2015

Australian charity organisations: A study of audit fee determinants

Andrew Priest
Edith Cowan University

Edith Cowan University

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Australian Charity Organisations: A Study of Audit Fee Determinants

Andrew Priest

Thesis submitted in fulfilment of the requirement
for the degree of
Master of Accounting by Research

School of Business
Faculty of Business and Law
Edith Cowan University

March 2015

USE OF THESIS

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ABSTRACT

Accounting, and more specifically auditing, plays an important role in charity organisations' accountability processes. This has been highlighted with the commencement of the Australian Charities and Not-for-Profit Commission in 2012 heralding a new era of accountability and regulation. It is in this context that this study used a stratified sample of 101 Australian charities' 2011-2012 annual reports to study five aspects of the charity audit market, which formed its objectives. These were: a) to estimate and develop a model of Australian charity fee audit determinants; b) to determine if there was evidence of Big Four audit firm fee premiums in a market where the Big Four may not dominate; c) to test for the existence of audit fee premium pricing amongst non-Big Four audit firms; d) to test for the existence of an audit fee premium for audit firm offices; and e) to test for the existence of an audit fee premium for audit firm partners.

This study found support for the choice of audit firm (Big Four audit firm versus non-Big Four audit firm) having an influence on audit fee pricing. Auditee complexity, a well-established determinant in the private sector literature, was also shown to have some influence on charities' audit fee costs, in the form of incorporation (company versus non-company) and size as represented by proxy, income being significant. Trading income too indicated a possible influence on charities' audit fees, but these findings were limited and require further investigation.

In this study a Big Four audit premium was shown to exist in the Australian charity sector. It is also shown that small audit firms with a single client may have been discounting audit fees, but further investigation is required to confirm this.

In summary, this study put the spotlight on a sector that has not previously been examined, and provides deeper insights into the Australian charity sector and audit fee pricing.

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is not included in this version of the thesis

ACKNOWLEDGEMENTS

First and foremost, I would like to acknowledge the support and guidance offered by Dr Theo Christopher as my principal supervisor prior to his retirement, and Associate Professor Hadrian Djajadikerta who assumed the role of principal supervisor on Dr Christopher's retirement. I would also like to acknowledge the significant support and guidance provided by my co-supervisor Associate Professor Colin Dolley.

I have found their suggestions, insights and constructive feedback very valuable, and they have provided the necessary inspiration to enable me to complete this thesis.

I would also like to acknowledge the personal support of my partner, who often gave up personal time to allow me to work on this thesis, and who also inspired and motivated me to complete the project.

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CHAPTER 1
INTRODUCTION

1.1 Introduction

The objectives of this study were to model audit fee determinants in the context of Australian charity (not-for-profit) entities; and for the first time, to test for evidence of Big Four and specialist non-Big Four audit fee premiums at firm, office and partner levels.

The literature reveals significant developments in audit fees and their determinants over the past thirty-five years, following publication of Simunic's seminal work in 1980, particularly in the context of the private sector, with over 200 studies into audit fee pricing undertaken Hay (2013). In contrast, the literature on audit fee pricing in the not-for-profit sector, and more specifically the charity sector, has been limited to two studies by Beattie, Goodacre, Pratt and Stevenson (2001) in the United Kingdom, and Vermeer, Raghunandan and Forgione (2009) in the United States. These two studies, together with a small collection of papers by Baber (1983), Baber, Brooks and Ricks (1987), Giroux and Jones (2007), Kitching (2007), Kitching (2009), Lowensohn, Johnson, Elder, and Davies (2007), Ward, Elder and Kattelus (1994) and Yuan, Lopez and Forgione (2012), investigated the broader not-for-profit sector.

Beattie et al. (2001, p. 243) argued that "the demand for accountability in this sector is increasing and so audit pricing studies of sub-markets within the sector are of importance in their own right." The importance of accountability in the Australian charity sector was also noted in the Industry Commission's report into charitable organisations in 1995 (Industry Commission, 1995). Concerns about accountability resurfaced more recently when the Australian Charities and Not-for-profits

Commission exercised its powers to revoke three organisations' charity status for serious breaches of conduct (Australian Charities and Not-for-profit Commission, 2015).

This study extends the literature on audit fee pricing in the Australian charity sector with a deeper examination of the connection between audit pricing studies and accountability by charity organisations. Whilst there is no definitive measure of the size of the Australian not-for-profit sector, and more specifically the charity sector, Hurly (2010) estimated that this third sector of the economy (i.e. it is neither public nor private) earns tax concessions ranging from $1 billion to $8 billion. The charity sector is of particular note, with over 57,000 charities registered with the Australian Charities and Not-for-profits Commission (Australian Charities and Not-for-profits Commission, 2014).

The charity sector across Australia engages with up to 24 regulatory authorities in respect of taxation matters, incorporation matters, fundraising, lotteries and raffles (Australian Charities and Not-for-profits Commission, 2013a). Furthermore, charities are subject to national regulatory authorities, including the Australian Charities and Not-for-profits Commission and the Australian Taxation Office. The incorporated structure of charities, whereby charities can be incorporated as companies under the *Corporations Act 2001 (Cth)* or under their respective state or territories' legislation (Leslie & Connellan, 2011) adds to the complexity of the sector. Furthermore, the nature of the not-for-profit business model provides what Beattie et al. (2001, p. 246) described as a "unique setting within which to examine the links between market structure and pricing." These authors argued that "the different audit risks and audit market structure mean that the charity sector is a valuable setting within which to develop and test audit pricing models, thereby extending our understanding of pricing issues generally."

This chapter presents the context and structure of the thesis. It commences with a background of Australian charities, followed by the rationale and significance of the study. An outline of the research, the research questions and the research model are provided, concluding with an overview of the structure of the thesis.

1.2 Background to the Study

Prior to the formation of the Australian Charities and Not-for-profits Commission (ACNC) in 2012, Australia had yet to establish a statutory definition of a charity. Hurley (2010), Pro Bono Australia (2012), and the Macquarie Dictionary (2012) were referenced to provide a definition. Hurley (2010, p.1) defined charities as: "altruistic bodies which seek to help members of the community in need. The role of charities is to mobilise their members and supports to help *others*, not to just act in their members' private interests. Their motives mean that all true charities are not-for-profit organisations (but not all not-for-profit organisations are charities)."

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Pro Bono Australia (2012), in its "*The Australian Directory of Not for Profit Organisations*", referred to the not-for-profit sector as being made up of organisations (sometimes referred to as charities) that "rely on donations from individuals, from corporations, and from trusts and foundations to continue to work towards making Australia – and the world – a better place to be."

The Macquarie Dictionary (2012) defines charity as "almsgiving; the private and or public relief of unfortunate or needy persons."

Following the establishment of the Australian Charities and Not-for-profits Commission in 2012, who had as one of its objectives the establishment of a statutory definition of a charity, Australian now has within the *Charities*

Act 2013 (Cth) a statutory definition of a charity. Section five of the Act defines a charity as an entity:

> (a) that is a not-for-profit entity; and
> (b) all of the purposes of which are:
> (i) charitable purposes (see Part 3) that are for the public benefit (see Division 2 of this Part); or
> (ii) purposes that are incidental or ancillary to, and in furtherance or in aid of, purposes of the entity covered by subparagraph (i); and
> (c) none of the purposes of which are disqualifying purposes (see Division 3); and
> (d) that is not an individual, a political party or a government entity.

In section 12, the *Charities Act 2013 (Cth)* goes on to define charitable purposes to mean any of the following:

> (a) the purpose of advancing health;
> (b) the purpose of advancing education;
> (c) the purpose of advancing social or public welfare;
> (d) the purpose of advancing religion;
> (e) the purpose of advancing culture;
> (f) the purpose of promoting reconciliation, mutual respect and tolerance between groups of individuals that are in Australia;
> (g) the purpose of promoting or protecting human rights;
> (h) the purpose of advancing the security or safety of Australia or the Australian public;
> (i) the purpose of preventing or relieving the suffering of animals;
> (j) the purpose of advancing the natural environment;
> (k) any other purpose beneficial to the general public that may be reasonably regarded as analogous to, or within the spirit of, any purposes mentioned in paragraphs (a) to (j);

(l) the purpose of promoting or opposing a chance to any matter established by law, policy or practice in the Commonwealth, a State or Territory or another country, if:

i. in the case of promoting a change – the change is in furtherance or in aid of one or more of the purposes mentioned in paragraphs (a) to (k); or

ii. in the case of opposing a change – the change is in opposition to, or in hindrance of, on or more of the purposes mention in those paragraphs.

For the purpose of this study a charity is defined as an organisation that satisfies the statutory definition of a charity; is an entity that is reliant on donations and/or grants from individuals, corporations, governments, trusts and foundations to continue its work with the objective of providing relief to unfortunate and/or needy persons; an act of benevolence. In this way charities are distinguished from other not-for-profit entities such as sporting groups.

Charities sit within the third sector of the Australian economy, the not-for-profit sector (Australian Charities and Not-for-profits Commission Implementation Taskforce (2012). To date, audit fee pricing research in Australia has predominantly focused on the private sector, whilst internationally the not-for-profit sector has been studied in the United Kingdom (Beattie et al, 2001) and the United States (Kitching, 2007; Kitching, 2009; Krishnan & Schauer, 2000; Tate 2007, Vermeer, Raghunandan & Forgione, 2009).

This gap provided a unique opportunity to extend the audit fee pricing literature on the Australian charities sector, and to grow our understanding of the determinants of audit fee pricing. The research questions were aligned with this objective and are discussed in the next section.

1.3 Research Focus

In the context outlined above, the current study was aimed at examining audit fee pricing in the Australian charity sector by:

- examining the development of a model of charity audit fee determinants;
- looking for evidence of Big Four brand name audit premiums in a market where Big Four audit firms may not dominate;
- exploring the existence of an audit fee premium amongst non-Big Four audit firms;
- looking for evidence of an audit fee premium in individual audit firm offices (is the audit firm office specialising in charity audits and hence commanding an audit fee premium?); and
- investigating the existence of an audit fee premium for individual audit firm partners, i.e. are these partners specialising in charity audits?

The significance of these research focus points are discussed in the following section.

1.4 Significance of the Study

In its survey of not-for-profit organisations published in 2009, the Australian Bureau of Statistics, for the first time, provided a formal indication of the size of the not-for-profit sector. As at the end of June 2007, there were 41,008 not-for-profit organisations in Australia. The value of this sector stood at $35.9 billion for the 2006-2007 financial year and capital expenditure was reported as $8.8 billion. The sector employed 889,919 employees, and had a combined income of $76 billion, with expenditure of $70 billion (Australian Bureau of Statistics, 2009). In addition, Hurley (2010) estimated the value of tax concessions to this sector to be in the range of $1 billion to $8 billion (Hurley, 2010, p. 1). The

Office for the Not-for-profit Sector (2011) stated that approximately 10% of the sector was termed ‘economically significant’, meaning they employed staff or accessed tax concessions. These entities provided around 8% percent of employment in Australia (around 900,000 people) and made up over 4% of GDP. Over 6 million Australians volunteer each year, contributing more than $14.6 billion in unpaid work.

The Australian Charities and Not-for-profits Commission Implementation Taskforce (2012, p. 2) noted that the not-for-profit sector: “currently comprises around 600,000 entities and accounts for nearly 5 per cent of GDP, growing at around 8 per cent per year. The NFP sector is second only to mining in relative growth terms.” A more recent Australian Charities and Not-for-profits Commission Register of Charities included approximately 57,916 registrant details (Australian Charities and Not-for-profits Commission, 2014).

Given the above, it is reasonable to conclude that the not-for-profit sector, of which charities form a part, is an important component of the Australian economy. Such significance raises the question of accountability, more so in this sector, because as Beattie et al. (2001, p. 244) noted, the customer of a charity organisation, i.e. the beneficiary, is in a rather weak relationship with the charity. Furthermore, the relationship of donors to charities does not necessarily empower them to hold the organisation to account to the same extent that an owner of a private sector organisation does. The exception to this is grant providers, who may impose accountability requirements as a condition of a grant.

This disconnect between the public and charity is considered in a recent Canadian study which examined the role of knowledge in closing the gap. Bourassa & Stang (2015) found that “respondents who reported who reported high levels of knowledge about the sector, measures of trust,

accountability and transparency reliability predicted donation amount and volunteer status over and above the effect of demographic variables."

Public interest in the accountability of charities and not-for-profit entities has been widely recognised by auditors. The Auditing and Assurance Standards Board [AASB] (2011, para. 6) noted that there was significant public interest in the accountability of not-for-profit entities, because they are generally supported by voluntary contributions of both physical and financial resources and their purpose is largely to serve some public need as opposed to being in business for profit.

The Australian Council for International Development's (ACID) Code of Conduct published in February 2010 also recognises the importance of public confidence in the non-profit sector of the Australian economy. One aspect of the code is to enhance the public's confidence in the preparation and distribution of audited annual reports. In producing an annual report the ACID Code of Conduct stated: "clear, accurate and transparent communication is essential in maintaining public confidence in the work of overseas aid and development organisations" (Australian Council for International Development, 2010, p. 34). The Code prescribed an "audit opinion on the financial reports, clearly identifying the auditor (name, company, address and signature) (Australian Council for International Development, 2010, p. 35). In section 5.1, it went on to include audit and accounting service costs.

In a similar vein, the Senate Economics Legislation Committee, in its Tax Laws Amendment (Public Benefit Test) Bill 2010 reported a demand for "increased transparency and accountability in the sector" (Hurley, 2010, p. 1). Growing concerns about terrorism and its financing has also placed a spotlight on not-for-profit organisations who have a history of misuse by terrorist organisations (Winer, 2008). Bricknell (2011, p. 2) noted that state governments had advised the non-profit sector to:

- Adopt methods of best practice with respect to financial accounting, verification of program specifics and development and documentation of administrative and other forms of control; and
- Perform due diligence and auditing functions on partners, and field and overseas operations respectively.

Support for public accountability can be traced back as early as the Industry Commission report of 1995 (Industry Commission, 1995, p. 201) who noted that: “accountability is an important operational issue for all Community Social Welfare Organisations (CSWOs). Their supporters and the general public expect and are entitled to information about the finances and operations of CSWOs in return for their donations, voluntary activities, and taxation exemptions and concessions. Improved confidence that funds are being used appropriately by CSWOs can potentially increase the overall fundraising resources available to the sector”.

The Productivity Commission, who replaced the Industry Commission, in its 2010 report on the not-for-profit sector noted: “corporate and financial accountability is an important issue for NFPs, as it is a central element in building and maintaining trust in individual NFPs and in the sector as a whole.” (Productivity Commission, 2010, p. 130).

Following the Productivity Commission report, the Australian Assistant Federal Treasurer, Bill Shorten, released a consultation paper on current governance arrangements for the not-for-profit sector (The Treasury, 2011). The intention of the governance review was to assist with the formation of governance requirements for registered entities in the Australian Charities and Not-for-profits Commission legislation, starting on October 1, 2012. A key action area for the Australian Charities and Not-for-profits Commission Implementation Taskforce (2012, p. 8) was the development of a reporting framework for the not-for-profit sector. The

Treasury (2012), in its factsheet accompanying the Australian Charities and Not-for-Profit Commissions Bill (*Factsheet – Reporting and Auditing)* noted:

> Because charities make a very important contribution to Australian society, they receive a range of support from Commonwealth, state, territory and local governments, including tax concessions and grants, and support from the public in terms of donations and volunteering. As charities (and NFPs more generally) are in receipt of this generous support, there is placed upon them high community expectations, making a base level of reporting and accountability important. Reporting and auditing requirements will help improve public trust and confidence in the sector, through promoting accountability and transparency.

A recent survey by Grant Thornton in New Zealand highlighted that practical issues of accountability were evident in the sector. The report, *Not for Profit Survey 2011/2012,* noted: "a recent spate of high profile frauds have been reported in New Zealand" and since their last survey in 2009, New Zealand courts had cases appear before them in respect of theft of NZ$3 million or $30,000 per week over the period between the surveys. Grant Thornton suggested: "there is still room for improvement in carefully assessing and monitoring where the risks lie, particularly the ones relating to processing financial and cash transactions" (Grant Thornton, New Zealand, 2011, p. 4).

The issues with financial management of not-for-profit entities continues to part of the discussion in the sector with a 2015 report by Pro Bono Australia and Grant Thornton (Pro Bono Australia Pty Ltd & Grant Thornton, 2015) highlighting as critical challenge for entity boards the ability to "critically evaluate the financial performance of the organisation"

and going forward to ensure that there are “strong financial systems and processes” in place.

Concerns over accountability continue to this day. Three Queensland charities had their charity status revoked by the Australian Charities and Not-for-profits Commission for serious breaches of conduct. The Commission has not provided details of the breaches other than to note that they acted under subsection 35-10(1)(c) of the ACNC Act (Australian Charities and Not-for-profit Commission, 2015b). Smerdon (2015) suggested that potential reasons for revoking a charity’s status under subsection 35-10(1)(c) of the ACNC Act include “providing information that was false or misleading” or “non-compliance with a governance standard or external conduct standards.” The Commission is also considering the status of 1,400 charities in the short term, and up to 7,000 charities are subject to further review for failing to lodge annual information statements for at least two years (Australian Charities and Not-for-profit Commission, 2015a).

While earlier concerns about accountability in the charity sector were noted in the Industry Commission report of 1995 (Industry Commission, 1995), developments to address these concerns have been slow, despite evidence that accountability is important to the community and to government. The focus of the Australian Charities and Not-for-profits Commission during its establishment phase was on minimising red tape and promoting public trust. Solomon and Solomon (2004, p. 137) reflected that “the external audit represents one of the most indispensable corporate governance checks and balances that help monitor company managements’ activities, thereby increasing transparency”.

A similar view was expressed by Cadbury (1992, para. 5.1) who stated: “The annual audit is one of the cornerstones of corporate governance… The audit provides an external and objective check on the way in which the financial statements have been prepared and presented, and it is an

essential part of the checks and balances required". Cadbury (1992 para. 5.3(c)) further noted: "Audit firms are in competition with each other for business. They wish to maximise their business with companies, of which auditing may only be a part. To the extent that they compete on the basis of their professional reputation, this will act as an incentive to maintain high standards".

Despite an awareness and interest in the role of external auditing of charities in signalling its credibility, there is little empirical evidence relating to charity auditing from an Australian perspective. Kitching (2009, p. 511) found that "audit quality and charity reputation are substitute mechanisms for managers to signal the credibility of the financial reports." Audit fee premiums may be a signal of auditor reputation and/or industry leadership (Craswell, Francis & Taylor, 1995, Cullinan, 1998; Francis, Reichelt & Wang, 2005, Ward et al., 1994), which are are valued by clients (Ferguson, Francis & Stokes, 2006). Lowensohn et al. (2007) found a positive association with specialisation and perceived audit quality. Understanding audit fee pricing in the charity sector can provide further insights into the role of independent audits as a tool for providing accountability and credibility for charities' financial reports, as well as the behaviour of the charity audit fee market, which has characteristics that distinguish it from the private sector.

One characteristic of particular note is the type of legal structures available to charities. Unlike the audit market in the private sector where clients are predominately public companies, charities can have a legal structure that falls under the auspices of the Corporations Act 2001. That is, they can be companies limited by guarantee. Alternatively, charities may be incorporated under their respective state or territory's incorporated associations' legislation (Leslie & Connellan, 2011). The nature of the incorporation, the annual revenues and/or amount of current assets, are criteria which may determine the requirement for an audit. For example,

charities incorporated as companies limited by guarantee fall under the Corporations Act 2001. Such charities, with annual revenues between $250,000 and $1,000,000, or annual revenues less than $250,000 but with deductible gift recipient status, can elect to have their financial statements reviewed rather than audited, whereas charities limited by guarantee and with an annual revenue of $1,000,000 or more are required to be audited[1]. For those charities incorporated under their respective state legislation, the minimum audit requirements vary from state to state, and may depend on reported revenues and/or current assets (Leslie & Connellan, 2011, p. 89).

To add further complexity to the audit market in the charity sector, some submissions to the Australian Charities and Not-for-profits Commission Implementation Taskforce reflected upon audit fees, indicating their importance to charities. The taskforce noted: "a repeated concern during consultations was whether the ACNC Commissioner would allow a charity to report against an alternative accounting period. The off-peak fees or pro-bono services offered by accountants and auditors to charities outside of the normal financial year is attractive to many charities" (Australian Charities Not-for-profits Commission Implementation Taskforce, 2012, p. 23).

The nature of the charity audit market stands out as an appropriate setting in which to further study audit fee determinants, and develop our understanding of auditing pricing models and audit specialisation more broadly. This study provided an opportunity to examine the existence of audit fee premiums in this market and to investigate how, if any, audit fee premiums are established. The five objectives of the study were to:

- Develop a model of charity audit fee determinants;

[1] The charities in this study's sample all report fees for the provision of a financial audit. No charities have distinguished between a review or an audit and where provided the report from the auditor was in the form of an audit report.

- Evaluate evidence of Big Four brand name audit premiums in a market where Big Four audit firms may not dominate;
- Examine the evidence of the existence of an audit fee premium amongst non-Big Four audit firms;
- Evaluate evidence of an audit fee premium in individual audit firm offices (is the audit firm office specialising in charity audits and hence commanding an audit fee premium?); and
- Evaluate the existence of an audit fee premium for individual audit firm partners, i.e. are these partners specialising in charity audits?

These objectives were achieved by following the study design outlined below.

