by the participants in the process of making their decision are listed below. It was suggested in the conclusion to the previous chapter that audit technology, incumbency, multi-disciplinarity and the formal professional status of the audit firm provided a basis for perceived competitive advantage of the audit firm over the specialist firm, accountability accepted. Further, it was suggested given the nature of the data instruments that any perceived efficiencies would be limited to the following areas.

**Firm specific resources:**

- distinctive expertise emanating from audit technology, subject to the nature of the NAS;
- information benefits emanating from multi-disciplinarity; and
- exclusivity emanating from incumbency and formal professional status.

**Client specific resources:**

- client switching costs, emanating from incumbency.

The summary of the confirmatory information provided in Table 27 (page 193) relating to efficiency shows support for the foregoing proposition with respect to the firm specific resources, distinctive expertise and information benefits, but not exclusivity or the client specific resource, switching costs. A cross-sectional summary of protocol segments pertaining to the perceived efficiencies is provided in Table 29.

The data also show support for the benefits that would ensue from scope of knowledge in the event that the auditor was appointed to provide the NAS. The client-specific resource, again, derives from incumbency as a multi-discipline service provider to the client. It was suggested in the previous chapter that benefits from scope of knowledge would be mitigated as a result of employing separation of duties as a safeguard of auditor independence. Such a response may be attributable, for example, to a lack of saliency associated with the safeguard, which will be taken into consideration in the development of the data instruments to be used in Study 2.
TABLE 29: Cross-sectional summary of confirmatory statements dealing with efficiency issues

<table>
<thead>
<tr>
<th>Sources of competitive advantage</th>
<th>Asset type</th>
<th>Differentiating factors</th>
<th>NAS type</th>
<th>Examples of confirmatory segments</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRM SPECIFIC RESOURCES</td>
<td>Distinctive expertise</td>
<td>Audit technology</td>
<td>Market research</td>
<td>The pros and cons are:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>For the auditors</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Um, and they probably have a better feel</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>For the combination of these non-financial indicators to the financial indicators</td>
</tr>
<tr>
<td>Information benefits</td>
<td>Multi-disciplinarity</td>
<td>KPIs</td>
<td></td>
<td>But I suspect that what's intended here</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Is that all three consultant can provide all three services</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Yeh I'd be surprised, there would be consultants out there who could</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Although the audit firm would have access to the resources to deliver all three</td>
</tr>
<tr>
<td>CLIENT SPECIFIC RESOURCES</td>
<td>Scope of knowledge</td>
<td>Incumbency and multi-disciplinarity</td>
<td>Market research</td>
<td>The pros and cons are:</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>Company knowledge, industry knowledge</td>
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<td>They know the people they know the business</td>
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<td>They know how it operates</td>
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<td>- Um, and they probably have a better feel for the combination of these non-financial indicators to the financial indicators</td>
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<td>I think the main factor would be the balance between the knowledge that the audit company has of the company's operations and whether that will give them a better insight into the results or research</td>
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<td>You could suggest that the audit firm is the better one to do it</td>
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<td>Because sometimes their knowledge of the company helps them come to a better view</td>
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<td>Rather than an outside specialist</td>
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<td>Who doesn't have the same understanding</td>
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<td>&quot;uh-uh&quot; of the company</td>
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<td>As where the audit firm has been with you for 5 years IS</td>
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6.6 IMPLICATIONS OF THE STUDY

Study 1 has theoretical and practical implications. The theoretical implications are fivefold. Firstly, the study identifies the theoretical foundation for and unique advantages of using protocol analysis as a means of evaluating the communication effectiveness of written narrative data instruments. Secondly, the results of the study confirm the findings of prior protocol studies that suggest that verbalisation is greatest where there are inconsistencies between the text and the reader's representation of the problem (e.g., Ericsson et al., 1993; Mao et al. 2000; Flower et al., 1983). Thirdly, such evidence together with the advantage of protocol analysis in capturing mental processing as it happens, provides support for the role
of protocol analysis in the developmental life-cycle of written data instruments (e.g. Mantcei et al., 1989). Fourthly, the study demonstrates that protocol analysis involves a systematic attempt to gather evidence on the research question. Fifthly, the results of the study provide preliminary qualitative evidence on issues of accountability and efficiency impacting the decision of whether to hire the incumbent audit firm to provide NAS.

At the practical level, the results of the study indicate that protocol analysis is an appropriate method of inquiry in evaluating narrative case studies as data instruments.

The limitations of the study, as mentioned earlier, are addressed in the conclusion to the thesis (Chapter 8).
CHAPTER 7

STUDY 2:
AN EXPERIMENTAL STUDY OF THE THREAT OF SELF-INTEREST AND
THE SAFEGUARDING ROLE OF THE BOARD OF DIRECTORS ON
STAKEHOLDER PERCEPTIONS OF AUDITOR INDEPENDENCE
AND WILLINGNESS TO APPOINT THE INCUMBENT AUDIT FIRM

7.0 CHAPTER CONTENT

The purpose of this Chapter is to describe the experimental component of the thesis, i.e.,
Study 2. The experiment is designed to test the nine accountability hypotheses developed
in Chapter 4. The study utilises a 2 x 2 experimental design. The two independent variables
are: (1) a non-recurring (one-off) or recurring NAS engagement; and (2) strong or weak
corporate governance. Three dependent variables are included in the experimental design:
(1) a dichotomous variable representing choice of NAS supplier (auditor or specialist firm);
(2) strength of preference for the incumbent auditor measured on a 7-point scale; and (3)
perceptions of auditor independence measured on a 7-point scale. The hypotheses
associated with the relations between the sets of variables are listed below, beginning with
auditor independence:

H₁ Stakeholder perceptions of auditor independence will be lower
when the NAS is recurring than when it is non-recurring.

H₂ Stakeholders will be less likely to choose the audit firm to provide
the NAS when the NAS is recurring than when it is non-
recurring.

H₃ Stakeholder strength of preference for the audit firm will be
lower when the NAS is recurring than when it is non-recurring.

H₄ Stakeholder perceptions of auditor independence will be lower
when the structural strength of the board of directors is weak
than when it is strong.

H₅ Stakeholders will be less likely to choose the audit firm to provide
the NAS when the structural strength of the board of directors is
weak than when it is strong.
Stakeholder strength of preference for the audit firm will be lower when the structural strength of the board of directors is weak than when it is strong.

Stakeholder perceptions of auditor independence are more likely to be affected by the recurring NAS when the structural strength of the board of directors is weak than when it is strong.

Stakeholder choice of the audit firm is more likely to be affected by the recurring NAS when the structural strength of the board of directors is weak than when it is strong.

Stakeholder strength of preference for the audit firm is more likely to be affected by the recurring NAS when the structural strength of the board of directors is weak than when it is strong.

The Chapter is organised in the following manner. The next section deals with the introduction to the study, which articulates the study with Study 1. The remaining three sections of the Chapter deal solely with Study 2, specifically the research method, the results and the key findings and implications of the study. The limitations of the study are discussed in the final chapter of the thesis (Chapter 8).

7.1 INTRODUCTION

Study 1 represented a precursor to the experimental study. The purpose of Study 1 was to derive director insight into the issues of accountability and efficiency of interest to this thesis, which would act as a reader-based principle to be factored into the development of the experimental case studies. The results of Study 1 have been a significant agent of change in that respect. However, the narrative nature and underlying theme of the experimental case studies is, of course, consistent with that used in Study 1. The theme is anchored by the research questions that are at the heart of the thesis, and as with Study 1, is intended to convey the following message:

IR opportunity (the demand for an independent audit) is high.
The threat to audit independence from self-interest (wealth incentives) emanating from recurring NAS is low (high).
The strength of the board of directors is strong (weak).
The distinguishing attributes of the prospective providers (incumbent audit firm; specialist NAS provider) hold differing implications for their respective capacity to add value.
The characters imbedded in the foregoing description are preserved in the experimental case studies as is the overall corporate setting and the basis for the company’s need for NAS. The changes to the text affected by the results of Study 1 are confined to strengthening the specification of the theme and the supporting co-context. However, before considering the general nature of the changes, it is important to note that Study 2, unlike the previous study, involves a single NAS, specifically, information systems design and implementation. A single NAS was considered sufficient in the context of the demands of the overall thesis.

The anomalies identified in Study 1 led to changes in the following areas of the case materials:

(i) the logic and description associated with the events leading up to the auditor-versus-specialist decision choice;
(ii) the strength of the manipulation of the threat of self-interest from recurring NAS;
(iii) the description of the fees for existing services, including the audit;
(iv) the strength of the wording associated with the separation of duties safeguard; and
(v) the point at which the safeguard is introduced to the reader.

However, the specification of the current set of data instruments, including items (i), (iii) and (iv) above, has also been influenced by a second significant agent of change – regulation. The changes to the regulation of the audit-NAS strategy in Australia, and elsewhere, described in Chapters 2 and 4 took place in the period that intervened between collecting the data for Study 1 and conducting Study 2.

The data for Study 1 was gathered in late 2001 and early 2002 - on the cusp of change in the regulation of auditor independence worldwide. The regulatory change was prompted by, *inter alia*, the altered circumstances in the market for audit services described in Chapter 2. The speed of implementation and the evolution in the regulatory developments was subsequently driven by the events surrounding Enron and Arthur Andersen, and the ensuing spate of international financial scandals that were reported during 2002. The events precipitated the implementation of PF 1 by the Australian profession in March 2002. The role of PF 1 and, therefore, the profession in the regulation of the provision of NAS was
subsequently consolidated and complemented in Australia by the changes to corporations law which were implemented in July 2004, and corporate governance best practice principles published by the ASX in March 2003.

The data for Study 2 was collected in late 2004 and early 2005, i.e., after the implementation of the contemporary best practice - statutory approach to the regulation of the joint provision of the audit and NAS in Australia. The impact of the altered regulatory environment on the development of the present set of case studies was threefold.

Firstly, the threat to auditor independence from self-interest (wealth incentives) in this study, as mentioned earlier, attaches to the provision of information systems design and implementation to the client. The service falls within the ambit of the list of NAS that PF 1 prohibits an auditor from providing to the audit client in the absence of certain safeguards, i.e., in the absence of accountability. The basis for the prohibition rests with the threat of self-review. The present set of case studies, unlike those used in Study 1, expressly incorporates the regulatory safeguards. The inclusion of the safeguards has the flow-on effect of introducing an additional character to the case studies – an information technology manager. The specific nature of the threat and the safeguards are dealt with in section 7.2.1. The second major regulatory impact on the development of the experimental case studies emanated from the best practice - statutory regulatory framework that vests directors with the overriding responsibility for corporate policy with respect to the demand for the joint provision of the audit and NAS by publicly listed companies. The regulation, as discussed in Chapter 2, renders directors independence decision-makers and the decision process subject to the following basic tenet which highlights the cost-benefit nature of the decision choice:

*Independence decision-makers should conclude that the benefits of reduced independence risk from applying safeguards exceed their costs* (ISB, 2001, section 31).
The cost-benefit issue is factored into the present set of case studies by nominating the company’s policy with respect to hiring professional service providers. The policy reads as follows:

*Baudin Ltd’s policy for choosing professional service providers centres on a provider’s superior capacity to add value, subject to meeting the corporation’s financial and other legal and contractual obligations.*

Director responsibility for accountability also prompted a further change to the case studies with respect to the events leading up to the decision choice. In Study 1, the audit firm, along with two other potential NAS providers were approached by senior management to submit proposals for the provision of the NAS. However, the present regulatory environment, together with the company’s policy for choosing professional service providers suggests that the issue of auditor independence ought to be considered prior to making a direct approach to the incumbent. This issue is addressed in the case studies by the following passage, which introduces a second additional character to the narrative – a facility manager, who is vested with the responsibility of researching the market.

*The company’s facility manager was appointed to thoroughly research potential providers. Key search criteria included reputation for excellence in the type of service sought and expertise in the industry in which Baudin Ltd operates.*

*The search process has identified two leading contenders:*

- the IT consultancy division of the company’s external audit firm, and
- a specialist IT consultancy firm.

The third major regulatory impact on the development of the case studies concerns the specification of the cues associated with the strength of the treatment dealing with the board of directors. The wording of the cues were strengthened relative to Study 1 in line with best-practice developments that have taken place since that time, with particular reference to the strong form of the board of directors. Thus, the gap between the strong and weak forms of the board has possibly widened in the present study, relative to Study 1. However, unlike Study 1, the ratio of executive to non-executive directors in the present study is the same for both treatments (two to eight, respectively). Thus, the independence of the board from management in the present study rests with the dominance of the CEO –
as Chairman of the Board, and having significant input into the nomination of members to the Board—and the possible presence of business and or employment relationships between the company and the non-executive members. The change in composition was prompted by the interest in heightening the role of the CEO in defining the independence of the board. That interest was, in turn, prompted by claims made in the wash-out post-Enron that the number of insiders on a board does not define board independence but the social dynamics of a board, and the CEO has a critical role to play in that respect (e.g., Sonnenfeld, 2002).

Finally, heightened sensitivity to the joint provision of the audit and NAS within the market for audit services, outlined in Chapter 2, has also had a moderating effect on the case studies with respect to the nature and the size of the fee for taxation services currently provided by the incumbent audit firm to the audit client; and the audit fee. The descriptive detail is identified in section 7.2.3.1.

Before moving on to the research method employed in the present study, it is appropriate at this juncture to point out that, unlike Study 1, the stakeholders involved in the present study are shareholders. The task is of course atypical for shareholders as shareholders, per se.

However, placing the shareholders in the context of the decision choice goes some way towards creating the loss function that commentators such as Craswell (1999) lament is absent from survey-based user perception studies. Similarly, the decision context also goes some way towards casting the shareholder in the role of the “informed third party” referred to in the professional definition of independence in appearance, and, similarly, the statutory general standard of auditor independence, described in Chapter 2.

Participant commitment to the task is sought by the following passage which is included in the introduction to the case studies addressed to the individuals:

We appreciate that individuals typically make the foregoing types of decisions in their capacity as managers or directors, not shareholders.
However, the views of shareholders on the issues involved are important. Thus, we ask that you complete the project from the perspective of a shareholder of Baudin Ltd.

7.2 RESEARCH METHOD

The description of the method associated with Study 2 addresses the following dimensions of the research: the task, the case scenario, the independent and dependent variables, the post-experimental questionnaire, demographic information, the participants and the manipulation check. The discussion of the demographic information and the manipulation check is supported by the results of the data obtained from the experiment.

7.2.1 Task

The experimental task requires participants to review a three-page case study involving an Australian publicly listed company whose management has decided to seek the services of a professional consultant in undertaking the re-configuration of its existing computer software. The re-configuration involves integrating the company’s accounting function with other major functions. A copy of the full set of case studies is provided in Appendix E.

Each case study is preceded by an introductory page which describes the overall nature of the task to the participants. A copy of the introduction is provided in Appendix F.

The research design that underpins the case studies involves a 2 x 2, between-subject, full factorial design. The four sets of information (case studies) are identical except for the manipulation of the independent variables. Each participant received only one of the four sets of information, so it is unlikely that they would have been able to determine the exact nature of the manipulations.

After reviewing the case study materials, participants were asked to make the following decisions, in the order shown:
• indicate whom they would choose to provide the service;
• rate the strength of their preference for the alternative providers; and
• rate the likelihood that the external audit of the company’s financial report would be unbiased.

The latter judgement represents an addition to the present set of case studies vis-à-vis those used in Study 1.

The participants are also asked to provide responses to a number of factors that comprise a post-experimental questionnaire. The details of the questionnaire are discussed in section 7.2.5.

### 7.2.2 Case Scenario

The company was described as a manufacturer of chemical products for use in mining, agriculture, industry and the consumer sector, for sale domestically and overseas. The background information included a description of the age, size, and ownership structure of the company. The form of remuneration of senior management was also provided, as was the rationale for seeking the NAS, as per the following excerpts from the case studies:

*Baudin Ltd's senior executive management has an average of ten years experience with the organisation. The current senior executive remuneration plan includes fixed and bonus components. The fixed component comprises a salary, superannuation contributions, and vehicle related benefits. The bonus components include an annual cash incentive bonus, payable on the achievement of corporate profitability targets, and equity-based remuneration.*

*Baudin Ltd experienced a modest growth in profit before tax in the five years to the 30 June 2004, notwithstanding the highly competitive nature of the industry. Senior management believes that significant efficiencies can be achieved in the future through adapting the company's existing computer software to integrate the company's accounting function with other major functions such as materials acquisition, production and human resources. The adaptation will significantly reduce information processing and updating, leading to improved internal decision making, and, ultimately, improved financial performance.*
The decision choice centres on whether the service provider should be hired from the incumbent audit firm, or the specialist IT consultancy firm.

Information systems design and implementation is one of the list of nine prohibited NAS in the US. The provision of the service by the auditor in Australia is allowed, however, subject to the provisions of PF 1. The regulation provides that the threat from self-review “is likely to be too significant to allow the provision of such services to an audit client unless appropriate safeguards are put in place” (PF 1, 2.98). The safeguards, identified in Figure 26, reflect an overwhelming concern for the threat from making management decisions.

FIGURE 26: Safeguards designed to mitigate the threat to auditor independence from making executive decisions associated with the provision of IT systems services

2.98 The self-review threat is likely to be too significant to allow the provision of such services to an audit client unless appropriate safeguards are put in place ensuring that:

(a) the audit client acknowledges its responsibility for establishing and monitoring a system of internal controls,

(b) the audit client designates a competent employee, preferably within senior management, with the responsibility to make all management decisions with respect to the design and implementation of the hardware or software system;

(c) the audit client makes all management decisions with respect to the design and implementation process;

(d) the audit client evaluates the adequacy and results of the design and implementation of the system; and

(e) the audit client is responsible for the operation of the system (hardware or software) and the data used or generated by the system.

Source: PF1. 2.98

The threat from performing management functions is negated in the present study by expressly building the safeguards into the research instruments, as evidenced by the following excerpt from the case studies:

... the contract for the service will clearly define the overriding responsibility of Baudin's management for establishing, maintaining, operating and evaluating the IT system, and the consultative role of the service provider. Baudin's information technology manager will be appointed as the project manager.
However, PF I goes on to state that:

(c)onsideration should also be given to whether such (NAS) should be provided only by personnel not involved in the audit engagement and with different reporting lines with the firm (PF I, 2.99).

To that end, separation of duties is also employed in the present study via the use of a Chinese wall between the provision of the NAS and the audit services. The results of prior experimental studies, suggest that separation of duties has a positive effect on user perception of auditor independence (Geiger et al., 2002; Lowe et al., 1999; and Swanger et al., 2001). The safeguard is operationalised in the case studies via the following passage:

The IT consultancy and audit divisions are separately staffed and have separate reporting lines, headed by separate partners - reflecting the division of responsibility for the respective services. Thus, the IT division would be solely responsible for carrying out the project.

Implementing separation of duties as a safeguard of self-review raises the question of the level at which the threat of self-interest (wealth incentives) lies, e.g., the lead auditor, responsible partner or audit firm. The foregoing description, taken at face value, would suggest that the threat lies at the audit firm level. However, the impact of the variable ultimately relies on the remuneration structure of the stakeholders involved (Arrunada, 1999). Consideration was given to expressly controlling for the variable in the case studies at hand. However, doing so would have added to the demands of the task. Further, the lack of detail did not inhibit the decision-making process of the participants involved in Study 1, which included the separation of duties principle. Therefore, the decision was made to omit the detail.

7.2.3 Independent variables

The independent variables are recurring NAS and the strength of the board of directors, each of which was manipulated at two levels.
7.2.3.1 Recurring (non-recurring) NAS

The threat of self-interest is manipulated from the perspective of the continuity of fees for the NAS. The NAS variable states where the NAS is non-recurring that the provider of the IT service will be responsible for the both the design and implementation of the adaptation, for an estimated lump sum of $900,000. The relevant passages of the case studies read as follows:

*Having first developed a clear definition of the problem, senior management chose to outsource the task. The provider of the information technology (IT) service will be responsible for both the design and implementation of the adaptation.*

*Baudin’s facility manager considers that the firm’s price for the type of IT service sought would be around $900,000.*

Where the NAS is recurring, it is stated that the successful contender will also be responsible for monitoring and upgrading, if necessary, the design and configuration of the software for a period of three years, with the option to renew at the end of that period at the discretion of company management. The estimated price for the subsequent stage is $150,000 per year. The relevant passages of the case studies are as follows:

*Having first developed a clear definition of the problem, senior management chose to outsource the task. The provider of the information technology (IT) service will be responsible for both the design and implementation of the adaptation. The successful contender will also be responsible for monitoring and upgrading, if necessary, the design and configuration of the software for a period of three years, with the option to renew at the end of that period at the discretion of Baudin Ltd.*

*Baudin’s facility manager considers that the firm’s price for the type of IT service sought would be around $900,000 for the initial stage of the service and $150,000 per year for the subsequent stage.*

However, it is also stated, as part of the co-context of the case studies that the audit firm currently provides on-going taxation services to the company, for . . . an annual fee of around $300,000. The fee, together with the annual fee for the audit of . . . around $2,200.00 represents 3% of the average annual revenue of the local (Sydney) office of the audit firm. Thus, the existing ratio of NAS to audit fees is low (0.14:1); as is the ratio of total client fees to total firm revenue (0.03:1). The audit firm’s proximity to management is
also minimised by stating that the taxation services involve some planning, but are predominantly concerned with ensuring regulatory compliance; and the (Big 4 audit) firm has audited Baudin Ltd’s financial statements for four years vis-à-vis the regulatory five year rotation of the lead engagement (audit review) partner for listed entities (PF 1, 2.63).