1.5 Study Design

This study involved an analysis of a sample of Australian charities' 2011-2012 financial reports. The dependent variable, audit fee, was obtained from the charities' financial reports. Additional independent variables were obtained from annual reports, the Australian Charities and Not-for-profits Commission ACNC Register (Australian Charities and Not-for-profits, 2013b), and the Australian Government Initiative, ABN Lookup (ABN Lookup. n.d.).

The remainder of the thesis has been organised as follows: Chapter 2 reviews the literature in audit fee research in the not-for-profit sector; chapter 3 discusses the conceptual framework and hypotheses development. Chapter 4 elaborates on the research methods and sampling procedures, and chapter 5 presents the data analyses and hypotheses testing. Chapter 6 concludes the thesis with a detailed discussion of the findings, an overview of the study's contribution to understanding audit fee determinants and audit fee premiums in the not-for-profit sector, the limitations of the study, and provides recommendations for future research.

1.6 Summary

This chapter provided a background for the study and an overview of the research. An outline of the research model was presented, together with an overview of the study design and the significance of the study.

CHAPTER 2
LITERATURE REVIEW

2.1 Introduction

Audit fee pricing research is well established in the private sector, but is more limited in the not-for-profit sector, where audit-related research can be categorised into four areas: a) Audit fee research (Beattie, et al., 2001; Vermeer et al., 2009); b) audit quality research (Krishnan & Schauer, 2000); c) audit change (Tate 2007) and d) auditor choice (Kitching, 2007, Kitching, 2009). Following the seminal work of Simunic (1980) research into audit fee price premiums dominated the profit sector. Subsequently, Hay's (2013) meta-analysis contained over 200 studies, indicating the extent of the research. However, in the context of the public sector there has been limited research into audit fees (Ward et al., 1994; Giroux & Jones, 2007; Lowensohn et al., 2007) to explore the nature of audit fee premiums (municipal audits).

The focus of this study was the Australian charity sector. The remainder of this chapter provides a review of the existing research on charity sector audit fee pricing, along with a discussion of how the current study adds to the body of literature.

2.2 Audit Fee Research: Not-for-profit Sector

Beattie et al. (2001) produced the first paper to extend audit fee pricing research from the profit sector to the non-profit-sector, and as such, has led the research that followed. Beattie et al. (2001, p. 246) had four objectives in their United Kingdom (UK) study into audit fees in the non-profit sector. They were:

1. To develop and estimate a model of charity audit fee price determinants;

2. To assess the existence of Big Six brand-name premiums in a market where the Big Six were not considered specialists;
3. To test the pricing impact of expertise in a niche market where there was no Big Six dominance;
4. To compare the audit fees in the charity sector against those in the private sector.

These authors examined a sample of 210 charities, taken from the top 500 charities, identified in the 1998 edition of Baring Asset Management Top 3000 Charities, with the objective of achieving a sample representation of the major UK charities. From this sample the authors tested the following: Audit fee as a function of auditee size, auditee complexity, audit production costs, non-audit services, audit difficulties and residual, where:

- *Auditee size* was measured by the variable total incoming resources, a dummy variable distinguishing between fund raising and grant-making entities, as well as two additional measures: total assets and total funds (restricted and unrestricted).
- *Auditee complexity* was measured by a series of variables: a dummy variable distinguishing between fund raising and grant-making income sources; dummy variables categorising the charity according to its constitution (company, trust, constitution by Act of Parliament or Royal Charter); dichotomous variables for major areas of activity; domestic or overseas significant activity; trading activities; proportion of total income from fundraising, and number of trustees.
- *Audit production costs* were measured by the location of audit staff (possibly a UK-specific variable reflective of the costs of locating offices in London) and whether the audit needed to be conducted during the busy season.
- *Non-audit services* were measured by a continuous variable: fee payable to auditors for non-audit services.

- *Audit difficulties* were measured by a dummy variable, audit opinion, and a continuous variable measuring the number of days between the year-end date and the date of the audit report.

Building on their audit fee-pricing model, the authors tested five hypotheses:

1. The brand name of large audit firms (the Big Six) is rewarded by a fee premium above non-Big-Six firms in the charity sector;
2. Individual Big Six firms are rewarded by a brand name fee premium above non-Big Six firms in the charity sector;
3. Non-Big-Six audit firms with expertise (specialist) are rewarded by a fee premium above other non-Big-Six firms in the charity sector;
4. Individual non-Big-Six audit firms with expertise (specialist) are rewarded by a fee premium above other non-Big-Six firms in the charity sector; and
5. Charities pay lower audit fees than similar-sized private sector companies.

Their findings indicated that the size of the entity was a significant driver in determining audit fees, along with characteristics unique to the charity. These characteristics were exclusive to fund-raising charities versus grant-making charities, with fund-raising charities paying a higher audit fee. The variables also related to trading subsidiaries, level of non-audit fees, and the auditor location (London or non-London) where significant.

In terms of audit fee premiums the authors found mixed evidence in support of their hypothesis. Following Cullinan (1998, p.49), Beattie et al. (2001, p. 255) argued that:

> Higher market share is a signal of greater expertise, which should result in higher audit fees. As market concentration is much lower in

> the charity sector than in the private sector company audit market, there is less likelihood of a monopolistic/oligopolistic pricing by a few market leaders. Consequently, observation of a fee premium is stronger evidence that clients are willing to pay higher audit fees to firms with perceived expertise in the sector.

Beattie et al.'s (2001) study returned mixed findings, with some evidence of clients willing to pay higher audit fees to firms with perceived expertise in the sector. This is borne out in their base model where the size proxy was either a natural log of assets, total funds or log-transformed total incoming resources plus log-transformed total incoming resources squared. They found significant support for a Big Six audit fee premium, but where the proxy size was log-transformed total incoming resources or log-transformed total incoming resources and natural log of assets, there was no statistically significant support for evidence of a Big Six audit fee premium. However, when the authors tested for fee premiums relating to auditor characteristics, they found evidence of a premium in their fundraiser model only, and no support in the all-charities or grant-makers model.

In the context of Big Six audit firm fee premiums, Beattie et al. (2001) found significant support for the hypothesis that the brand name of the Big Six was rewarded above non-Big-Six firms, and that there was a fee premium for Big Six audit firms. In their study, KPMG was found to receive a fee premium over other Big Six firms. Similarly, with non-Big-Six audit firms in the fund-raising sector, there was evidence of audit fee premiums for auditors with expertise, and hence support for specialist non-Big-Six firms.

From the perspective of audit fee pricing determinants in the Australian charity sector, possible extensions to Beattie et al. (2001) include:

1. The use of a continuous variable measure of income source to evaluate the influence of grant funds versus funds from fundraising versus trading activities;
2. Constitution variables reflective of the Australian regulatory environment (Corporations Law versus state-based incorporation);
3. The influence of trading activities on audit fees where such activities may not be as common in Australia;
4. Examining the focus of the organisation, i.e. domestic activities versus overseas aid.
5. Increasing the size range of charities included in the sample. Beattie et al. (2001) restricted their sample to Top 500 United Kingdom charities in 1998.

Building on the work of Beattie et al. (2001), Vermeer et al., (2009) undertook a study of audit fee pricing in the United States. The authors focused on larger charities, as did Beattie et al., in this instance 125 of the largest non-profits in the United States. However they extended the early work by adding in variables related to the charities' need for funding, audit committee characteristics and internal audit function, amongst other control variables (Vermeer et al., 2009, p. 290). The fee audit model was: Audit fee = f (auditee size, auditee complexity, audit production costs, non-audit services, audit difficulties and residual), where:

- *Size* was measured by the natural log of total assets;
- *Contributions* was a ratio of contribution revenue to total revenue;
- *Debt* was measured by ratio of tax-exempt bonds, mortgages and other notes payable to total assets;
- *Single audit* was a dichotomous variable;

- *Asset composition* was measured as a ratio of net accounts receivable plus inventories to total assets;
- *Audit committee* was measured by existence and structure, dichotomous variables;
- *Internal audit* was measured by a dichotomous variable;
- *Liquidity* was measured by readily available funds as a ratio to total expenses;
- *Auditor type* was a Big Four dichotomous variable;
- *Hospital* was a dichotomous variable
- *University* was a dichotomous variable
- *Audit fees* was a ratio of non-audit fees to total fees.

The authors found that at the 0.05 significance level, size (measured by assets), single audit, internal audit, liquidity, Big Four auditor, university and audit fee ratios were significant, and that the overall model was significant. The work by Vermeer et al. (2009) added further consideration to audit fee pricing in the Australian charity sector, a context not previously explored in the literature.

Possible extensions of this paper include:

- The use of a continuous variable measuring debt which is reflective of the Australian context;
- Constitution variables reflective of the Australian regulatory environment (Corporations Law versus state-based incorporation);
- Trading activities are not as common in Australia, hence what impact if any, do they have on audit fees, and what impact does this have on the model in the Australian context?
- Focus of the organisation, i.e. domestic activities versus overseas aid.
- Consideration of the nature of the industry that the charity is involved in. Vermeer et al. (2009) limited this to hospitals and universities.

- Including a broader range of charities in the sample. Like Beattie et al. (2001), Vermeer et al.'s (2009) sample was taken from the largest 1,000 non-profits in the US as measured by revenue; and
- More detailed examination of audit specialisation.

2.3 Audit Fee Research: Profit Sector

Audit fee pricing in the private sector is well established in the literature and dates back to the seminal work of Simunic (1980) who "presented a production view of the audit process and hypothesized that certain drivers would be associated with variations in the level of audit fees because those drivers cause an auditor to perform more (or less) work during the course of the audit" (Hay, Knechel & Wong, 2006). The study of audit fee pricing in the charities sector also reflects previous work in private sector studies e.g., Beattie et al. (2001). Hence the review of this literature below provides a further context for the development of a charity audit fees pricing model and the hypotheses put forward in the following chapter.

Simunic (1980) set the tone for future studies into audit fee pricing and specialisation by audit firms. He assumed that price competition prevailed in the market for small company audits, and tested for evidence that large clients were paying for the increasing effect of Big Eight audit firm dominance in the marketplace. This led to the development of a model to determine whether audit fees were linked to differences in exposure; anticipated loss-sharing ratio, differences in auditor production functions and auditor identity (Big Eight or non-Big-Eight). Loss exposure, that is the liability proxied using size of auditee (total year-end assets), complexity of the auditee's operations (number of consolidated subsidiaries; industry of operation; ratio of the auditee's foreign to total assets at year end), auditing problems associated with financial statement components (receivables to total assets at year-end; inventories to total assets at year-end), industry of the auditee, and whether the auditee is a publicly or closely held company (Simunic, 1980, p. 172). The loss-sharing ratio, i.e.

the probability of auditee financial difficulty was proxied using three variables. The first was a measure of the auditee's accounting rate of return in the current year, the ratio of net income to total assets at year-end (Simunic, 1980, p. 173). The second variable was an indicator of whether the auditee incurred a net loss in the current or previous two financial years. The third and final variable was an indicator of issuing a qualified audit opinion. The differences in auditor production functions were proxied by the number of years the auditee had used their current auditor. Simunic (1980) applied a stratified sampling approach, according to the size of the auditee (sales) and the auditor group (Big Eight, non-Big-Eight). Data were collected via a survey instrument with 397 useable responses. Simunic's findings confirmed that auditee size, as measured by total year-end assets, was a significant determinant of audit fee. He also found that the Big-Eight firms passed on the benefits of scale of economies in their production costs through lower prices to the auditee.

Since then, numerous studies have examined the determinants of audit fees. Those that followed the Simunic (1980) model for the most part have been summarised in Table 1. Francis (1984) was the first with a study exploring the effect of accounting firm size on audit fees in the Australian corporate market. The results supported the hypothesis that larger accounting firms (Big Eight) earned significantly higher audit fees.

Subsequent research by Anderson and Zeghal (1994), Beatty (1993), Brinn, Peel and Roberts (1994), Campa (2013), DeFond, Francis and Wong (2000), Francis and Simon (1987), Francis and Stokes (1986), Lee (1996), and Palmrose (1986) all found evidence of a Big Eight/Six/Five/Four audit fee price premium.

In contrast, Che-Ahmad and Houghton (1990), Chung and Lindsay (1998), Cullinan (1997), Cullinan (1998), Firth (1995), and Hassan and Naser (2013) did not find the same results. Firth (1985) adopted a similar

approach to examine audit fee determinants in the private sector market in New Zealand. Unlike Francis (1984) and Simunic (1980), Firth did not find evidence of audit firm size affecting the audit fee price in the New Zealand private sector market.

Table 1: *Summary of Audit Fee Price Literature (Key Attributes)*

	Big 8/6/4	**Audit Firm Specialist**	**City-Industry Specialist**	**Size**	**Complexity**	**Inherent Risk**
Simunic (1980)				S	S	S
Francis (1984)	S			S	S	S
Firth (1985)	NS			S	NS	S
Francis & Stokes (1986)	S [1]			S	S	S
Palmrose (1986)	S			S	S	
Francis & Simon (1987)	S			S	S	
Che-Ahmad & Houghton (1990)	NS			S	S	S
Beatty (1993)	S			S	S	S
Anderson & Zeghal (1994)	NS			S	S	
Brinn, Peel & Roberts (1994)	S [2]			S	S	
Ward et al. (1994)	S					
Craswell, Francis & Taylor		S		S	S	S
Lee (1996)	S			S	S	S
Cullinan (1997)	NS			S		S
Langendijk (1997)	NS			S	S	
Chung & Lindsay (1998)	NS			S	S	S
Cullinan (1998)	NS [3]	S		S	S	S
DeFond, Francis, & Wong	S	S		S	S	S
Ferguson & Stokes (2002)		S[6]		S	S	S
Ferguson et al. (2003)			S	S	S	S
Casterella et al. (2004)		S		S	S	S
Carson & Fargher (2007)		S	S	S	S	S
Huang et al. (2007)		S		S	S [4]	S [4]
Giroux & Jones (2007)	NS			S		S
Lowensohn et al. (2007)	NS					
Carson (2009)		S [5]		S		s
Hay & Jeter (2011)		NS	S	S	S	S
Yuan, Lopez & Forgione (2012)			S	S	S	S
Campa (2013)	S			S		S
Hassan & Naser (2013)	NS			S	S	NS

[1] Audit firm size was only significant for small auditees. [2] The authors found evidence of an audit fee premium for Big Eight audit firms auditing independent companies but not subsidiaries and they also found some evidence of regional differences in audit fees. [3] Cullinan (1998) whilst not finding evidence of a Big Six audit fee premium did find evidence of an audit firm specialisation audit fee premium. [4] Results varied depending on the data year. [5] Carson (2009) takes a global specialist view versus a national specialist view. [6] Ferguson & Stokes (2002) found weak support for audit firm specialisation.

Francis and Stokes (1986) found evidence of audit firm size affecting the audit fee price in the Australian market, and explored discrepancies between Francis's 1984 findings and Simunic's 1980 research. The authors undertook regression testing for two samples: small auditee firms and large auditee firms, from which it was found that size of audit firm (Big Eight) was only significant for small auditee firms. They concluded (1986, p. 392) that "higher Big Eight prices (due to product differentiation) are obscured by higher non-Big-Eight prices arising from diseconomies of scale", thereby explaining the non-significant finding for large clients. Francis and Simon (1987) explored contradictory findings in the work of Simunic (1980) and Palmrose (1986) that found evidence of Big Eight audit fee premiums in what was referred to as the "small auditee market". A United Kingdom study by Che-Ahmad and Houghton (1990) also examined the small auditee market, or what the authors described as "medium-size" auditees in the UK market, and found no evidence of an audit fee premium. Other influences on audit fee prices were found to be consistent with the earlier literature that found size, complexity and risk to be significant factors. Langendijk (1997) brought a European perspective to his study of audit fee pricing, and although he found no evidence of a fee premium among the Big Six, he did find evidence of an audit fee premium for KPMG. This author also examined the financial services industry, and found no support for the existence of an audit fee premium. Like previous research, a study by Chung and Lindsay (1998) found size, complexity and risk were significant influences on audit fee price, but no evidence of Big Eight audit fee premiums in the Canadian market.

Up to this point in time no research had been undertaken on audit fee pricing in the initial public offering (IPO) market. Beatty (1993) was the first published author in this area to add further understanding to auditor compensation with his findings of an audit fee premium in Big Six firms. Brinn, Peel and Roberts (1992) took the literature in a new direction by looking at the unquoted sector of the UK market and testing for differences

in audit fee prices for subsidiaries. They found evidence of an audit fee premium for Big Eight audit firms auditing independent companies, but not subsidiaries, and also found evidence of regional differences in audit fees. Auditee size and complexity were also found to have influenced audit fee price. Anderson and Zeghal (1994) contributed to the literature with their study of Canadian audit fees across time, audit firm and industry. They did not find overall support for a Big Eight audit fee premium, but did find evidence of a pricing deferential for pre-merger Big Eight audit firms in the small auditee market.

Evidence of an audit fee price effect in the form of an audit fee premium for industry specialists was first reported by Craswell et al. (1995) in a large study of both industry specialist auditors and non-specialist Big Eight auditors in the Australian market. Lee's 1996 research focused on Hong Kong capital markets which explored audit fee pricing from a product differentiation perspective. He found evidence of a Big Six audit fee premium in the small auditee market but not in the big auditee market, lending support to the findings of Francis and Simon's (1987) United States study, where size, risk and complexity were found to significantly influence audit fee pricing.

Cullinan (1997) examined audit fee determinants in a specific industry, the US pension plan audit market. Consistent with earlier research, Cullinan found that size of auditee and risk both influenced audit fee prices, and found no support for Big Six audit firm premiums in the pension plan audit market. However, he did find evidence of a specialist audit fee price effect, whereby non-Big-Six audit firms with industry expertise (firms auditing at least 10 pension plans) earned fee premiums that non-specialist firms did not. He also found that Big Six audit firms with larger market shares did not earn audit fee premiums.

More recently, Campa (2013) did a longitudinal study of Big Four audit premiums in a sample of listed companies in the United Kingdom. While he found evidence of a Big Four audit premium, there was no evidence of a significant relationship between audit quality and type of auditor. Hassan and Naser (2013) explored audit fee determinants in the context of an emerging economy, the Adu Dhabi Stock Exchange. The authors' approach to determine if the audit firm had an effect on the audit fee price was reflective of the market in that they classified the audit firms as being international or local. Through the application of backwards regression models, the status of the audit firm was not found to have a significant effect on the audit fee price.

The above literature extended and expanded the work of Simunic (1980) in the private sector. Giroux and Jones (2007), Lowensohn et al. (2007) and Ward et al. (1994) did the same in the local government sector. Ward et al. (1994) found evidence of regional audit firms with the largest number of clients receiving an audit premium consistent with brand-name reputation and reflective of industry experience. In contrast, Lowensohn et al. (2007) found no evidence of an audit fee premium in their studies of Florida local government and England and Welsh local governments. Giroux and Jones (2007) found evidence of a Big-Four audit fee discount.

One particularly interesting aspect of the literature, industry specialisation, first examined by Craswell et al. (1995), is further discussed in the following section.

2.3.1 Industry Specialisation

Craswell et al., 1995 first explored the influence of industry specialisation on audit fee price. Subsequent studies by Carson (2009), Carson and Fargher (2007), Casterella, Francis, Lewis and Walker (2004), Cullinan (1998), DeFond et al. (2000), Ferguson et al. (2003), Ferguson and

Stokes (2002), Hay and Jeter (2011), and Huang, Liu, Raghunandan and Rama (2007) also examined this phenomenon.

“Industry specialist” has been defined in various ways, starting with Craswell et al.’s (1995) classification of a firm that audited a minimum of 30 companies in one of nine industries according to their Australian Stock Exchange industry code. Ferguson and Stokes (2002) applied a similar methodology by defining audit firms as industry specialist with a cut-off of 10% of audit fees. Casterella et al. (2004), whilst adopting Craswell et al.’s approach, classified an audit firm as a specialist if it had 20% or more market share in a particular industry.

Cullinan (1998) classified firms that audit at least 10 audit plans (approximately 1% of the plans) as specialists. While this is less than the 10% market share proposed by Craswell et al. (1995), Cullinan (1998, p. 51) argued that, given the size of the audit plan industry, the number of clients required to be classified an industry specialist was on par with other studies. DeFond et al. (2000, p. 52) defined an auditor as an industry specialist when their market share of audit fees is among the top three in that industry. Ferguson et al. (2002, p. 431) adopted what they referred to as an empirical approach to determine which audit firms were industry experts. The authors concluded that, from a national perspective, at most the top two audit firms in any given industry are perceived as industry experts, as evidenced by higher audit fees. When the analysis was refined on a city-specific basis, only the top-ranked Big Five auditors had a fee premium across industries. From these varying interpretations in the literature it can be reasonably concluded that there is no unanimous definition of an audit specialist.

In their large study, Craswell et al. (1995) found evidence of a Big-Eight audit fee premium for both industry specialist auditors and non-specialist Big-Eight auditors in the Australian market. Cullinan (1998) also found

evidence of a specialist audit fee price effect, whereby non-Big Six audit firms with industry expertise (firms auditing at least 10 pension plans) earned fee premiums, while non-specialist audit firms did not. In addition, Big-Six audit firms with larger market shares did not earn audit fee premiums. DeFond et al. (2000) found evidence of a Big-Six audit fee price premium, providing further support for Cullinan (1998). In contrast to the above studies, Ferguson and Stokes' (2002) findings were not so conclusive. The authors reported that, where an industry does not have specialist auditors, Big Six/Five auditors may charge an audit fee premium. However, where specialist auditors existed in an industry, specialist Big Six/Five auditors may attract an audit fee premium over non-specialist Big Six/Five auditors. This was only true for smaller auditee firms, and aligns with earlier Australian studies by Francis and Stokes (1986) that also highlighted this differential for small auditee firms.