7.2.3.2 Strength of board of directors

The safeguarding role of the board is manipulated at two levels: strong and weak. Strength is manipulated in the first instance with respect to the independence of the board of directors, including the audit committee, from management (CEO); and, subsequently in relation to attributes of the audit committee, per se. The independence of the audit committee vis-à-vis management is embedded in the DeZoort et al. (2002) ACE element authority. The strength of the authority of the audit committee is also manipulated via the description of the committee’s duties and responsibilities. The monitoring strength of the committee also extends to the remaining DeZoort et al. (2002) elements of competence, resources and diligence.

The manipulation of the monitoring strength of the board of directors (strong:weak) is embodied in the explicit text which appears in Table 30. The descriptive passages are classified, in the left-hand column, using the DeZoort et al. (2002) taxonomy: composition, authority (including the independence of the board from management), resources and diligence.
### TABLE 30: Manipulation of the strength of the board of directors – Study 2

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<th>Criteria</th>
<th>Strong treatment</th>
<th>Weak treatment</th>
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<td><strong>Independence of the board (committee) from management</strong></td>
<td>A ten-member Board of Directors, comprised of two executive members, including the company’s Chief Executive Officer, and eight non-executive members, governs the company. The Chairman of the Board is a non-executive director with extensive experience in the industry. The Board is assisted in the discharge of its duties by a number of sub-committees, all of whom are accountable to the Board. The nomination of members to the Board is the responsibility of a Nominations Committee, which is comprised of three non-executive directors. Baudin Ltd has never employed the non-executive members of the Board, except in their position as Directors of the company. Further, neither they nor any of their respective family members are related to Baudin’s management or have any financial dealings or other contractual arrangements with the corporation.</td>
<td>A ten-member Board of Directors, comprised of two executive members, including the company’s Chief Executive Officer, and eight non-executive members, governs the company. The Chief Executive Officer, who has extensive experience in the industry, is the Chairman of the Board. The Chairman has significant input into the nomination of members to the Board. The Board is assisted in the discharge of its duties by a number of sub-committees, all of whom are accountable to the Board.</td>
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<tr>
<td><strong>Composition of the audit committee</strong></td>
<td>An Audit Committee, regulated by a formal written charter adopted and approved by the Board, assists the Board in the execution of its accounting and auditing responsibilities. The three-member Audit Committee is comprised of non-executive directors all of whom are financially literate. Two of the Committee members, including the Chair of the Committee, hold senior Australian professional accounting qualifications. The role of the Audit Committee is as follows: 1. to advise on the establishment and maintenance of a framework of internal control and appropriate ethical standards for the management of the company. Thus, it assists the Board in fulfilling its responsibilities for the quality and reliability of financial information, including reporting in financial statements. 2. to monitor the management of identified risks, identify any new risks and recommend action to be taken for their control. 3. to be involved with the internal auditors in planning the annual audit program, and reviewing the program at various intervals throughout the year. 4. to review the scope of the external audit, and to review findings and issues brought to its attention including those provided by the external auditor. 5. to provide oversight and communication regarding the provision of non-audit services by the external auditor, including matters that might reasonably be thought to bear on independence, and 6. to review the appointment and remuneration of the external auditor.</td>
<td>An Audit Committee, regulated by a formal written charter adopted and approved by the Board, assists the Board in the execution of its accounting and auditing responsibilities. The three-member Audit Committee is comprised of two non-executive directors and one executive director, who chairs the Committee. The executive director holds a senior Australian professional accounting qualification. The financial literacy of the non-executive directors is minimal. The role of the Audit Committee is as follows: 1. to advise on the establishment and maintenance of a framework of internal control. Thus, it assists the Board in fulfilling its responsibilities for the quality and reliability of financial information, including reporting in financial statements. 2. to review issues brought to its attention, and 3. to review the appointment and remuneration of the external auditor.</td>
</tr>
<tr>
<td><strong>Authority of the audit committee</strong></td>
<td>The Committee has the authority to investigate any matters within its terms of reference. The resources it needs to do so and has full access to information. The Committee meets with the external and internal auditors and senior management to review the half yearly and annual financial statements and reports, and at such other times as is necessary to consider specific issues of matters that may arise from the internal and external audit process. The external and internal auditors have direct access to the Committee, if necessary, without management involvement. The Committee reports to the Board after each Committee meeting.</td>
<td>The Committee meets once every four months. The internal and external auditors are invited to meetings at the discretion of the Committee. The Committee reports to the Board after each Committee meeting.</td>
</tr>
<tr>
<td><strong>Resources and diligence of the audit committee</strong></td>
<td>The Committee has the authority to investigate any matters within its terms of reference. The resources it needs to do so and has full access to information. The Committee meets with the external and internal auditors and senior management to review the half yearly and annual financial statements and reports, and at such other times as is necessary to consider specific issues of matters that may arise from the internal and external audit process. The external and internal auditors have direct access to the Committee, if necessary, without management involvement. The Committee reports to the Board after each Committee meeting.</td>
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7.2.4 Dependent variables

There are in effect four dependent variables. The first variable is concerned with shareholder perception of auditor independence. The second variable concerns the choice of provider - audit firm versus specialist firm. The third and fourth variables involve the participants' strength of preference for the respective providers – the audit and specialist firm. However, unlike the first three variables, the latter variable (strength of preference for the specialist firm) is not the subject of the hypotheses. Thus, the variable is included in the ancillary analyses, rather than the analyses associated with the main experiment.

7.2.4.1 Auditor independence

The participants are asked to rate the likelihood that the external audit of the company's financial report would be unbiased, taking into consideration the provision of the IT service by the audit firm, using a seven point scale. The following descriptors anchor the scale: low, moderate and high.

The auditor independence question follows the two questions associated with willingness to appoint in the case studies to avoid the problem of demand effects. Further, there is no reference to auditor independence in the text that comprises the introduction to the case studies and the case studies, *per se*, for the same reason.

7.2.4.2 Willingness-to-appoint the incumbent auditor to perform NAS

Stakeholder perception of shareholder willingness-to-appoint the incumbent audit firm to perform NAS is examined by utilising two dependent measures: the choice of NAS provider, and the strength of preference for the alternative providers.

The questions associated with the respective judgements read as follows:

\[\text{Whom would you chose to provide the IT service?}\]

(Indicate your answer by ticking (✓) ONE of the alternatives.)

Audit firm Specialist firm
2. What is the strength of your preference for the alternative providers? (Please circle a number for each provider.)

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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>moderate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>strong</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A copy of questions 1 and 2 is provided in Appendix G.

A summary of the research design including the identification of the four groups is provided in Table 31. The coding for the groups used in the statistical analysis of the empirical data appears in parentheses. The respective codes consist of the group number and a truncated form of the name and level of the treatments involved.

<table>
<thead>
<tr>
<th>Board of Directors</th>
<th>FEES (NAS)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-recurring</td>
</tr>
<tr>
<td>Strong</td>
<td>Group 1 (str)</td>
</tr>
<tr>
<td>Weak</td>
<td>Group 3 (w)</td>
</tr>
</tbody>
</table>

It is hypothesised that participants' perceptions of auditor independence and strength of preference for the audit firm will be lower and that the participants will be less likely to choose the audit firm when the NAS is recurring and the strength of the board of directors is weak.

7.2.5 Post-experimental questionnaire

The post-experimental questionnaire consists of two sets of questions. The first set of question asks the participants to rate their perception of seven attributes of the case study,
using a 7-point scale. The following descriptors anchor the scales: weak, moderate and strong.

Two of the seven attributes concern the manipulation checks associated with the two treatments and are described in section 7.2.8.

Four of the remaining five factors comprise the following dimensions of the independent variable *strength of board of directors*.

- The degree of independence of the Board of Directors from management.
- The degree of independence of the Audit Committee from management.
- The adequacy of the duties and authority of the Audit Committee.
- The financial expertise of the Audit Committee.

The fifth factor concerns the net benefits of hiring the IT division of the audit firm to provide the IT service. The factors were rotated through the case studies to avoid the problem of order effects.

A copy of the questions is provided in Appendix G.

The second set of post-experimental questions asks the participants to indicate the extent to which seven factors influenced their choice of preferred NAS provider on a 7-point scale. The following descriptors anchor the scales: no influence, moderate influence and significant influence. The list of factors is as follows:

- Attributes of Baudin Ltd: listed public company; diversification of the shareholder base; and absence of a dominant shareholding.
- Safeguards of the independence of their preferred provider over the alternative provider.
- Competition in the market for professional non-audit services.
- Accountability to shareholders.
- Accountability to other stakeholders.
The factors were rotated through the case studies to avoid the problem of order effects.

The question concludes with an open-ended component, titled *additional comments*. A copy of the question is provided in Appendix G.

### 7.2.6 Demographic information

The overall task concludes by asking the participants to provide demographic information concerning the following attributes:

- Principal place (state/territory) of residence.
- The country in which his/her post-secondary studies (if applicable) were completed.
- Nature of shareholding (direct, indirect or both).
- Extent of knowledge of the governance of corporations.
- Post-secondary educational and/or trade or professional qualifications/training.

The direct versus indirect shareholding classification is defined in the data sheet in the following manner:

- A direct shareholding refers to the situation where shares are held directly in a company/companies.
- An indirect shareholding, on the other hand, arises where shares are held *via* a managed fund or personal superannuation plan that invests wholly or partly in shares.

A copy of the demographic data sheet is provided in Appendix H.

### 7.2.7 Participants

The participants were selected from a private Australia-wide data base of shareholders. The data base consists of the clients and associates of the chief executive officer of a business involved in executive training. Research instruments were mailed to 115 shareholders, with random assignment to the four scenarios examined. The case materials were accompanied by a standardised covering letter that was written to meet the specifications of the Ethics Committee of the university at which the researcher is enrolled as a student.
A total of 88 case studies were returned in the mail. Eighty three responses were useable. Four of the remaining five participants' responses were eliminated on the basis that the participants failed the manipulation of the strength of the board of directors. The four participants rated the overall standard of the weak board of directors at 5 or above, i.e., as strong form. Such a result is inconsistent with the case material, best-practice criteria, the findings of audit committee effectiveness literature (e.g., DeZoort et al. 2002) and the results of Study 1; and suggests that the participants may not have attended to the cues (Pany et al., 1987). The fifth instrument was blank. The 83 usable responses represented a 72% response rate. The 83 responses gave rise to a cell count across groups 1 to 4 of 21, 22, 20 and 20, respectively.

Table 32 summarises the statistics associated with the demographic characteristics of the respondents with respect to their level of education and governance knowledge. The respondents are highly educated, 87% have at least a bachelor's degree and 43% hold post-graduate degrees. Forty eight percent of the participants rated their knowledge of corporate governance at 5 or higher, on a nine-point scale. The mean score for the knowledge variable was 4.83.

<table>
<thead>
<tr>
<th>TABLE 32: Demographic characteristics of participants by group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Group 1</strong></td>
</tr>
<tr>
<td>Treatments</td>
</tr>
<tr>
<td>Siting board of directors Non-rex fee</td>
</tr>
<tr>
<td>Cell size</td>
</tr>
<tr>
<td>Degree</td>
</tr>
<tr>
<td>None</td>
</tr>
<tr>
<td>Undergraduate</td>
</tr>
<tr>
<td>Postgraduate</td>
</tr>
<tr>
<td>Governance knowledge</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>Standard deviation</td>
</tr>
<tr>
<td><strong>Group 2</strong></td>
</tr>
<tr>
<td>Treatments</td>
</tr>
<tr>
<td>Strong board of directors Non-rex fee</td>
</tr>
<tr>
<td>Cell size</td>
</tr>
<tr>
<td>Degree</td>
</tr>
<tr>
<td>None</td>
</tr>
<tr>
<td>Undergraduate</td>
</tr>
<tr>
<td>Postgraduate</td>
</tr>
<tr>
<td>Governance knowledge</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>Standard deviation</td>
</tr>
<tr>
<td><strong>Group 3</strong></td>
</tr>
<tr>
<td>Treatments</td>
</tr>
<tr>
<td>Weak board of directors Non-rex fee</td>
</tr>
<tr>
<td>Cell size</td>
</tr>
<tr>
<td>Degree</td>
</tr>
<tr>
<td>None</td>
</tr>
<tr>
<td>Undergraduate</td>
</tr>
<tr>
<td>Postgraduate</td>
</tr>
<tr>
<td>Governance knowledge</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>Standard deviation</td>
</tr>
<tr>
<td><strong>Group 4</strong></td>
</tr>
<tr>
<td>Treatments</td>
</tr>
<tr>
<td>Weak board of directors Non-rex fee</td>
</tr>
<tr>
<td>Cell size</td>
</tr>
<tr>
<td>Degree</td>
</tr>
<tr>
<td>None</td>
</tr>
<tr>
<td>Undergraduate</td>
</tr>
<tr>
<td>Postgraduate</td>
</tr>
<tr>
<td>Governance knowledge</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>Standard deviation</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
<tr>
<td>Treatments</td>
</tr>
<tr>
<td>Weak board of directors Non-rex fee</td>
</tr>
<tr>
<td>Cell size</td>
</tr>
<tr>
<td>Degree</td>
</tr>
<tr>
<td>None</td>
</tr>
<tr>
<td>Undergraduate</td>
</tr>
<tr>
<td>Postgraduate</td>
</tr>
<tr>
<td>Governance knowledge</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>Standard deviation</td>
</tr>
</tbody>
</table>

The data in Table 33 summarises the chi-square tests of significant difference between the four groups on the basis of whether the individuals hold an undergraduate or post-graduate degree, respectively. The significance value at the undergraduate level is .430, the post-graduate level .901. Thus, it can be concluded that the groups do not differ on the basis of tertiary education. However, as footnote (a) in Table 33 states, four cells have an expected count of less than 5. The cells concern the individuals who do not hold an undergraduate degree.
degree. Thus the chi-square assumption concerning the minimum expected cell frequency has been violated. The assumption is not, however, violated at the post-graduate level (see footnote (b) in the table).

### TABLE 33: Chi-square tests for level of education

<table>
<thead>
<tr>
<th></th>
<th>Undergraduate degree</th>
<th>Postgraduate degree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Value</td>
<td>df</td>
</tr>
<tr>
<td>Pearson Chi-square</td>
<td>2.758(^a)</td>
<td>3</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>3.012</td>
<td>3</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>1.229</td>
<td>1</td>
</tr>
<tr>
<td>No of Valid Cases</td>
<td>83</td>
<td></td>
</tr>
</tbody>
</table>

a. 4 cells (50.0%) have an expected count less than 5. The minimum expected count is 2.65.
b. 0 cells (0.0%) have an expected count less than 5. The minimum expected count is less than 8.67.

A one-way between-groups ANOVA reveals that there is no significance difference between the mean governance knowledge scores for the four groups \([F(3, 79)=.422, p=.738]\). Levene’s test for homogeneity of variances between the four groups with respect to the governance knowledge variable shows a value greater than .05 \([LS(3, 79)=.536, p=.659]\), thus supporting the assumption of equality of variance.

Figure 27 shows the distribution of the participants by state (territory) of residence. Fifty four percent of the participants reside in Western Australia the remainder are distributed across the eastern states (territories). The three largest representations of the eastern states were Victoria at 14.5%; New South Wales, 13.3% and Queensland, 8.4% The only state (territory) not represented was Tasmania.
The majority of the participants - 59% - hold both direct and indirect shareholdings, whilst 26.5% hold direct shareholdings only. The remaining 14.5% of the participants hold indirect shareholdings only.

7.2.8 Manipulation Checks

Insignificant results may occur in between-subjects designs due to lack of statistically significant effects (Pany et al., 1987). Thus, participants were asked to rate their perception of the strength of the threat to audit independence from the fees for the IT service, and the overall standard of the company’s governance framework, after they have completed the dependent measures. Seven-point rating scales are involved. The following descriptors anchor the scales: weak, moderate and strong. The results of the manipulation checks are as follows:

7.2.8.1 Threat of self-interest

The manipulation check associated with the threat to auditor independence from the continuity of fees (recurring or non-recurring NAS) was invoked by asking the participants to rate their perception of the following attribute of the case study:
The threat to audit independence from the fees for the IT service:  

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>weak</td>
<td>moderate</td>
<td>strong</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

An independent-samples t-test was conducted to compare the self-interest threat for the non-recurring and recurring groups. The mean score for the non-recurring group was 4.29 (1.270); and the recurring group 4.45 (1.273). There was no significant difference in scores between the groups: \( t(81) = -0.572, p = .569 \).

Levene’s test of equality of error variance showed a significance value greater than .05 \( [F(81) = .017, p = .898] \) thus supporting the assumption of equality of variances.

### 7.2.8.2 Strength of board of directors

The manipulation check associated with the strength of the board of directors was invoked by asking the participants to rate their perception of the following attribute of the case study:

The overall standard of the company's governance framework:  

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>weak</td>
<td>moderate</td>
<td>strong</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

An independent-samples t-test was conducted to compare the means for the strong and weak forms of the governance framework. The mean score for the strong form of the framework was 5.70 (.638); and the weak group 2.75 (.670). There was a significant difference in the scores between the groups: \( t(81) = 20.540, p = .000 \).

Levene’s test of equality of error variance showed a significance value greater than .05 \( [F(81) = .061, p = .805] \) thus supporting the assumption of equality of variances.
The overall results of the manipulation checks indicate a significant effect on stakeholder judgement from the manipulation of the strength of the board of directors but not the recurring NAS variable. The recurring NAS variable was, again, operationalised via the following description:

"The successful contender will also be responsible for monitoring and upgrading, if necessary, the design and configuration of the software for a period of three years, with the option to renew at the end of that period at the discretion of Baudin Ltd."

The $150,000 per annum monitoring fee for three years, with the option to renew at the end of that period at the discretion of Baudin Ltd, may not have been perceived by the stakeholders as a sufficient incentive to assume heightened IR, relative to the total revenue generated by the Sydney office.

7.3 RESULTS OF THE MAIN EXPERIMENT

Levene's test of equality of error variance was undertaken for each of the dependent measures. The significance level for each of the three variables, as Table 34 shows, is less than .05, rejecting the assumption of equality of variance.

<table>
<thead>
<tr>
<th>TABLE 34: Levene's Test of Equality of Error Variances - dependent variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent variable</td>
</tr>
<tr>
<td>Auditor independence</td>
</tr>
<tr>
<td>Choose auditor</td>
</tr>
<tr>
<td>Strength of preference for auditor</td>
</tr>
</tbody>
</table>

A two-way ANOVA using both the recurring NAS and strength of the board of directors variables, was used for each dependent measure. A summary of the task stimulus, hypotheses, treatment means and ANOVA results for each of the dependent variables follows, beginning with auditor independence.
7.3.1 Auditor independence

The task stimulus associated with auditor independence asked the participant to rate his/her perception of auditor independence using the following descriptor and scale.

The likelihood that the external audit of the company’s financial report would be unbiased, taking into consideration the provision of the IT service by the audit firm:

1 2 3 4 5 6 7
low moderate high

The hypotheses associated with auditor independence are as follows:

**Main effects**

- **H₁**: Stakeholder perceptions of auditor independence will be lower when the NAS is recurring than when it is non-recurring.

- **H₄**: Stakeholder perceptions of auditor independence will be lower when the structural strength of the board of directors is weak than when it is strong.

**Interaction**

- **H₇**: Stakeholder perceptions of auditor independence are more likely to be affected by the recurring NAS when the structural strength of the board of directors is weak than when it is strong.

The descriptive statistics relating to participant perception of auditor independence are provided in Table 35. The mean score for Group 1 is 4.48 (1.60); Group 2, 4.73 (1.39); Group 3, 4.25 (.72); and Group 4, 3.25 (.85).

| TABLE 35: Descriptive statistics for auditor independence |
|-----------------------------|-----------------------------|
| FEES (NAS)                  | FEES (NAS)                  |
| Non-recurring               | Recurring                   |
| Group 1                     | Group 1                     |
| Strong                      | Strong                      |
| 4.48                        | 4.73                        |
| (1.60)                      | (1.39)                      |
| Weak                        | Weak                        |
| 4.25                        | 3.25                        |
| ( .72)                      | ( .85)                      |

1=low independence
7=high independence

The mean scores, with the exception of Group 2 (M=4.73 (1.39)) relative to Group 1 (M=4.48 (1.60)), are in the hypothesised direction i.e., descending order. The Group 1
The mean of 4.48 (1.60) is higher than the Group 3 mean of 4.25 (.72), which is higher than the Group 4 mean of 3.25 (.85).

Table 36 presents the ANOVA results for auditor independence based on the above means. The data indicates that participants’ perceptions of auditor independence were significantly affected by the strength of the board of directors \([F(1, 79)=10.315, p=.001]\), whereas the recurrency of the NAS \([F(1,79)=1.994]\) was only marginally significant at \(p=.081\). The data in Table 36 also shows a significant interaction effect \([F(1,79)=5.564, p=.010]\) between the treatments. Thus, the results support \(H_1\) and \(H_2\) and marginally support \(H_1^\prime\).

<table>
<thead>
<tr>
<th>TABLE 36: ANOVA for auditor independence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source</td>
</tr>
<tr>
<td>Corrected model</td>
</tr>
<tr>
<td>Intercept</td>
</tr>
<tr>
<td>Strength BdD</td>
</tr>
<tr>
<td>Rec fee</td>
</tr>
<tr>
<td>StrengthBdD*rectlee</td>
</tr>
<tr>
<td>Error</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Corrected Total</td>
</tr>
</tbody>
</table>

- a. Computed using alpha = .05
- b. R Squared = .183 (Adjusted R Squared = .152)

The interaction effect was examined by conducting post-hoc analysis. A one-way between groups ANOVA indicated a significant difference at the \(p<.05\) level in auditor independence scores for the four groups \([F (3, 79) = 5.906, p=.000]\). Post-hoc multiple comparisons using the Tukey HSD test, shown in Table 37, indicate that the mean score for Group 4 (\(M=3.25 (.85)\)) is significantly different from Group 1 (\(M=4.48, (1.60)\)) and Group 2 (\(M=4.73, (1.39)\)). However, Group 3 (\(M=4.25, (.72)\)) does not differ significantly from the remaining three groups.

<table>
<thead>
<tr>
<th>TABLE 37: Multiple comparison of group means for auditor independence</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) group</td>
</tr>
<tr>
<td>1strongbd non-rectee</td>
</tr>
<tr>
<td>1weakbd non-rectee</td>
</tr>
<tr>
<td>1strongbd rec fee</td>
</tr>
<tr>
<td>1strongbd rec fee</td>
</tr>
<tr>
<td>1weakbd non-rectee</td>
</tr>
<tr>
<td>1weakbd non-rectee</td>
</tr>
</tbody>
</table>

* The mean difference is significant at the .05 level.
The results of the post-hoc analysis indicate that the threat of self-interest as reflected in the recurring engagement has a significant impact on shareholders’ perception of auditor independence when the board of directors is weak (p.=.004), but not when the board of directors is strong. The result may be attributed to the fact that the treatment group is in some way different from the remaining groups. However, the logical answer for the result lies with the IR model (Mock et al., 2005) and, therefore, the theoretical foundation for the hypothesis. The junction of the weak form of board of directors and recurring NAS is the point at which the following conditions prevail:

- the threat from wealth incentives is highest;
- the mitigating effect of the board on management’s (IR opportunity) and the auditor’s (IR attitude) propensity to act inappropriately is weakest; and therefore, all other things being equal, from the perspective of independence in appearance
- propagation from incentives to attitude (\[R_{1a}\]) and incentive to opportunity (\[R_{3a}\]) is more likely to occur.

Attention will now turn to describing the results associated with the issue of stakeholder willingness-to-appoint the incumbent auditor to perform the NAS.

7.3.2 Choice of NAS provider

The task question associated with the choice of service provider is as follows:

**Whom would you choose to provide the IT service?**

*Audit firm [ ] Specialist firm [ ]*

The hypotheses associated with the choice of service provider are as follows:

**Main effects**

- **H\(_2\)** Stakeholders will be less likely to choose the audit firm to provide the NAS when the NAS is recurring than when it is non-recurring.
- **H\(_5\)** Stakeholders will be less likely to choose the audit firm to provide the NAS when the structural strength of the board of directors is weak than when it is strong.
**Interaction**

*H₈* Stakeholder choice of the audit firm is more likely to be affected by the recurring NAS when the structural strength of the board of directors is weak than when it is strong.

Panels A and B of Table 38 report descriptive and frequency statistics associated with the choice of audit firm. The number (percentage) of participants who chose the audit firm to provide the NAS in Group 1 was 9 (43%); Group 2, 5 (23%); Group 3, 1 (5%); and Group 4, 0 (0%). The total “yes” count was 15 (18.1%).

<table>
<thead>
<tr>
<th>TABLE 38: Descriptive and frequency statistics and choice of audit firm by group</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Panel A: Descriptive statistics – mean and std deviation</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BOARD OF DIRECTORS</th>
<th>FEES FOR NAS</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-recurring</td>
<td>Recurring</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Group 1</td>
<td>Group 2</td>
<td></td>
</tr>
<tr>
<td>Strong</td>
<td>.43 (51)</td>
<td>23 (.43)</td>
<td></td>
</tr>
<tr>
<td>Weak</td>
<td>.05 (.22)</td>
<td>0 (.00)</td>
<td></td>
</tr>
</tbody>
</table>

| **Panel B: Frequency statistics – number and percentage** |

<table>
<thead>
<tr>
<th>BOARD OF DIRECTORS</th>
<th>FEES FOR NAS</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-recurring</td>
<td>Recurring</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Group 1</td>
<td>Group 2</td>
<td></td>
</tr>
<tr>
<td>Strong</td>
<td>9</td>
<td>5</td>
<td>43%</td>
</tr>
<tr>
<td>Weak</td>
<td>1</td>
<td>0</td>
<td>5%</td>
</tr>
</tbody>
</table>

Table 39 presents the ANOVA results for choice of auditor based on the above means. The data in the Table indicates that the choice of the auditor was significantly affected by the strength of the board of directors \[F(1, 79)=15.084, p=.000\]. The Sig. value for the recurrency of the NAS variable was .056 \[F(1, 79)=2.595\]. The data in Table 39 also shows the absence of a significant interaction effect between the treatments \[F(1, 79)=.941, p=.168\]. Thus, the results support \(H₅\) and \(H₂\), but not \(H₈\).
Given the categorical nature of the decision choice, the Chi-square test was also carried out in relation to both treatments. The results of the test lend support for those obtained using ANOVA to the extent that the Yates' Correction for Continuity value for the strength of the board of directors was significant [CC(1)=10.697, p.=.000]. The same statistic for the recurring NAS variable was marginally significant at p.=.116 [CC(1)=1.422].

7.3.3 Strength of preference for audit firm

The question associated with the strength of preference for the auditor as the NAS provider is as follows:

What is the strength of your preference for the alternative providers?

Audit firm:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>weak</td>
<td>moderate</td>
<td>strong</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The hypotheses associated with the variable are as follows:

**Main effects**

- **H₃** Stakeholder strength of preference for the audit firm will be lower when the NAS is recurring than when it is non-recurring.
- **H₆** Stakeholder strength of preference for the audit firm will be lower when the structural strength of the board of directors is weak than when it is strong.

**Interaction**

- **H₉** Stakeholder strength of preference for the audit firm is more likely to be affected by the recurring NAS when the structural strength of the board of directors is weak than when it is strong.
The descriptive statistics relating to the participants’ strength of preference for the auditor are provided in Table 40. The mean score for Group 1 is 4.29 (1.68); Group 2, 3.86 (1.39); Group 3, 2.85 (0.93); and Group 4, 3.05 (1.00).

### Table 40: Descriptive statistics for strength of preference for audit firm to provide NAS

<table>
<thead>
<tr>
<th>Board of Directors</th>
<th>Non-recurring</th>
<th>Recurring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong</td>
<td>4.29 (1.68)</td>
<td>3.86 (1.39)</td>
</tr>
<tr>
<td>Weak</td>
<td>2.85 (0.93)</td>
<td>3.05 (1.00)</td>
</tr>
</tbody>
</table>

1 = weak preference for auditor  
7 = strong preference for auditor

Table 41 presents the ANOVA results for the participants’ strength of preference for the audit firm based on the above means. The data in Table 41 indicates that participants’ strength of preference was significantly affected by the strength of the board of directors \[F(1, 79)=15.639, \ p=.000\] but not the recumency of the NAS \[F(1, 79)=.152, \ p=.348\]. Further, the data shows the absence of a significant interaction effect between the treatments \[F(1, 79)=1.196, \ p=.138\]. Thus, the results support \(H_0\) but not \(H_3\) and \(H_9\).

### Table 41: ANOVA for strength of preference for auditor to provide NAS

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III</th>
<th>df</th>
<th>Mean Square</th>
<th>1</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected model</td>
<td>28.298a</td>
<td>3</td>
<td>9.433</td>
<td>5.929a</td>
<td>.001</td>
</tr>
<tr>
<td>Intercept</td>
<td>1022.327</td>
<td>1</td>
<td>1022.327</td>
<td>641.16a</td>
<td>.000</td>
</tr>
<tr>
<td>Strength BdD</td>
<td>26.205</td>
<td>1</td>
<td>26.205</td>
<td>4.650a</td>
<td>.000</td>
</tr>
<tr>
<td>Rec fee</td>
<td>.255</td>
<td>1</td>
<td>.255</td>
<td>1.52</td>
<td>.348</td>
</tr>
<tr>
<td>Strength BdD*rec fee</td>
<td>2.004</td>
<td>1</td>
<td>2.004</td>
<td>.196</td>
<td>.138</td>
</tr>
<tr>
<td>Error</td>
<td>132.377</td>
<td>79</td>
<td>1.676</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1195.000</td>
<td>83</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>160.675</td>
<td>82</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Computed using alpha = .05  
b. R Squared = .176 (Adjusted R Squared = .145)  
One tail test

Table 42 provides a summary of the relation between the hypotheses and the Sig. values arising from the various statistical tests involved in the main experiment, and whether the results support the hypotheses at \(p=.05\) or otherwise.
Table 42: Summary of the relation between the hypotheses and significance tests – main experiment

<table>
<thead>
<tr>
<th>HYPOTHESES</th>
<th>Sig. values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support at p = .05</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>AUDITOR INDEPENDENCE</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Main effects</strong></td>
<td></td>
</tr>
<tr>
<td>H1</td>
<td>Stakeholder perceptions of auditor independence will be lower when the NAS is recurring than when it is non-recurring.</td>
</tr>
<tr>
<td>H2</td>
<td>Stakeholder perceptions of auditor independence will be lower when the structural strength of the board of directors is weak than when it is strong.</td>
</tr>
<tr>
<td><strong>Interaction</strong></td>
<td></td>
</tr>
<tr>
<td>H3</td>
<td>Stakeholder perceptions of auditor independence are more likely to be affected by the recurring NAS when the structural strength of the board of directors is weak than when it is strong.</td>
</tr>
<tr>
<td><strong>CHOICE OF AUDIT FIRM</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Main effects</strong></td>
<td></td>
</tr>
<tr>
<td>H4</td>
<td>Stakeholders will be less likely to choose the audit firm to provide the NAS when the NAS is recurring than when it is non-recurring.</td>
</tr>
<tr>
<td>H5</td>
<td>Stakeholders will be less likely to choose the audit firm to provide NAS when the structural strength of the board of directors is weak than when it is strong.</td>
</tr>
<tr>
<td><strong>Interaction</strong></td>
<td></td>
</tr>
<tr>
<td>H6</td>
<td>Stakeholder choice of the audit firm is more likely to be affected by the recurring NAS when the structural strength of the board of directors is weak than when it is strong.</td>
</tr>
<tr>
<td><strong>STRENGTH OF PREFERENCE FOR AUDIT FIRM</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Main effects</strong></td>
<td></td>
</tr>
<tr>
<td>H7</td>
<td>Stakeholder strength of preference for the audit firm will be lower when the NAS is recurring than when it is non-recurring.</td>
</tr>
<tr>
<td>H8</td>
<td>Stakeholder strength of preference for the audit firm will be lower when the structural strength of the board of directors is weak than when it is strong.</td>
</tr>
<tr>
<td><strong>Interaction</strong></td>
<td></td>
</tr>
<tr>
<td>H9</td>
<td>Stakeholder strength of preference for the audit firm is more likely to be affected by the recurring NAS when the structural strength of the board of directors is weak than when it is strong.</td>
</tr>
</tbody>
</table>

7.4 POST-EXPERIMENTAL QUESTIONNAIRE

Additional statistical analyses were undertaken using the data obtained from the two sets of questions in the post-experimental questionnaire.

7.4.1 The first set of post-experimental questions

The first set of questions, as stated earlier, asked the participants to rate their perception of the strength of the seven attributes of the case studies listed below. The coding of the variables for the purpose of the statistical analyses appears in parentheses.
(i) The degree of independence of the board of directors from management (ind of BoD)
(ii) The degree of independence of the audit committee from management (ind of AC).
(iii) The adequacy of the duties and authority of the audit committee (duties & auth of AC).
(iv) The financial expertise of the audit committee (fin exp of AC).
(v) The standard of the company's overall governance framework (std of CGF).
(vi) The threat to auditor independence from the fees for the IT service (self-interest).
(vii) The net benefits of appointing the incumbent audit firm to provide NAS (net benefits).

Items (i) to (iv) are determinants of item (v), and, therefore, provide the opportunity to examine the relation between the four variables, as independent variables, and the perceived standard of the company's overall corporate governance framework as the dependent variable. Items (v) to (vii) are used in the reanalysis of the hypotheses.

7.4.1.1 Factors affecting overall assessment of corporate governance

The research question of interest associated with the perceived strength of the standard of the company's corporate governance framework is as follows:

How well do the four variables explain the perceived standard of the company's corporate governance framework?

The basis for the question lies with the audit committee effectiveness ACE literature, not least of all the DeZoort et al. (2002) taxonomy and Australian best-practice.

The regression equation is as follows:

\[
\text{Std of CGF} = a + b_1(\text{ind of BoD}) - b_2(\text{ind of AC}) - b_3(\text{duties and auth of AC}) + b_4(\text{fin exp of AC}).
\]

Standard multiple regression is used to explore the research question. The technique is generally recognised to be sensitive to the assumptions that underlie the statistical test in
relation to attributes of the data used (Tabachnick & Fidell, 1996). The critical assumptions concern sample size, collinearity and singularity, and normality. Tabachnick et al. (1996, p. 132) provide the following formula for calculating sample size requirements: \( N > 50 + 8m \) (where \( m \) = number of independent variables). The issue at stake is generalisability. The value of \( m \) in this instance is 4, suggesting a required sample size of not less than 82. The present sample size is 83. With respect to the matter of the normality of the data, the normal probability plot of the regression standardised residual statistics associated with participant perception of the dependent variable lies in a reasonably straight diagonal line from the bottom left hand side of the diagram to the top right hand side. This suggests that there are no major deviations from normality. However, collinearity may hold implications for the analysis of the results.

The Pearson correlation co-efficient values for the variables are listed in Table 43. Each of the independent variables shows a strong positive correlation with the dependent variable. The magnitude of the correlation coefficients is as follows: fin exper of AC , .920; duties and auth of AC , .884; ind of AC , .880; and ind of BoD , .851. However, notwithstanding that favourable outcome, the data also show comparatively strong correlations between the independent variables, which raises the possibility of collinearity. The values range from .811 (duties and auth of AC and ind of BoD) to .886 (ind of AC and fin expertise of AC). Tabachnick et al. (1996, p. 86) suggest that one should "think carefully before including two variables with a bivariate correlation of, say, .7 or more in the same analysis". The collinearity issue is revisited in the process of discussing the regression results.

| TABLE 43: Correlations for standard of corporate governance framework and independent variables |
|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
|                                 | Std of CGF | ind of BoD | ind of AC | Duties & auth of AC | fin exp of AC |
| Pearson Correlation             |            |            |            |                    |               |
| Std of CGF                      | 1.000      |            |            |                    |               |
| Ind of BoD                      | .851*      | 1.000      |            |                    |               |
| Ind of AC                       | .880*      | .861*      | 1.000      |                    |               |
| Duties and auth of AC           | .884*      | .811*      | .825*      | 1.000              |               |
| Fin exp of AC                   | .920*      | .819*      | .886*      | .867*              | 1.000         |

* Correlation is significant at the 0.01 level (2-tailed)
The issue of collinearity acknowledged, the descriptive statistics relating to mean scores for the dependent and independent variables, according to the structural strength of the board of directors and in total are identified in Table 44. The mean scores for the strong form of the overall standard of the company’s governance framework is 5.70 (.64); the weak form, 2.75 (.67). The magnitude of the mean scores for the independent variables for the strong form of the board of directors range from 5.21 (.68) for the independence of the board, to 5.65 (.75) for the financial expertise of the audit committee. The magnitude of the mean scores for the weak form of the board of directors range from 2.30 (.72) for financial expertise of the audit committee, to 3.15 (.70) for independence of the board.

**TABLE 44: Descriptive statistics for standard of corporate governance and independent variables**

<table>
<thead>
<tr>
<th>Variable type</th>
<th>Variable name</th>
<th>Strength of the board of directors</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent</td>
<td>Standard of governance framework</td>
<td>5.70 (.64)</td>
<td>2.75 (.67)</td>
<td>4.28 (1.62)</td>
<td></td>
</tr>
<tr>
<td>Independent</td>
<td>Independence of board</td>
<td>5.21 (.68)</td>
<td>3.15 (.70)</td>
<td>4.22 (1.24)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Independence of audit committee</td>
<td>5.49 (.70)</td>
<td>2.70 (.61)</td>
<td>4.14 (1.55)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Duties and authority of audit committee</td>
<td>5.42 (.79)</td>
<td>3.13 (.76)</td>
<td>4.31 (1.39)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Financial expertise of audit committee</td>
<td>5.65 (.75)</td>
<td>2.30 (.72)</td>
<td>3.95 (1.98)</td>
<td></td>
</tr>
</tbody>
</table>

Table 45 shows the regression results. The standardised beta values are, as the findings of prior ACE empirical studies would suggest (e.g., DeZoort et al., 2002), all positive. The Sig. values suggest that the financial expertise of the audit committee (p.=.000); the duties and authority of the audit committee (p.=.001) and the independence of the board of directors (p.=.010) contributed significantly to explaining the dependent variable in their own right, at or below .05 probability. The independence of the audit committee approaches significance at p.=.076.
Returning to the collinearity problem referred to earlier, the tolerance collinearity statistics for the independent variables are moderately low (.156 to .226). Tabachnick et al. (1996) maintain that tolerance statistics approaching zero suggest the possibility of collinearity.

7.4.1.2 Reanalysis of the hypotheses using alternative measures of the independent variables

This section of the additional analyses includes the reanalysis of the hypotheses, using alternative measures of the self-interest threat and strength of the board of directors and, where relevant, the net benefits of hiring the IT division of the audit firm to provide the NAS. The dichotomous manipulations of the self-interest threat (recurring or non-recurring NAS engagement) and strength of the board of directors (strong or weak) will be perceived differently by the various participants. The previous tests of the hypotheses treated these effects as homogeneous across the participants, within the different treatments groups. Here, the hypotheses are reanalysed using the participants’ perceptions about the self-interest threat and the strength of the board of directors measured on a 7-point scale rather than the dichotomous treatment of the manipulations. The data (scales) are a spin-off of the manipulation checks. The statistical tests involve the use of linear regression in relation to the continuous dependent variables, perceived auditor independence and strength of preference for the audit firm; and logistic regression for the dichotomous dependent variable, choice of audit firm. The dependent variable, strength of preference for the specialist firm, for which there are no hypotheses, is also examined, using linear regression.
Panels A, B, and C of Table 46 report the descriptive statistics and Pearson correlation coefficients relating to the independent variables, and the correlation coefficients between the independent and dependent variables associated the linear regression tests. With respect to the independent variables, the largest correlation is between std of CGF and the interaction variable (.688). The magnitude of the bivariate correlation coefficients of the remaining various independent variables is low (.018 to -.464), suggesting that collinearity is unlikely to be a problem in interpreting the results of the linear regression tests. However, the collinearity issue is revisited in the process of discussing the regression results.

With respect to the relations between the independent and dependent variables the largest correlations are between self-interest and strength of preference for the audit firm (-.588); and net benefits and strength of preference for the audit firm (.545). The magnitude of the remaining correlation coefficients is low (.001 to .489).

<table>
<thead>
<tr>
<th>TABLE 46: Descriptive statistics and coefficients between variables</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Panel A. Descriptive statistics. Independent Variables</strong></td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>(std dev)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Panel B. Pearson Correlation Coefficients. Independent Variables</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-interest</td>
</tr>
<tr>
<td>Self-interest</td>
</tr>
<tr>
<td>Std of CGF</td>
</tr>
<tr>
<td>Self-interest x Std of CGF</td>
</tr>
<tr>
<td>Net benefits</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Panel C. Pearson Correlation Coefficients. Independent and Dependent Variables</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent variables</td>
</tr>
<tr>
<td>Self-interest</td>
</tr>
<tr>
<td>Std of CGF</td>
</tr>
<tr>
<td>Self-interest x Std of CGF</td>
</tr>
<tr>
<td>Net benefits</td>
</tr>
</tbody>
</table>

233
Auditor independence hypotheses

The auditor independence hypotheses are retested using the following regression equation:

\[ \text{Aud Ind} = a + b_1 \text{(self-interest)} + b_2 \text{(std of CGF)} + b_3 \text{(self-interest)} \times \text{(std of CGF)}. \]

Table 47 shows the regression results. The sign (critical value) of the coefficient for self-interest is negative (-.560) i.e., perceived auditor independence declined as the threat of self-interest rose. The coefficient is also significant at \( p = .036 \). The sign of the correlation coefficient of std of CGF is negative (-.190) and non-significant (\( p = .306 \)). The sign of the correlation coefficient of the interaction variable is positive (.500) and is marginally significant at \( p = .098 \). Thus, the results support \( H_1 \) but not \( H_4 \) and \( H_7 \).

**TABLE 47: Summary of the coefficients of the independent variables**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardised Coefficients</th>
<th>Standardised Coefficients</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>5.902</td>
<td>1.576</td>
</tr>
<tr>
<td></td>
<td>Self-interest</td>
<td>-.560</td>
<td>.117</td>
</tr>
<tr>
<td></td>
<td>Std of CGF</td>
<td>-.154</td>
<td>.104</td>
</tr>
<tr>
<td></td>
<td>Self-interest x Std of CGF</td>
<td>.083</td>
<td>.164</td>
</tr>
</tbody>
</table>

a. Dependent Variable: auditor independence

One-tail tests.