Casterella et al (2004) also found support for the small auditee effect in their study where they noted evidence of a Big-Six specialist audit fee premium over non-specialist firms, but only for the lower half of the sample based on asset size. The authors concluded that larger companies had sufficient clout relative to the audit firm's client base, giving them greater bargaining power, resulting in lower audit fees. Carson and Fargher (2007) examined the impact of client size on audit fee pricing in the Australian market. Their findings suggested that the larger clients in every industry pay an audit fee premium to industry specialists. The authors attributed this to the demand for additional audit services. In this study, the dependent variable was the natural log of total audit fees paid to the auditor, which may explain the difference in findings compared to earlier studies. Huang et al. (2007) replicated the findings of Casterella et al, finding evidence of an audit fee premium for Big-Six auditors in the 2000 and 2001 data. However, they also found that, following the implementation of Sarbanes Oxley, the results demonstrating specialisation only held true for 2004 but not 2003.

One aspect of specialisation not previously considered is a global perspective as opposed to the national viewpoint. Carson (2009) extended the literature on industry specialisation by "viewing industry specialist groups within large audit firms as a specific example of coordinated operations of global audit firm networks" (p. 355). He found that audit fee premiums were associated with global industry specialists, irrespective of the audit firm's national specialisation.

2.3.2 City-specific Industry Specialisation

Ferguson et al. (2003) further expanded the literature on industry specialisation with contrasting conceptualisations of the activities of Big-Five audit firms. The first was a "firm-wide" approach or country-level analysis, as adopted in earlier studies, of audit fee and industry specialisation. The second approach was termed the "office-level" perspective by the authors, which:

> viewed each individual practice office in the Big 5 network as a unique and relevant unit of analysis in its own right, because audit contracting is conducted through local offices, audit engagements are administered by an audit team typically located in an office in the same city as the client's headquarters, and audit reports are issued on office-specific letterhead of the Big-5 engagement office administering the audit (2003, p.430).

Ferguson et al.'s findings supported the view that industry expertise is "primarily based on office-level industry leadership in city-specific audit markets." That is, when an auditor is both a city-specific industry leader and one of the top two firms in the industry countrywide, it earned an audit premium. Francis et al. (2005) replicated the Australian work of Ferguson et al. (2003) with a study of audit fee pricing by the Big Five audit firms in the United States. Like Ferguson et al., the authors found evidence of an

audit premium where the audit firm was both the national top-ranked auditor and the client's city-specific industry leader. They also found that being the top-ranked national auditor was not sufficient to earn an audit fee premium. Ferguson, Francis and Stokes (2006) revisited the earlier work of Ferguson et al. (2003) and "reaffirmed that joint local and national auditor industry expertise is valued by audit clients" (Ferguson, et al., 2006, p. 97). Basioudis and Francis (2007) found evidence of a city-specific audit fee premium in their study of the United Kingdom private sector, but no evidence that the top- or second-ranked audit firms nationally earned an audit fee premium. Carson and Fargher (2007) found further evidence to support the hypothesis that audit fee premiums were earned by city-industry audit firm leaders, however, they found a strong client-size relationship, which may be attributable to their dependent variable being the natural log of all audit fees paid.

Hay and Jeter (2011) contributed to the literature on audit specialisation with their study of listed and unlisted companies in New Zealand, in which they sought to determine whether audit fee premiums existed and why. These authors found evidence of auditor specialisation at city level but not at national level, with audit premiums for larger clients and low-risk firms. They concluded this was due to non-specialist firms discounting fees to attract desirable clients more so than specialist firms attracted premiums in their own right. Yuan, Lopez and Forgione (2012) continued expansion of the literature in new directions with their examination of the United States for-profit healthcare sector, not previously considered. The authors observed audit fee premiums where auditors were both national and city-specific specialists.

The literature indicates that city-office specialisation by audit firms is a likely determinant of audit fees and is worthy of further study. Audit office (city specialisation) was taken into consideration in this study, along with a number of control variables.

2.3.3 Control Variables

Whilst much of the literature is focused on the relationship between the audit firm and audit fee price, most studies have included variables reflective of the client. In Table 1 the main attributes expressed in the literature have been summarised: size, complexity and risk. A more extensive analysis of the effects of supply and demand attributes for audit fee prices can be found in the meta-analysis by Hay et al. (2006), which grouped supply and demand attributes into 18 categories. A second meta-analysis by Hay (2013) of audit fee pricing categorised these attributes into five classifications: size, complexity, inherent risk, internal audit, and corporate governance. The groups in Hay's study are also reflected in the earlier meta-analysis. Table 1 focuses on the key variables of interest in this study. The first of these variables, size, was included in virtually all the studies reviewed here, and with the exception of Simunic (1980), was found to be significant. Hay et al. (2006, p. 169) found that size is "an extremely critical explanatory variable for any model of audit fees." Hay (2013) noted that the measures of size: assets, sales and city population, were significant across all studies. Market power was the only measure found to be not significant.

The second variable of note was complexity. Complexity was measured primarily in an organisational context (number of subsidiaries, segments or SIC codes) and/or geographically (foreign assets or sales). Hay (2013) noted that the measures: number of subsidiaries, number of SIC codes, number of business segments, foreign subsidiaries, foreign sales, foreign assets, extraordinary or discontinued, were all significant measures. Book to market was the only insignificant measure. As per Hay's findings, all the studies reviewed here found complexity had a strong influence on audit fee pricing.

Inherent risk was the third client attribute of note in the studies reported here. As with Hay (2013), a review of the results showed a strong influence on the inherent risk factors of audit fee pricing. Hay (2013) noted that other attributes, including profitability, leverage and liquidity, internal control, and industry, were also found to have a significant influence on audit fee pricing. The exception was governance, which showed mixed results.

The literature on charity sector and profit-sector audit fee pricing underpinned the development of the Australian charity audit fees determinants model explored in this study. This is further described in the following section.

2.4 Summary

The literature on charity sector audit fees highlights two aspects of audit fee pricing: determination of charity audit fee models and audit fee-pricing premiums. In regard to charity audit-fee determination, the literature indicates that the size of the charity, the value of non-audit fees, and the choice of Big Four or Big Six auditors are important drivers of audit fees (see Table 2). Furthermore, the models reported R^2 in the 0.60 to 0.72 range, suggesting there was an opportunity to explore more robust models of charity audit fee determinants. In addition, Beattie et al. (2001) identified models that have more explanatory power, yet those models have not been replicated in other contexts. This provides a further opportunity to revisit particularly the work of Beattie et al. (2001) in the context of Australian charities, as well as examining additional variables reflective of the Australian context. The current study extends the early audit fee pricing determinants model in the following ways:

- By examining the influence of a charity's model of incorporation on audit fees, i.e., federal incorporation under the Corporations Law versus incorporation under the respective state legislation;

- By considering three income sources: donations, trading income and grants income;
- By including the sector of the market the charity predominantly operates in, e.g. children's welfare, disabilities, community support services, overseas aid;
- By providing evidence of audit fee price premiums earned by audit firm offices specialising in charity audits;
- By providing evidence of audit fee price premiums earned by audit firm partners specialising in charity audits; and
- By including a broader size range of charities in the sample.

This chapter examined existing not-for-profit audit-related literature and research issues. It highlighted opportunities for enhancing our understanding of audit fee determinants in the not-for-profit sector through development of an Australian charities audit fee model to determine whether there is evidence of Big-Four audit fee premiums in a market where the Big Four may not dominate; to test for the existence of fee premiums amongst non-Big Four audit firms; to test for the existence of audit fee premiums by audit firm offices; and to test for the existence of audit fee premiums for audit firm partners.

The following chapter builds on the literature review with a further evaluation of the relevant private sector literature, and development of this study's research hypotheses.

Table 2 *Summary of Audit Fee Research: Not-for-Profit Sector*

	Size	**Liquidity**	**Auditee Risk**	**Non-Audit Fees**	**Activity**	**Trading Subsidiaries**	**Auditor Location**	**Single Audit**	**Audit Committee**	**Internal Audit**	**Big Four**	**University**
Beattie et al. (2001)	S*	NA	NS	S*	S*	S*	S*	NA	NA	NA	S^{+}	NA
Vermeer et al. (2009)	S*	S	NS	S*	NA	NA	NA	NA	NS	S*	S*	S*

Note: S* = Significance at the $\alpha < 0.05$ level; NS = Not significant; NA = Not applicable.

S^{+} = Fundraising charities only

* Beattie et al. (2001) reported three models in respect to Big Six brand premium. The adjusted R^2 for these models are 0.62, 0.60 and 0.65 and significant at the at the $\alpha < 0.05$ level. Three models are reported in regards to individual Big Six brand premiums. The adjusted R^2 for these models are 0.63, 0.65 and 0.65 and are significant at the at the $\alpha < 0.05$ level. Two models are reported in regards to non-Big-Six brand specialist premiums. The adjusted R^2 for these models are 0.72, 0.65 and 0.70 and are significant at the at the $\alpha < 0.05$ level.

* Vermeer et al. (2009) model adjusted R^2 is 0.55. The model is significant at the $\alpha < 0.05$ level.

CHAPTER 3
HYPOTHESES DEVELOPMENT

3.1 Introduction

This chapter builds on the literature review with a discussion of the research framework, which underpins research hypotheses. The literature review in the preceding chapter highlighted several main variables in the literature that are expected to influence charities' audit fees, as well as other variables expected to contribute to the determination of audit fee pricing. These variables are considered in the context of this research study. The chapter concludes with the specific hypotheses developed to test the identified variables.

3.2 Research Framework

This study involved charitable entities with no ownership structure in the sense of their profit-based counterparts. Given the structure of not-for-profit entities, a broader theory than agency theory, i.e., resource dependency theory, as put forward by Pfeffer and Salancik (2003) was used to explain the differences between audit fee price determinants. Pfeffer and Salancik, 2003, p. 2, argued that "organisations survive to the extent that they are effective. Their effectiveness derives from the management of demands, particularly the demands of interest groups upon which the organisation depends for resources and support". Meeting the demands of those parties upon whom the charities are dependent for resources will drive the composition of its resources and its decision-making process. Resources are obtained via grants (e.g. state and federal governments), via donations from the wider community, and/or from community-focused trading activities. In addition, expectations may be placed on the organisation in respect of accountability via regulators such as the Australian Charities and Not-for-profits Commission. This framework demonstrates the development of the charities' audit fee pricing

model and related hypotheses, to allow for further study of audit fee premiums.

3.3 Charity Audit Fee Price Determinants Model

The first objective of this study was to develop and estimate a model of Australian charity audit fee pricing determinants. The model (see Figure 1) in this study was developed from the earlier literature on both the profit and not-for-profit sectors. The model's variables were classified into three non-exclusive categories: auditee size, auditor relationship (non-audit fees, Big Four/non-Big Four auditor, audit office, audit partner) and auditee characteristics (incorporation, income source, industry, trading), with audit fee a function of auditee size, non-audit fees, Big Four/non-Big Four auditor, audit office, audit partner, incorporation, income source, industry, trading, and residual.

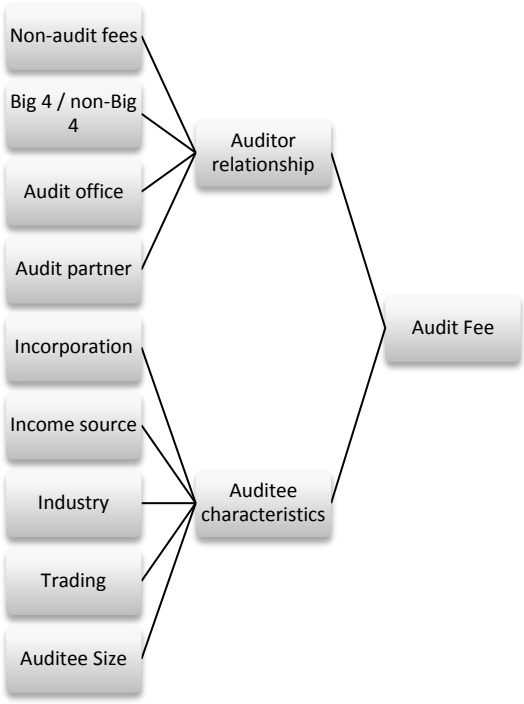

Figure 1: Overview of the Australian Charity Audit Fees Determinant Model

3.3.1 Audit Fee

Audit fee was the dependent variable in the Australian charity audit fee determinants model. This represents the audit fee reported by the charity in their 2011-2012 annual report as being paid to their auditor for financial auditing services, and was taken directly from the charities' published financial accounts for the financial year.

3.3.2 Auditee Size

Financial auditing involves a review of the charities' accounting information system, internal control system, and a sample of financial transactions. Larger charities will in all likelihood have far more transactions; a more involved internal control system, and a more sophisticated accounting information system. That is, the audit risk level is expected to be higher for larger charities and therefore requires a more complex audit program. This suggests that larger charities will have higher audit fees than their smaller counterparts. Auditee size has been shown to have a significantly strong influence on audit fee pricing in the private sector as shown in Table 1. In the not-for-profit sector literature, two measures of size were found to be significant predictors of the audit fee price. They are: a) total income (Beattie et al., 2001) and b) total assets (Vermeer et al., 2009). While assets are by far the most common measure of size (Hay, 2013 reported 87 studies used assets), Hay et al. (2006) reported that sales (income) was used in 24 studies, with 22 of these reporting a positive significant result. In this study, auditee size was measured as the total income of the charity in the financial year under review.

Charities exist to generate income for disbursement in support of their program objectives, rather than building up asset bases to generate further income. For this reason it is believed that income provides a more robust measure of charities' size, and consequently reported income in charities' financial statements was used in this study.

3.3.3 Auditor Relationship

The independent variable category, auditor relationship, was captured by two variables related to the auditor: a) the audit process and b) the auditor's relationship with the client, being non-audit services and size of the audit firm (Big Four, non-Big Four).

Non-audit services were found to be a significant indicator of audit fee prices in 42 out of 51 audit fee pricing studies examined by Hay (2013). In the not-for-profit literature both Beattie et al. (2001) and Vermeer et al. (2009) found it was a significant variable influencing audit fees. This association was accounted for in the current study by including a dichotomous variable, non-audit fees paid to the financial auditor.

It can reasonably be argued that audit fees will be higher when the auditor is perceived to have a higher status. The common proxy variable for "auditor quality" in the literature is a dummy variable for firms classified as Big 8/6/5/4 as the case may be, in which it was found that 58% of all studies showed a positive significant result (Hay et al., 2006, p. 176). Beattie et al. (2001) and Vermeer et al. (2009) used a dummy variable for Big Six/Four auditors. Hay (2013) argued this was an issue warranting further investigation due to the many studies reporting non-significant results. In this study, the influence of Big 4 audit firms on audit fee pricing was further explored by including a dichotomous variable for Big Four auditor. This was expected to have a positive coefficient in the regression.

More recent research into audit fee premiums in the private sector explored the question of whether audit fee premiums was linked to firm-wide industry expertise, audit firm office-specific expertise, or a combination of both (Ferguson et al., 2003; Francis et al., 2005; Ferguson et al., 2006; Carson & Fargher, 2007; and Hay & Jetter, 2011). In his meta-analysis, Hay (2013) found that specialist city and national auditor

were significant attributes in terms of audit fee pricing in six studies. Francis (2011, p. 125) presented for consideration what is described as a "general framework for studying factors associated with engagement-level audit quality." While audit quality per se was not the focus of his study, Francis (2011) included an examination of the literature in regard to audit specialisation. Audit specialisation research has predominantly viewed the question from the perspective of audit firm-wide expertise, however Francis suggested the real question to be explored was whether auditor expertise is office-specific or firm wide.

In the current study two variables were included to further explore Francis's recommendation. One variable examined the relationship between the audit fee paid by charities and the audit office responsible for the audit. The second variable extended examination of the relationship to not only include office level but also partner level; that is to explore the relationship between the audit fee paid by the charity and the audit firm partner responsible for the audit.

3.3.4 Auditee Characteristics

Aside from size the other two prominent auditee characteristics in the literature are auditee complexity and inherent risk. In regard to complexity, the three dominant variables are number of subsidiaries, foreign subsidiaries, and Standard Industrial classification (Hay, 2013; Hay et al., 2006). From a not-for-profit perspective, Beattie et al. (2001) argued that auditee complexity influences the audit fee incurred by the organisation, and it is therefore posited that audit fees will increase with increased levels of auditee complexity. Given the structural nature of not-for-profit entities, the following independent variables were proposed as proxies of auditee complexity rather than the more common variables used in the private sector literature:

Incorporation: The political/legal system in Australia, namely federalism, provides an interesting context to determine whether the incorporation of a charity has an influence on audit fees. Charities can be incorporated under the Corporations Law in their relevant state jurisdiction, or in some instances under their own Act of Parliament. This would suggest auditors need to have an understanding of the various laws and their influence on the structure and policies of their clients, hence the rigour of audit requirements. Differing reporting requirements and legal obligations can also influence the depth of the audit undertaken and consequently the fee. Incorporation has not been considered in previous research studies on the subject; hence a dichotomous variable was used to reflect the nature of incorporation (company/non-company).

Income Source: *C*harities derive their income from three sources: public donations, trading activities and government grants. The expectations of fund providers and/or the level of risk associated with the source of income can vary, and this will influence expectations in terms of the quality of financial reporting and auditing. For example, government funds may be subject to grant conditions that require further review by auditors, or trading activities can add another level of complexity to the audit that will impact the fee charged. In this study, source of income was captured through the use of dichotomous variables**.**

Auditee Industry: As noted previously, the third most common variable for complexity in the private sector literature is the Standard Industrial Classification (SIC). While there is no equivalent classification in the not-for-profit sector in Australia, charities contribute to various “industries”. This classification of significant areas of activity can influence the complexity of the audit and hence the audit fee.

In addition to the charity audit fees determinants model, eight hypotheses were explored in this study. These are outlined in the remainder of this chapter.

3.4 Research Hypotheses

Once the charity audit fee model was established, the existence of auditor fee premiums could be evaluated. Beattie et al. (2001) noted: “the audit market structure within the sector is especially useful for exploring this issue, since Big Six auditors do not dominate the market to the extent that is true for the private sector.” It was anticipated that the charity audit market in Australia would allow further exploration of this issue, as a similar lack of market dominance by Big Four auditors can be expected. The following eight alternatives formed hypotheses that were examined in this study.

Hypothesis one entailed an investigation into the existence of Big Four audit fee premiums in the charity audit market. Unlike the private sector, it was not expected that Big Four auditors would dominate the market to the same extent, otherwise definitions like auditors having 10% of market share, as considered in prior studies by Craswell et al. (1995), Palmrose (1986), and Ward et al. (1994) would not apply. Beattie et al. (2001, p. 254) suggested: “any observed audit fee premium can be attributed to brand name rather than any specific sector expertise.” To test for evidence of a Big Four audit premium a dichotomous variable was included in the model for this study. In Australia the Big Four audit firms are KPMG, PWC, Ernst & Young and Deloitte Global Services Limited. The hypothesis in the alternative form is:

H_1: The brand name of Big Four auditors is rewarded with an audit fee premium above non-Big Four audit firms in the Australian charity sector.

Hypothesis two assumed evidence of Big Four brand premiums and examined whether Big Four premiums were specific to individual Big Four firms. Dummy variables for the Big Four audit firms identified in the charity audit market were introduced to the model to allow for testing the hypothesis:

H_2: Individual Big Four audit firms are rewarded with an audit fee premium above non-Big Four audit firms in the Australian charity sector.

The nature of the not-for-profit sector is such that it comprises diverse entities of relatively small size, which may reduce the role of Big Four auditors and provide increased opportunities for non-Big Four auditors to play a more prominent role. The objective of this hypothesis was to determine whether there was any evidence of audit fee premiums for expertise or specialisation. The literature on private sector industry specialisation suggests that there may be a small auditee effect, but this had not yet been well established either way, creating an opportunity for further exploration in the context of charities.

Reflecting the earlier work of Cullinan (1998), Beattie et al. (2001, p. 255) argued that:

> As market concentration is much lower in the charity sector than in the private sector company audit market, there is less likelihood of monopolistic/oligopolistic pricing by a few market leaders. Consequently, observation of a fee premium is stronger evidence that clients are willing to pay higher audit fees to firms with perceived expertise in the sector.

This led to hypotheses three and four:

H_3: Non-Big Four audit firms with expertise are rewarded with an audit fee premium above other non-Big Four audit firms in the Australian charity sector.

Hypothesis four assumed evidence of non-Big Four audit premiums and investigated the existence of audit premiums by non-Big Four market leaders in the charity sector.

H_4: Individual non-Big Four audit firms with expertise are rewarded with an audit fee premium above other non-Big Four audit firms in the Australian charity sector.

The same approach adopted by Beattie et al. (2001), a separate regression model for Big Four and non-Big Four audit firms, was used in this study. Beattie et al. (2001) tested for a similar hypothesis whereby market share was proxied by the number of charities audited by non-Big-Six firms. The authors also tested a separate model (Model 7) in which the regression was based on charities audited by non-Big-Six audit firms.

Audit specialisation research has predominantly looked at the audit fee premium question on the basis of firm-wide expertise, however, some studies explored audit specialisation at the city level and showed findings that indicated specialist audit firms at both national and city levels were earning an audit fee premium. In his review of audit quality research, Francis (2011) suggested that audit specialisation may be office-specific rather than firm-wide.

The nature of the not-for-profit sector may lend itself to more personal connections between auditors and charities, with audit firm offices or audit partners taking a particular interest in the sector, thereby developing expertise which commands an audit fee premium. The nature of the personal connection may also enhance the relationship between auditors

and charities in such a way as to override an audit firm's national expertise. This presented an opportunity to not only explore the question of charity audit fee premiums, but also to extend the literature by considering the question of office-specific charity audit fee premiums and/or audit partner charity audit fee premiums. Accordingly the remaining four hypotheses were:

H_5: Individual offices of Big Four audit firms are rewarded with an audit fee premium above other Big Four audit firms in the Australian charity sector.

H_6: Individual audit partners of Big Four audit firms are rewarded with an audit fee premium above other Big Four audit firm partners in the Australian charity sector.

H_7: Individual offices of multi office non-Big Four audit firms are rewarded with an audit fee premium above other multi office non-Big Four audit firms in the Australian charity sector.

H_8: Individual audit partners of non-Big Four audit firms are rewarded with an audit fee premium above partners of other non-Big Four audit firms in the Australian charity sector

In summary, the research framework focused on two aspects: an Australian charity audit fee determination model and an examination of audit fee premiums in the Australian charity audit market. This was achieved through analyses of a sample of charities' annual reports.

The following chapter discusses the research methodology used in this study, and provides details about the model construction and data collection.

CHAPTER FOUR
RESEARCH METHODOLOGY

4.1 Research Design

The research approach adopted in this study used an analysis of a sample of charity annual reports to evaluate the determinants of audit fees paid (dependent variable) by Australian charities. The most recently available financial reports at the commencement of the study, the 2011-2012 financial period, were evaluated in this study. Annual reports were used as there were no formal reporting channels for this sector, such as those for the private sector. Charities' annual reports were obtained online from their website and/or via a written request to the charity where no report was available online.

4.2 Sample Selection

The Australian Bureau of Statistics (2009) suggested that there were approximately 41,000 not-for-profit entities in Australia at the commencement of this study, yet there was no known database listing of these entities[2]. The most comprehensive list of charities was the Australian Taxation Office's listing of organisations that are endorsed as deductible gift recipients. The listing can be downloaded any time and reflects the status of recipients at download date. At the time of this study it contained approximately 17,400 entities, however, not all the organisations included in the listing were charities as defined by the Australian Taxation Office.

Given the lack of a charities database and the broad inclusion of entities in the Australian Taxation Office listing, an online directory published by Pro

[2] The Australian Charities and Not-for-profit Commission now provides a database of registered charities, *ACNC Registered Charities* available at http://data.gov.au/dataset/acnc-register.

Bono Australia Pty Ltd, *Guide to Giving: The Australian Directory of Not for Profit Organisations* (Pro Bono Australia Pty Ltd, 2012), as at December 28, 2012 was used as the sample source. The directory listed 949 charities across 40 sectors (significant areas of activity). This number is a little misleading as the organisations could self-select as many sectors as they deemed relevant to their core activities. To mitigate against this a review of the directory was undertaken, involving a review of each listing. In cases where a charity was listed in more than one sector, the researcher determined a primary sector according to main area of activity, and deleted duplicate entries. This process entailed scrutiny of the charity's website to ascertain their primary activity and reduced the number of charities listed in the directory to 759 across 37 sectors. Of these 37 sectors, 13 contained fewer than 10 entities. A further review was undertaken of sectors containing 10 or fewer organisations, and where deemed appropriate, these were consolidated into a "parent" sector. For example, one sector titled "independent schools" included only one organisation, so it was consolidated into the parent sector "education and training". In this way, seven sectors were removed from their associated entities and reclassified into more suitable sectors (see Table 3). Following this process the directory contained 759 organisations across 30 sectors.

An initial stratified sample of 250 charities in the consolidated directory, showed each sector with a random size sample of charities. The charities in each sector were sorted alphabetically and counted. The total number was then matched to the random number to select the organisation for the sample. The random number generator, Stat Trek (n.d.), was used to generate a set of random numbers for each stratum. Stat Trek allows for duplication avoidance, and specification of the number of random required, the number range.

Of the 250 organisations identified for this study, annual reports and/or financial reports were obtained for 106 organisations, either via their

website or by contacting the organisation directly via email. It was not possible to obtain sufficient data from the remaining organisations because they either did not publish their financial information on their website, did not respond to the email request for information (130 organisations), or declined the request (9 organisations). Five organisations were removed from the initial sample as they were subsequently found not to be charitable organisations (e.g., universities and state government entities not registered with the Australian Charities and Not-for-profits Commission). One charity, the Baptist Community Services (NSW & ACT), chose early on to adopt the reduced disclosure requirements allowed for in the accounting standard, AASB 2011-2 Amendments to Australian Accounting Standards, which arose from the Trans-Tasman Convergence Project. This meant that the charity did not report audit fees paid.

An initial analysis of the sample revealed that only 90 charities reported audit fees in their financial reports. In light of this information, the sample size was increased by 50 to 300. The same process of representation was applied to the additional 50 entities, and Stat Trek (n.d.) was again used to generate a random sample of an additional 50 charities. Each sector's representation in the sample was determined by calculating the sample ratio for the sector (number in the sector/total sample) x sample size. The random number generator Stat Trek (n.d.) then generated a set of random numbers for each stratum. Table 4 summarises the sectors, number of charities or organisations in each sector, and the make-up by sector of the final sample used in this study.

The final sample of charities and their annual and/or financial reports were used as the source of dependent and independent financial variables to extract data from the Australian Business Names database, as appropriate.

Table 3: *Rationalisation of Industry Sectors in the Guide to Giving: The Australian Directory of Not for-profit Organisations*

Original Sector	New Sector	Number of Entities Moved
Diabetes	Health – General	7
Gay and Lesbian Groups	Education and Training (2); Community Support Services (1)	3
History and Heritage	Arts and Culture	2
Independent Schools	Education and Training	1
Libraries and Museums	Arts and Culture	3
Rural	Community Support Services (3); Foundations and Philanthropy	4
Safety, Rescue and First Aid	Children (1), Health-General (1); Sport and Recreation (1)	3
Sport and Recreation		5

4.3 Independent and Dependent Variables

The model includes one dependent variable and 11 independent variables. The nature of these variables is discussed in the following sections.

4.3.1 The Dependent Variable: Audit Fee

The dependent variable is the audit fee as reported by the charities in their 2011-2012 annual and/or financial reports as the fee paid to the auditor for financial auditing services during that financial year. From the initial sample of 106 charities, it was found that only 90 reported their audit fees in their 2011-2012 financial reports. The remaining 16 charities simply did not report the fee in their published financial statements and/or annual reports, and with one exception, no explanation was given. The lack of a dependent variable, audit fees, meant that these 16 charities had to be removed from the initial sample, and the decision was made to increase the initial sample size to 300. The result was that 101 charities' annual

reports were used in the analysis, as their annual and/or financial reports were available and the reports included the audit fees. The next step was to obtain the independent variables.

Table 4: *Guide to Giving: The Australian Directory of Not-for-profit Organisations by Sector and Sample Breakdown*

Sector	**Number of Entities**	**Sample Representation**
Aged Care and Seniors	39	5
Affordable Housing	18	4
Animals and Birds	37	5
Arts and Culture	31	3
Asthma and Respiratory	9	0
Blindness and Deafness	27	3
Cancer	34	5
Children	49	8
Community Support Services	69	11
Conservation and Environment	38	6
Diabetes	6	8
Disabilities	82	4
Education and Training	32	2
Families	15	1
Foundations and Philanthropy	11	2
Health – General	46	10
Health – Hospitals and Medical Centres	16	2
Heart Disease	4	1
Humanitarian	9	1
Indigenous	12	0
Law, Justice and Human Rights	10	1
Mental Health	32	4
Overseas Aid and Development	29	8
Religion and Religious Groups	18	0
Research	29	2
Sport and Recreation	6	0
Veterans and Ex-serviceman/woman	5	0
Welfare	8	3
Woman	15	0
Youth	23	2
TOTAL	759	101

4.3.2 Independent Variables

This study consisted of 11 independent variables reflective of the charity audit fee model (Figure 1) plus additional “sub-variables” as applicable to the specific hypothesis being tested. The final dependent and independent variables are summarised in Table 5.

4.3.2.1 Auditee Size

The independent variable LNINCOME is the natural logarithm of the income amount reported by the charity in the financial year. The natural logarithm of income was used to address normality concerns. Income was used to show the total reported operating revenue for the charity from all sources as reported in the profit and loss statement or notes to the accounts. Where necessary, an analysis of the financial report was undertaken to determine the reported income. The financial reports of all the charities in the sample reported their total revenue (income), at least in a manner that allowed for it to be calculated where a total amount was not reported.

4.3.2.2 Auditor Relationship

In the audit fees model (Figure 1) the independent variable category, auditor relationship, consisted of five variables reflective of the relationship between the auditor and charity.

The first of the auditee relationship variables, AUDITFIRM, was a nominal variable representing the audit firm engaged by the charity. Each audit firm was uniquely identified by a categorical value. Multicollinearity analysis of the variable AUDITFIRM showed it was significantly correlated to AUDITOFFICE (see Table 5), and AUDITOFFICE was therefore used as a proxy for AUDITFIRM, which was excluded from the subsequent multivariate analysis.

Further analysis of auditor relationship was undertaken by identifying the firms as Big-Four or non-Big Four. The four firms classified as “Big Four” were Deloitte Touche Tohmatsu Limited [DELOITTE], Ernst & Young [ERNST&YOUNG], KPMG [KPMG], and PricewaterhouseCoopers [PWC]. A nominal variable, BIG FOUR was included in the model. To test for a relationship between Big Four audit firms and charities’ audit fees as proposed in hypothesis 2, each Big Four audit firm was analysed. For this hypothesis, each Big Four audit firm had its own variable, e.g., Deloitte was DELOITTE. The identity of the audit firm was obtained from the audit report included in the charities’ annual and/or financial report.

Additional sub-variables were created from the AUDITFIRM variable for analyses related to hypotheses 3 and 4. In relation to hypothesis 3, non-Big Four audit firms were reviewed to identify the number of audit clients they had. Five variables were created, representing non-Big Four audit firms with seven clients [NONB4CLIENTS7], six clients [NONB4CLIENTS6], three clients [NONB4CLIENTS3], two clients [NONB4CLIENTS2], and one client [NONB4CLIENTS1] respectively. No firms were identified as having four or five clients. These variables were nominal.

For hypothesis 4, the approach adopted in Beattie et al. (2001) was applied to identify the number of clients or percentage of audit fees earned by the top non-Big Four audit firms. Four variables were created representing the four larger non-Big Four audit firms, namely WHK NG (NONB4WHKNG), BDO (NONBIGBDO), Grant Thornton (NONB4GRANT) and RSM Bird Cameron (NONB4RSM). These variables were nominal.

The variables AUDITOFFICE and AUDITPARTNER in the category auditor relationship simulated the research of Francis (2011) who explored whether auditor expertise was office-specific or firm wide, and earlier work exploring whether auditor expertise was partner specific. AUDITOFFICE

was a nominal variable code and reflected the audit firm's office undertaking the audit. An audit firm with multiple offices engaging in charity audits had a code assigned to each office. The variable, AUDITPARTNER, was a nominal variable representing each audit firm's audit partner who signed off the audit report as contained in the annual and/or financial report of the charity. The identities of both the office and the audit partner were obtained from the audit report included in the charities' annual reports and/or financial reports.

Hypotheses 5 and 7 examined more closely the role of specific audit offices in influencing charity audit fees, and additional variables were created to identify each specific Big Four and non-Big Four audit firm office with multiple offices undertaking charity audits. For Big Four audit firms the variable name was in the format B4OFFICE followed by the *audit firm office location*, so for example Deloitte Sydney office variable is B4OFFICEDELSYD. For non-Big Four audit firm offices, the variable name was in the format NB4 followed by the *audit firm office location*, so for example, BDO Sydney office variable is NB4BDOSYD. Information for the variables was obtained from the audit reports provided in the charities' annual financial statements.

Hypotheses 6 and 8 examined the relationship between the audit partners of the Big Four audit firms and charity audit fees, and the relationship between the audit partners of non-Big Four audit firms whose partners were responsible for more than one audit and charity audit fees respectively. For Big Four audit firms the variable name was in the format B4 followed by the *firm name audit partner,* e.g., Deloitte's audit partner, Lefevre's variable is B4DELLEFEVRE. For non-Big Four audit firm offices the variable name was in the format NB4 followed by the *audit firm partner name*, so BDO audit partner Paul's variable is NB4BDOPAUL. Information for the variables was obtained from audit reports provided in the charities' annual financial statements.

The final variable in the auditor relationship category is NONAUDITFEE, a nominal variable indicating whether or not the charity reported non-audit fees in its financial and/or annual report. A nominal variable form was used to represent the characteristic, non-audit fee, due to the abnormal nature of the reported fees. This variable was determined from the reported information in the charities' annual financial reports.

4.3.2.3 Auditee Characteristics

The third independent variable category in the model is auditee characteristics (Figure 1), which consisted of six variables reflecting various attributes of Australian charities.

The variable ABNCOMPANY was a nominal variable reflecting whether a charity has an incorporated structure as a public company or whether it is incorporated in another form. An incorporated structure was identified from the Australian Business Name database, where an entity's incorporated structure is listed as "entity type." The Australian Business Register describes "entity type" as "the entity associated with an ABN in terms of income tax, Australian business number (ABN) and Goods and Services Tax (GST) legislation" (Australian Business Register, 2013). The charities included in the sample for this study were one of five entity types. These entity types, along with their definitions, are as follows:

- **Australian public company**: "A company is a non-individual client type. Company is defined to include a body corporate and any other unincorporated association or body of persons but does not include a partnership or a non-entity joint venture" (Australian Business Register, 2013).

- **Australian private company**: "A private Australian company is not listed on the stock exchange and is not included in the description

of Australian public company or cooperative" (Australian Business Register, 2013).

- **Other incorporated entity:** "Other incorporated entity includes an entity that has the same characteristics as a company but is not incorporated as a corporation's law company. This category includes: a branch of an overseas company not incorporated in Australia (often the name ends in *corporation*); incorporated associations which are incorporated under a State Act; incorporated charitable institutions) (Australian Business Register, 2013).

- **Other unincorporated entity:** The Australian Business Register (2013) defines other unincorporated entity as an "entity [as] a number of people grouped together by a common purpose with club-like characteristics, for example, a sporting club, social club or trade union. Some club-like characteristics are:

  - there are members of the association;
  - the members will normally be free to join or leave the association;
  - the association will normally continue in existence independently of any change to the composition of the association;
  - as a matter of history, there will have been a moment in time when a number of persons combined to form the association;
  - there is a contract (which can fall short of a legally enforceable contract) binding the members among themselves; and
  - there is a constitutional arrangement for meetings of members and for appointing officers.

  "The meaning of any other unincorporated association or body of persons does not include a non-entity joint venture" (Australian Business Register, 2013).

- **Other trust:** “A trust is a fiduciary relationship where a trustee holds property or income for the benefit of others (the beneficiaries). A trust is not a separate legal entity” (Australian Business Register, 2013).

One charity in the sample, RSPCA Tasmania, was not listed in the Australian Business Name database and hence did not appear to have an Australian Business Number. It was also not listed in the Australian Charities and Not-for-profits Commission register, and since its status, as a charity was unclear, it was removed from the sample.

The nature of the charity sector is such that charities are involved in a diverse range of “industries” or sectors. In this study, the variable INDUSTRY represented the charity purpose or industry sector the charity operated in. The *Charities Act 2013* (Cth) s. 12(1) defines 12 charity purposes:

- The purpose of advancing health;
- The purpose of advancing education;
- The purpose of advancing social or public welfare;
- The purpose of advancing religion
- The purpose of advancing culture
- The purpose of promoting reconciliation, mutual respect and tolerance between groups individuals that are in Australia;
- The purpose of promoting or protecting human rights;
- The purpose of advancing the security or safety of Australian or the Australian public
- The purpose of preventing or relieving the suffering of animals;
- The purpose of advancing the natural environment;
- Any other purpose beneficial to the general public that may be reasonably be regarded as analogous to, or within the spirit of, any of the purposes mentioned above;

- The purpose of promoting a change – the change is in furtherance or in aid of one or more of the purposes mentioned above or in the case of opposing change – the change in opposition to, or in hindrance of, one or more of the purposes mentioned above.

Following a review of the online directory *Guide to Giving: The Australian Directory of Not for Profit Organisations* (Pro Bono Australia Pty Ltd, 2012), the self-reporting classification of purpose put forward by the charities in the sample in their registration with the Australian Charities and Not-for-profits Commission and a review of the activities of the charity by the research each charity in the sample was coded as being in one of the 12 industries or charitable purposes (see Table 6). Each charity was coded 1 - 12, reflective of the industry sector or charitable purpose.

Under Australia's federal system of government, the regulation of charities is a state matter, and hence each state imposes inconsistent requirements. A nominal variable was included in this study, STATE, which reflects the state or territory the charity was registered in. The state or territory was determined from the incorporated address of the charity as provided in the annual reports and/or financial statements.

The final three variables in the auditee characteristics category reflect their income sources and broadly indicate where their income is derived from: donations, trading activities and government grants. The expectations of fund providers can vary, as can the level of risk associated with the source of income, thereby influencing expectations in terms of the quality of financial reporting and auditing. For example, government funds may be subject to grant conditions that require further review by auditors. The source of income in this study was represented by three nominal variables: DONATIONS, GRANTS and TRADING. Nominal variables were used because there were significant normality issues in the reported amounts, which could not be resolved with statistical techniques.

A charity was deemed to have received income from donations if it reported income as such, or if it could be determined from an analysis of the charity's profit and loss statement and/or notes to the accounts that there was no reciprocal service for that income. In cases where a charity reported income from donations, it was coded as receiving donations income.

Trading income was determined by an examination of each charity's profit and loss statement and/or notes to the accounts, to identify income considered to have arisen from trading or commercial activities. As there was no consistency in the financial reports of the charities under study, the revenue items described as: sales of goods, publication sales, sale of product distribution rights, running camps, events income, social enterprises, service income, sales, education and training, clinic revenue, client fees, accommodation bond draw-downs and periodic payments, home care fees, audience fees, fees and services, merchandising, rental, subscription revenue, patient fees, conference, training and course registration fees, sale of services, sale of merchandise, and corporate income, were all treated as "trading income" for the purposes of this study. That is, income from activities which is of a commercial nature, or where the charity provides something tangible in return for payment. In cases where charities reported income from trading activities, it was coded as receiving trading income.

A charity was determined to have received income from grants if it reported income as such or if income came from the federal government, state government, local government, non-government organisations, government subsidies, or from government departments (e.g., Department of Human Services (Victoria), Department of Health and Human Services (Tasmania), Department of Health and Community Services (ACT).

This chapter provided details of the dependent and independent variables that were applied in the multivariate testing outlined in the following chapter.