Notwithstanding the earlier suggestion of the lack of a collinearity problem, the tolerance collinearity statistics for the independent variables are relatively low (.071 to .113).

The marginally significant result (.098) associated with the interaction variable was examined further, by separating out the equations for the strong and weak forms of the strength of the board of directors variable. The regression results for the strong and weak forms of the variable are reported in Tables 48 and 49, respectively. The coefficients for std of CGF are positive and non-significant in both instances. The signs of the correlation coefficients for self-interest are negative in both instances. That is, perceived auditor independence declined as the perceived self-interest threat increased. The magnitude of the coefficient is greater where the strength of the board of directors is weak (-.297) than when
it is strong (-.163); and, similarly, significant \( p=.040 \) as opposed to insignificant \( p=.157 \). The result lends support for \( H_7 \).

**TABLE 48: Summary of the coefficients of the independent variables where the strength of the board of directors is strong**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardised Coefficients</th>
<th>Standardised Coefficients</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \beta )</td>
<td>( \text{Std. Error} )</td>
<td>Beta</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>5.185</td>
<td>2.389</td>
</tr>
<tr>
<td></td>
<td>Self-interest</td>
<td>-.175</td>
<td>.172</td>
</tr>
<tr>
<td></td>
<td>Std of CGF</td>
<td>.023</td>
<td>.372</td>
</tr>
</tbody>
</table>

\( a. \) Dependent Variable: auditor independence

One-tail tests.

**TABLE 49: Summary of the coefficients of the independent variables where the strength of the board of directors is weak**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardised Coefficients</th>
<th>Standardised Coefficients</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \beta )</td>
<td>( \text{Std. Error} )</td>
<td>Beta</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>4.544</td>
<td>1.089</td>
</tr>
<tr>
<td></td>
<td>Self-interest</td>
<td>-.265</td>
<td>.147</td>
</tr>
<tr>
<td></td>
<td>Std of CGF</td>
<td>.167</td>
<td>.228</td>
</tr>
</tbody>
</table>

\( a. \) Dependent Variable: auditor independence

One-tail tests.

**Willingness-to-appoint the incumbent audit firm hypotheses**

The willingness-to-appoint the incumbent audit firm hypotheses involve the choice of NAS provider and strength of preference for the audit firm. The retesting of the hypotheses includes the participants' perceptions of the net benefits of appointing the incumbent audit firm to provide NAS.

Earlier in the thesis it was suggested that the net benefits of hiring the incumbent audit firm are a function of perceived auditor independence (accountability) and the perceived benefits of hiring the incumbent audit firm to provide NAS (efficiency). Further, it was anticipated that there may be a positive correlation between the choice of audit firm and perceived net benefits. The relation was examined using Spearman's Rank Order Correlation test. The test shows a strong, positive correlation between the two variables \( r=.570, \) \( n=83, \) \( p=.000 \)], i.e., the choice of audit firm is associated with higher levels of perceived net benefits of appointing the incumbent audit firm to provide NAS.
Choice of NAS provider

The choice of NAS provider hypotheses are retested using logistic regression. The regression equation is as follows:

\[
\text{Choice of NAS provider} = a + b_1 \text{ (self-interest)} + b_2 \text{ (std of CGF)} + b_3 \text{ (self-interest x std of CGF)} + b_4 \text{ (net benefits)}
\]

Choice of NAS provider equals 1 if the auditor is chosen to provide the NAS, 0 if the specialist is chosen.

The Pearson correlation coefficients are reported in Table 50. The magnitude of the correlation coefficients between the constant and the independent variables, with the exception of net benefits (-.377) are very high (-.915 to .966). The magnitude of the bivariate correlation coefficients of the independent variables, again, with the exception of net benefits, are also high (.839) to very high (.982). Menard (1995, p. 66) maintains that "high levels of collinearity . . . may pose problems, and very high levels of collinearity . . . almost certainly results in coefficients that are not statistically significant".

<table>
<thead>
<tr>
<th>Step</th>
<th>Constant</th>
<th>Self-interest</th>
<th>Std of CGF</th>
<th>Self-interest x Std of CGF</th>
<th>In exp of AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.000</td>
<td>-.915</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Menard's (1995) assertions with respect to the implications of collinearity for Sig. values appear to be borne out by the results reported in Table 51. The net benefits coefficient (2.923) alone is significant at p = .010. Thus, it is not possible to draw any conclusions about the relation between the hypotheses and the results. The remaining discussion of the results is confined to the combined effects of the variables in the model.
TABLE 51: Summary of the variables – choice of NAS provider

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable(s) entered on step 1: self, std of CGF, MCG, net benefits.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Self-interest</td>
</tr>
<tr>
<td></td>
<td>Std of CGF</td>
</tr>
<tr>
<td></td>
<td>Self-interest x std of CGF</td>
</tr>
<tr>
<td></td>
<td>Net benefits</td>
</tr>
<tr>
<td></td>
<td>Constant</td>
</tr>
<tr>
<td>B</td>
<td>-1.199</td>
</tr>
<tr>
<td>S.E.</td>
<td>4.572</td>
</tr>
<tr>
<td>Wald</td>
<td>4.352</td>
</tr>
<tr>
<td>d1</td>
<td>1.064</td>
</tr>
<tr>
<td>Sig</td>
<td>1.023</td>
</tr>
<tr>
<td>Exp(B)</td>
<td>2.82</td>
</tr>
</tbody>
</table>

One-tail tests.

The classification data shown in Table 52 show that the model predicted the choice of the audit firm with 86.7% accuracy; the choice of the specialist firm with 98.5% accuracy; giving rise to an overall response prediction rate of 96.4%.

TABLE 52: Classification Table choice of audit firm

<table>
<thead>
<tr>
<th>Observed</th>
<th>Choose auditor</th>
<th>Percentage Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Choose auditor</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>yes</td>
<td>67</td>
<td>1</td>
</tr>
<tr>
<td>Overall percentage</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>a. The cut value is .5000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The omnibus tests of coefficients (Step, Block and Model) were significant at .000 [Chi-square, 65.426 (4)]. The Cox and Snell R Square statistic was .545; the Nagelkerke R Square, .892 (-2 Log likelihood, 13.007).

Strength of preference for the audit firm to provide NAS hypotheses

The strength of preference for the audit firm hypotheses are retested using the following regression equation:

\[
\text{Strength of preference for audit firm} = a + b_1 \text{ (self-interest)} + b_2 \text{ (std of CGF)} + b_3 \text{ (self-interest) x (std of CGF)} + b_4 \text{ (net benefits)}. \]
The regression results are provided in Table 53. Net benefits (p.=.004) is the only independent variable that contributed significantly to the change in the dependent variable in its own right, at or below .05 probability. The standard of the corporate governance framework approaches significance at p.=.104. Thus, the results do not support H2, H3 or H4.

TABLE 53: Summary of the coefficients of the independent variables

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardised Coefficients</th>
<th>Standardised Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td></td>
<td></td>
<td>Tolerance VIF</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>2.957</td>
<td>1.350</td>
<td>2.190</td>
<td>.032</td>
</tr>
<tr>
<td></td>
<td>Self-interest</td>
<td>-.296</td>
<td>.267</td>
<td>-.268</td>
<td>-.110</td>
</tr>
<tr>
<td></td>
<td>Std of CGF</td>
<td>.333</td>
<td>.262</td>
<td>.384</td>
<td>1.271</td>
</tr>
<tr>
<td></td>
<td>Self-interestx StdCGF</td>
<td>-.027</td>
<td>.054</td>
<td>-.151</td>
<td>-.493</td>
</tr>
<tr>
<td></td>
<td>Net benefits</td>
<td>.261</td>
<td>.096</td>
<td>.262</td>
<td>2.705</td>
</tr>
</tbody>
</table>

b. Dependent Variable: strength of preference for the audit firm

One-tail tests.

Notwithstanding the earlier reference to the lack of a collinearity problem, the tolerance collinearity statistics for the independent variables, other than net benefits, are, to varying degrees, approaching 0 (Tabachnick et al., 1996).

The overall collinearity problem aside, Table 54 provides a summary of the relation between the hypotheses and the Sig. values of the regression results, and whether the results support the hypotheses at p.=.05 or otherwise. The relation between perceived net benefits and the Sig. values is also included, where relevant.
Table 54: Summary of the relation between the hypotheses and significance tests - reanalyses

| HYPOTHESES |
|-----------------|-----------------|-----------------|
| **AUDITOR INDEPENDENCE** | | |
| Main effects | | |
| **H1** | Stakeholder perceptions of auditor independence will be lower when the NAS is recurring than when it is non-recurring. | .036 |
| **H2** | Stakeholder perceptions of auditor independence will be lower when the structural strength of the board of directors is weak than when it is strong. | .306 |
| Interaction | | |
| **H3** | Stakeholder perceptions of auditor independence are more likely to be affected by the recurring NAS when the structural strength of the board of directors is weak than when it is strong. | .098 |
| **CHOICE OF AUDIT FIRM** | | |
| Main effects | | |
| **H4** | Stakeholders will be less likely to choose the audit firm to provide the NAS when the NAS is recurring than when it is non-recurring. | .488 |
| **H5** | Stakeholders will be less likely to choose the audit firm to provide the NAS when the structural strength of the board of directors is weak than when it is strong. | .124 |
| Interaction | | |
| **H6** | Stakeholder choice of the audit firm is more likely to be affected by the recurring NAS when the structural strength of the board of directors is weak than when it is strong. | .168 |
| **STRENGTH OF PREFERENCE FOR AUDIT FIRM** | | |
| Main effects | | |
| **H7** | Stakeholder strength of preference for the audit firm will be lower when the NAS is recurring than when it is non-recurring. | .136 |
| **H8** | Stakeholder strength of preference for the audit firm will be lower when the structural strength of the board of directors is weak than when it is strong. | .104 |
| Interaction | | |
| **H9** | Stakeholder strength of preference for the audit firm is more likely to be affected by the recurring NAS when the structural strength of the board of directors is weak than when it is strong. | .312 |
| Net benefits | | |
| **Strength of preference for the specialist firm to provide NAS** | | |

The dependent variable involving the participants' strength of preference for the specialist firm to provide NAS is tested using both linear regression and a two-way ANOVA.

**Linear regression**

The regression equation is as follows:
Strength of preference for specialist firm = \( a + b_1 \text{(self-interest)} + b_2 \text{(std of CGF)} + b_3 \text{(self-interest) x (std of CGF)} + b_4 \text{(net benefits)} \).

Table 55 shows the regression results for the analysis. The negative signs (critical values) of the coefficients of \( \text{std of CGF} (-.833) \) and \( \text{net benefits} (-.093) \) suggest that the participants’ strength of preference for the specialist firm declined as the perceived standard of the overall corporate governance and net benefit of appointing the incumbent audit firm rose. However, the Sig. values show that \( \text{std of CGF} (p.=.010) \) and the interaction variable \( (p.=.026) \) are the only variables that contributed significantly to explaining the dependent variable in their own right at or below .05 probability. The Sig. value for the threat of self-interest is \( p.=.292 \); net benefits, \( p.=.205 \).

**TABLE 55: Summary of the coefficients of the independent variables**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardised Coefficients</th>
<th>Standardised Coefficients</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>(Constant)</td>
<td>6.749</td>
<td>1.108</td>
<td>6.090</td>
</tr>
<tr>
<td>Self-interest threat</td>
<td>-.121</td>
<td>.219</td>
<td>-.155</td>
</tr>
<tr>
<td>Standard of CGF</td>
<td>-.508</td>
<td>.215</td>
<td>-.833</td>
</tr>
<tr>
<td>StdCGF x Self-interest</td>
<td>.088</td>
<td>.044</td>
<td>.707</td>
</tr>
<tr>
<td>Net benefits</td>
<td>-.065</td>
<td>.079</td>
<td>-.193</td>
</tr>
</tbody>
</table>

---

a Dependent Variable: strength of preference for specialist firm

One-tail tests

The significant result (.026) associated with the interaction variable was examined further, by separating out the equations for the strong and weak forms of the strength of the board of directors variable. The regression results for the strong and weak forms of the variable are reported in Tables 56 and 57, respectively. The sign of the coefficient for \( \text{std of CGF} \) is negative in both instances. However, the magnitude of the coefficients is greater when the strength of the board of directors is weak (-.319) than when it is strong (-.112), and, similarly, significant (.056) as opposed to insignificant (.428). The sign of the coefficient for threat of self-interest is positive in both instances. The magnitude of the coefficient is greater (.427) when the strength of the board of directors is strong, than when it is weak (.162); and, similarly, significant \( (p.=.007) \) as opposed to insignificant \( (p.=.344) \).
### TABLE 56: Summary of the coefficients of the independent variables where the strength of the board of directors is strong

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardised Coefficients</th>
<th>Standardised Coefficients</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>5.276</td>
<td>1.540</td>
</tr>
<tr>
<td></td>
<td>Self-interest</td>
<td>.331</td>
<td>.117</td>
</tr>
<tr>
<td></td>
<td>Std of CGF</td>
<td>-.188</td>
<td>.234</td>
</tr>
<tr>
<td></td>
<td>netbenefit</td>
<td>-.094</td>
<td>.104</td>
</tr>
</tbody>
</table>

a. Dependent Variable: strength of preference for specialist firm
Two-tail tests.

### TABLE 57: Summary of the coefficients of the independent variables where the strength of the board of directors is weak

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardised Coefficients</th>
<th>Standardised Coefficients</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>6.297</td>
<td>1.119</td>
</tr>
<tr>
<td></td>
<td>Self-interest</td>
<td>.136</td>
<td>.136</td>
</tr>
<tr>
<td></td>
<td>Std of CGF</td>
<td>-.397</td>
<td>.201</td>
</tr>
<tr>
<td></td>
<td>netbenefit</td>
<td>-.058</td>
<td>.136</td>
</tr>
</tbody>
</table>

a. Dependent Variable: strength of preference for specialist firm
Two-tail tests.

**Two-way ANOVA**

A two-way ANOVA using the recurring NAS and the strength of the board of directors variables was used to examine the participants' strength of preference for the specialist firm. Levene's test of equality of error variance for the variable resulted in a Sig. value of .054 [F(3, 79)=2.563], supporting the assumption of equality of variance.

The descriptive statistics relating to participants' strength of preference for the specialist firm, by group, are provided in Table 58. The mean scores for Group 1 is 4.86 (1.06); Group 2, 5.45 (1.01); Group 3, 5.55 (1.05); and Group 4, 5.75 (1.55) – an ascending order.
Table 58: Descriptive statistics for strength of preference for specialist firm to provide NAS FEES (NAS)

<table>
<thead>
<tr>
<th>Board of Directors</th>
<th>Non-recurring</th>
<th>Recurring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong</td>
<td>4.86 (1.06)</td>
<td>5.45 (1.01)</td>
</tr>
<tr>
<td>Weak</td>
<td>5.55 (1.05)</td>
<td>5.75 (.55)</td>
</tr>
</tbody>
</table>

1 = weak preference for specialist
7 = strong preference for specialist

Table 59 presents the ANOVA results for auditor independence based on the above means. The data indicates that participants’ strength of preference for the specialist firm was significantly affected by the strength of the board of directors \([F(1, 79)=5.651, p=.020]\), whilst the recurrency of the NAS \([F(1, 79)=3.679, p=.059]\) approached significance. The data also show the lack of a significant interaction effect \([F(1, 79)=.914, p=.342]\).

Table 59: ANOVA for strength of preference for the specialist firm to provide NAS

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III SS</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected model</td>
<td>9.154*</td>
<td>3</td>
<td>3.051</td>
<td>3.408</td>
<td>.022</td>
</tr>
<tr>
<td>Intercept</td>
<td>2419.104</td>
<td>1</td>
<td>2419.104</td>
<td>2702.108</td>
<td>.000</td>
</tr>
<tr>
<td>Strength BoD</td>
<td>5.059</td>
<td>1</td>
<td>5.059</td>
<td>5.651</td>
<td>.020</td>
</tr>
<tr>
<td>Rec fee</td>
<td>3.293</td>
<td>1</td>
<td>3.293</td>
<td>3.679</td>
<td>.059</td>
</tr>
<tr>
<td>Strength BoD*rec fee</td>
<td>.818</td>
<td>1</td>
<td>.818</td>
<td>.914</td>
<td>.342</td>
</tr>
<tr>
<td>Error</td>
<td>70.726</td>
<td>70</td>
<td>895</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2498.000</td>
<td>83</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>78.880</td>
<td>82</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Computed using alpha = .05
b. R Squared = .115 (Adjusted R Squared = .081)
Two-tail tests

Attention now turns to describing the results associated with the second set of post-experimental questions.
7.4.2 The second set of post-experimental questions

The statistical analysis for the study concludes by examining data associated with the second set of post-experimental questions. The participants were asked to rate the extent to which seven factors influenced their choice of preferred provider using a 7-point scale. The scales are anchored by the following descriptors: no influence, moderate influence and significant influence.

The seven factors are as follows:

(i) The diversification of the Baudin Ltd’s shareholder base.
(ii) The absence of a dominant shareholding.
(iii) The status of Baudin Ltd as a listed public company;
(iv) Accountability to shareholders.
(v) Accountability to other stakeholders.
(vi) Safeguards of the independence of the participants’ preferred provider over the alternative provider.
(vii) Competition in the market for professional non-audit services.

The overall question concludes with an open-ended question, simply titled additional comments.

The quantitative and qualitative dimensions of the question provide the structure for the ensuing analysis, and are headed ancillary data and open-ended question, respectively.

**Ancillary data**

The total descriptive statistics associated with the seven variables is provided in Table 60. The mean scores range from safeguards of independence at 5.47 (1.00) to the firm characteristics, diversified shareholder base at 3.20 (1.65) and absence of a dominant shareholding (3.20). Table 61 reports the descriptive statistics for the variables by treatment (groups).
The first and second of the foregoing variables (diversified shareholder base and absence of a dominant shareholder) represent organisational attributes of the firm. The two variables played an integral part in operationalising the separation of ownership and control and, thereby, the scope for discretionary decision-making and managerial opportunism as determinants of IR opportunity. The status of the company as a listed entity (the third variable) served to heighten the public interest role of the entity. All three variables were intended to invoke heightened demand for an independent audit. The heightened demand, as stated earlier in the thesis, also holds implications for the significance of IR incentives.

I was interested to see how the participants would rate the variables. For the foregoing reasons it was anticipated that the means scores for the variables may have been rated above the moderate level of 4 on the 7-point scale. However, the mean score for the diversified shareholder base is 3.20 (1.65); absence of a dominant shareholding, 3.20 (1.72); and the listed status of the firm, 3.95 (1.84).

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diversified shareholder base</td>
<td>83</td>
<td>1</td>
<td>7</td>
<td>3.20</td>
<td>1.65</td>
</tr>
<tr>
<td>Absence of dominant shareholding</td>
<td>83</td>
<td>1</td>
<td>7</td>
<td>3.20</td>
<td>1.72</td>
</tr>
<tr>
<td>Listed co.</td>
<td>83</td>
<td>1</td>
<td>7</td>
<td>3.95</td>
<td>1.84</td>
</tr>
<tr>
<td>Accountability to shareholders</td>
<td>83</td>
<td>1</td>
<td>7</td>
<td>5.30</td>
<td>1.41</td>
</tr>
<tr>
<td>Accountability to other stakeholders</td>
<td>83</td>
<td>1</td>
<td>7</td>
<td>4.24</td>
<td>1.72</td>
</tr>
<tr>
<td>Safeguards of independence</td>
<td>83</td>
<td>2</td>
<td>7</td>
<td>5.47</td>
<td>1.00</td>
</tr>
<tr>
<td>Competition in the market for NAS</td>
<td>83</td>
<td>1</td>
<td>7</td>
<td>3.86</td>
<td>1.65</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>83</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEES for NAS</td>
<td>Diversified Shareholder base</td>
<td>Absence of dominant shareholder</td>
<td>Listed Co</td>
<td>Accountability to shareholders</td>
<td>Accountability to other stakeholders</td>
</tr>
<tr>
<td>-------------</td>
<td>-----------------------------</td>
<td>-------------------------------</td>
<td>-----------</td>
<td>-------------------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>Non rec</td>
<td>rec</td>
<td>Non rec</td>
<td>rec</td>
<td>Non rec</td>
<td>Rec</td>
</tr>
<tr>
<td></td>
<td>(1.58)</td>
<td>(1.99)</td>
<td>(1.65)</td>
<td>(1.92)</td>
<td>(1.79)</td>
</tr>
<tr>
<td>Weak</td>
<td>3.40</td>
<td>3.10</td>
<td>3.30</td>
<td>3.30</td>
<td>4.10</td>
</tr>
<tr>
<td></td>
<td>(1.54)</td>
<td>(1.41)</td>
<td>(1.49)</td>
<td>(1.87)</td>
<td>(1.89)</td>
</tr>
</tbody>
</table>
An explanation for the moderate results may lie with the fact that the factors are not the sole determinants (evidence) of the antecedents of IR opportunity. For example, with respect to managerial opportunism, there is the issue of the bonus component of senior management’s remuneration package. Secondly, heightened accountability with respect to the provision of the external audit is not limited to corporate status (PF 1). The size and nature of the business also have a role to play in that respect (PF 1, 1.120). Mock et al. (2005) also identify the nature of the business as a determinant of the scope for discretionary decision-making (IR opportunity). Finally, the mean scores for the three variables associated with accountability as an alternative measure of the demand for an independent audit (IR opportunity) are relatively high. The mean score for safeguards of independence is 5.47 (1.00); accountability to shareholders, 5.30 (1.41); and accountability to other stakeholders, 4.24 (1.72).