Table 5: *Summary List of Variables*

Variable Name	Audit Fee Model Categories	Measurement Level	Description
LNAUDITFEE	Dependent Variable	Ratio	Natural log of the reported audit fee for the financial year
AUDITFIRM	Auditor Relationship	Nominal	Variable representing each audit firm in the sample [1]
AUDITOFFICE	Auditor Relationship	Nominal	Variable representing the city of the audit firm's office responsible for the audit
B4OFFICEDELMEL	Auditor Relationship	Nominal	Deloitte Melbourne office
B4OFFICEDELSYD	Auditor Relationship	Nominal	Deloitte Sydney office
B4OFFICEDELPAR	Auditor Relationship	Nominal	Deloitte Parramatta office
B4OFFICEEYMEL	Auditor Relationship	Nominal	Ernst & Young Melbourne office
B4OFFICEEYSYD	Auditor Relationship	Nominal	Ernst & Young Sydney office
B4OFFICEKPMGMEL	Auditor Relationship	Nominal	KPMG Melbourne office
B4OFFICEKPMGSYD	Auditor Relationship	Nominal	KPMG Sydney office
B4OFFICEKPMGPER	Auditor Relationship	Nominal	KPMG Perth office
B4OFFICEPWCSYD	Auditor Relationship	Nominal	PWC Sydney office
B4OFFICEPWCNEW	Auditor Relationship	Nominal	PWC Newcastle office
NB4BDOSYD	Auditor Relationship	Nominal	BDO Sydney office
NB4BDOPER	Auditor Relationship	Nominal	BDO Perth office
NB4BDOBRI	Auditor Relationship	Nominal	BDO Brisbane office
NB4GTMEL	Auditor Relationship	Nominal	Grant Thornton Melbourne office
NB4GTSYD	Auditor Relationship	Nominal	Grant Thornton Sydney office
NB4GTADL	Auditor Relationship	Nominal	Grant Thornton Adelaide office
NB4GTPER	Auditor Relationship	Nominal	Grant Thornton Perth office
NB4MSPER	Auditor Relationship	Nominal	Moore Stephens Perth office
NB4MSCAM	Auditor Relationship	Nominal	Moore Stephens Campbell office
NB4PPADL	Auditor Relationship	Nominal	Pitcher Partners Adelaide office
NB4PPMEL	Auditor Relationship	Nominal	Pitcher Partners Melbourne office

Variable Name	Audit Fee Model Categories	Measurement Level	Description
NB4RSMPER	Auditor Relationship	Nominal	RSM Bird Cameron Perth office
NB4RSMCAN	Auditor Relationship	Nominal	RSM Bird Cameron Canberra office
AUDITPARTNER	Auditor Relationship	Nominal	Variable representing the audit firm partner signing off audit report
B4DELBROWN_A	Auditor Relationship	Nominal	Deloitte Partner – Brown, A.
B4DELLEFEVRE	Auditor Relationship	Nominal	Deloitte Partner – Lefevre
B4DELPEARCE	Auditor Relationship	Nominal	Deloitte Partner – Pearce
B4DELBROWN	Auditor Relationship	Nominal	Deloitte Partner – Brown
B4DELANGLEUCCI	Auditor Relationship	Nominal	Deloitte Partner – Angleucci
B4DELCOLLIE	Auditor Relationship	Nominal	Deloitte Partner – Collie
B4EYWALLACE	Auditor Relationship	Nominal	Ernst & Young Partner – Wallace
B4EYPAINTER	Auditor Relationship	Nominal	Ernst & Young Partner – Painter
B4EYLEWIS	Auditor Relationship	Nominal	Ernst & Young Partner – Lewis
B4KPMGSCAMMELL	Auditor Relationship	Nominal	KPMG Partner – Scammell
B4KPMGNAPIER	Auditor Relationship	Nominal	KPMG Partner – Napier
B4KPMGMITCHEL	Auditor Relationship	Nominal	KPMG Partner – Mitchel
B4KPMGTRAVERS	Auditor Relationship	Nominal	KPMG Partner – Travers
B4KPMGROBINSON	Auditor Relationship	Nominal	KPMG Partner – Robinson
B4KPMGMATTERA	Auditor Relationship	Nominal	KPMG Partner – Mattera
B4KPMGCINANNI	Auditor Relationship	Nominal	KPMG Partner – Cinanni
B4KPWCMCCONEL	Auditor Relationship	Nominal	PWC Partner – McConel
B4KPWCTURNER	Auditor Relationship	Nominal	PWC Partner – Turner
B4KPWCMAHER	Auditor Relationship	Nominal	PWC Partner – Maher
NB4BDOPAUL	Auditor Relationship	Nominal	BDO Partner - Paul
NB4RSSMITH	Auditor Relationship	Nominal	Ronald Smith Partner - Smith
NB4AGNWATSON	Auditor Relationship	Nominal	Auditor General NSW - Watson
NB4DANWINNETT	Auditor Relationship	Nominal	Danby Winnett Partner - Winnett
NB4WHKFLAKEMORE	Auditor Relationship	Nominal	WHK NG Partner - Flakemore
NB4OHTHERS	Auditor Relationship	Nominal	All other non-Big Four audit partners
BIG FOUR	Auditor Relationship	Nominal	Variable representing a Big Four audit firm or not a Big Four audit firm

Variable Name	Audit Fee Model Categories	Measurement Level	Description
DELOITTE	Auditor Relationship	Nominal	Big Four Audit Firm – Deloitte Australia
ERNST&YOUNG	Auditor Relationship	Nominal	Big Four Audit Firm – Ernst & Young
KPMG	Auditor Relationship	Nominal	Big Four Audit Firm - KPMG
PWC	Auditor Relationship	Nominal	Big Four Audit Firm - PricewaterhouseCoopers
NONB4WHKNG	Auditor Relationship	Nominal	Non-Big Four specialist
NONB4BDO	Auditor Relationship	Nominal	Non-Big Four specialist
NONB4GRANT	Auditor Relationship	Nominal	Non-Big Four specialist
NONB4RSM	Auditor Relationship	Nominal	Non-Big Four specialist
NONB4CLIENTSS7	Auditor Relationship	Nominal	Non-Big Four audit firm client numbers
NONB4CLIENTSS6	Auditor Relationship	Nominal	Non-Big Four audit firm client numbers
NONB4CLIENTSS3	Auditor Relationship	Nominal	Non-Big Four audit firm client numbers
NONB4CLIENTSS2	Auditor Relationship	Nominal	Non-Big Four audit firm client numbers
NONB4CLIENTSS1	Auditor Relationship	Nominal	Non-Big Four audit firm client numbers
NONAUDITFEE	Auditor Relationship	Nominal	Log of reported non-audit fees paid to the auditors
LNINCOME	Auditee Characteristic	Interval	Natural log of the total report income for the financial year
ABNCOMPANY	Auditee Characteristic	Nominal	Variable representing if the charity is structured as a public company or not.
INDUSTRY	Auditee Characteristics	Nominal	Variable representing the industry sector that the charity operates in
STATE	Auditee Characteristics	Nominal	Variable identifying the state the charity is located in.
DONATIONS	Auditee Characteristics	Nominal	Variable indicating if the charity reports income from donations.
TRADING	Auditee Characteristics	Nominal	Variable indicating if the charity reports income from trading activities
GRANTS	Auditee Characteristics	Nominal	Variable indicating if the charity reports income from grants.

[1] AUDITFIRM was found to significantly correlated with AUDITOFFICE and was not included in the multivariate analysis.

CHAPTER 5
DATA ANALYSIS AND HYPOTHESES TESTING

5.1 Introduction

This chapter presents the analyses and results of testing the charity audit fees model and hypotheses put forward in the study. It commences with an examination of the descriptive characteristics of the sample, and a profile of the organisations included in the sample of Australian charities. This is followed by a preliminary analysis, including descriptive statistics and tests of normality undertaken with IBM SPSS Statistics. Correlation testing is described, followed by multiple regression analysis. The chapter concludes with a summary of the results.

5.2 Sample Profile

The sample of charities in this study consisted of 101 organisations representing eight industry sectors or charity purposes. The profile or descriptive statistics for the sample organisations are summarised in Table 6. In the sample a charity was likely to have an entity structure other than that of an Australian public company, to be an entity operating in the community support services sector, and to be domiciled in Victoria. The average income was $18,382,359 and the average cost of an audit was $26,536. An auditor of a charity in this study was likely to be a non-Big-4 auditor with one charity client, and the auditor partner was likely to audit only one charity. A profile of the auditors is summarised in Table 7.

Table 6: *Profile of the Charities in the Study Sample*

	Variables	**N**	**%**
INDUSTRY	Health	37	36.6
	Social or Public Welfare	34	33.7
	Other	13	12.9
	Natural Environment	6	5.9
	Animals	5	5.0
	Culture	3	3.0
	Education	2	2.0
	Law	1	1.0
	TOTAL	101	100.0
STATE	Victoria	41	40.6
	New South Wales	32	31.7
	Queensland	10	9.9
	Western Australia	6	5.9
	Australian Capital Territory	4	4.0
	South Australia	4	4.0
	Tasmania	3	3.0
	Northern Territory	1	1.0
	TOTAL	101	100.0
ABN ENTITY TYPE	Australian Public Company	47	46.5
	Other Incorporated Entity	54	53.5
	TOTAL	101	100.0

Table 7: *Profile of the Auditors in the Study Sample*

	Variables	**N**	**%**
AUDITOR	Big Four	23	22.8
	Non-Big Four	73	72.3
	Missing	5	5
	Total	101	100.0
AUDIT FIRMS	Seven clients	3	5.2
	Six clients	1	1.7
	Five clients	1	1.7
	Four clients	1	1.7
	Three clients	1	1.7
	Two clients	6	10.3
	One client	45	77.6
	Total	63	100.0
	Missing	5	
AUDIT OFFICES	Five clients	1	1.4
	Four clients	2	2.8
	Three clients	3	4.2
	Two clients	6	8.3
	One client	60	83.3
	Total	79	100.0
	Missing	7	
AUDIT PARTNERS	Three clients	1	1.2
	Two clients	8	9.5
	One client	75	89.3
	Total	91	100.0
	Missing	7	

5.3 Descriptive Statistics

Testing the data to determine compliance with the statistical assumptions underlying multiple regression techniques is important for successful analysis (Hair, Black, Babin & Anderson, 2010). The testing was undertaken here through descriptive analysis of the ratio dependent variables and the independent variable. The descriptive indicators reported were the mean, median, standard deviation (Table 8) and the testing of normality via both skewness and kurtosis tests (Table 9).

Table 8: *Summary Statistics of the Variables*

Variable	Mean	Median	Standard Deviation	Min	Max	Skewness	Kurtosis
AUDITEE FEES							
AUDITFEE	$26,536	$15,000	$34,489	0	$221,300	3.289	13.915
LNAUDITFEE	9.5999	9.6481	1.12984	7.31	12.31	-.045	-.519
AUDITEE SIZE							
INCOME	$18,382,359	$52,92,243	$40,117,453	$113,313	$3,449,420,000	5.833	44.154
LNINCOME	15.4733	15.4818		11.64	19.66	.086	-.634
R_DONATIONS	$2,856,903	$188,313	$8,133,794	$2,044	$47,235,737	4.374	20.660
R_TRADING	$2,242,572	$361,460	$5,691,456	$449	$36,554,659	4.981	28.490
R_GRANTS	$7,197,317	$1,463,121	$14,812,002	$32,294	$68,039,000	3.274	10.621
AUDITOR CHARACTERISTICS							
R_NONAUDITFEE	$20,868	$9,450	$28,757	$1,875	$125,500	2.428	6.406

n = 101

Multivariate techniques, such as multiple regressions, are based on a fundamental set of assumptions, which represent the underlying statistical theory (Hair et al., 2010, p. 71). The four assumptions of interest were: normality, homoscedasticity, linearity and the absence of correlated errors.

5.4 Tests of Normality: Ratio Variables

The assumption of normality is a prerequisite for statistical techniques such as multiple regression. In multivariate analysis, the complexity of relationships, often arising from the use of a large number of variables, can result in potential distortions and biases in the results and are more pronounced when the assumptions are violated (Hair et al., 2010, p. 70). The severity of non-normality is based on two dimensions: the shape of the distribution and the sample size. Smaller sample sizes (50 or less) tend to be more adversely effected by a lack of normality in comparison to larger sample sizes (200 or more) (Hair et al., 2010, p. 72). The sample size of 101 in this study falls between what could be considered a small and large sample size. The distribution shape of the dependent variable and the ratio independent variables were analysed using tests for skewness and kurtosis. Kurtosis refers to the “peakedness” (leptokurtic) or “flatness” (platykurtic) of the distribution compared to a normal distribution, whereas skewness is used to describe the balance of the distribution (Hair et al., 2010, p. 41).

Table 9: *Tests for Skewness and Kurtosis: Ratio Variables*

Variable	Kolmogorov-Smirnov		Shapiro-Wilk		Skewness		Kurtosis	
	Statistic	Sig.	Statistic	Sig.	Statistic	Std. Error	Statistic	Std. Error
AUDITFEE	.224	.000	.654	.000	3.289	.240	13.915	.476
INCOME	.324	.000	.434	.000	5.833	.240	44.154	.476
R_DONATIONS	.358	.000	.408	.000	4.333	.240	21.169	.476
R_GRANTS	.337	.000	.448	.000	3.560	.240	12.421	.476
R_TRADING	.422	.000	.173	.000	9.138	.240	87.941	.476
R_NONAUDITFEE	.374	.000	.365	.000	4.802	.240	26.741	.476

n = 101

The skewness values for the dependent variable, AUDITFEE, and all five independent variables were positive, indicating a distribution shift to the left (see Table 9). Similarly the positive kurtosis values denote a leptokurtic or peaked distribution. Further testing was done using the Kolmogorov-Smirnov statistic with a Liffiefors significance level for normality (see Table 9). Coakes (2013) noted that if the significance level is greater than .05 in both the Kolmogorov-Smirnov and the Shapiro-Wilk test, then normality can be assumed. The significance level is shown to be below .05 (at 0.00) for the dependent variable AUDITFEE, and all the ratio independent variables of INCOME, R_DONATIONS, R_GRANTS, R_TRADING and R_NONAUDITFEE, hence non-normality can be assumed.

In addition to the Kolmogorov-Smirnov and Shapiro-Wilk test results reported in Table 9, standard Q-Q plots are shown for AUDITFEE (Figure 2), INCOME (Figure 3), R_DONATIONS (Figure 4), R_GRANTS (Figure 5) R_TRADING (Figure 6), and R_NONAUDITFEE (Figure 7). In each standard Q-Q plot the coordinate data points depart quite far from the main diagonal line, and in combination with the reported skewness and kurtosis values, it can be concluded that each of the variables had non-normal distributions and therefore did not meet the normality assumption for multiple regression procedures. Transformation of the data was therefore required.

5.5 Transformations to Achieve Normality: Ratio Variables

The tests for normality reported in the previous section showed that the normality assumptions inherent in multiple regression analysis were violated, and that correction procedures were required. Hair et al. (2010) recommended data transformations as the principal means of correcting non-normality and heterosedasticity. As the data in this study were positively skewed, it was determined that logarithm or square root transformations would work best. Logarithm and square root

transformations were initially applied to the dependent variable, LNAUDITFEE, and the five ratio independent variables, LNINCOME, LNDONATIONS, LNGRANTS, LNTRADING and LNNONAUDITFEES. Only the results of the logarithm transformations are reported here, as the square root transformations produced similar outcomes. The distribution shapes of the transformed dependent variable and the ratio independent variables were analysed using tests for skewness and kurtosis. The skewness and kurtosis values are summarised in Table 11.

Further testing was undertaken using the Kolmogorov-Smirnov statistic with a Liffiefors significance level for normality. As shown in Table 12, the Liffiefors significance level was greater than .05 for all the transformed variables; hence non-normality could be assumed (Coates, 2013).

Table 10: *Tests for Skewness and Kurtosis: Transformed Ratio Variables*

Variable	**N**	**Skewness**		**Kurtosis**	
		Statistic	**Std. Error**	**Statistic**	**Std. Error**
LNAUDITFEE	100	-.045	.241	-.519	.478
LNINCOME	101	.086	.240	-.634	.476
LNDONATIONS	75	-.077	.277	-.631	.548
LNGRANTS	80	.141	.269	-.382	.532
LNTRADING	80	-.288	.269	.028	.532
LNNONAUDITFEE	27	.529	.448	-.674	.872

Table 11: *Tests for Normality: Transformed Variables*

Variable	**Kolmogorov-Smirnov**			**Shapiro-Wilk**		
	Statistic	**Df**	**Sig.**	**Statistic**	**Df**	**Sig.**
LNAUDITFEE	.061	100	.200	.987	100	.443
LNINCOME	.057	101	.200	.985	101	.331
LNDONATIONS	.080	75	.200	.985	75	.502
LNGRANTS	.077	80	.200	.983	80	.387
LNTRADING	.058	80	.200	.988	80	.698
LNNONAUDITFEE	.149	27	.126	.948	27	.189

While the natural logarithm transformations resulted in normality readings

for all five variables, the transformation had a less than ideal impact on degrees of freedom for the ratio dependent variables: LNGRANTS, LNDONATIONS, LNTRADING and LNNONAUDITFEE. The reduction in degrees of freedom is such that it would negatively impact any subsequent multiple regression analysis due to pairwise or listwise deletion of “missing values.” The cause of the reduction in degrees of freedom is not attributable to missing data, but rather to the charities concerned, either for not reporting income from donations, trading and grants, or in the absence of income from such sources, and the mathematical process of computing a natural logarithm. It was also not possible to determine the veracity of the non-reported items; hence they couldn’t be treated as missing values. In this situation, it was therefore considered not appropriate to apply missing value techniques to replace the missing values. The same applied to the non-audit fees variable.

Tabachnick and Fidell (2014, p. 105) suggested: “the fact that a value is missing is itself a very good predictor of the variable of interest in your research. If a dummy variable is created when cases with complete data are assigned 0 and cases with missing data 1, the liability of missing data could become an asset.” Following the suggestion by these authors, the matter of non-normality of the independent variables, R_DONATIONS, R_TRADING, R_GRANTS and R_NONAUDITFEE was resolved by introducing four new independent dichotomous variables: DONATIONS, TRADING, GRANTS and NONAUDITFEE.

The natural logarithm transformation of the dependent variable AUDITFEE and the independent variable, INCOME, were applied in the remaining analysis, because transformation had the effect of normalising the variables, as shown by the skewness and kurtosis values (Table 11), and the Kolmogorov-Smirnov statistic values with a Liffiefors significance level for normality ($p > .05$) (Table 12). The respective standard Q-Q plots for LNAUDITFEE and LNINCOME are shown in Figure 8 and Figure 9. The

data points for LNAUDITFEE and LNINCOME are very close to the main diagonal line, indicating that both were distributed in an approximately normal manner in combination with the skewness and kurtosis values and Kolmogorov-Smirnov statistic values.

Subsequent testing showed that the normality assumptions underlying multiple regression analysis had been satisfied with respect to the ratio variables. The next section looks at the normality of the nominal variables.

5.6 Tests of Normality: Nominal Variables

With normalisation of the dependent variable, AUDITFEE, the next series of tests determined if LNAUDITFEE was normally distributed across the nominal variables. To this end, Kolmogorov-Smirnov and Shapiro-Wilk tests were undertaken in IBM SPSS Statistics where possible. In situations where a nominal variable had only one case, i.e. an audit firm audited only one charity, IBM SPSS Statistics determined that no valid case existed and that statistics could not be computed for this level. Furthermore, when the dependent variable, LNAUDITFEE, was constant for a nominal variable, i.e. AUDITFIRM = 7.0, it was omitted from the test. This is reflected in limited testing for some variables as noted in Table 13. The Kolmogorov-Simirnov and Shapiro-Wilk tests highlighted statistics that were not significant at the .01 alpha levels. Meyers, Gamst, and Guarino, 2013, p. 132 recommended the .01 level “as a suitably stringent alpha level with these tests, because of their sensitivity to any normality departures, and particularly with small sample sizes.” In addition to reporting the test results where possible, normal Q-Q plots were reported to confirm the statistic tests. As illustrated in Table 13, no nominal variable Kolmogorov-Simirnov and Shapiro-Wilk statistics were significant at the .01 alpha level, indicating no normality areas of concern. Furthermore, the applicable normal Q-Q plots, as reported for the variables ABNCOMPANY (Figure 10 and 11), INDUSTRY (Figure 11 to 16), STATE (Figure 27 to 33), DONATIONS (Figure 34s and 35), GRANTS (Figure 36 and 37),

TRADING (Figure 38 and 39), NONAUDITEE (Figure 40 and 41), BIG FOUR auditor (Figure 42 and 43), LNAUDITFEE (Figure 44 to 51), AUDITFIRM (Figure 52 to 62), NON-BIG FOUR CLIENTS [number of clients] (Figure 63 to 67), NON-BIG FOUR SPECIALIST (Figure 68 to 75), AUDITOFFICE (Figure 76 to 85), Big Four audit firm offices (Figure 86 to 100), non-Big Four specialist audit firm offices (Figure 101 to116), AUDIT PARTNERS (Figure 117 to 122), Big Four audit firm partners (Figure 123 to 144) and the non-Big Four specialist audit firm partners (Figure 145 to 154).

Table 12: *Tests of Normality for Nominal Variables on LNAUDITFEE*

	Kolmogorov-Simirnov			**Shapiro-Wilk**		
Variable	**Statistic**	**Df**	**Sig.**	**Statistic**	**Df**	**Sig.**
ABNCOMPANY						
Other	.088	54	.200	.973	54	.262
Company	.057	46	.200	.988	46	.919
INDUSTRY						
Health	.111	37	.200	.968	37	.357
Social or Public Welfare	.077	34	.200	.972	34	.530
Culture	.380	3	.	.763	3	.028
Animals	.161	5	.200	.974	5	.901
Natural Environment	.275	6	.174	.810	6	.072
Other	.143	13	.200	.966	13	.840
STATE						
New South Wales	.085	27	.200	.990	27	.993
South Australia	.260	2	.			
Tasmania	.260	2	.			
Western Australia	.276	5	.200	.866	5	.251
Victoria	.048	37	.200	.988	37	.951
Queensland	.2914	8	.045	.865	8	.136
Australian Capital Territory	.297	4	.	.847	4	.216
DONATIONS						
Donations Income	.077	64	.200	.979	64	.357
No Donations Income	.083	22	.200	.987	22	.990
GRANTS						
Grants income	.061	71	.200	.978	71	.257
No grants income	.106	15	.200	.961	15	.715
TRADING						
Trading income	.068	66	.200	.983	66	.508
No trading income	.081	20	.200	.978	20	.909
NONAUDITFEE						
Non-audit fee	.121	27	.200	.956	27	.294
No non-audit fee	.083	73	.200	.979	73	.271
BIG FOUR						

	Kolmogorov-Simirnov			Shapiro-Wilk		
Variable	**Statistic**	**Df**	**Sig.**	**Statistic**	**Df**	**Sig.**
Non-Big Four auditor	.067	65	.200	.979	65	.339
Big Four auditor	.107	21	.200	.952	21	.378
Non Deloittes	.068	79	.200	.985	79	.502
Deloittes	.258	7	.176	859	7	.149
Non Ernst & Young	.062	83	.200	.982	83	.311
Ernst & Young	.207	3	.	.992	3	.834
Non KPMG	.069	79	.200	.983	79	.361
KPMG	.194	7	.200	.851	7	.126
Not PWC	.066	82	.200	.986	82	.518
PWC	.180	4	.	.994	4	.978
AUDITFIRM						
Audit Firm 6.0	.228	6	.200	.959	6	.812
Audit Firm 12.0	.260	2	.			
Audit Firm 13.0	.258	7	.176	.859	7	.149
Audit Firm 15.0	.207	3	.	.992	3	.834
Audit Firm 19.0	.269	6	.199	.926	6	.551
Audit Firm 33.0	.194	7	.200	.851	7	.126
Audit Firm 38.0	.260	2	.			
Audit Firm 39.0	.260	2	.			
Audit Firm 40.0	.180	4	.	.994	4	.978
Audit Firm 45.0	.260	2	.			
Audit Firm 57.0	.262	3	.	.956	3	.596
NON-BIG FOUR FIRMS						
Seven Clients	.228	6	.200	.959	6	.812
Six Clients	.269	6	.199	.926	6	.551
Three Clients	.262	3	.	.956	3	.596
Two Clients	.179	10	.200	.927	10	.418
One Client	.107	40	.200	.961	40	.183
NON-BIG FOUR SPECIALIST						
Not WHK Auditor	.068	83	.200	.982	83	.312
WHK	.262	3	.	.956	3	.596
Not BDO Auditor	.071	80	.200	.985	80	.449
BDO	.228	6	.200	.959	6	.812
Not Grant Thornton	.062	80	.200	.984	80	.409
Grant Thornton	.269	6	.199	.926	6	.551
Not RSM Bird Cameron	.067	84	.200	.985	84	.459
RSM Bird Cameron	.260	2	.			
AUDITOFFICE [1]						
6	.260	2	.			
8	.175	3	.	1.000	3	.998
14	.260	2	.			
15	.308	5	.137	.860	5	.229
19	.260	2	.			
25	.368	3	.	.791	3	.093
41	.260	2	.			
43	.235	4	.	.969	4	.837
53	.275	3	.	.943	3	.539
71	.260	2	.			
BIG FOUR AUDIT FIRM OFFICES [2]						
Non Deloitte Melbourne	.068	81	.200	.985	81	.488
Deloitte Melbourne	.308	5	.137	.860	5	.229
Non Deloitte Sydney	.067	85	.200	.985	85	.428
Non Deloitte Parramatta	.067	85	.200	.985	85	.405

	Kolmogorov-Simirnov			Shapiro-Wilk		
Variable	**Statistic**	**Df**	**Sig.**	**Statistic**	**Df**	**Sig.**
Non Ernst & Young Melbourne	.063	84	.200	.982	84	.296
Ernst & Young Melbourne	.260	2	.			
Non Ernst & Young Sydney	.067	85	.200	.985	85	.409
Non KPMG Melbourne	.066	84	.200	.985	84	.457
KPMG Melbourne	.260	2	.			
Non KPMG Sydney	.069	82	.200	.982	82	.295
KPMG Sydney	.235	4	.	.969	4	.837
Non KPMG Perth	.066	85	.200	.985	85	.423
Non PWC Sydney	.066	83	.200	.986	83	.493
PWC Sydney	.275	3	.	.943	3	.539
Non PWC Newcastle	.067	85	.200	.985	85	.424
NON BIG FOUR SPECIALIST AUDIT FIRM OFFICE [2]						
Non BDO Sydney	.070	83	.200	.984	83	.397
BDO Sydney	.175	3	.	1.000	3	.998
Non BDO Perth	.067	85	.200	.985	85	.434
Non BDO Brisbane	.068	84	.200	.985	84	.427
BDO Brisbane	.260	2	.			
Non Grant Thornton Melbourne	.068	83	.200	.984	83	.402
Grant Thornton Melbourne	.368	3	.	.791	3	.093
Non Grant Thornton Sydney	.067	85	.200	.985	85	.436
Non Grant Thornton Adelaide	.060	85	.200	.984	.85	.368
Non Grant Thornton Perth	.067	85	.200	.984	85	.401
Non Moore Stephens Perth	.068	85	.200	.985	85	.450
Non Moore Stephens Campbell	.067	85	.200	.985	85	.408
Non Pitcher Partners Adelaide	.061	85	.200	.984	85	.377
Non Pitcher Partners Melbourne	.067	85	.200	.985	85	.417
Non RSM Bird Cameron Perth	.067	85	.200	.985	85	.427
Non RSM Bird Cameron Canberra	.066	85	.200	.985	85	.429
Audit Firm Partner						
10	.175	3	.	1.000	3	.998
17	.260	2	.			
24	.260	.2	.			
33	.260	2	.			
87	.260	2	.			
89	.260	2	.			
BIG FOUR AUDIT FIRM PARTNERS [2]						
Non Deloitte Partner Brown	.066	85	.200	.985	85	.438
Non Deloitte Partner Lefevre	.067	85	.200	.985	85	.414
Non Deloitte Partner Brown	.067	85	.200	.985	85	.424
Non Deloitte Partner Angleucci	.068	85	.200	.984	85	.366
Non Deloitte Partner Collie	.067	84	.200	.985	84	.415
Deloitte Partner Collie	.260	2	.			
Non Ernst & Young Partner Wallace	.060	85	.200	.984	85	.368
Non Ernst & Young Partner Painter	.068	85	.200	.983	85	.328
Non Ernst & Young Partner Lewis	.067	85	.200	.985	85	.409
Non Deloitte Partner Pearce	.067	85	.200	.985	85	.428
Non KPMG Partner Scammell	.066	85	.200	.985	85	.435
Non KPMG Partner Napier	.067	85	.200	.984	85	.366
Non KPMG Partner Mitchel	.067	85	.200	.985	85	.405
Non KPMG Partner Travers	.069	85	.200	.982	85	.267
Non KPMG Partner Robinson	.066	85	.200	.985	85	.423
Non KPMG Partner Mattera	.066	85	.200	.985	85	.438

	Kolmogorov-Simirnov			Shapiro-Wilk		
Variable	**Statistic**	**Df**	**Sig.**	**Statistic**	**Df**	**Sig.**
Non KPMG Partner Cinanni	.066	85	.200	.985	85	.433
Non KPMG Partner Bucholz	.067	85	.200	.985	85	.438
Non PWC Partner McConnel	.066	85	.200	.985	85	.425
Non PWC Partner Turner	.067	85	.200	.985	85	.424
Non PWC Partner Scoular	.067	85	.200	.985	86	.399
Non PWC Partner Maher	.066	85	.200	.985	85	.438
NON BIG FOUR AUDIT FIRM PARTNERS						
Non BDO Partner Paul	.070	83	.200	.984	83	.397
BDO Partner Paul	.175	3	.	1.000	3	.998
Non Ronald Smith Partner – Smith	.058	84	.200	.984	84	.381
Non Auditor General NSW Partner Watson	.060	85	.200	.984	85	.368
Non Danby Partner Winnett	.068	84	.200	.984	84	.411
Danby Partner Winnett	.260	2	.			
Non WHK Partner Flakemore	.072	84	.200	.982	84	.298
WHK Partner Flakemore	.260	2	.			
Non Non-Big Four Partners - Other	.109	29	.200	.972	29	.613
Non-Big Four Partners – Other	.074	57	.200	.976	57	.327

[1] Cases omitted where LNAUDITFEE is constant and/or where AUDIT FIRM is a single client case.
[2] Natural log of audit fee is constant, as the Df equals one hence it has been omitted.

5.7 Homoscedasticity: Nominal Variables

Following testing of normality with the nominal variables, testing for homoscedasticity or homogeneity of variance (equal variance) was also undertaken on a univariate basis (Levene test), where the variance of the transformed metric dependent variable [LNAUDITFEE] was compared across the levels of non-metric variables. Hair et al. (2010, p. 82) suggested that this type of analysis is “appropriate in preparation for analysis of variance or multivariate analysis of variance, in which nonmetric variables are the independent variables.” Table 14 reports the Levene statistic results. IBM SPSS Statistics could not run the test on some variables due to the many groups (Table 14 footnote 1) or because only one group had a computed variance (Table 14 footnote 2). Where the test was able to be undertaken, the Levene statistic was not statistically significant ($p > .05$), with two exceptions; those being the variables *Big Four audit firm – KPMG* and *Big Four audit firm – PWC*. It should be noted that the level of statistical significance was marginal, as was any deviation from normality. The next test applied in this study was a

multivariate technique, multiple regression analysis, which is considered “fairly ‘robust’ with respect to distribution deviating markedly from normality” (Meyers et al., 2013, p. 70). No further data transformation was undertaken to correct the significant Levene statistic.

This section summarised the normality testing and transformations that were undertaken where appropriate. The following section reports on the multicollinearity testing which is important for multiple regression analysis.

5.8 Testing for Multicollinearity

A key aspect in the interpretation of the regression variate is correlation between the independent variables. In this study, the question of multicollinearity was examined through the application of Pearson product-moment correlation, Phi coefficient, and one-way between-subjects ANOVA, as appropriate for the variable types. All three tests were applied because of concerns about meeting the assumptions underlying the use of a Pearson product-moment correlation (Coakes, Steed, & Ong, 2010, Meyers et al., 2013). The multicollinearity between continuous and dichotomous variables was described through the reporting of Pearson product-moment correlation coefficients (Coakes et al., Meyers et al., 2013). The multicollinearity between dichotomous and categorical variables was described through the reporting of Phi coefficients (Coakes et al.), and the multicollinearity between continuous and categorical variables was described through the reporting of ANOVA results (Meyer et al.).

Table 13: *Test of Homogeneity of Variances: Natural Log of Audit Fees*

Variable	Levene Statistic	Df	Df2	Sig
ABNCOMPANY	1.359	2	96	.262
INDUSTRY	1.461	5	92	.210
STATE	1.299	6	92	.265
DONATIONS	.036	1	98	.850
GRANTS	.170	1	98	.681
TRADING	.189	1	98	.665
NONAUDITFEE	2.347	1	98	.129
BIG FOUR	3.571	1	93	.062
DELOITTE	3.343	1	98	.071
ERNST&YOUNG	.119	1	98	.731
KPMG	3.963	1	98	.049 *
PWC	4.017	1	98	.048 *
AUDITFIRM	[1]			
NONB4CLIENTSS7	3.077	1	98	.083
NONB4CLIENTSS6	.322	1	98	.572
NONB4CLIENTSS3	1.557	1	98	.215
NONB4CLIENTSS2	.015	1	98	.904
NONB4CLIENTSS1	.151	1	98	.698
NONB4WHKNG	1.557	1	98	.215
NONB4BDO	3.077	1	98	.083
NONB4GRANT	.322	1	98	.572
NONB4RSM	1.633	1	98	.204
AUDITOFFICE	[1]			
B4OFFICEDELMEL	2.542	1	91	.114
B4OFFICEDELSYD	[2]			
B4OFFICEDELPAR	[2]			
B4OFFICEEYMEL	.731	1	91	.395
B4OFFICEEYSYD	[2]			
B4OFFICEKPMGMEL	3.578	1	91	.062
B4OFFICEKPMGSYD	1.726	1	91	.192
B4OFFICEKPMGPER	[2]			
B4OFFICEPWCSYD	3.339	1	91	.071
B4OFFICEPWCNEWMEL	[2]			
NB4BDOSYD	1.006	1	91	.319
NB4BDOPER	[2]			
NB4BDOBRI	3.008	1	91	.086
NB4GTMEL	.159	1	91	.691
NB4GTSYD	[2]			

Variable	Levene Statistic	Df	Df2	Sig
NB4GTADL	[2]			
NB4GTPER	[2]			
NB4MSPER	[2]			
NB4MSCAM	[2]			
NONB4PPADL	[2]			
NONB4PPMEL	[2]			
NONB4RSMPER	[2]			
NONB4RSMCAN	[2]			
AUDITPARTNER	[1]			
B4DELBROWN_A	[2]			
B4DELLEFEVRE	[2]			
B4DELPEARCE	[2]			
B4DELBROWN	[2]			
B4DELANGLEUCCI	[2]			
B4DELCOLLIE	.514	1	98	.475
B4EYWALLACE	[2]			
B4EYPAINTER	[2]			
B4EYLEWIS	[2]			
B4KPMGSCAMMELL	[2]			
B4KPMGNAPIER	[2]			
B4KPMGMITCHEL	[2]			
B4KPMGTRAVERS	[2]			
B4KPMGROBINSON	[2]			
B4KPMGMATTERA	[2]			
B4KPMGCINANNL	[2]			
B4KPWCMCCONEL	[2]			
B4KPWCTURNER	[2]			
B4KPWCMAHER	[2]			
NB4BDOPAUL	[2]			
NB4RSSMITH	[2]			
NB4AGNWATSON	3.197	1	91	.077
NB4DANWINNETT	3.676	1	91	.058
NB4WHKFLAKEMORE	[2]			
NB4OHTHERS	.973	1	91	.326
B4KPWCMCCONEL	2.454	1	91	.121
B4KPWCTURNER	.110	1	91	.741

* The Levene Statistic is significant at $p < .05$ [1] The test of homogeneity of variances cannot be performed for Natural Log of Audit Fee because there are too many groups. Only 50 groups are allowed. [2] The test of homogeneity of variances cannot be performed for Natural Log of Audit Fee because only one group has a computed variance.

Cohen (1988) classified correlations into small, medium and large effect sizes, with a small effect size being *r* = .10, medium effect size *r* = .30 and large effect size *r* = .50. This is widely interpreted as absolute *r* values below .10 are insignificant; *r* values between .10 and .299 are considered a small effect; correlations with an absolute *r* value between .3 and .499 show a medium effect, and correlations with an absolute *r* value between .5 and 1 show a strong effect. Meyers et al. (2013, p. 294) noted that Cohen's (1988) classifications were based on an absence of context, however, because there is almost always context, it was recommended that the magnitude of the correlation be considered twice – first in terms of statistical significance, and second, whether the strength of the relationship is of interest in the context of the study. A narrower interpretation by Hair et al. (2010, p. 200) suggested that the presence of high correlations, Pearson Correlation scores of 0.90 and higher, are an indication of substantial collinearity.

The multicollinearity results reported for the model (Table 15) are followed by each of the hypotheses using Cohen's (1988) interpretation. Significant p < .05 small-effect correlations with an absolute *r* value between .10 and .299 were noted between the variables LNAUDITFEE and TRADING (*r* = -.227*)*;* LNAUDITFEE and GRANT (*r* = .205*);* LNINCOME and ABNCOMPANY (*r* = .295*);* ABNCOMPANY and BIG FOUR (*r* = .243*)*; ABNCOMPANY and NONAUDITFEE (*r* = -.256*);* and BIG FOUR and GRANTS (*r* = .234*).* This small effect Pearson correlation was taken into further consideration with the multivariate analysis. Significant (*p* < .05) medium effect correlations with an absolute *r* value between .3 and .499 were observed between the variables LNAUDITFEE and ABNCOMPANY (*r* = .374*);* LNAUDITFEE and NONAUDITFEE (*r* = -.387*);* LNINCOME and BIG FOUR (*r* = .422*);* LNINCOME and NONAUDITFEE (*r* = -.359*);* and BIG FOUR and NONAUDITFEE (*r* = -.427*)*. Negative *r* values between the variables LNINCOME and NONAUDITFEE, and BIG FOUR and NONAUDITFEE were of note in the medium-effect correlations. These

were further considered with the multivariate testing, while the remaining medium-effect correlations were as expected. Finally, significant (p < .01) strong effect correlations with an r value between .5 and 1 were observed between the variables LNAUDITFEE and LNINCOME (r = .854*);* and LNAUDITFEE and BIG FOUR (r = .526*)* (Table 15). These were as expected, suggesting that Big Four audit firms were earning a higher audit fee and indicating a size influence on audit fee. Once again these correlations were taken into further consideration in the multivariate testing.

Table 14: *Pearson Product-moment Correlations: Audit Fee Model*

	LNAUDITFEE	LNINCOME	ABNCOMPANY	BIG FOUR	DONATIONS	TRADING	GRANT
LNAUDITFEE							
LNINCOME	.854**						
ABNCOMPANY	.374**	.295**					
BIG FOUR	.526**	.422**	.243*				
DONATIONS	.099	.096	-.038	.070			
TRADING	-.227*	-.177	-.028	.057	-.023		
GRANTS	.205*	.062	.070	-.234*	.033	.098	
NONAUDITFEE	-.387 **	-.359 **	-.256 **	-.427 **	-.105	.034	-.076

* Correlation is significant p < .05 2-tailed) ** Correlation is significant p < .01 (2-tailed)

Multicollinearity between dichotomous and categorical variables was described through the reporting of Phi coefficients (Coakes et al., 2010). The Pearson's r-values are shown in Table 16. Significant small effect correlation relationships can be seen between the variables ABNCOMPANY and BIG FOUR (r = .243); ABNCOMPANY and NONAUDITFEE (r = -.256); ABNCOMPANY and INDUSTRY (r = -.018*)*; ABNCOMPANY and STATE (r = -.250); AUDITFIRM and GRANTS (r = -.271); AUDITOFFICE and GRANTS (r = -.248); AUDITPARTNER and

INDUSTRY (r = -.193); BIG FOUR AND INDUSTRY (r = .187); BIG FOUR and GRANTS (r = -.234) and INDUSTRY and DONATIONS (r = -.203). The multivariate testing results suggest that these significant small effect correlations had no influence on the multivariate testing. Significant medium effect correlation relationships were also found between the variables BIG FOUR and NONAUDITFEE (r = -.427), and INDUSTRY and TRADING (r = .326). As with the significant small effect correlations, these were further considered in the multivariate testing. Finally, a strong effect correlation relationship was found between the variables AUDITOFFICE and AUDITFIRM (r = .999, $p < .01$), and hence the variable AUDITOFFICE was used in the remaining analysis as a proxy for audit firm.

The multicollinearity between continuous and categorical variables was described through the reporting of ANOVA results (Meyer et al., 2010). The results of the omnibus analysis of the relationship between the variables INDUSTRY and LNAUDITFEE and LNINCOME are reported in Table 17. The analysis shows that the results of the Levene test were not statistically significant, indicating that there was no violation of the assumption of equal variances. The ANOVA yielded a non-statistically significant F ratio based on 23 and 77 degrees of freedom.

Table 18 reports the results of the omnibus analysis of the relationship between the variables STATE and LNAUDITFEE and LNINCOME. The analysis showed that the results of the Levene test were not statistically significant, suggesting that there was no violation of the assumption of equal variances. The ANOVA yielded a non-statistically significant F ratio based on 7 and 93 degrees of freedom.

Table 15: *Phi Coefficient Correlations – Pearson's R-values: Audit Fee Model*

	ABNCOMPANY	AUDITFIRM	AUDITOFFICE	AUDITPARTNER	BIG FOUR	DONATIONS	GRANTS	INDUSTRY	NONAUDITFEE	STATE
ABNCOMPANY										
AUDITFIRM	.114									
AUDITOFFICE	.108	.999**								
AUDITPARTNER	-.088	.113	.127							
BIG FOUR	.243*	-.068	-.077	.021						
DONATIONS	-.038	-.111	-.096	.056	.070					
GRANTS	.070	-.271**	-.248*	. 053	.234*	.033				
INDUSTRY	.008	.070	.047	.066	.028	-.042	-.052			
NONAUDITFEE	-.256**	.019	.027	.094	-.427**	-.105	-.076	.016		
STATE	-.250*	-.005	-.028	-.045	-.149	.010	-.189	.038	-.055	
TRADING	-.028	-.009	-.018	.050	.057	-.023	.098	.176*	.034	-.120

* Pearson's R-value is significant $p < .05$ 2-tailed) ** Pearson's R-value is significant $p < .01$ (2-tailed)

Table 16: *Results of the Omnibus Analysis - Industry – Audit Fee Model*

	Levene Statistic	df1	df2	Sig.		
LNAUDITFEE	1.050	18	76	.418		
LNINCOME	1.234	19	77	..254		
ANOVA						
		Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
LNAUDITFEE	Between Groups	21.768	23	.946	.688	.843
	Within Groups	104.609	76	1.376		
	TOTAL	123.377	99			
LNINCOME	Between Groups	44.308	23	1.926	.648	.879
	Within Groups	228.793	77	2.971		
	TOTAL	273.101	100			

Table 19 shows the results of the omnibus analysis of the relationship between the variables AUDITFIRM and LNAUDITFEE and LNINCOME. The ANOVA yielded a statistically significant *F* ratio based on 37 and 57 degrees of freedom. The eta square of .792 indicates that 79% of the variance natural log of audit fee is explained by the choice of audit firm.

Table 17: *Results of the Omnibus Analysis – State or Territory – Audit Fee Model*

	Levene Statistic	df1	df2	Sig.		
LNAUDITFEE	1.299	6	92	.265		
LNINCOME	.938	6	93	.472		
ANOVA						
		Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
LNAUDITFEE	Between Groups	6.126	7	.875	.688	.670
	Within Groups	120.251	92	1.307		
	TOTAL	126.377	99			
LNINCOME	Between Groups	9.351	7	1.336	.471	.853
	Within Groups	263.751	93	2.836		
	TOTAL	273.101	100			

Table 18: *Results of the Omnibus Analysis – Audit firm – Audit Fee Model*

ANOVA						
		Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Natural log of audit fee	Between Groups	95.817	57	1.681	2.468	.002
	Within Groups	25.206	37	.681		
	TOTAL	121.023	94			
Natural log of income	Between Groups	181.228	57	3.179	1.437	.119
	Within Groups	84.050	38	2.212		
	TOTAL	265.278	95			

[1] Test for homogeneity of variances could not be performed because there were too many groups.

Table 20 reports the results of the omnibus analysis of the relationship between the variables AUDITFIRM and LNAUDITFEE and LNINCOME. The ANOVA yielded a statistically significant *F* ratio based on 21 and 71 degrees of freedom. The eta square of .896 indicates that 90% of the variance natural log of audit fee is explained by audit firm office.

Table 19: *Results of the Omnibus Analysis – Audit firm office – Audit Fee Model*

ANOVA						
		Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Natural log of audit fee	Between Groups	104.220	71	1.468	2.536	.010
	Within Groups	12.155	21	.579		
	TOTAL	116.374	92			
Natural log of income	Between Groups	211.829	71	2.984	1.331	.229
	Within Groups	49.326	22	2.242		
	TOTAL	261.155	93			

[1] Test for homogeneity of variances could not be performed because there were too many groups.