The inclusion of the seventh and final factor – competition in the market for NAS - was prompted by a result obtained in Study I. There, a participant, whose case instrument involved the strong form of board of directors and non-recurring NAS, chose the specialist firm to provide NAS on the grounds of promoting competition in the market for the NAS. Such competition adds an additional dimension to the notion of efficiency to that adopted in this thesis. Thus, the opportunity was taken to obtain a measure of the influence that the variable might have on the participants’ choice of NAS provider, although, obviously, as only one of several variables. The descriptive statistics shown in Table 60 indicate that the mean score for the variable is moderately low at 3.86 (1.65).
Open-ended question

The questionnaire concluded with an open-ended component, titled *additional comments*. Nine (11%) of the 83 participants provided additional comments. The participants fall within the domain of groups 1 to 3. None of the individuals concerned chose the audit firm to provide the NAS.

A summary of the comments is provided in Table 62. The group (variables) involved are also identified. Each transcript shows the exact written scripts of the participants.

The comments from participants 2, 3, 5 and 6 clearly acknowledge the cost-benefit nature of the decision choice. Participant 5 demonstrates significant insight into the issues involved, including the dilemma surrounding the audit-NAS strategy. His/her comments also hold the hint of a possible expectation gap between management and shareholders with respect to the audit-NAS strategy. The conservative position adopted by the participant as a shareholder, is repeated in the comments of Participant 4.

Participants 7 and 8 confirm the weak nature of the board of directors reflected in the case studies that provided the stimuli for their responses. Participant 7 also highlights an important dimension of the audit-NAS debate from the demand side of the market for NAS, generally. That is, the need for management to avoid the problem of abrogating its core responsibilities in the process of outsourcing (Vartanian, 2002). This issue has its analogy in the threat to auditor independence from self-review as it relates to making executive decisions, which was expressly controlled for in the case studies. The comments of the participant, in that respect, suggest a lack of communication between author and reader. Lack of communication would also appear to be at the heart of the comments made by Participant 9.
<table>
<thead>
<tr>
<th>GROUP</th>
<th>Participant</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group I</td>
<td>1</td>
<td>It is my belief that the external auditor would not now undertake such an assignment due to the issue of independence.</td>
</tr>
<tr>
<td>stronghod:non-rec</td>
<td>2</td>
<td>1. Whilst existing audit arrangements would give the existing auditors advantage of detailed knowledge of Baudin’s financial side, such knowledge could well compromise their objectivity. Recommendations re staff reductions could be influenced by relationships over 4 years between auditors &amp; co. officers for instance. 2. The IT specialist on the other hand, could reasonably be expected to take a more objective approach, not limited by existing relationships. Their task would be more complicated by the amount of preparation they would need in familiarizing themselves with the co. operations etc. much of which would be, presumably, well known to existing audit co. In balance, I believe the specialist IT firm would be the better choice. 3. The role of the Audit committee does not expressly include any reference to scrutiny of major strategic contracts. The contract in question might be considered to be such - not because of its value but because of the relationship with the Auditors. 2. The perceived risk is not so much to the IT contract as to Baudin’s capacity to release itself from the auditor during the term of the IT contract. 3. The judgement/preference indicated here is based on the particular sensitivity of the relationship with and role of, the auditor. In regards other less sensitive services broader relationships with service providers might be encouraged not so where the auditors are involved. 4. As a shareholder, whilst I understand that the company has an excellent corporate governance structure in place, the mere possibility of compromised audit independence would lead me to prefer that the IT Specialists are appointed. No matter how good the corporate governance structure is the perception of independence breaches should be avoided. 5. As a shareholder I would always choose the option which offered mgmt the least opportunity to ever become too ‘cosy’ with an external ‘provider’. External service provision is such a double-edged sword: the better mgmt gets on with the provider the more effective and frictionless the relationship but the less mgmt become inclined to tighten the screws like they sometimes should. I would note however that if I were in the shoes of mgmt I would probably be inclined, all things being equal, to go for the audit firm because it provides me with greater leverage in the relationship and a broader array of pressure points that can be used to make sure the company gets good service and that problems issues are addressed with urgency. 6. Whilst both issues on paper are equally capable it is more important to maintain the perceived independence of the audit than it is for the service provider to have prior knowledge/experience of Baudin’s financials/business. 7. Whilst the governance is very weak, there needs to be a contract that clearly defines the providers service and that keeps accountability for IT services with Baudin Ltd otherwise they are abdicating their responsibilities which will cause the outsources (sic) objective to succeed over Baudin Ltd’s. • Audit Committee composition inadequate → should not have mgmt. on etce. • Board composition OK but CEO as Chairman is inadequate 8. As a shareholder since 1979, I am very disappointed in the modest growth in profit before tax during the past 5 years, with consequent poor returns for shareholders. It is time for restructuring within Baudin Ltd.</td>
</tr>
</tbody>
</table>
Finally, Participant I. in effect, questions the basis for conducting a study such as this in the present climate. The response is understandable. However, as suggested in Chapters 1, 2 and 4, the Australian best practice – statute approach to the regulation of the provision of NAS invites more questions, of an empirical nature, than it provides answers. The regulation facilitates a balance being struck between accountability and efficiency. The balance does not lie with prohibition, but a network of safeguards whose ‘acceptability’ is a matter for empirical examination.

7.5 DISCUSSION OF RESULTS

The overall results of the main experiment indicate that the structural strength of the board of directors significantly impacted shareholder perception of auditor independence, choice of audit firm to provide the NAS and strength of preference for the audit firm to provide the NAS. Shareholders had a more positive perception of auditor independence, were more likely to chose the audit firm to provide NAS, and their strength of preference for the audit firm to provide NAS was higher when the strength of the board of directors was strong than when it was weak.

The results also show that stakeholder perceptions of auditor independence and willingness-to-appoint the incumbent audit firm to provide, with respect to the choice of NAS provider, were adversely affected by the threat to auditor independence from the continuity of fees for NAS. However, the results were only marginally significant with respect to perceived auditor independence. Further, the results show that shareholder perceptions of auditor independence were more likely to be affected by recurring NAS where the strength of the board of directors is weak than when it is strong.

The results collectively indicate that the shareholders had decidedly negative reactions when the strength of the board of directors was weak, and, to a lesser extent, when the NAS was recurring.
The only significant results obtained as part of the reanalysis of the hypotheses using data obtained in the post-experimental questionnaire, were the impact of the recurring NAS variable on stakeholder perceptions of auditor independence; and the net benefits variable on the choice of audit firm and the strength of the preference for the audit firm.

The results of the post-experimental questionnaire indicate that the independence of the board of directors and the audit committee from management, the duties and authority of the audit committee and the financial expertise of the audit committee affected the perceived standard of the company's governance framework. The results also show that, with the exception of the independence of the audit committee, the variables made significant unique contributions to explaining the perceived standard of the overall governance framework. Similarly, the four variables were collectively a significant explanation for the perceived overall strength of the company's governance framework.

7.6 IMPLICATIONS OF THE STUDY

The results obtained from the main experiment provide important insight into the effects of the safeguarding role of the board of directors (audit committee) and the continuity of fees for NAS on independence in appearance. Contemporary Australian best-practice, embodied in the ASX CG Recommendations (2003) and the BPG – AC Guide (2001), identify key structural attributes that the board of directors (audit committee) should possess as a buffer to effectiveness. From the perspective of the audit committee literature, the attributes centre on the following elements: composition, authority, resources and diligence. The results indicate that the attributes (elements) collectively act as a signal of board (audit committee) effectiveness vis-à-vis the integrity of the audit, and therefore hold implications for independence in appearance. Further, the relevant post-experimental results, taken as a whole, support the role of the four ACE elements as determinants of the strength of the board of directors.

The results associated with the threat of self-interest also suggest that the shareholders perceived heightened threat to auditor independence from recurring NAS, which spilled over to willingness-to-appoint with respect to the choice of NAS provider. Thus, from the
perspective of independence in appearance, the results lend support to the empirical analytical arguments (e.g., Simunic, 1984; Beck et al., 1988a) and findings (e.g., Beck et al., 1988b; Parkash et al., 1993) associated with the threat to auditor independence from client-specific investment. Similarly, the results provide support for the profession's analogy of the threat from recurring NAS, i.e., the financial threat to auditor independence from "concern about the possibility of losing the engagement" (PF 1, 1.22 (d)).

Finally, the overall results also lend support for the strength of the Mock et al. (2005) model of the problem of inferring independence risk (perceived auditor independence). The model anchors the hypotheses and the experimental stimuli (evidence) used in the study.

The present Chapter concludes the substance of the thesis. The summary of and conclusion to the thesis is provided in the following chapter (8).
CHAPTER 8

SUMMARY AND CONCLUSION

The purpose of this thesis is to examine issues of accountability and efficiency impacting the decision of whether to hire the incumbent audit firm to provide Non Audit Services [NAS]. The thesis falls within the ambit of the debate surrounding the joint provision of the external audit and NAS, which is ultimately concerned with the question of what constitutes an acceptable safeguard of auditor independence. Antagonists of the joint provision of the services call for the separation of the services at the professional level - an \textit{ex ante} perspective. Protagonists, on the other hand, maintain that the costs of such an outcome may outweigh the benefits in the light of \textit{ex post} safeguards of auditor independence, including market based incentives. The theoretical bases for the opposing positions lie with separation of duties as the foundation of the professions and the economics of audit quality, respectively.

Concern over the impact of the scope of services on auditor independence was expressed in the US as early as 1957 and remained on the agenda of the regulators in the decades that followed. The debate gained considerable momentum, worldwide, during the 1990s. Evidence of the growing economic significance of NAS, relative to the audit, and the change in nature of the NAS offered, including the market for the joint services, combined to signal a shift in the boundaries of the auditing profession and, with it a perceived shift in ethos from serving the public interest to serving management.

The altered circumstances precipitated major reviews of the regulation of auditor independence, globally, in the later half of the 1990s. The process culminated in the release of significant developmental publications in the area at the turn of the new millennium. The publications sought to modernise the regulation of professional independence.
including auditor independence, to reflect the altered professional environment that had evolved in response to deregulation and the advent of the global economy.

The publications included the release in 2001 of a re-exposure draft on professional independence by the peak international professional body, IFAC. The IFAC publication was formally adopted by the Australian profession in March 2002 – forming part of its joint code of conduct (PF 1). The implementation of PF 1 lead the way in the reformation of the regulation of auditor independence in Australia, followed by significant legislative change and corporate governance best-practice developments impacting directors’ financial reporting responsibilities. The contemporary best practice - statute regulatory regime as it relates to the joint provision of the audit and NAS provided the setting for this thesis.

The prohibition of the provision of certain services to audit clients aside, on the supply side of the market, the best practice – statute approach to the joint provision of the audit and NAS is anchored by the following general standard:

...a firm may provide services beyond the assurance engagement provided any threats to independence have been reduced to an acceptable level (PF1, 2.71).

The proviso in the general standard is referred to in the thesis in terms of accountability. The responsibility for ensuring that accountability is met vests with the NAS provider (audit firm) and is principles based. However, PF 1 plays a significant role in providing guidance in defining the parameters of accountability.

The Australian legislature has chosen to leave the overriding responsibility for the regulation of the joint provision of the audit and NAS on the supply side of the market with the profession and has strengthened the profession’s position via key changes to the Corporations Act (2001). The changes are essentially fivefold. Firstly, the Act includes an inaugural general standard of auditor independence. The standard is grounded in the notion
of the auditor not occupying a position of conflict of interest, in fact or appearance. Secondly, and to that end, PF 1 forms part of the auditor independence requirements of the Corporations Act (2001). Thirdly, the auditor has an obligation to declare, annually, to the board of directors, in writing, that he/she has met the independence requirements of the Act and applicable codes of conduct. Fourthly, on the demand side of the market, there is increased market transparency through the need for the audit client to annually disclose in the annual report the fees paid to the external audit firm for audit and non-audit services. Fifthly, directors are held directly accountable to stakeholders in the presence of the joint provision of audit and NAS via the need to provide statements in the annual report that the provision of NAS by the auditor is compatible with the general standard of independence and their reasons for being satisfied in that respect. The latter provision clearly vests the overriding responsibility for the joint provision of the audit and NAS, on the demand side of the market, with directors. The responsibility represents a natural extension of their wider overriding statutory responsibility for the integrity of the financial statement and, therein, the external audit.

Directors could place a blanket prohibition on the provision of NAS to the client by the external audit firm, i.e., invoke separation of duties at the level of the client. However, it was argued here that directors are constrained from adopting such a policy by the need to ensure that the costs of reduced independence risk do not exceed the benefits vis-à-vis the wider best-practice principle that holds that directors are responsible for maximising efficiency subject to meeting accountability.

The key to balancing performance and accountability in the area of the joint provision of the audit and NAS lies with ex post safeguards of auditor independence, i.e., governance mechanisms. What has been of interest to this study, is the fact that the board of directors is in its own right a governance (ex post) mechanism for safeguarding auditor independence. Directors in discharging their responsibility for the integrity of the audit, as defined by corporate governance best practice, have the capacity to negate the threat to auditor independence from the provision of NAS by controlling for the propensity of management (IR opportunity) and the auditor (IR attitude) to act without integrity.
Corporate governance best practice also suggests that board (audit committee) effectiveness in that respect relies on the presence of key structural attributes. This thesis was motivated by the opportunity to examine the signalling quality of the structural attributes as a measure of board effectiveness in fulfilling its safeguarding role, in circumstances where the threat to auditor independence emanated from recurring NAS, as the best approximation of the presence of client-specific investment. The variables are key determinants of auditor independence within the Australian regulatory framework, and had not previously been examined from a user-based perspective, i.e., independence in appearance. This set of circumstances combined to give rise to the following empirical research question.

**RQ1** Does financial threat to auditor independence from recurring NAS and the structural strength of the board of directors affect stakeholder perceptions of auditor independence?

The *ex post* nature of the safeguarding role of the directors provides the opportunity for an entity (stakeholders) to choose the audit firm to provide NAS, where the firm is perceived to have the superior capacity to add value for shareholders. The superior capacity to add value begins with the client specific assets that are the basis of wealth incentives to the audit firm, i.e., at the conceptual level, incumbency, and incumbency as a multi-discipline supplier of services to the audit client. Thus, this research was not limited to examining the relationship between the foregoing IR variables and perceived auditor independence. The research, as an important extension of prior research, included the issue of stakeholder willingness to appoint the incumbent audit firm to provide NAS - giving rise to the following empirical research question.

**RQ2** Does financial threat to auditor independence from recurring NAS and the structural strength of the board of directors affect stakeholder willingness to appoint the incumbent audit firm to provide NAS?

The experimental setting for the present study placed the decision surrounding the choice of NAS provider in the initial market for NAS, where the superior capacity to add value does not begin with client specific assets, but firm specific assets. The experimental setting also served to attribute to the audit firm, by virtue of the specialist nature of the competing
NAS provider, audit technology and formal professional status, which represent potential sources of competitive advantage in the initial market for NAS.

All four of the distinguishing attributes of the audit firm – incumbency, multidisciplinarity, audit technology and formal professional status – as possible sources of competitive advantage lie upstream of the end product market. The implications of incumbency and multidisciplinarity in the client specific product market is well defined in the economics of audit quality literature from the supply side of the market, but less so from a demand perspective. Further, the relationship between audit technology and formal professional status and the firm specific product market is not addressed in the prior auditing literature dealing with the demand determinants of professional services. The latter body of literature lacks a conceptual framework and is, therefore, fixated in the product market. The present study sought to close that hiatus and in doing so brought the demand determinant literature into the realm of the audit-NAS debate. The process was facilitated by adopting the resource-based (RB) theory of competitive advantage provided in the strategic management literature, supported by literature dealing with the economics of transaction costs. The RB and transaction costs theories are compatible with the economics of audit quality literature dealing with the client specific assets. Thus, they facilitated adopting an integrated approach to examining the benefits that may accrue from appointing the incumbent audit firm to provide NAS. The analysis was undertaken in the process of answering the following descriptive research question.

RQ3 What are the nature and sources of the efficiencies that may accrue from appointing the incumbent audit firm to provide NAS?

The foregoing question was addressed at both a general theoretical level and with specific reference to the present study. The major contribution of the research lies at the general theoretical level, specifically, the integrated framework of the nature and sources of the efficiencies that may accrue from appointing the incumbent audit firm, developed in Chapter 5 through the exploitation of the associated literatures. The framework is underpinned by the following series of related propositions:
the nature of the efficiencies that may accrue from appointing the incumbent audit firm to provide NAS are twofold, productive efficiency (the ratio of valuable input to valuable output) and savings in transaction costs;

the sources of the efficiencies may be conceptualised at two levels – downstream at the product market in the form of firm specific and client specific assets vested in the provider, and up-stream of the product market at a conceptual level;

at the product market level

(iii) firm specific assets consist of technological and contractual assets;

(a) technological resources consist of two asset types, distinctive expertise and information benefits;

(b) contractual assets consist of two asset types, reputation and exclusivity;

(iv) client specific assets consist of technological advantage and knowledge spillovers; and

at the conceptual level

(v) firm and client specific assets derive, up stream, from three conceptual elements - processes, positions and paths - which are, in turn, defined by various antecedents.

The conceptual element of immediate interest to this study was positions. The distinguishing attributes of the audit firm, vis-à-vis the competing specialist NAS provider, are antecedents of the element. The antecedent → conceptual element → product market relationship, taking into consideration the experimental setting, lead to the conclusion that the audit firm may be perceived to have the superior capacity to add value with respect to the following asset types:

Firm specific resources:

(i) distinctive expertise emanating from audit technology, subject to the nature of the NAS;

(ii) information benefits emanating from multi-disciplinarity; and

(iii) exclusivity emanating from incumbency and formal professional status.

Client specific resources:

(iv) client switching costs, emanating from incumbency.
Qualitative evidence on the latter set of propositions was obtained as an outcome of Study 1, the first of the two studies that comprised the empirical component of the thesis.

STUDY 1

Study 1 involved the use of verbal protocol analysis as a critical stage in the design of the data instruments used in the experimental component of the thesis, Study 2. Notwithstanding the broad principles of cost–benefit analysis, the economics of audit quality literature, the ACE literature and the theory of IR, which shaped the case studies, there is no definitive theory guiding the decision of whether to appoint the incumbent audit firm to provide NAS. Examining the decision choice involved exploratory research and called for the design of an original set of data instruments. The advantage of protocol analysis under those circumstances is that “the ... protocols trace the decision-making process, they also explain it” (Kuusela et al., 2000, p. 388) – subject to the participants possessing the requisite knowledge.

The protocol study was guided by the following research question:

RQ4 Do the data instruments serve the researcher’s communication goals?

The answer to the foregoing question lay in the match between the researcher’s representation of the research problem expressed in the written case scenarios and the readers’ representations of the problem expressed in their verbal protocols. The participants were experienced corporate directors. The research problem concerned choosing between the incumbent audit firm and a specialist firm to provide NAS in circumstances where the following set of implicit conditions were to prevail:

The demand for an independent audit was high (IR opportunity).
The threat to audit independence from self-interest emanating from the fees for recurring NAS was high (low) (IR incentives).
The structural strength of the board of directors was strong (weak) (IR mitigation).
The prospective providers were heterogeneous with respect to their capacity to add value.
The results of the study suggest that the respective representations were for the most part consistent. The protocol data provided direct confirmatory evidence of the effectiveness of the cues associated with operationalising the foregoing dimensions of the implicit message, with the exception of IR incentives. The following accountability variables were addressed by directors in the process of undertaking the task:

**IR opportunity**
(i) the size and status of the client as a listed corporation, as the basis of the demand for an independent audit;
(ii) performance based remuneration, as a source of managerial opportunism;

**Structural strength of the board of directors**
(iii) the ratio of non-executive to executive directors;
(iv) the dominance of the CEO as board chairman and his/her influence on the composition of the remainder of the board;
(v) the qualifications of the non-executive directors;

**Structural strength of the audit committee**
(vi) composition: expertise and independence; and
(vii) resources: access to external and internal auditors.

The following efficiency variables were also addressed by directors in the process of arriving at their decision. The firm specific assets, distinctive expertise and information benefits, which are associated up-stream with the audit firm attributes, audit technology and multi-disciplinarity, respectively; and the client-specific asset, scope of knowledge. However, the latter result is, arguably, anomalous rather than confirmatory due to the fact that the case studies involved the provision of the audit and NAS by separate divisions of the firm i.e., the *ex ante* safeguard, separation of duties.

Anomalies associated with the following issues significantly undermined the reader’s comprehension and, therefore, the writer’s communication goals:

- the rationale for choosing between the NAS proposals;
- the description of the fees accruing to the audit firm for the audit and NAS; and
• the size of the NAS fee, which evoked a perception of low billing rather than the intended threat from the continuity of fees.

The anomalies provided an important agent of change in the further development of the case studies vis-à-vis Study 2.