Table 21 shows the results of the omnibus analysis of the relationship between the variables AUDITFIRM and LNAUDITFEE and LNINCOME. The ANOVA yielded a non-statistically significant *F* ratio based on 12 and 81 degrees of freedom.

Table 20: *Results of the Omnibus Analysis – Audit firm partner – Audit Fee Model*

ANOVA						
		Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Natural log of audit fee	Between Groups	110.327	80	1.379	2.325	.053
	Within Groups	7.118	12	.593		
	TOTAL	117.444	92			
Natural log of income	Between Groups	238.673	81	2.947	1.452	.242
	Within Groups	24.350	12	2.029		
	TOTAL	263.024	93			

[1] Test for homogeneity of variances could not be performed because there were too many groups.

Additional multicollinearity analysis was required for the additional variables included in the hypothesis. The additional variables were encompassed in hypothesis two, which examined whether Big Four audit firms were rewarded with an audit fee premium above non-Big Four audit firms in the Australian charity sector. As Big Four audit firms were represented by a dichotomous variable, describing multicollinearity was undertaken via Pearson product-moment correlation coefficients. Table 22 reports the results. A significant small effect correlation was noted between the variables LNAUDITFEE and DELOITTE (r = .236), and a medium effect correlation between the variables LNAUDITFEE and KPMG (r = .390). No multicollinearity was observed between the independent variables.

Table 21: *Pearson Product-moment Correlations – Hypothesis 2*

	NATURAL LOG AUDIT FEE	**DELOITTES**	**ERNST & YOUNG**	**KPMG**	**PWC**
LNAUDITFEE		.236 *	.116	.390 **	.183
DELOITTES	.236 *		-.055	-.074	-.062
ERNST&YOUNG	.116	-.055		-.055	-.046
KPMG	.390 **	-.074	-.055		-.062
PWC	.183	-.062	-.046	-.062	

* Pearson's R-value is significant $p < .05$ (2-tailed) ** Pearson's R-value is significant $p < .01$ (2-tailed)

Hypothesis 3 argued that non-Big Four audit firms with expertise are rewarded with premium audit fees over other non-Big Four audit firms. As non-Big Four audit firms with expertise were represented by a dichotomous variable reflective of the number of clients a firm has, describing multicollinearity was done via Pearson product-moment correlation coefficients. Table 23 shows these results. The coefficients describe a significant small effect multicollinearity correlation between the variables NONB4CLINETSS2 and NONB4CLINETSS1 (r = -.269), and between NONB4CLINETSS1 and NONB4CLINETSS1 (r = -.247).

Table 22: *Pearson Product-moment Correlations – Hypothesis 3*

	LNAUDITFEE	**NONB4CLINETSS7**	**NONB4CLINETSS6**	**NONB4CLINETSS3**	**NONB4CLINETSS2**	**NONB4CLINETSS1**
LNAUDITFEE		.149	.160	-.126	-.082	-.494 **
NONB4CLINETSS7	.149					
NONB4CLINETSS6	.160	-.069	-.069	-.048	-.100	-.269 **
NONB4CLINETSS3	-.126	-.048	-.044		-.064	-.172
NONB4CLINETSS2	-.082	-.100	-.092	-.064		-.327 **
NONB4CLINETSS1	-.494 **	-.269**	-.247 *	-.172	-.327 **	

* Pearson's R-value is significant p < .05 (2-tailed) ** Pearson's R-value is significant p < .01 (2-tailed)

A significant medium effect multicollinearity correlation is evident between the variables NONB4CLINETSS2 and NONB4CLINETSS2 (r = -.327). These correlations were further considered in the multivariate testing.

Hypothesis 4 argued that individual non-Big Four audit firms with expertise are rewarded premium audit fees over other non-Big Four audit firms. As non-Big Four audit firms with expertise were represented by a dichotomous variable, multicollinearity was described via Pearson product-

moment correlation coefficients, shown in Table 24. No significant correlations were found between the independent variables, indicating a lack of multicollinearity.

Table 23 *Pearson Product-moment Correlations – Hypothesis 4*

	LNAUDITFEE	NONB4WHKNG	NONB4BDO	NONB4GRANT	NONB4RSM
LNAUDITFEE		-.126	.149	.160	.127
NONB4WHKNG	-.126		-.048	-.044	-.025
NONB4BDO	.149	-.048		-.069	-.039
NONB4GRANT	.160	-.044	-.069		-.036
NONB4RSM	.127	-.025	-.039	-.036	

Hypothesis 5 presupposed individual offices of Big Four audit firms with expertise are rewarded with premium audit fees over other Big Four audit firms. As before, multicollinearity was tested via Pearson product-moment correlation coefficients – Table 26 to Table 29 report the results. A significant medium effect correlation was found between the variables B4OFFICEKPMGSYD and LNAUDITFEE (r = .338) and there was a lack of multicollinearity as indicated by no significant correlations.

Table 24: *Pearson Product-moment Correlations – Hypothesis 5 – Deloitte Offices*

	LNAUDITFEE	B4OFFICEDELMEL	B4OFFICEDELSYD	B4OFFICEDELPAR
LNAUDITFEE		.182	.063	.149
B4OFFICEDELMEL	.182		-.025	-.025
B4OFFICEDELSYD	.063	-.025		-.011
B4OFFICEDELPAR	.149	-.025	-.011	
B4OFFICEEYMEL	.116	-.043	-.019	-.019
B4OFFICEEYSYD	.028	-.025	-.010	-.011
B4OFFICEKPMGMEL	.159	-.035	-.015	-.015
B4OFFICEKPMGSYD	.338 **	-.050	-.022	-.022
B4OFFICEKPMGPER	.130	-.025	-.010	-.011
B4 OFFICEPWCSYD	.181	-.050	-.022	-.022
B4OFFICEPWCNEW	.053	-.025	-.010	-.011

Table 25: *Pearson Product-moment Correlations – Hypothesis 5 – Ernst & Young Offices*

	LNAUDIT FEE	B4OFFICEEY MELB	B4OFFICEEY SYD
LNAUDITFEE		.116	.028
B4OFFICEDELMEL	.182	-.043	-.025
B4OFFICEDELSYD	.063	-.019	-.010
B4OFFICEDELPAR	.149	-.019	-.011
B4OFFICEEYMEL	.116		-.019
B4OFFICEEYSYD	.028	-.019	
B4OFFICEKPMGMEL	.159	-.027	-.015
B4OFFICEKPMGSYD	.338 **	-.038	-.022
B4OFFICEKPMGPER	.130	-.019	-.010
B4 OFFICEPWCSYD	.181	-.038	-.022
B4OFFICEPWCNEW	.053	-.019	-.010

Table 26: *Pearson Product-moment Correlations – Hypothesis 5 – KPMG Offices*

	LNAUDIT FEE	B4OFFICE KPMGMEL	B4OFFICEKPMG SYD	B4OFFICEKPMG PER
LNAUDITFEE		.159	.338 **	.130
B4OFFICEDELMEL	.182	-.035	-.050	-.025
B4OFFICEDELSYD	.063	-.015	-.022	-.010
B4OFFICEDELPAR	.149	-.015	-.022	-.011
B4OFFICEEYMEL	.116	-.027	-.038	-.019
B4OFFICEEYSYD	.028	-.015	-.022	-.010
B4OFFICEKPMGMEL	.159		-.031	-.015
B4OFFICEKPMGSYD	.338 **	-.031		-.022
B4OFFICEKPMGPER	.130	-.015	-.022	
B4 OFFICEPWCSYD	.181	-.031	-.044	-.022
B4OFFICEPWCNEW	.053	-.015	-.022	-.010

Table 27: *Pearson Product-moment Correlations – Hypothesis 5 – PWC Offices*

	LNAUDIT FEE	B4OFFICEPWC SYD	B4OFFICEPWC NEW
LNAUDITFEE		.181	.053
B4OFFICEDELMEL	.182	-.050	-.025
B4OFFICEDELSYD	.063	-.022	-.010
B4OFFICEDELPAR	.149	-.022	-.011
B4OFFICEEYMEL	.116	-.038	-.019
B4OFFICEEYSYD	.028	-.022	-.010
B4OFFICEKPMGMEL	.159	-.031	-.015
B4OFFICEKPMGSYD	.338 **	-.044	-.022
B4OFFICEKPMGPER	.130	-.022	-.010
B4 OFFICEPWCSYD	.181		-.022
B4OFFICEPWCNEW	.053	-.022	

Hypothesis 6 looked at the second aspect of specialisation; that individual partners at Big Four audit firms are rewarded with premium audit fees over other Big Four audit firm partners. As individual Big Four audit firm partners were represented by a dichotomous variable, multicollinearity was described via Pearson product-moment correlation coefficients. These are reported in Table 29 to Table 32. A significant small effect correlation was found between the variables B4KPMGRTRAVERS and LNAUDITFEE (r = .250), and B4E&YPAINTER and LNAUDITFEE (r = .204). No significant correlations were shown between the independent variables, indicating no multicollinearity.

Hypotheses 5 and 6 examined audit partner and office specialisation in Big Four audit firms. Hypothesis 7 extended this analysis to non-Big Four audit firms, hypothesising that individual offices of multi-office non-Big Four audit firms are rewarded with premium audit fees over other multi-office non-Big Four audit firms. Non-Big Four audit firms were represented by a dichotomous variable, and multicollinearity was therefore described via Pearson product-moment correlation coefficients. Table 33 shows these coefficients. A significant small effect correlation is evident between the variables NB4RSMPER and LNAUDITFEE (r = -.216); and between NB4GTMEL and LNAUDITFEE (r = .224). There were no significant correlations between the independent variables, indicating no multicollinearity.

Hypothesis 8 concluded the examination of specialisations in non-Big Four audit firms, theorising that individual partners of non-Big Four audit firms are rewarded with premium audit fees over partners of non-Big Four audit firms. As individual offices of non-Big Four audit firms were represented by a dichotomous variable, multicollinearity was tested via Pearson product-moment correlation coefficients, as shown in Table 34. A significant medium effect correlation was found between the variables NB4OTHERS and LNAUDITFEE (r = -.356), and between NB4OTHERS and

NB4BDOPAUL (*r* = -.377). These correlations were taken account in the multivariate analysis.

The evaluation found no significant multicollinearity or homoscedasticity issues in any of the tests. The remainder of this chapter is dedicated to a discussion of the multivariate or multiple regression analysis.

Table 28: *Pearson Product-moment Correlations – Deloitte - Hypothesis 6*

	LNAUDITFEE	B4DELBROWN_A	BEDELOLEFEVRE	B4DELPEARCE	B4DELBROWN	B4DELANGLEUCCI	B4DELCOLLIE
LNAUDITFEE		.102	.038	.063	.053	-.008	.145
B4DELBROWN_A	.102		-.010	-.010	-.010	-.010	-.014
BEDELOLEFEVRE	.038	-.010		-.010	-.010	-.010	-.014
B4DELPEARCE	.063	-.010	-.010		-.010	-.010	-.014
B4DELBROWN	.053	-.010	-.010	-.010		-.010	-.014
B4DELANGLEUCCI	-.008	-.010	-.010	-.010	-.010		-.014
B4DELCOLLIE	.145	-.014	-.014	-.014	-.014	-.014	
B4EYWALLANCE	-.101	-.011	-.011	-.011	-.011	-.015	-.011
B4EYPAINTER	.204 *	-.011	-.011	-.011	-.011	-.015	-.011
B4EYLEWIS	.028	-.011	-.011	-.011	-.011	-.015	-.011
B4KPMGSCAMMELL	.113	-.011	-.011	-.011	-.011	-.015	-.011
B4KPMGNAPIER	.170	-.011	-.011	-.011	-.011	-.011	-.015
B4KPMGMITCHEL	.150	-.011	-.011	-.011	-.011	-.011	-.015
B4KPMGTRAVERS	.250*	-.011	-.011	-.011	-.011	-.011	-.015
B4KPMGROBINSON	.135	-.011	-.011	-.011	-.011	-.011	-.015
B4KPMGMATTERA	.101	-.011	-.011	-.011	-.011	-.011	-.015
B4KPMGCINANNI	.115	-.011	-.011	-.011	-.011	-.011	-.015
B4PWCMCONNEL	.133	-.011	-.011	-.011	-.011	-.011	-.015
B4PWCBUCHOLZ	.085	-.011	-.011	-.011	-.011	-.011	-.015
B4PWCTURNER	.055	-.011	-.011	-.011	-.011	-.011	-.015
B4PWCSCOULAR	**	-.011	-.011	-.011	-.011	-.011	-.015
B4PWCMAHER	.098	-.011	-.011	-.011	-.011	-.011	-.015

* Pearson's R-value is significant $p < .01$ (2-tailed) ** Pearson product-moment correlation cannot be computed because at least one of the variables is constant.

Table 29: *Pearson Product-moment Correlations – Ernst & Young - Hypothesis 6*

	B4EYWALLACE	**B4EYPAINTER**	**B4EYLEWIS**
LNAUDITFEE	-.101	.204 *	.028
B4DELBROWN_A	-.011	-.011	-.011
BEDELOLEFEVRE	-.011	-.011	-.011
B4DELPEARCE	-.011	-.011	-.011
B4DELBROWN	-.011	-.011	-.011
B4DELANGLEUCCI	-.011	-.011	-.011
B4DELCOLLIE	-.015	-.015	-.015
B4EYWALLACE		-.011	-.011
B4EYPAINTER	-.011		-.011
B4EYLEWIS	-.011	-.011	
B4KPMGSCAMMELL	-.011	-.011	-.011
B4KPMGNAPIER	-.011	-.011	-.011
B4KPMGMITCHEL	-.011	-.011	-.011
B4KPMGTRAVERS	-.011	-.011	-.011
B4KPMGROBINSON	-.011	-.011	-.011
B4KPMGMATTERA	-.011	-.011	-.011
B4KPMGCINANNI	-.011	-.011	-.011
B4PWCBUCHOLZ	-.011	-.011	-.011
B4PWCMCONNEL	-.011	-.011	-.011
B4PWCTURNER	-.011	-.011	-.011
B4PWCSCOULAR	-.011	-.011	-.011
B4PWCMAHER	-.011	-.011	-.011

* Pearson's R-value is significant $p < .01$ (2-tailed)
** Pearson product-moment correlation cannot be computed because at least one of the variables is constant.

Table 30: *Pearson Product-moment Correlations – KPMG - Hypothesis 6*

	B4KPMGSCAMMELL	B4KPMGNAPIER	B4KPMGMITCHEL	B4KPMGTRAVERS	B4KPMGROBINSON	B4KPMGMATTERA	B4KPMGCINANNI
LNAUDITFEE	.170	.170	.150	.250	.135	.101	.115
B4DELBROWN_A	-.011	-.011	-.011	-.011	-.011	-.011	-.011
BEDELOLEFEVRE	-.011	-.011	-.011	-.011	-.011	-.011	-.011
B4DELPEARCE	-.011	-.011	-.011	-.011	-.011	-.011	-.011
B4DELBROWN	-.011	-.011	-.011	-.011	-.011	-.011	-.011
B4DELANGLEUCCI	-.011	-.011	-.011	-.011	-.011	-.011	-.011
B4DELCOLLIE	-.015	-.015	-.015	-.015	-.015	-.015	-.015
B4EYWALLANCE	-.011	-.011	-.011	-.011	-.011	-.011	-.011
B4EYPAINTER	-.011	-.011	-.011	-.011	-.011	-.011	-.011
B4EYLEWIS	-.011	-.011	-.011	-.011	-.011	-.011	-.011
B4KPMGSCAMMELL	-.011	-.011	-.011	-.011	-.011	-.011	-.011
B4KPMGNAPIER	-.011		-.011	-.011	-.011	-.011	-.011
B4KPMGMITCHEL	-.011	-.011		-.011	-.011	-.011	-.011
B4KPMGTRAVERS	-.011	-.011	-.011		-.011	-.011	-.011
B4KPMGROBINSON	-.011	-.011	-.011	-.011		-.011	-.011
B4KPMGMATTERA	-.011	-.011	-.011	-.011	-.011		-.011
B4KPMGCINANNI	-.011	-.011	-.011	-.011	-.011	-.011	
B4PWCBUCHOLZ	-.011	-.011	-.011	-.011	-.011	-.011	-.011
B4PWCMCONNEL	-.011	-.011	-.011	-.011	-.011	-.011	-.011
B4PWCTURNER	-.011	-.011	-.011	-.011	-.011	-.011	-.011
B4PWCSCOULAR	-.011	-.011	-.011	-.011	-.011	-.011	-.011
B4PWCMAHER	-.011	-.011	-.011	-.011	-.011	-.011	-.011

* Pearson's R-value is significant $p < .01$ (2-tailed) ** Pearson product-moment correlation cannot be computed because at least one of the variables is constant.

Table 31: *Pearson Product-moment Correlations – PWC - Hypothesis 6*

	B4PWCBUCHOLZ	B4PWCMCONNEL	B4PWCTURNER	B4PWCSCOULAR	B4PWCMAHER
LNAUDITFEE	.085	.133	.055	**	..098
B4DELBROWN_A	-.011	-.011	-.011	-.011	-.011
BEDELOLEFEVRE	-.011	-.011	-.011	-.011	-.011
B4DELPEARCE	-.011	-.011	-.011	-.011	-.011
B4DELBROWN	-.011	-.011	-.011	-.011	-.011
B4DELANGLEUCCI	-.011	-.011	-.011	-.011	-.011
B4DELCOLLIE	-.011	-.015	-.015	-.015	-.015
B4EYWALLANCE	-.015	-.011	-.011	-.011	-.011
B4EYPAINTER	-.011	-.011	-.011	-.011	-.011
B4EYLEWIS	-.011	-.011	-.011	-.011	-.011
B4KPMGSCAMMELL	-.011	-.011	-.011	-.011	-.011
B4KPMGNAPIER	-.011	-.011	-.011	-.011	-.011
B4KPMGMITCHEL	-.011	-.011	-.011	-.011	-.011
B4KPMGTRAVERS	-.011	-.011	-.011	-.011	-.011
B4KPMGROBINSON	-.011	-.011	-.011	-.011	-.011
B4KPMGMATTERA	-.011	-.011	-.011	-.011	-.011
B4KPMGCINANNI	-.011	-.011	-.011	-.011	-.011
B4PWCBUCHOLZ		-.011	-.011	-.011	-.011
B4PWCMCONNEL	-.011		-.011	-.011	-.011
B4PWCTURNER	-.011	-.011		-.011	-.011
B4PWCSCOULAR	-.011	-.011	-.011		-.011
B4PWCMAHER	-.011	-.011	-.011	-.011	

* Pearson's R-value is significant $p < .01$ (2-tailed) ** Pearson product-moment correlation cannot be computed because at least one of the variables is constant.

Table 32: *Pearson Product-moment Correlations – Hypothesis 7*

	LNAUDITFEE	NB4DBOSYD	NB4BDOPER	NB4BDOBRI	NB4GTMEL	NB4GTSYD	NB4GTADL	NB4GTPERT	NB4MSPERT	NB4MSCAM
LNAUDITFEE		.052	.073	.051	.224 *	.077	-.104	.020	-.216 *	.025
NB4DBOSYD	.052		-.019	-.027	-.033	-.019	-.019	-.019	-.019	-.019
NB4BDOPER	.073	-.019		-.015	-.019	-.011	-.011	-.011	-.011	-.011
NB4BDOBRI	.051	-.027	-.015		-.027	-.015	-.015	-.015	-.015	-.015
NB4GTMEL	.224 *	-.033	-.019	-.027		-.019	-.019	-.019	-.019	-.019
NB4GTSYD	.077	-.019	-.011	-.015	-.019		-.011	-.011	-.011	-.011
NB4GTADL	-.104	-.019	-.011	-.015	-.019	-.011		-.011	-.011	-.011
NB4GTPER	.020	-.019	-.011	-.015	-.019	-.011	-.011		-.011	-.011
NB4MSPER	-.216 *	-.019	-.011	-.015	-.019	-.011	-.011	-.011		-.011
NB4MSCAM	.025	-.019	-.011	-.015	-.019	-.011	-.011	-.011	-.011	
NB4PPADL	-.111	-.019	-.011	-.015	-.019	-.011	-.011	-.011	-.011	-.011
NB4PPMEL	.040	-.019	-.011	-.015	-.019	-.011	-.011	-.011	-.011	-.011

* Pearson's R-value is significant $p < .01$ (2-tailed)

Table 33: *Pearson Product-moment Correlations – Hypothesis 7 continued*

	NB4PPADL	**NB4PPMEL**	**NB4RSMPER**	**NB4RSMCAN**
LNAUDITFEE	-.111	.040	.060	-.019
NB4DBOSYD	-.019	-.019	-.019	-.011
NB4BDOPER	-.011	-.011	-.011	-.011
NB4BDOBRI	-.015	-.015	-.015	-.011
NB4GTMEL	-.019	-.019	-.019	-.011
NB4GTSYD	-.011	-.011	-.011	-.011
NB4GTADL	-.011	-.011	-.011	-.011
NB4GTPER	-.011	-.011	-.011	-.011
NB4MSPER	-.011	-.011	-.011	-.011
NB4MSCAM	-.011	-.011	-.011	-.011
NB4PPADL		-.011	-.011	-.011
NB4PPMEL	-.011		-.011	-.011

* Pearson's R-value is significant $p < .01$ (2-tailed)

Table 33: *Pearson Product-moment Correlations – Hypothesis 8*

	LNAUDITFEE	NB4BDOPAUL	NB4RSSMITH	NB4AGNWATSON	NB4DANWINNETT	NB4WHKFLAKEMORE	NB4OTHERS
LNAUDITFEE		-.018	-.172	-.101	.058	-.063	-.356 **
NB4BDOPAUL	-.018		-.042	-.029	-.042	-.042	-.377 **
NB4RSSMITH	-.172	-.042		-.015	-.022	-.022	-.196
NB4AGNWATSON	-.101	-.029	-.015		-.015	-.015	-.138
NB4DANWINNETT	.058	-.042	-.022	-.015		-.022	-.196
NB4WHKFLAKEMORE	-.063	-.042	-.022	.015	-.022		-.196
NB4OTHERS	-.356 **	-.377 **	-.196	-.138	-.196	-.196	

** Pearson's R-value is significant $p < .01$ (2-tailed)

5.9 Multivariate Analysis

In this study, multivariate analysis was used because it has a number of advantages over bivariate or univariate research designs as argued by Stevens (2009, p. 2), who put forward three reasons for using multivariate analysis:

1. [That] any worthwhile treatment will affect the subjects in more than one way;
2. Through the use of multiple criterion measures we can obtain a more complete and detailed description of the phenomenon under investigation, whether it is teacher method effectiveness, counsellor effectiveness, diet effectiveness, stress management techniques effectiveness, and so on; and
3. Treatments can be expensive to implement, while the cost of obtaining data on several dependent variables is relatively small and maximizes information gain.