Following on from the foregoing results, the principal limitation of Study 1 lies with the fact that the study was directed at evaluating a particular set of case studies, rather than identifying a general rule that holds for all such instruments, i.e., the results of the study lack generalisability. The contributions of the study to the broader literature, however, are twofold. Firstly, the exploitation of the reading comprehension and protocol literatures that provided the theoretical foundation for the study, introduces to the auditing literature the value of protocol analysis in the developmental life cycle of written data instruments. Secondly, the results of the study demonstrate that protocol analysis is an appropriate method of inquiry in evaluating narrative case studies.

The results of Study 1, together with the issues surrounding the audit-NAS debate (Chapter 2); prior empirical research (Chapter 3); the contemporary best practice – statute regulatory framework (Chapters 2 and 4); IR theory (Chapters 2 and 4); and the efficiencies that may ensue from appointing the incumbent audit firm to provide NAS (Chapter 5), provided the background to the experimental research undertaken in Study 2.

STUDY 2
Study 2 was designed to gain evidence on the two empirical research questions identified earlier in the Chapter.

Research question 1 addressed the effect of the threat from recurring NAS and the structural strength of the board of directors on stakeholder (shareholder) perceptions of auditor independence. Shareholder perceptions of auditor independence were measured
using a 7-point rating scale (1 represented low auditor independence; 4, moderate; and 7, high auditor independence).

Research question 2 addressed the effect of recurring NAS and the structural strength of the board of directors on stakeholder (shareholder) willingness to appoint the incumbent audit firm to provide NAS. The notion of willingness-to-appoint was operationalised by asking the participants to indicate the following:

(i) whom they would choose to provide the NAS; and
(ii) their strength of preference for the respective providers.

The participants’ choice of NAS provider was measured using a dichotomous (audit firm versus specialist firm) scale. The participants’ strength of preference for the respective providers was measured using 7-point rating scales (1 represented weak strength of preference; 4, moderate; and 7, strong strength of preference).

The two treatments were manipulated at two levels giving rise to a 2 x 2 (between subjects) design. The levels of financial threat from recurring NAS (self-interest) were low and high. The low level of threat was operationalised via the provision of a single professional service. The high level of threat involved a consecutive, three-year follow-up period to the provision of the initial main service, which attracted an annual fee, and included the option to renew at the end of that period, exercisable at the discretion of the client’s management. The structural strength of the board of directors variable was manipulated using a strong and weak form of the relevant attributes.

A summary of each research question and the hypotheses, measures of the participants’ responses (statistics), statistical tests and main findings associated with each of the questions, is provided in Tables 63 and 64, beginning with research question 1.
A discussion of the sets of main findings associated with each question follows the relevant Tables. However, the discussion of the implications of the results is postponed until the review of the findings is complete i.e., the discussion follows Table 64.

**TABLE 63: RQ1 and the hypotheses, statistics, statistical tests and main findings**

<table>
<thead>
<tr>
<th>Auditor independence</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strong board of D</td>
<td>Strong board of D</td>
<td>Weak board of D</td>
<td>Weak board of D</td>
</tr>
<tr>
<td></td>
<td>non-recurrent fee</td>
<td>recurrent fee</td>
<td>non-recurrent fee</td>
<td>recurrent fee</td>
</tr>
<tr>
<td>Mean response (std dev)</td>
<td>4.48 (1.60)</td>
<td>4.73 (1.39)</td>
<td>4.25 (.72)</td>
<td>3.25 (.85)</td>
</tr>
</tbody>
</table>

**Statistical test:** Two-way ANOVA.

**Main findings:**
The mean scores, with the exception of Group 2 relative to group 2, are in the hypothesised direction.

**Main effects:**
The recurring NAS treatment was marginally significant with respect to its impact on participant perceptions of auditor independence \[ F(1.79)=1.994, \ p=.081 \]. \[ H_{1a} \]

The strength of the board of directors treatment, on the other hand, significantly impacted participant perceptions of auditor independence \[ F(1.79)=10.315, \ p=.001 \]. \[ H_{1b} \]

**Interaction effect:**
The results of the ANOVA also showed a significant interaction effect between the treatments \[ F(1.79)=5.564, \ p=.010 \]. The results of the post-hoc analysis (Tukeys HSD test) of the interaction effect, indicate that the threat of self-interest significantly impacted participant perceptions of auditor independence when the NAS fee was recurring and the strength of the board of directors was weak \( p=0.004 \). \[ H_{1c} \]

The main effects associated with RQ 1 indicate that participant perceptions of auditor independence were adversely affected when the following conditions prevailed:
- the NAS was recurring i.e., the threat of self-interest was high; and
- the structural strength of the board of directors was weak.
Further, the results show that participant perceptions of auditor independence were more likely to be affected by recurring NAS where the strength of the board of directors was weak than when it was strong.

Attention now turns to Table 64. Panel A of Table 64 deals with the dependent variable, choice of audit firm; and panel B, strength of preference for the audit firm.
RQ2: Does financial threat to auditor independence from recurring NAS and the structural strength of the board of directors affect stakeholder willingness to appoint the incumbent audit firm to provide NAS?

**Panel A: Choice of audit firm variable**

$H_{6a}$: Stakeholders will be less likely to choose the audit firm to provide the NAS when the NAS is recurring than when it is non-recurring (the structural strength of the board of directors is weak than when it is strong).

$H_{6b}$: Stakeholder choice of the audit firm is more likely to be affected by the recurring NAS when the structural strength of the board of directors is weak than when it is strong.

<table>
<thead>
<tr>
<th>Choice of audit firm</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean response</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(std dev)</td>
<td>.43 (.51)</td>
<td>.23 (.43)</td>
<td>.05 (.22)</td>
<td>.00 (.00)</td>
</tr>
<tr>
<td>Response frequency - no.'s (%)</td>
<td>9 (43%)</td>
<td>5 (23%)</td>
<td>1 (5%)</td>
<td>0 (0%)</td>
</tr>
</tbody>
</table>

**Statistical tests:** Two-way ANOVA, Chi-square based on the above frequencies.

**Main findings:**

The mean scores (frequencies) are in the hypothesised direction.

**Main effects:**

The ANOVA results indicate that the recurring NAS variable significantly impacted participants' choice of the audit firm to provide the NAS [$F(1,79)=2.595, p=.056]$ [$H_{6a}$]: as did the strength of the board of directors variable [$F(1,79)=15.084, p=.000]$ [$H_{6b}$].

The results of the Chi-Square test lend support for those obtained using ANOVA to the extent that the Yates' Correction for Continuity value for the strength of the board of directors variable was significant [$CC(1)=10.697, p=.000$]. The same statistic for the recurring NAS variable was marginally significant at $p=.116$ [$CC(1)=1.422$]. [$H_{6a}$]

**Interaction effect:**

There was no significant interaction effect between the treatments [$F(1,79)=.941, p=.168$].

**Panel B: Strength of preference for audit firm variable**

$H_{6a'}$: Stakeholder strength of preference for the audit firm will be lower when the NAS is recurring than when it is non-recurring (the structural strength of the board of directors is weak than when it is strong).

$H_{6b'}$: Stakeholder strength of preference for the audit firm is more likely to be affected by the recurring NAS when the structural strength of the board of directors is weak than when it is strong.

<table>
<thead>
<tr>
<th>Strength of preference for the audit firm</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean response</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(std dev)</td>
<td>4.29 (1.68)</td>
<td>3.86 (1.39)</td>
<td>2.85 (1.93)</td>
<td>3.05 (1.00)</td>
</tr>
</tbody>
</table>

**Statistical test:** Two-way ANOVA.

**Main findings:**

The mean scores, with the exception of group 4 relative to group 3, are in the hypothesised direction.

**Main effects:**

The ANOVA results indicate that the participants' strength of preference for the audit firm to provide the NAS was significantly impacted by the strength of the board of directors variable [$F(1,79)=15.639, p=.000$]. [$H_{6a'}$]

However, the result for the recurring NAS variable was not significant [$F(1,79)=.152, p=.348$]. [$H_{6b'}$]

**Interaction effect:**

There was no significant interaction effect between the treatments [$F(1,79)=1.196, p=.138$]. [$H_{6a'}$]
The foregoing willingness-to-appoint results indicate that the participants were less likely to choose the audit firm, and their strength of preference for the audit firm was adversely affected when the NAS was recurring and the strength of the board of directors was weak.

The significant main effects associated with participant perceptions of auditor independence and willingness to appoint the incumbent audit firm to provide NAS variables, lend support for the various frameworks that provided the theoretical foundation of the hypotheses. The frameworks include with respect to the recurring NAS variable, the economics of audit quality (analytical and empirical) and the Australian professional best practice literatures; and with respect to the structural strength of the board of directors, the audit committee effectiveness (ACE) literature, empirical and best-practice. The results of the regression analysis, undertaken as part of the post-experimental questionnaire, of the relation between perceived strength of corporate governance and the structural attributes the board of directors deployed in the study, also provided support for the ACE literature.

The results also lend support for the Mock et al. (2005) model of the problem of inferring independence risk, which underpins the overall framework of the study. The most significant result in that respect lies with the interaction effect, which shows that the perception of auditor independence was more likely to be affected by recurring NAS where the structural strength of the board of directors was weak than when it was strong. From the perspective of the model, that is the point at which propagation from IR incentives to IR attitude and IR opportunity (specifically, managerial opportunism) is more likely to occur.

The focus of Study 2 was on issues of accountability. However, early in the thesis it was suggested that the net benefits of hiring the incumbent audit firm are a function of perceived auditor independence (accountability) and the perceived benefits of hiring the incumbent audit firm to provide NAS (efficiency). Thus, it was anticipated that there may be a positive correlation between the choice of audit firm and perceived net
benefits. The relation was examined using Spearman’s Rank Order Correlation test. The results of the test showed a strong, positive correlation between the variables \( r = .570 \) \((n = 83, \ p = .001)\) i.e., the choice of audit firm was associated with higher levels of perceived net benefits.

Finally, the major limitation of Study 2, as with Study 1, concerns the generalisability of the results. The sample of shareholders may not be representative of the Australian shareholder population. The sample is comparatively small (83 observations) and fifty four percent of the participants reside in Western Australia.

**Opportunities for further research**

Opportunities for further research arising from the thesis lie in the areas of efficiency and accountability. Australian regulators have not placed a blanket prohibition on the provision of NAS by external audit firms to the extent that efficiency may prevail where accountability is met. From the perspective of the market players, including directors, given the current sensitivity to the market, such an outcome might only proceed in the knowledge of what constitutes an acceptable safeguard of auditor independence in the eyes of investors. The contemporary regulatory regime has spawned a plethora of safeguards of auditor independence about whose acceptability to the equity market little is known. Citing just a few of the many examples identified in PF 1, the safeguards include the following:

(i) from the perspective of the audit firm, disciplinary mechanisms to promote compliance with policies and procedures, and involving another firm to re-perform the non-assurance engagement;

(ii) from the perspective of the audit client, policies and procedures that emphasise the assurance client’s commitment to fair financial reporting, and internal procedures that ensure objective choices in commissioning non-assurance engagements; and

(iii) from the broader regulatory environment, the external review of an audit firm’s quality control systems.
However, the question of the acceptability of any safeguard of auditor independence, in the face of significant threat arising from the provision of NAS, only becomes relevant where the audit firm in all other respects represents the least cost/largest net gain to the client vis-à-vis rival providers. Thus, it is suggested that future user-based studies of the acceptability of safeguards of auditor independence ought to take place in the context of the efficiency – accountability (IR) dilemma, particularly in relation to shareholders, as residual claimants. This might include taking a more overt/salient approach to audit firm efficiency than that reflected in the experimental setting for the present study. For example, a monetary value might be placed on the net gain (accountability aside) that would ensue from appointing the incumbent auditor to provide NAS relative to the competitor(s).

The acceptability of safeguards ought also to be tested from the perspective of the various forms of threat, i.e., self-interest, self-review, advocacy, familiarity and intimidation. It would be interesting in the light of the results of this study to test the signalling quality of the structural strength of the board of directors where the threat emanating from NAS involved self-review. Self-review represents a more subtle threat to auditor independence than wealth incentives, and does not rely for its effect on the exercise of managerial opportunism. The threat places in question a board’s capacity to more directly control IR attitude.

Further, with respect to the role of the board of directors as a safeguard of auditor independence, there is considerable debate as to whether structural attributes or the social dynamics of a board are the key to effectiveness. The structural attributes versus social dynamics issue, represents an interesting area for research, internationally. From the perspective of the present study, the issue leads to the question of the acceptability (signalling quality) of the separate sets of attributes to the equity market as safeguards of auditor independence.

267
Conclusion

The overall importance of this study lies in the fact that it has the capacity to extend our understanding of issues that are central to the debate surrounding the joint provision of the audit and NAS:

(i) the threat to perceived auditor independence from client specific investment, approximated by recurring NAS;

(ii) the assurance properties of the structural strength of the board of directors as a signal of board effectiveness in the discharge of its responsibility for the integrity of the external audit; and

(iii) the issue of the efficiencies that may ensue from appointing the incumbent audit firm to provide NAS.

Theory tells us that item (i) is at the heart of the threat to auditor independence from self-interest as it relates to the provision of NAS. The Australian government has also identified financial incentives as the overriding threat to auditor independence from the provision of NAS to audit clients. With respect to item (ii), the board of the directors (audit committee) is at the pinnacle of the network of safeguards of auditor independence within the Australian regulatory best practice – statute framework that has been established to preserve auditor independence. The empirical results of the research suggest that items (i) and (ii) impact the perception of auditor independence, a necessary condition of auditor independence and, similarly, stakeholder willingness to appoint the incumbent audit firm to provide NAS.

Further, with respect item (iii) the debate surrounding the joint provision of the audit and NAS is ultimately concerned with the costs and benefits associated with safeguards of auditor independence i.e., the benefits of reduced independence risk versus the costs of any economic efficiencies foregone. The issue of the costs of safeguards is a basic tenet to be considered by independence decision makers, notwithstanding the status of the decision maker e.g., regulatory authority and directors. The current study sought to advance our theoretical understanding of the indirect costs of reduced independence risk (safeguards) as they relate to the efficiencies that may ensue from appointing the
incumbent audit firm to provide NAS. Preliminary qualitative evidence on the matter was also obtained as part of Study 1.

Thus, taking into consideration the significance of the issues addressed in this study to the debate surrounding the joint provision of the audit and NAS, and the evidence obtained, it is concluded that the research has a valuable contribution to make to the academic literature, and to those parties who have a vested interest in the debate e.g., the auditing profession, other regulators, audit firms and audit clients.
REFERENCES


277


Senate Standing Committee on Legal and Constitutional Affairs. 1989.


Dear Participant:

Thank you for participating in this study. The purpose of the study is to gain an understanding of factors that directors consider important when a corporation is faced with the task of choosing between alternative providers of professional services.

You will be provided with a description of a corporation, Baudin Ltd, which has recently adopted the principle of sustainable development, with respect to employee health and safety and the natural environment. The corporation has called for proposals to assist in the development and implementation of key health, safety and environmental performance indicators, and in the preparation of the inaugural annual sustainable development report to external stakeholders, as part of the overall initiative. The final stage in the selection process has been reached, where the choice is to be made between the remaining two contenders: the current external audit firm and a specialist provider.

You will be asked to answer the following four questions on the basis of the case description:

1. What factors do you consider are important in choosing between alternative service providers in circumstances such as those facing Baudin Ltd?

2. Whom would you choose to provide the service?

3. What is the strength of your preference for the alternative providers?

4. What factors account for your preference for one provider over the other?

In addition, we ask that you perform the task through a technique referred to as "verbal protocol analysis". The technique involves capturing your thoughts as you consider the information provided in the case study in the process of arriving at your answers. Thus, we ask that you speak aloud all of your thoughts as you work on the problem. We will tape record your responses to ensure that we have an accurate record of your thoughts.

We are interested in your judgement based on your standing as a director. Please note that there is no correct or incorrect answer. You can be assured that your identity will remain anonymous. Individual responses will not be known to anyone other than the members of the research team. The aggregate results of all participants in the study only will be reported.

Thank you once again for participating in this study.

Colleen Hayes, Edith Cowan University
Professor Gary Monroe, Edith Cowan University
Professor Theodore Mock, University of Southern California
CASE STUDY

Baudin Ltd is a large Australian owned organisation, with an annual sales turnover of approximately $5 billion. The company, founded in 1978, is headquartered in Sydney, and it employs approximately 9,400 people worldwide. Baudin is primarily involved in the manufacture of chemical products for use in mining, agriculture, industry and the consumer sector. The products are sold both domestically and overseas. The company, which is publicly traded, has a diversified shareholder base and no group of shareholders holds any significant influence.

The entity is governed by a ten-member Board of Directors, comprised of three executive members, including the company’s Chief Executive Officer, and seven non-executive members. The Chairman of the Board is a non-executive director. The Board is assisted in the discharge of its duties by a number of sub-committees, all of whom are accountable to the Board. The nomination of members to the Board, is the responsibility of a Nominations Committee, which is comprised of three non-executive directors.

The non-executive members of the Board, with the exception of their positions as Directors of the company, have never been employed by Baudin Ltd, and neither they nor any of their respective family members, have any financial dealings or other contractual arrangements with the corporation.

The Board is assisted in the execution of its accounting and auditing responsibilities, by an Audit Committee. The three-member Audit Committee is comprised of non-executive directors. Two of the Committee members hold senior Australian professional accounting qualifications. The role of the Committee is as follows:

1. to advise on the establishment and maintenance of a framework of internal control and appropriate ethical standards for the management of the company. Thus, it assists the Board in fulfilling its responsibilities for the quality and reliability of financial information, including reporting in financial statements;

2. to monitor the management of identified risks, identify any new risks and recommend action to be taken for their control;

3. to review the scope of the external audit, and to review findings and issues brought to its attention; and

4. to review the appointment and remuneration of the external auditors.

The Audit Committee meets with the external and internal auditors and senior management to review the half yearly and annual financial statements and reports, and at such other times as may be necessary to consider specific issues or matters which may arise from the internal and external audit process. The external auditors have direct access to the Committee, if necessary, without management involvement. The Committee reports to the Board after each Committee meeting.
APPENDIX A: Protocol analysis Case study 1/Protocol 1. Code:1.1.1

Baudin Ltd's senior executive management has an average of ten years experience with the organisation. The current senior executive remuneration plan includes fixed and variable components. The fixed component comprises a salary, superannuation contributions, and vehicle related benefits. The variable component comprises an annual cash incentive bonus, payable on the achievement of corporate profitability targets. The remuneration package also includes an executive share option plan. The options are exercisable upon achievement of earnings per share (EPS) growth at 5% per annum. The first tranche of options is exercisable on 31 December 2002.

Baudin Ltd experienced a modest growth in profit before tax in the five years to the 30 June 2001, notwithstanding the highly competitive nature of the industry. Senior Management believes, given current social trends, that implementing and promoting socially responsible principles will be important in maintaining a competitive advantage, operationally and financially, in the industry in future. Thus, the company has made a public commitment to integrate sustainable development principles into its business policies, with specific reference to employee health and safety, and the natural environment. The company's public commitment to the policy will be underpinned by publishing a sustainable development report, as part of its annual reporting obligations to shareholders. The company's current external auditor will audit the report.

Senior Management, acting with the approval of the Board of Directors, has, to date, undertaken the following steps to implement the strategy.

Three sustainable development consultants, including the company's current external audit firm, were approached to prepare submissions to Baudin Ltd identifying (i) proposed key performance indicators of employee health and safety and the natural environment, which will form part of its sustainable development framework; and (ii) a proposal for assisting management in the implementation of the performance indicators and in the preparation of the inaugural annual sustainable development report to external stakeholders. The performance indicators will form the foundation of the annual sustainable development report.

Submissions were sought from three different sources in order to gain an appreciation of the nature and quality of the service available in the marketplace and, at the same time, formulate the needs of the company. The service providers were selected on the basis of their reputation for excellence in the provision of all facets of the service sought.

The initial criterion for choosing between the proposals, centred on the ease with which the performance indicators could be integrated into management's current planning and control processes. On that basis, the final choice of service providers has been reduced to two candidates: the current external audit firm and a specialist sustainable development consultancy firm.

Baudin Ltd's current auditor is a member of the Big 5 audit firms, and has audited Baudin Ltd's financial statements for five years. The auditor is an expert in the industry in which the company operates.
APPENDIX A: Protocol analysis Case study I/Protocol 1. Code:1.1.1

The sustainable development consultancy division of the audit firm has been solely responsible for the submission, and will be solely responsible for carrying out the project in the event that its proposal is accepted. The division was established in 1997 and its staff is both reputable and expert in the field, and in the industry in which Baudin Ltd operates. The audit firm’s price for providing the overall service is $125,000.

The total fees paid by Baudin Ltd to the audit firm, for all services, will represent 5% of the average annual revenue of the local audit office, in the event that the current submission is successful. The total annual audit fee will be $580,000. The audit firm also provides on-going taxation and superannuation consultancy services to the company. The fees for all non-audit services will be $1,450,000.

The remaining contender is one of four leading specialist sustainable development consultancy firms in Australia. The firm has been solely responsible for the submission, and will be solely responsible for carrying out the project in the event that its proposal is accepted. The firm was established in 1997, and its staff is both reputable and expert in the field, and in the industry in which Baudin Ltd operates. The firm’s price for providing the overall service is $120,000. The figure will represent 9% of the average annual revenue of the local office, in the event that the submission is successful.

Whilst the two submissions differ significantly on certain detail, management considers that they are equally meritorious with respect to the standard and suitability of what is proposed. Further, it considers that the operating capacity of both contenders is appropriate for the task.

Professional Service Providers Study

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Thank you for participating in this study. The purpose of the study is to gain an understanding of factors that directors consider important when a corporation is faced with the task of choosing between alternative providers of professional services.

You will be provided with a description of a corporation, Baudin Ltd, which has recently adopted the principle of sustainable development, with respect to employee health and safety and the natural environment. The corporation has called for proposals to assist in the development and implementation of key health, safety and environmental performance indicators, and in the preparation of the inaugural annual sustainable development report to external stakeholders, as part of the overall initiative. The final stage in the selection process has been reached, where the choice is to be made between the remaining two contenders: the current external audit firm and a specialist provider.

You will be asked to answer the following four questions on the basis of the case description:

1. What factors do you consider are important in choosing between alternative service providers in circumstances such as those facing Baudin Ltd?

2. Whom would you choose to provide the service?

3. What is the strength of your preference for the alternative providers?

4. What factors account for your preference for one provider over the other?

In addition, we ask that you perform the task through a technique referred to as “verbal protocol analysis”. The technique involves capturing your thoughts as you consider the information provided in the case study in the process of arriving at your answers. Thus, we ask that you speak aloud all of your thoughts as you work on the problem. We will tape record your responses to ensure that we have an accurate record of your thoughts.

We are interested in your judgement based on your standing as a director. Please note that there is no correct or incorrect answer. You can be assured that your identity will remain anonymous. Individual responses will not be known to anyone other than the members of the research team. The aggregate results of all participants in the study only will be reported.

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Submissions were sought from three different sources in order to gain an appreciation of the nature and quality of the service available in the marketplace and, at the same time, formulate the needs of the company. The service providers were selected on the basis of their reputation for excellence in the provision of all facets of the service sought.

The initial criterion for choosing between the proposals, centred on the ease with which the performance indicators could be integrated into management’s current planning and control processes. On that basis, the final choice of service providers has been reduced to two candidates: the current external audit firm and a specialist sustainable development consultancy firm.
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The Board is assisted in the execution of its accounting and auditing responsibilities, by an Audit Committee. The three-member Audit Committee is comprised of two non-executive directors and one executive director, who chairs the Committee. The executive director, unlike the non-executive directors, holds an Australian professional accounting qualification. The role of the Committee is to advise on the establishment and maintenance of a framework of internal control; and, in that way, it assists the Board in fulfilling its responsibilities for the quality and reliability of financial information, including reporting in financial statements. The Committee meets once every four months. The internal and external auditors are invited to meetings at the discretion of the Committee. The Committee reports to the Board after each Committee meeting.

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You will be provided with a description of a corporation, Baudin Ltd, which has recently decided to alter the configuration of its existing computer software, to integrate its accounting function with other major functions such as materials acquisition, production and human resources. The corporation has called for proposals to undertake the re-engineering process, as part of the overall initiative. The final stage in the selection process has been reached, where the choice is to be made between the remaining two contenders: the current external audit firm and a specialist provider.

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Baudin Ltd experienced a modest growth in profit before tax in the five years to the 30 June 2001, notwithstanding the highly competitive nature of the industry. Senior Management believes that significant efficiencies can be achieved in the future through adapting the company's existing computer software to integrate the company’s accounting function with other major functions such as materials acquisition, production and human resources. The adaptation will significantly reduce information processing costs and speed up information processing and updating, leading to improved internal decision making, and, ultimately, improved financial performance.

Senior Management, acting with the approval of the Board of Directors, has, to date, undertaken the following steps to implement the strategy.

Given the lack of internal expertise in the area, three information systems consultants, including the company's current external audit firm, were approached to submit proposals to Baudin Ltd to undertake the necessary re-configuration of its software. The successful contender will also be responsible for maintaining, and, in consultation with Baudin Ltd, upgrading if necessary, the configuration of the company's software for a period of three years, with the option to renew at the end of that period at the discretion of Baudin Ltd.

Submissions were sought from three different sources in order to gain an appreciation of the nature and quality of the service available in the marketplace and, at the same time, formulate the needs of the company. The service providers were selected on the basis of their reputation for excellence in the provision of all facets of the service sought.

The initial criterion for choosing between the submissions was the ease with which the proposed changes could be integrated into management's planning and control processes. On that basis, the final choice of service providers has been reduced to two candidates: the current external audit firm and a specialist information systems consultancy firm.

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Baudin Ltd experienced a modest growth in profit before tax in the five years to the 30 June 2001, notwithstanding the highly competitive nature of the industry. Senior Management believes that significant efficiencies can be achieved in the future through adapting the company’s existing computer software to integrate the company’s accounting function with other major functions such as materials acquisition, production and human resources. The adaptation will significantly reduce information processing costs and speed up information processing and updating, leading to improved internal decision making, and, ultimately, improved financial performance.
Senior Management, acting with the approval of the Board of Directors, has, to date, undertaken the following steps to implement the strategy.

Given the lack of internal expertise in the area, three information systems consultants, including the company’s current external audit firm, were approached to submit proposals to Baudin Ltd to undertake the necessary re-configuration of its software. The successful contender will also be responsible for maintaining, and, in consultation with Baudin Ltd, upgrading if necessary, the configuration of the company’s software for a period of three years, with the option to renew at the end of that period at the discretion of Baudin Ltd.

Submissions were sought from three different sources in order to gain an appreciation of the nature and quality of the service available in the marketplace and, at the same time, formulate the needs of the company. The service providers were selected on the basis of their reputation for excellence in the provision of all facets of the service sought.

The initial criterion for choosing between the submissions was the ease with which the proposed changes could be integrated into management’s planning and control processes. On that basis, the final choice of service providers has been reduced to two candidates: the current external audit firm and a specialist information systems consultancy firm.

Baudin Ltd's current auditor is a member of the Big 5 audit firms, and has audited Baudin Ltd's financial statements for five years. The auditor is an expert in the industry in which the company operates.

The information systems consultancy division of the audit firm has been solely responsible for the submission, and will be solely responsible for carrying out the project in the event that its proposal is accepted. The division was established in 1997 and its staff is both reputable and expert in the field, and in the industry in which Baudin Ltd operates. The audit firm's price for providing the overall service is $125,000.

The total fees paid by Baudin Ltd to the audit firm, for all services, will represent 5% of the average annual revenue of the local audit office, in the event that the current submission is successful. The annual audit fee is $580,000. The audit firm also provides on-going taxation and superannuation consultancy services to the company. The fees for all non-audit services will be $1,450,000.

The remaining contender is one of four leading information systems consultancy firms in Australia. The firm has been solely responsible for the submission, and will be solely responsible for carrying out the project in the event that its proposal is accepted. The firm was established in 1997, and its staff is both reputable and expert in the field, and in the industry in which Baudin Ltd operates. The firm's price for providing the overall service is $120,000. The figure will represent 9% of the average annual revenue of the local office, in the event that the submission is successful.
Whilst the two submissions differ significantly on certain detail, management considers that they are equally meritorious with respect to the standard and suitability of what is proposed. Further, it considers that the operating capacity of both contenders is appropriate for the task.
Dear Participant:

Thank you for participating in this study. The purpose of the study is to gain an understanding of factors that directors consider important when a corporation is faced with the task of choosing between alternative providers of professional services.

You will be provided with a description of a corporation, Baudin Ltd, which has recently decided to integrate non-financial measures with traditional financial measures in internal decision making. The company has called for proposals, from external providers, to measure and analyse its customers’ attitudes to the company and its products, as part of the overall initiative. The final stage in the selection process has been reached, where the choice is to be made between the remaining two contenders: the current external audit firm and a specialist provider.

You will be asked to answer the following four questions on the basis of the case description:

1. What factors do you consider are important in choosing between alternative service providers in circumstances such as those facing Baudin Ltd?

2. Whom would you choose to provide the service?

3. What is the strength of your preference for the alternative providers?

4. What factors account for your preference for one provider over the other?

In addition, we ask that you perform the task through a technique referred to as “verbal protocol analysis”. The technique involves capturing your thoughts as you consider the information provided in the case study in the process of arriving at your answers. Thus, we ask that you speak aloud all of your thoughts as you work on the problem. We will tape record your responses to ensure that we have an accurate record of your thoughts.

We are interested in your judgement based on your standing as a director. Please note that there is no correct or incorrect answer. You can be assured that your identity will remain anonymous. Individual responses will not be known to anyone other than the members of the research team. The aggregate results of all participants in the study only will be reported.

Thank you once again for participating in this study.

Colleen Hayes, Edith Cowan University
Professor Gary Monroe, Edith Cowan University
Professor Theodore Mock, University of Southern California
CASE STUDY

Baudin Ltd is a large Australian owned organisation, with an annual sales turnover of approximately $5 billion. The company, founded in 1978, is headquartered in Sydney, and it employs approximately 9,400 people worldwide. Baudin is primarily involved in the manufacture of chemical products for use in mining, agriculture, industry and the consumer sector. The products are sold both domestically and overseas. The company, which is publicly traded, has a diversified shareholder base and no group of shareholders holds any significant influence.

The entity is governed by a ten-member Board of Directors, comprised of three executive members, including the company's Chief Executive Officer, and seven non-executive members. The Chairman of the Board is a non-executive director. The Board is assisted in the discharge of its duties by a number of sub-committees, all of whom are accountable to the Board. The nomination of members to the Board, is the responsibility of a Nominations Committee, which is comprised of three non-executive directors.

The non-executive members of the Board, with the exception of their positions as Directors of the company, have never been employed by Baudin Ltd, and neither they nor any of their respective family members, have any financial dealings or other contractual arrangements with the corporation.

The Board is assisted in the execution of its accounting and auditing responsibilities, by an Audit Committee. The three-member Audit Committee is comprised of non-executive directors. Two of the Committee members hold senior Australian professional accounting qualifications. The role of the Committee is as follows:

1. to advise on the establishment and maintenance of a framework of internal control and appropriate ethical standards for the management of the company. Thus, it assists the Board in fulfilling its responsibilities for the quality and reliability of financial information, including reporting in financial statements;

2. to monitor the management of identified risks, identify any new risks and recommend action to be taken for their control;

3. to review the scope of the external audit, and to review findings and issues brought to its attention; and

4. to review the appointment and remuneration of the external auditors.

The Audit Committee meets with the external and internal auditors and senior management to review the half yearly and annual financial statements and reports, and at such other times as may be necessary to consider specific issues or matters which may arise from the internal and external audit process. The external auditors have direct access to the Committee, if necessary, without management involvement. The Committee reports to the Board after each Committee meeting.
Baudin Ltd's senior executive management has an average of ten years experience with
the organisation. The current senior executive remuneration plan includes fixed and
variable components. The fixed component comprises a salary, superannuation
contributions, and vehicle related benefits. The variable component comprises an annual
cash incentive bonus, payable on the achievement of corporate profitability targets. The
remuneration package also includes an executive share option plan. The options are
exercisable upon achievement of earnings per share (EPS) growth at 5% per annum. The
first tranche of options is exercisable on 31 December 2002.

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June 2001, notwithstanding the highly competitive nature of the industry. Senior
Management believes that integrating non-financial performance indicators with
traditional financial performance measures, in internal decision making, can lead to
improved financial performance. Thus, the decision was made to obtain information on
the company's customers' attitudes to the company and its products, as part of the overall
initiative.

Senior Management, acting with the approval of the Board of Directors, has, to date,
undertaken the following steps to implement the strategy.

Given the lack of internal expertise with respect to measuring and analysing customer
satisfaction, three customer services consultants, including the company's current
external audit firm, were approached to submit proposals to Baudin Ltd for measuring
and analysing the company's customer base, worldwide, with respect to customer attitude
towards the company and satisfaction with its products.

Submissions were sought from three different sources in order to gain an appreciation of
the nature and quality of the service available in the marketplace and, at the same time,
formulate the needs of the company. The service providers were selected on the basis of
their reputation for excellence in the provision of all facets of the service sought.

The initial criterion for choosing between the proposals, centred on the ease with which
the performance indicators could be integrated into management’s current planning and
control processes. On that basis, the final choice of service providers has been reduced to
two candidates: the current external audit firm and a specialist sustainable development
consultancy firm.

Baudin Ltd's current auditor is a member of the Big 5 audit firms, and has audited Baudin
Ltd's financial statements for five years. The auditor is an expert in the industry in which
the company operates.

The customer services consultancy division of the audit firm has been solely responsible
for the submission, and will be solely responsible for carrying out the project in the event
that its proposal is accepted. The division was established in 1997 and its staff is both
reputable and expert in the field, and in the industry in which Baudin Ltd operates. The
audit firm's price for providing the overall service is $125,000.
The total fees paid by Baudin Ltd to the audit firm, for all services, will represent 5% of the average annual revenue of the local audit office, in the event that the current submission is successful. The annual audit fee is $580,000. The audit firm also provides on-going taxation and superannuation consultancy services to the company. The fees for all non-audit services will be $1,450,000.

The remaining contender is one of four leading specialist customer services consultancy firms in Australia. The firm has been solely responsible for the submission, and will be solely responsible for carrying out the project in the event that its proposal is accepted. The firm was established in 1997, and its staff is both reputable and expert in the field, and in the industry in which Baudin Ltd operates. The firm's price for providing the overall service is $120,000. The figure will represent 9% of the average annual revenue of the local office, in the event that the submission is successful.

Whilst the two submissions differ significantly on certain detail, management considers that they are equally meritorious with respect to the standard and suitability of what is proposed. Further, it considers that the operating capacity of both contenders is appropriate for the task.
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You will be asked to answer the following four questions on the basis of the case description:

1. What factors do you consider are important in choosing between alternative service providers in circumstances such as those facing Baudin Ltd?

2. Whom would you choose to provide the service?

3. What is the strength of your preference for the alternative providers?

4. What factors account for your preference for one provider over the other?

In addition, we ask that you perform the task through a technique referred to as “verbal protocol analysis”. The technique involves capturing your thoughts as you consider the information provided in the case study in the process of arriving at your answers. Thus, we ask that you speak aloud all of your thoughts as you work on the problem. We will tape record your responses to ensure that we have an accurate record of your thoughts.

We are interested in your judgement based on your standing as a director. Please note that there is no correct or incorrect answer. You can be assured that your identity will remain anonymous. Individual responses will not be known to anyone other than the members of the research team. The aggregate results of all participants in the study only will be reported.

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Baudin Ltd is a large Australian owned organisation, with an annual sales turnover of approximately $5 billion. The company, founded in 1978, is headquartered in Sydney, and it employs approximately 9,400 people worldwide. Baudin is primarily involved in the manufacture of chemical products for use in mining, agriculture, industry and the consumer sector. The products are sold both domestically and overseas. The company, which is publicly traded, has a diversified shareholder base and no group of shareholders holds any significant influence.

The entity is governed by a ten-member Board of Directors, comprised of three executive members, including the company’s Chief Executive Officer, and seven non-executive members. The Chairman of the Board is a non-executive director. The Board is assisted in the discharge of its duties by a number of sub-committees, all of whom are accountable to the Board. The nomination of members to the Board is the responsibility of a Nominations Committee, which is comprised of three non-executive directors.

The non-executive members of the Board, with the exception of their positions as Directors of the company, have never been employed by Baudin Ltd, and neither they nor any of their respective family members, have any financial dealings or other contractual arrangements with the corporation.

The Board is assisted in the execution of its accounting and auditing responsibilities, by an Audit Committee. The three-member Audit Committee is comprised of non-executive directors. Two of the Committee members hold senior Australian professional accounting qualifications. The role of the Committee is as follows:

1. to advise on the establishment and maintenance of a framework of internal control and appropriate ethical standards for the management of the company. Thus, it assists the Board in fulfilling its responsibilities for the quality and reliability of financial information, including reporting in financial statements;

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3. to review the scope of the external audit, and to review findings and issues brought to its attention; and

4. to review the appointment and remuneration of the external auditors.

The Audit Committee meets with the external and internal auditors and senior management to review the half yearly and annual financial statements and reports, and at such other times as may be necessary to consider specific issues or matters which may arise from the internal and external audit process. The external auditors have direct access to the Committee, if necessary, without management involvement. The Committee reports to the Board after each Committee meeting.
Baudin Ltd's senior executive management has an average of ten years experience with the organisation. The current senior executive remuneration plan includes fixed and variable components. The fixed component comprises a salary, superannuation contributions, and vehicle related benefits. The variable component comprises an annual cash incentive bonus, payable on the achievement of corporate profitability targets. The remuneration package also includes an executive share option plan. The options are exercisable upon achievement of earnings per share (EPS) growth at 5% per annum. The first tranche of options is exercisable on 31 December 2002.

Baudin Ltd experienced a modest growth in profit before tax in the five years to the 30 June 2001, notwithstanding the highly competitive nature of the industry. Senior Management believes that integrating non-financial performance indicators with traditional financial performance measures, in internal decision making, can lead to improved financial performance. Thus, the decision was made to obtain information on the company's customers' attitudes to the company and its products, as part of the overall initiative.

Senior Management, acting with the approval of the Board of Directors, has, to date, undertaken the following steps to implement the strategy.

Given the lack of internal expertise with respect to measuring and analysing customer satisfaction, three customer services consultants, including the company's current external audit firm, were approached to submit proposals to Baudin Ltd for measuring and analysing the company's customer base, worldwide, with respect to their attitude towards the company and satisfaction with its products. The successful contender will also be responsible for the on-going nature of the undertaking for a period of three years, with the option to renew at the end of the period at the discretion of Baudin Ltd.

Submissions were sought from three different sources in order to gain an appreciation of the nature and quality of the service available in the marketplace and, at the same time, formulate the needs of the company. The service providers were selected on the basis of their reputation for excellence in the provision of all facets of the service sought.

The initial criterion for choosing between the proposals, centred on the ease with which the performance indicators could be integrated into management's current planning and control processes. On that basis, the final choice of service providers has been reduced to two candidates: the current external audit firm and a specialist sustainable development consultancy firm.

Baudin Ltd's current auditor is a member of the Big 5 audit firms, and has audited Baudin Ltd's financial statements for five years. The auditor is an expert in the industry in which the company operates.

The customer services consultancy division of the audit firm has been solely responsible for the submission, and will be solely responsible for carrying out the project in the event that its proposal is accepted. The division was established in 1997 and its staff is both
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You will be asked to answer the following four questions on the basis of the case description:

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4. What factors account for your preference for one provider over the other?

In addition, we ask that you perform the task through a technique referred to as "verbal protocol analysis". The technique involves capturing your thoughts as you consider the information provided in the case study in the process of arriving at your answers. Thus, we ask that you speak aloud all of your thoughts as you work on the problem. We will tape record your responses to ensure that we have an accurate record of your thoughts.

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The entity is governed by a ten-member Board of Directors, comprised of six executive members, including the company’s Chief Executive Officer, and four non-executive members. The Chief Executive Officer is the Chairman of the Board. The Chairman has significant input into the nomination of members to the Board. The Board is assisted in the discharge of its duties by a number of sub-committees, all of whom are accountable to the Board.

The Board is assisted in the execution of its accounting and auditing responsibilities, by an Audit Committee. The three-member Audit Committee is comprised of two non-executive directors and one executive director, who chairs the Committee. The executive director, unlike the non-executive directors, holds an Australian professional accounting qualification. The role of the Committee is to advise on the establishment and maintenance of a framework of internal control; and, in that way, it assists the Board in fulfilling its responsibilities for the quality and reliability of financial information, including reporting in financial statements. The Committee meets once every four months. The internal and external auditors are invited to meetings at the discretion of the Committee. The Committee reports to the Board after each Committee meeting.

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Senior Management, acting with the approval of the Board of Directors, has, to date, undertaken the following steps to implement the strategy.
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Submissions were sought from three different sources in order to gain an appreciation of the nature and quality of the service available in the marketplace and, at the same time, formulate the needs of the company. The service providers were selected on the basis of their reputation for excellence in the provision of all facets of the service sought.

The initial criterion for choosing between the proposals, centred on the ease with which the performance indicators could be integrated into management's current planning and control processes. On that basis, the final choice of service providers has been reduced to two candidates: the current external audit firm and a specialist sustainable development consultancy firm.

Baudin Ltd's current auditor is a member of the Big 5 audit firms, and has audited Baudin Ltd's financial statements for five years. The auditor is an expert in the industry in which the company operates.

The customer services consultancy division of the audit firm has been solely responsible for the submission, and will be solely responsible for carrying out the project in the event that its proposal is accepted. The division was established in 1997 and its staff is both reputable and expert in the field, and in the industry in which Baudin Ltd operates. The audit firm's price for providing the overall service is $125,000.

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Whilst the two submissions differ significantly on certain detail, management considers that they are equally meritorious with respect to the standard and suitability of what is proposed. Further, it considers that the operating capacity of both contenders is appropriate for the task.
Dear:

It is good to be in touch with you again. I hope to catch up with you in Perth after New Year when I am likely to be in Australia on a business trip for . In the meantime I would be really grateful for a small favour in November.

My younger sister, Colleen, lecturing in accounting at Edith Cowan University, is on the verge of completing her Ph.D. Her thesis research is on an important aspect of corporate governance. Colleen is exploring decision-making practices of company directors. In particular she is pursuing insights on issues pertaining to auditor independence. In my judgment her work is relevant, topical and timely. She is focusing on decision-making by directors and the challenges companies face with the independence of their auditors.

If you could spare Colleen a twenty-minute appointment in November, it would be terrific. She would like to seek your response to a practical corporate case study, hear thoughts on your decision process and gather a few indications of your views on the sensitive matter of auditor independence.

Your confidential insights will enable Colleen to sharpen her case study and survey instrument before she polls more than 150 company directors across Australia early in 2002.

Colleen will phone your office and seek an appointment in the weeks ahead. Thank you for your consideration. She has a bottle of fine wine to give you as a small token of our appreciation.

All the best.

Best wishes

October 30, 2001
APPENDIX C

STUDY 1: Protocol Analysis
Standard script describing the task

Script
The activity involves reading a two (three) page case study that centres on a company’s decision to seek the services of a professional service provider and the events leading up to the point where the choice of service provider is to be made.

The case study is preceded by a single page which provides an introduction to the overall task.

You will be asked to answer a set of four questions based on the information contained in the actual case study. The nature of the questions is identified in the introductory page.

In addition, we ask that you perform the task through a technique referred to as “verbal protocol analysis”. The technique involves capturing your thoughts as you consider the information provided in the case study in the process of arriving at your answers. Thus, we ask that you speak aloud all of your thoughts as you work on the problem.

My task will be to record your thoughts using a tape recorder.

Your taped thoughts will be transcribed at a later date. The transcript will provide us with important feedback on the case studies. Again, we are interested in all of the thoughts that come to your mind as you work on the problem.

It does not matter if your sentences are not complete, since you will not be explaining to anyone else. Just act as if you are alone in the room speaking to yourself loudly.
### Protocol Structure

<table>
<thead>
<tr>
<th>Line</th>
<th>Protocol Structure</th>
<th>Task Content Code</th>
<th>Transcript Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Para 1 Company description</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>So the company has got 9,400 people worldwide</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>And a $5 billion turnover</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Petro-chemical products used in mining and agriculture</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>And consumer. consumer protection</td>
<td>1.1</td>
<td></td>
</tr>
</tbody>
</table>

**Para 2 Board of Directors**

<table>
<thead>
<tr>
<th>Line</th>
<th>Protocol Structure</th>
<th>Task Content Code</th>
<th>Transcript Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>&lt;Hmm&gt; this is an interesting board</td>
<td>2.6</td>
<td>G</td>
</tr>
<tr>
<td>6</td>
<td>Six executive members and</td>
<td>2.2</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>The Chairman is the CEO also.</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>This is a most unusual structure.</td>
<td>2.6</td>
<td>G</td>
</tr>
<tr>
<td>9</td>
<td>The Chairman has significant input into the nomination of members of the board</td>
<td>2.4</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Well it seems to me</td>
<td>2.7</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>That we have a very dominant &lt;uh&gt; CEO</td>
<td>2.7</td>
<td>G</td>
</tr>
<tr>
<td>12</td>
<td>Who &lt;uh&gt; has a board that would have no difficulty in being a tame board</td>
<td>2.7</td>
<td>G</td>
</tr>
<tr>
<td>13</td>
<td>Because the Chairman’s puts them on</td>
<td>2.7</td>
<td>G</td>
</tr>
<tr>
<td>14</td>
<td>And &lt;uh&gt; there’s sub-committees.</td>
<td>2.6</td>
<td></td>
</tr>
</tbody>
</table>

**Para 3 Audit Committee**

<table>
<thead>
<tr>
<th>Line</th>
<th>Protocol Structure</th>
<th>Task Content Code</th>
<th>Transcript Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>There’s an audit committee</td>
<td>3.1</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>That’s important</td>
<td>3.1</td>
<td>CC</td>
</tr>
<tr>
<td>Line No</td>
<td>Parsed segment</td>
<td>Anomalies</td>
<td>Confirm’y</td>
</tr>
<tr>
<td>---------</td>
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<tr>
<td>17</td>
<td>And the committee’s two non-executive directors</td>
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<tr>
<td>18</td>
<td>And one executive director</td>
<td>3.2</td>
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<tr>
<td>19</td>
<td>Who chairs the committee</td>
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<td>20</td>
<td>One would expect</td>
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<td>21</td>
<td>The executive members to have some accounting qualification</td>
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<tr>
<td>22</td>
<td>Or in that area.</td>
<td>3.2</td>
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<tr>
<td>23</td>
<td>&lt;Uh&gt; and it only meets once every four months.</td>
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<td>24</td>
<td>&lt;Hmm&gt; the internal and external auditors are invited to the meetings.</td>
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<td>25</td>
<td>At the discretion of...</td>
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<tr>
<td>26</td>
<td>Yeh, I’ve got some problems here.</td>
<td>3.6</td>
<td>G</td>
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<td>27</td>
<td>I don’t like the look of,</td>
<td>3.6</td>
<td>G</td>
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<td>28</td>
<td>the look of, this &lt;uh&gt; committee</td>
<td>3.6</td>
<td>G</td>
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<td>29</td>
<td>I think it’s &lt;uh&gt; it’s &lt;uh&gt; it is...</td>
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<td>30</td>
<td>It is certainly being kept at arms length</td>
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<td>31</td>
<td>By the executive</td>
<td>3.6</td>
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<td>32</td>
<td>So &lt;uh&gt; yeh, well</td>
<td>3.6</td>
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<td></td>
<td><strong>Para 4 Executive experience and remuneration</strong></td>
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<td>33</td>
<td>I wonder if there are any figures here</td>
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<td>34</td>
<td>That denote what kind of options we’ve got</td>
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<td>35</td>
<td>It doesn’t look like there are.</td>
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<td>G</td>
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<td>36</td>
<td>Share options are &lt;uh&gt; an interesting way to reward people</td>
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<td>G</td>
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<td>37</td>
<td>It’s a way to reward people,</td>
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<td>38</td>
<td>But the hurdle is only at 5% of earnings per share growth.</td>
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<td><strong>Para 5 NAS need, purpose &amp; type</strong></td>
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<td>39</td>
<td>And it’s only had modest</td>
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<td>✓</td>
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<td>So its only had results</td>
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<td>✓</td>
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<td>And &lt;uh&gt; it doesn’t say what modest is</td>
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<td>42</td>
<td>compared to the 5%</td>
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### APPENDIX D: Protocol Analysis. Example of coded transcript. P3. Code 1.0.1

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<td>43</td>
<td>So these guys might be drawing out there bonuses</td>
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<td>44</td>
<td>And things</td>
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<td>Without having to really do very much</td>
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<td>Yes, they’re looking at that natural environment and stuff</td>
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<td>Because</td>
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<td>Yeh, mining and agriculture</td>
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<td>They certainly need &lt;uh&gt; a high level interest in that health, safety</td>
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<td>Right, publishing a sustainable</td>
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<td>Its annual reporting obligations</td>
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<td>Lets have a look at the reporting date</td>
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<td>So the board</td>
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<td>if they’re going to have a sustainable development report</td>
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<td>And that’s going to include environmental measurements</td>
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<td>If I was on the board I’d look for that on the agenda</td>
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<td>So management with the board</td>
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<td>Has, to date, undertaken</td>
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<td>Three sustainable development consultants</td>
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<td>What kind of &lt;uh&gt; background are they getting these reports from</td>
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<td>Para 6 Intro to consultants</td>
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<td>Para 7 Rationale for choice of the three service providers</td>
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<tr>
<td>69</td>
<td>And as a director I could sort of &lt;uh&gt; cast a view</td>
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<td>70</td>
<td>Over &lt;uh&gt; just what . . .</td>
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<td>Three down to two</td>
<td>8.2</td>
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<td>72</td>
<td>Oh! That's interesting</td>
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<td>73</td>
<td>They're going to get the firm to audit it</td>
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<td><strong>Para 9</strong> Description of current auditor</td>
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<td><strong>Para 10</strong> Consultancy division of the audit firm</td>
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<td>And then give them the responsibility to carry it out</td>
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<td>GG</td>
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<td>And if it doesn't work they can blame somebody else</td>
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<td>G</td>
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<tr>
<td>76</td>
<td>Oh! An onerous task</td>
<td>10.1</td>
<td>G</td>
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<td>77</td>
<td>I'm a bit worried about this &lt;uh&gt; situation</td>
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<td>78</td>
<td>About this &lt;uh&gt; situation.</td>
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<td>79</td>
<td>With the audit firm</td>
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<td>80</td>
<td>Not only going to be given . . .</td>
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<td>CC</td>
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<td>81</td>
<td>And $125,000 and</td>
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<td>CC</td>
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<tr>
<td>82</td>
<td>It's &lt;uh&gt; a $5 million, $5 billion turnover company</td>
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<td>83</td>
<td>To carry out this sustainable development situation</td>
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<td><strong>Para 11</strong> Fees for audit and non-audit services</td>
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<td>&lt;Uh&gt; fees for non-audit services</td>
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<td>85</td>
<td>Goodness me, the accountants</td>
<td>11.4</td>
<td>G</td>
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<td>These auditors ought to go into the accountancy section</td>
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<td>87</td>
<td>Of this company</td>
<td>11.4</td>
<td>G</td>
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<td>88</td>
<td>The non-audit fees</td>
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<td>are 1...1... are. two and a half times the audit fee</td>
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<td>Most unusual</td>
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<td>91</td>
<td>It seems to me as though</td>
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## APPENDIX D: Protocol Analysis. Example of coded transcript. P3. Code 1.0.1

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<td>92</td>
<td>The auditors getting a bit close to the action here</td>
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<td>93</td>
<td>This other firm is</td>
<td>12.1</td>
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<td>Must providing . . .</td>
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<td>$120!</td>
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<td>Goodness me</td>
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<td>These fees are incredibly low</td>
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<td>98</td>
<td>So, I’m, I’m</td>
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<td>This is 9% of the revenue of the local office of this organisation</td>
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<td>&lt;Huh&gt; More than a bit nervous.</td>
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<td>when you’ve got clear majority of executives directors</td>
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<td>non-audit services</td>
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<td>Into th.. situation</td>
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<td>And &lt;uh&gt; then they’re talking about spending &lt;uh&gt; only $125,000 odd</td>
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<td>For creating a plan</td>
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<td>Would be, would be an important part of how the company’s going to rea..</td>
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<td>112</td>
<td>In its &lt;uh&gt; business policies</td>
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<td>And employee health, safety and the natural environment</td>
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TOTAL: 12 39 8 45 18
CASE STUDY

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A ten-member Board of Directors, comprised of two executive members, including the company’s Chief Executive Officer, and eight non-executive members, governs the company. The Chairman of the Board is a non-executive director with extensive experience in the industry.

The Board is assisted in the discharge of its duties by a number of sub-committees, all of whom are accountable to the Board. The nomination of members to the Board is the responsibility of a Nominations Committee, which is comprised of three non-executive directors.

Baudin Ltd has never employed the non-executive members of the Board, except in their position as Directors of the company. Further, neither they nor any of their respective family members are related to Baudin’s management or have any financial dealings or other contractual arrangements with the corporation.

Each of the directors is a minority shareholder in the company.

An Audit Committee, regulated by a formal written charter adopted and approved by the Board, assists the Board in the execution of its accounting and auditing responsibilities. The three-member Audit Committee is comprised of non-executive directors all of whom are financially literate. Two of the Committee members, including the Chair of the Committee, hold senior Australian professional accounting qualifications.

The role of the Audit Committee is as follows:

1. to advise on the establishment and maintenance of a framework of internal control and appropriate ethical standards for the management of the company. Thus, it assists the Board in fulfilling its responsibilities for the quality and reliability of financial information, including reporting in financial statements;

2. to monitor the management of identified risks, identify any new risks and recommend action to be taken for their control;

3. to be involved with the internal auditors in planning the annual audit program and reviewing the program at various intervals throughout the year;
APPENDIX E: Study 2. Case study 1. Code: Group 1. strongbod:non-rec

4. to review the scope of the external audit, and to review findings and issues brought to its attention including those provided by the external auditor;

5. to provide oversight and communication regarding the provision of non-audit services by the external auditor, including matters that might reasonably be thought to bear on independence; and

6. to review the appointment and remuneration of the external auditor.

The Committee has the authority to investigate any matters within its terms of reference, the resources it needs to do so and has full access to information.

The Committee meets with the external and internal auditors and senior management to review the half yearly and annual financial statements and reports, and at such other times as is necessary to consider specific issues or matters that may arise from the internal and external audit process. The external and internal auditors have direct access to the Committee, if necessary, without management involvement. The Committee reports to the Board after each Committee meeting.

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Baudin Ltd is a large Australian owned organisation, with an annual sales turnover of approximately $5 billion. The company, founded in 1978, is headquartered in Sydney, and it employs approximately 9,400 people worldwide. Baudin is primarily involved in the manufacture of chemical products for use in mining, agriculture, industry and the consumer sector. The products are sold both domestically and overseas. The company, which is publicly traded, has a diversified shareholder base and no group of shareholders holds any significant influence.

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4. to review the scope of the external audit, and to review findings and issues brought to its attention including those provided by the external auditor;

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The following steps have, to date, been undertaken to implement the strategy.

Having first developed a clear definition of the problem, senior management chose to outsource the task. The provider of the information technology (IT) service will be responsible for both the design and implementation of the adaptation. The successful contender will also be responsible for monitoring and upgrading, if necessary, the design and configuration of the software for a period of three years, with the option to renew at the end of that period at the discretion of Baudin Ltd.

However, the contract for the service will clearly define the overriding responsibility of Baudin’s management for establishing, maintaining, operating and evaluating the IT system, and the consultative role of the service provider. Baudin’s information technology manager will be appointed as the project manager.
APPENDIX E: Study 2. Case study 2. Code:Group 2. strongbod:rec

The contract for the service will also specify the minimum qualifications and experience of the staff who will undertake the project, and that the provider must have adequate insurance coverage in the event that problems arise in carrying out the work.

The company’s facility manager was appointed to thoroughly research potential providers. Key search criteria included reputation for excellence in the type of service sought and expertise in the industry in which Baudin Ltd operates.

The search process has identified two leading contenders:

- the IT consultancy division of the company’s external audit firm, and
- a specialist IT consultancy firm.

Baudin Ltd’s policy for choosing professional service providers centres on a provider’s superior capacity to add value, subject to meeting the corporation’s financial and other legal and contractual obligations.

Baudin Ltd's current auditor is one of the Big 4 audit firms, and has audited Baudin Ltd's financial statements for four years.

The annual fee for the audit of the financial report is currently around $2,200,000. The audit firm also provides on-going taxation services to the company, for which it receives an annual fee of around $300,000. The total figure of $2,500,000 represents 3% of the average annual revenue of the local (Sydney) office of the audit firm. The taxation services involve some planning, but are predominantly concerned with ensuring regulatory compliance.

The IT consultancy and audit divisions are separately staffed and have separate reporting lines, headed by separate partners - reflecting the division of responsibility for the respective services. Thus, the IT division would be solely responsible for carrying out the project.

The IT division was established in 1997 in response to the growing international market for corporate information technology consultancy services. Baudin’s facility manager considers that the firm’s price for the type of IT service sought would be around $900,000 for the initial stage of the service and $150,000 per year for the subsequent stage.

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The role of the Committee is as follows:

1. to advise on the establishment and maintenance of a framework of internal control. Thus, it assists the Board in fulfilling its responsibilities for the quality and reliability of financial information, including reporting in financial statements;

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Dear Participant:

Thank you for participating in this study. The purpose of the study is to gain an understanding of factors that shareholders consider important when a corporation is faced with the task of choosing between alternative providers of professional services.

You will be provided with a two and one-half page description of a corporation, Baudin Ltd, which recently decided to alter the configuration of its existing computer software, to integrate its accounting function with other major functions such as materials acquisition, production and human resources.

The task is to be out-sourced and a thorough research of potential providers has identified two leading contenders: the information technology (IT) division of the external audit firm and a specialist IT provider.

Baudin hires professional service providers on the basis of their superior capacity to add value, subject to meeting the corporation’s financial and other legal and contractual obligations.

The case study does not reflect the circumstances of an actual company. However, every effort has been made to make the study as realistic as possible.

You will be asked to answer the following two questions on the basis of the case description:

1. Whom would you choose to provide the IT service?
2. What is the strength of your preference for the alternative providers?

We appreciate that individuals typically make the foregoing types of decisions in their capacity as managers or directors, not shareholders. However, the views of shareholders on the issues involved are important. Thus, we ask that you complete the project from the perspective of a shareholder of Baudin Ltd.

In addition, two further questions ask you to rate certain factors associated with the case study. We are interested in your responses to this study, and there is no correct or incorrect answer.

Answering the four questions involves either ticking (✓) a box, or circling (〇) a number. The project will take around 15 minutes to complete.

You can be assured that your identity will remain anonymous. Individual responses will not be known to anyone other than the members of the research team. Only the aggregate results of all participants in the study will be reported.

Thank you once again for participating in this study.

Colleen Hayes, Edith Cowan University
Professor Gary Monroe, Australian National University
Professor Theodore Mock, University of Southern California
QUESTIONS

Given the foregoing case description and your standing as a company shareholder, please answer the following questions.

1. Whom would you choose to provide the IT service?
   (Indicate your answer by ticking (✓) ONE of the alternatives.)
   Audit firm  Specialist firm .

2. What is the strength of your preference for the alternative providers?
   (Please circle a number for each provider.)

   Audit firm: 1 weak  2  3  4 moderate  5  6  7 strong

   Specialist Firm: 1 weak  2  3  4 moderate  5  6  7 strong

PLEASE TURN TO THE FOLLOWING PAGE TO COMPLETE QUESTION 3.

HOWEVER, DO NOT DO SO BEFORE COMPLETING QUESTIONS 1 and 2.
3. Please rate your perception of the following attributes of the case study. (Please circle a number for each attribute.)

The likelihood that the external audit of the company's financial report would be unbiased, taking into consideration the provision of the IT service by the audit firm:

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<td></td>
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<td>moderate</td>
<td>high</td>
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The degree of independence of the Board of Directors from management:

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The degree of independence of the Audit Committee from management:

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The adequacy of the duties and authority of the Audit Committee:

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The financial expertise of the Audit Committee:

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<th>4</th>
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<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>weak</td>
<td>moderate</td>
<td>strong</td>
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The threat to audit independence from the fees for the IT service:

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<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>weak</td>
<td>moderate</td>
<td>strong</td>
<td></td>
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</table>

The overall standard of the company's governance framework:

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<th>4</th>
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<th>7</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td>moderate</td>
<td>strong</td>
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</tr>
</tbody>
</table>

The net benefits of hiring the IT division of the audit firm to provide the IT service:

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<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
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<td></td>
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<td>moderate</td>
<td>strong</td>
<td></td>
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</tr>
</tbody>
</table>

PLEASE TURN TO THE FOLLOWING PAGE TO COMPLETE QUESTION 4.
4. Please indicate the extent to which the following factors influenced your choice of preferred provider of the IT service.

(Please circle a number for each factor.)

The following attributes of Baudin Ltd:

- **Listed public company:**
  - No influence: 2
  - Moderate influence: 3
  - Significant influence: 4

- **The diversification of the shareholder base:**
  - No influence: 2
  - Moderate influence: 3
  - Significant influence: 4

- **Absence of a dominant shareholding:**
  - No influence: 2
  - Moderate influence: 3
  - Significant influence: 4

Safeguards of the independence of your preferred provider over the alternative provider:

- No influence: 2
  - Moderate influence: 3
  - Significant influence: 4

Competition in the market for professional non-audit services:

- No influence: 2
  - Moderate influence: 3
  - Significant influence: 4

Accountability to shareholders:

- No influence: 2
  - Moderate influence: 3
  - Significant influence: 4

Accountability to other stakeholders:

- No influence: 2
  - Moderate influence: 3
  - Significant influence: 4

Additional comments:

THANK YOU FOR YOUR PARTICIPATION

PLEASE COMPLETE THE FOLLOWING (FINAL) PAGE
APPENDIX H: Study 2. Demographic data sheet.

BIOGRAPHICAL INFORMATION

1. The state (territory) of your principal place of residence.

| ACT | NSW | NT | QLD | SA | TAS | VIC | WA |

2. The country where you completed your post-secondary studies (if applicable).

<table>
<thead>
<tr>
<th align="center">Undergraduate (including TAFE)</th>
<th align="center">Continental</th>
<th align="center">Europe (please specify):</th>
<th align="center">UK</th>
<th align="center">US</th>
</tr>
</thead>
<tbody>
<tr>
<td align="center">Australia</td>
<td align="center"></td>
<td align="center"></td>
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</table>

<table>
<thead>
<tr>
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<th align="center">Continental</th>
<th align="center">Europe (please specify):</th>
<th align="center">UK</th>
<th align="center">US</th>
<th align="center">Other (please specify):</th>
</tr>
</thead>
<tbody>
<tr>
<td align="center">Australia</td>
<td align="center"></td>
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</tbody>
</table>

3. The nature of your shareholding.

<table>
<thead>
<tr>
<th align="center">Direct*</th>
<th align="center">Indirect**</th>
<th align="center">Direct &amp; Indirect</th>
</tr>
</thead>
<tbody>
<tr>
<td align="center">Shares are held directly in a company/companies.</td>
<td align="center">Shares are held \textit{via} a managed fund or personal superannuation plan that invests wholly or partly in shares.</td>
<td align="center"></td>
</tr>
</tbody>
</table>

4. How extensive is your knowledge of the governance of corporations?

\begin{center}
\begin{tabular}{ccccccccccc}
& 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & Expert Knowledge \\
No Knowledge &     &     &     &     &     &     &     &     &     &     \\
\end{tabular}
\end{center}

5. Post-secondary educational and/or trade or professional qualifications/training (please specify):

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