Furthermore, Meyers et al., 2013, p. 324 noted “most researchers believe that using more than one predictor or potentially explanatory variable can paint a more complete picture of how the world works than is permitted by simple linear regression, because constructs in the behavioral sciences are believed to be multiply determined.” For this reason multivariate analysis in the form of multiple regression was used to test the eight hypotheses in the current study. Coakes et al. (2010, p.147) supported the recommendation to use regression analysis “when independent variables are correlated with one another and with the dependent variable.”

Multiple regression analysis is underpinned by four assumptions: the ratio of cases to independent variables; treatment of outliers, multicollinearity, singularity and normality, linearity, homoscedasticity and independence of residuals (Coakes et al, p. 80). These authors suggested the minimum requirement should be at least five times more cases than independent

variables and this study satisfied that assumption. No outliers of concern were noted, again satisfying the assumption. Evaluation of multicollinearity and homoscedasticity was discussed earlier in this chapter and reported no significant issues. Further testing is reported for multicollinearity in this section, and the results for variance inflation factor and tolerance testing are provided.

Variance inflation factor (VIF) is an indicator of the effect of the independent variables on the standard error of a regression coefficient. The variance inflation factor is directly related to the tolerance value. The tolerance value is the coefficient of determination for the prediction of the variable by the other independent variables in the regression variate. A smaller tolerance value suggests collinearity with other independent variables, whereas large variance inflation factor values indicate a high degree of collinearity or multicollinearity amongst the independent variables (Hair et al., 2010). Denis (2011) suggested that variance inflation factor values of five and higher warrant further investigation, and suggested that the parsimony of the model be reviewed in such circumstances. Cohen, Cohen, West and Aiken (2003, p. 423) proposed a commonly-used rule of thumb: that any variance inflation factor values greater than 10, or tolerance values less than .10, may indicate serious issues of multicollinearity. Multicollinearity tolerance and variance inflation factor values are reported in Table 35 to Table 99. No variance inflation values were greater than 10 and no tolerance values were less than .10, indicating no serious issues with multicollinearity and allowing the multiple regression analysis to be undertaken without further review of the models.

In addition to normal concerns about multiple regression analysis, one limitation of this study, audit report timing, may also have an influence on the analysis. This limitation is further discussed in the following section.

5.9.1 Audit Report Timing

One limitation of this study was the timing of the audit, i.e. whether it occurred inside or outside “peak audit periods”. To determine if timing of the audit has any influence on charity audit fee pricing, two additional variables were developed: a number of days variable which calculated the number of days between the financial year end (AUDITDAYS) and date the audit report was signed off, and a second dichotomous variable, indicating if an audit report was signed off in the peak audit period (within three months of the financial year end) or not (AUDITSEASON).

Table 34: *Results of Multiple Regression – Days to Audit Report Sign-off*

Model	**R^2**	**F**	**Sig.**			
Regression	.827	29.394	.000			
Variable	**B**	**Beta**	**T**	**Sig[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.856		2.615	.011*		
ABNCOMPANY	.354	.156	2.846	.006*	.778	1.286
INDUSTRY	-.0173	-.057	-1.039	.302	.780	1.282
LNINCOME	.494	.733	12.279	.000**	.659	1.519
DONATIONS	-.086	-.032	-.641	.524	.938	1.066
TRADING	-.286	-.104	-2.000	.049	.862	1.160
GRANTS	.157	.056	1.048	.298	.812	1.231
STATE	.008	.015	.287	.775	.831	1.204
BIG FOUR	.430	.162	2.621	.011*	.610	1.639
NONAUDITFEE	-.065	-.026	-.450	.654	.713	1.403
AUDITOFFICE	-.003	-.064	-1.199	.234	.824	1.214
AUDITPARTNER	.000	.006	.112	.911	.847	1.181
AUDITDAYS	.000	.018	.341	.734	.858	1.165

Note: a = one-tailed; N = 91; * $p < .05$, ** $p < .01$

A review of the financial statements showed that the average number of days from financial year-end to audit report sign-off was 105 days. A little over 51% of audit reports were signed off outside the peak audit season. The multivariate linear regression testing showed that neither variable was significant (Table 35 and Table 36), hence the timing of the audit did not

appear to influence audit fee pricing. The results of the audit report timing evaluation by the proposed charity audit fees model are shown below.

Table 35: *Results of Multiple Regression – Peak Audit Season Sign-off*

Model	**R^2**	**F**	**Sig.**			
Regression	.893	25.815	.000			
Variable	**B**	**Beta**	**T**	**Sig[a]**	**Tolerance**	**VIF**
(CONSTANT)	2.372		3.353	.001**		
ABNCOMPANY	.261	.116	2.013	.048*	.769	1.300
INDUSTRY	-.020	-.070	-1.219	.227	.786	1.272
LNINCOME	.474	.710	11.512	.000***	.677	1.477
DONATIONS	-.048	-.018	-.348	.729	.923	1.084
TRADING	-.302	-.113	-2.055	.043*	.847	1.180
GRANTS	.236	.085	1.526	.131	.825	1.212
STATE	-.003	-.005	-.097	.923	.837	1.194
BIG FOUR	.508	.190	2.430	.017	.419	2.387
NONAUDITFEE	-.043	-.017	-.284	.777	.706	1.415
AUDITOFFICE	-.004	-.076	-1.338	.185	.805	1.243
AUDITPARTNER	-.001	-.020	-.359	.721	.829	1.207
AUDITSEASON	-.184	-.044	-.647	.519	.566	1.765

Note: a = one-tailed; N = 91; * $p < .05$, ** $p < .01$

5.9.2 Multivariate Analysis of the Charity Audit Fees Model

The charity audit fee model (Figure 1) posits that audit fee is a function of auditee size measured as total income (LNINCOME); auditor relationship measured by four constructs: the value of non-audit services (NONAUDITFEE), choice of auditor – Big Four or non-Big Four (BIG FOUR), audit office expertise (AUDITOFFICE) and audit partner expertise (AUDITPARTNER); auditee complexity measured by form of incorporation (ABNCOMPANY and STATE); income source in the form of donations (DONATIONS); grants from state and federal government and private sources (GRANTS); trading (TRADING); and the charity industry sector

the auditee was involved in (INDUSTRY). The basic regression model of charity audit fees is:

$$LNAUDITFEE = \alpha + b_1 LNINCOME + b_2 NONAUDITFEE + b_2 AUDITOFFICE + b_2 AUDITPARTNER + b_2 BIG\ FOUR + b_2 ABNCOMPANY + b_2 STATE + b_2 DONATIONS + b_2 GRANTS + b_2 TRADING + b_2 INDUSTRY + \varepsilon$$

Initial testing of the predictive value of the model was examined through the incorporation of all variables. The raw and standardised regression coefficients of the predictors, together with correlations, are shown in Table 37. The prediction model was statistically significant, $F(11,80) = 28.330$, $p = .01$, and accounted for approximately 89% of the audit fee variance ($R^2 = .891$, Adjusted $R^2 = .794$). Audit fees are primarily predicted by higher levels of income, the choice of Big Four audit firms, incorporation as a company, and to a lesser extent by income through trading. In the context of the proposed model, auditee size demonstrated the strongest weight in the model, followed by auditor relationship and auditee characteristics.

Table 36: *Results of Multiple Regressions – Charity Audit Fees Model*

Model	**R^2**	**F**	**Sig.**			
Regression	.796	28.330	.000			
Variable	**B**	**Beta**	**T**	**Sig [a]**	**Tolerance**	**VIF**
(CONSTANT)	2.338		3.326	.001*		
ABNCOMPANY	.267	.129	2.077	.041*	.774	1.292
INDUSTRY	-.021	.017	-1.232	.222	.786	1.271
LNINCOME	.475	.041	11.589	.000**	.678	1.475
DONATIONS	-.060	-.023	-.437	.663	.939	1.065
TRADING	-.290	-.109	-1.997	.049*	.860	1.162
GRANTS	.246	.089	1.612	.111	.835	1.197
STATE	-.004	-.007	-.132	.895	.840	1.191
BIG FOUR	.432	.162	2.500	.014*	.607	1.648
NONAUDITFEE	-.061	-.024	-.414	.680	.732	1.366
AUDITOFFICE	-.004	.003	-1.223	.225	.854	1.171
AUDITPARTNER	.000	.002	-.195	.846	.891	1.122

Note: a = one-tailed; N = 91; * $p < .05$, ** $p < .01$

Further examination of the auditor fees charity model was undertaken to consider a more simplified version, and one that was reflective of the literature in both the private and not-for-profit sectors. This simplified or base model posits that audit fees are a function of auditee size measured as total income (LNINCOME); auditor relationship measured as choice of auditor (Big Four or non-Big Four); auditee complexity measured by incorporation form (ABNCOMPANY); income source in the form of grants from state, federal and private sources (GRANTS); and trading activities (TRADING). The simplified charity audit fees regression model is:

$$LNAUDITFEE = \alpha + b_1 LNINCOME + b_2 BIG4 + b2ABNCOMPANY + b_2 GRANTS + b_2 TRADING + \varepsilon$$

The prediction model (Table 38) was statistically significant, $F(5,89) = 65.951$, $p = .01$, and accounted for approximately 79% of the audit fee variance ($R^2 = .787$, Adjusted $R^2 = .776$). The simplified charity audit fees model accounted for approximately 79% of the variance of the audit fee as in the full model, however, it revealed an additional explanatory variable, grants or grant income. This is not unexpected, as grants may come with expectations of accountability for the recipient and may incur higher audit costs.

Analysis of the charity audit fees model provided insights into the pricing of audit fees in the Australian charity sector. As reported, the models were reflective of the not-for-profit and private sector literature, adapted for the Australian economy. Once the charity audit fee model had been established, the focus changed to evaluating the existence of auditor fee premiums. The remainder of this chapter presents a discussion of the multivariate testing of the eight hypotheses put forward in this study.

Table 37: *Results of Multiple Regressions – Simplified Charity Audit Fees Model*

Model	**R^2**	**F**	**Sig.**			
Regression	.787	65.951	.000			
Variable	**B**	**Beta**	**T**	**Sig[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.800		3.019	.003*		
ABNCOMPANY	.250	.111	2.150	.034*	.909	1.101
LNINCOME	.490	.723	12.584	.000**	.865	1.156
TRADING	-.326	-.120	-2.357	.021*	.841	1.188
GRANTS	.354	.130	2.572	.012*	.973	1.028
BIG FOUR	.396	.148	2.549	.013*	.876	1.142

Note: a = one-tailed; N = 91; * $p < .05$, ** $p < .01$

5.9.3 Multivariate Analysis of Hypothesis One: Big Four Audit Fee Premium

The first of the eight hypotheses to be evaluated explored the existence of Big Four audit fee premiums in the Australian charity audit market. The alternative form of hypothesis one with the basic regression model is:

H_1: The brand name of Big Four auditors is rewarded with an audit fee premium above non-big Four audit firms in the Australian charity sector.

$$LNAUDITFEE = \alpha + b_1 LNINCOME + b_2 NONAUDITFEE + b_2 AUDITOFFICE + b_2 AUDITPARTNER + b_2 BIG4 + b2ABNCOMPANY + b_2 STATE + b_2 DONATIONS + b_2 GRANTS + b_2 TRADING + b_2 INDUSTRY + \varepsilon$$

From the audit fee model multiple regression (Table 37 and Table 38) the BIG FOUR coefficient was positive and significant at $p < .05$ ($t = 2.274$, $p < .05$), suggesting that in aggregate, there was evidence to support a Big Four audit fee premium in the Australian charity audit market, leading to acceptance of hypothesis one. The existence of a Big Four audit fee premium in the private sector is strongly supported in the literature, but in this study it was not a conclusive finding, as shown in Table 1 and as

discovered by Hay, 2013. Beattie et al. (2001) found a similar variance reporting mixed results depending on the model. Their model, with income as the size proxy, found no support for a Big Six audit fee premium, hence these results contrast with their findings. However, Vermeer et al. (2009) did find evidence of a significant Big Four audit fee premium. While the current study adds to our understanding of audit fee premiums in the charity sector, further exploration is warranted to enhance our understanding of the drivers of such premiums. Evidence of Big Four audit fee premiums amongst Australian charities led to the second hypothesis: Do individual Big Four audit firms command audit fee premiums over other firms?

5.9.4 Multivariate Analysis of Hypothesis Two: Individual Big Four Audit Fee Premiums

The hypothesis that Big Four audit firms are rewarded with an audit fee premium above non-Big Four audit firms in the Australian charity sector, led to testing for evidence of influence on charity audit fees by the individual Big Four audit firms, and in turn to hypothesis two. The alternative form for hypothesis two with the basic regression model is:

H_2: Individual Big Four audit firms are rewarded with an audit free premium above other Big Four audit firms in the Australian charity sector.

$$LNAUDITFEE = \alpha + b_1 LNINCOME + b_2 NONAUDITFEE + b_2 AUDITOFFICE + b_2 AUDITPARTNER + b_2 BIG4 + b_2 ABNCOMPANY + b_2 STATE + b_2 DONATIONS + b_2 GRANTS + b_2 TRADING + b_2 INDUSTRY + b_2 Individual\ Big\ Four\ audit\ firm + \varepsilon$$

Table 39 to Table 42 report the results of the regression testing for individual Big Four audit fee premiums. All four firms had positive

coefficients. None of the coefficients were significantly positive at p < .05, leading to the rejection of hypothesis two and suggesting that no Big Four audit firms were obtaining a premium over other audit firms in the Australian charity sector.

Hypotheses 1 and 2 examined audit fee premiums in the context of Big Four audit firms. Hypothesis three continued the examination of audit premiums, but within non-Big Four audit firms.

Table 38: *Results of Multiple Regression – Hypothesis 2 - Deloitte*

Model	**R^2**	**F**	**Sig.**			
Regression	.884	26.029	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.971		2.781	.007**		
ABNCOMPANY	.310	.138	2.352	.021*	.788	1.268
INDUSTRY	-.013	-.044	-.765	.447	.814	1.229
LNINCOME	.503	.753	12.389	.000**	.739	1.353
DONATIONS	-.053	-.020	-.372	.711	.923	1.083
TRADING	-.245	-.092	-1.639	.105	.869	1.150
GRANTS	.314	.113	2.017	.047*	.863	1.159
STATE	-.008	-.016	-.279	.781	.842	1.187
NONAUDITFEE	-.175	-.069	-1.195	.236	.809	1.236
AUDITOFFICE	-.003	-.066	-1.129	.262	.809	1.236
AUDITPARTNER	.000	.009	.167	.868	.869	1.150
DELOITTES	.200	.047	.823	.413	.821	1.219

Note: a = one-tailed; N = 91; * $p < .05$, ** $p < .01$

Table 39: *Results of Multiple Regression – Hypothesis 2 – Ernst & Young*

Model	**R^2**	**F**	**Sig.**			
Regression	.783	26.228	.000		**Tolerance**	**VIF**
Variable	**B**	**Beta**	**T**	**Sig.[a]**		
(CONSTANT)	1.871		2.645	.010*		
ABNCOMPANY	.300	.134	2.278	.025*	.784	1.276
INDUSTRY	-.014	-.047	-.818	.416	.809	1.235
LNINCOME	.511	.766	12.746	.000**	.752	1.330
DONATIONS	-.020	-.008	-.143	.886	.933	1.071
TRADING	-.273	-.102	-1.814	.073	.854	1.171
GRANTS	.294	.106	1.883	.063	.850	1.177
STATE	-.009	-.018	-.315	.753	.841	1.189
NONAUDITFEE	-.147	-.058	-.991	.325	.782	1.279
AUDITOFFICE	-.004	-.067	-1.174	.244	.835	1.197
AUDITPARTNER	.000	-.010	-.171	.865	.869	1.150
ERNST&YOUNG	.387	.061	1.077	.285	.835	1.198

Note: a = one-tailed; N = 91; * $p < .05$, ** $p < .01$

Table 40: *Results of Multiple Regressions – Hypothesis 2 – KPMG*

Model	**R^2**	**F**	**Sig.**			
Regression	.788	27.071	.000			
Variable	**B**	**Beta**	**T**	**Sig.a**	**Tolerance**	**VIF**
(CONSTANT)	2.253		3.133	.002*		
ABNCOMPANY	.302	.135	2.326	.023*	.787	1.270
INDUSTRY	-.006	-.021	-.359	.720	.807	1.239
LNINCOME	.485	.726	11.681	.000**	.685	1.461
DONATIONS	-.002	-.001	-.016	.987	.926	1.080
TRADING	-.283	-.106	-1.911	.060	.858	1.166
GRANTS	.269	.097	1.736	.086	.840	1.191
STATE	-.006	-.011	-.193	.847	.841	1.189
NONAUDITFEE	-.130	-.052	-.893	.375	.785	1.274
AUDITOFFICE	-.005	-.093	-1.650	.103	.838	1.193
AUDITPARTNER	.000	-.010	-.190	.849	.885	1.130
KPMG	.450	.107	1.789	.077	.746	1.341

Note: a = one-tailed; N = 91; * $p < .05$, ** $p < .01$

Table 41: *Results of Multiple Regression – Hypothesis 2 – PWC*

Model	**R^2**	**F**	**Sig.**			
Regression	.780	25.752	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.936		2.717	.008*		
ABNCOMPANY	.310	.138	2.327	.022*	.778	1.285
INDUSTRY	-.011	-.039	-.648	.519	.758	1.319
LNINCOME	.507	.760	12.570	.000**	.753	1.329
DONATIONS	-.038	-.015	-.265	.792	.909	1.100
TRADING	-.250	-.094	-1.665	.100	.870	1.149
GRANTS	.315	.114	2.016	.047*	.863	1.159
STATE	-.008	-.015	-.258	.797	.834	1.200
NONAUDITFEE	-.174	-.069	-1.169	.246	.785	1.273
AUDITOFFICE	-.004	-.078	-1.359	.178	.841	1.189
AUDITPARTNER	3.134E-5	.001	.014	.989	.891	1.122
PWC	.027	.005	.084	.934	.782	1.278

Note: a = one-tailed; N = 91; * $p < .05$, ** $p < .01$

5.9.5 Multivariate Analysis of Hypothesis Three: Non-Big Four Audit Fee Premiums

Having established the existence of Big Four audit fee premiums in the Australian charity sector, hypothesis three extended the study of audit fee premiums to non-Big Four audit firms. The alternative form for hypothesis 3 with the basic regression model is:

H_3: Non-Big Four audit firms with expertise are rewarded with an audit free premium above other non-Big Four audit firms in the Australian charity sector.

$$LNAUDITFEE = \alpha + b_1 LNINCOME + b_2 NONAUDITFEE + b_2 AUDITOFFICE + b_2 AUDITPARTNER + b_2 BIG4 + b2 ABNCOMPANY + b_2 STATE + b_2 DONATIONS + b_2 GRANTS + b_2 TRADING + b_2 INDUSTRY + b_2 Individual\ Big\ Four\ audit\ firm + \varepsilon$$

As in the work of Beattie et al. (2001), expertise was proxied by market share in this study, measured by the number of charities audited by the firm. Non-Big Four audit firms were identified as having seven clients, six clients, four clients, three clients, two clients, and one client respectively. None of the non-big Four audit firms had five clients, four clients or more than seven clients. Multivariate linear regression tests were conducted for each group of audit firms (based on number of clients); and the results are reported in Table 43 to Table 47. The regression analysis showed that there was no support for the hypothesis that non-Big Four audit firms with expertise were being rewarded with an audit fee premium above other non-Big Four audit firms in the Australian charity audit market.

Whilst no evidence of an audit premium was found, there was evidence of discounted audit fees by non-Big Four audit firms for one client. Table 47 shows that the correlation between non-Big Four audit firms with one client and the natural log of audit fee were statistically significant. This correlation suggests that non-Big Four audit firms with a single client charged lower audit fees than those firms with two or more clients.

The sample included 40 audit firms with a single client. The number of days to sign-off of the audit report after the financial year-end for these auditors ranged from 32 to 319 days, with an average of 105 days. Twenty-six firms completed the audit within the audit season. Audit fees charged by these single-client auditors ranged from $1,600 to $62,500, with an average of $12,812. The average audit fee for this group of auditors was in the lower range, since the average audit fee for the total sample was $26,536, with a maximum of $221,300. This study was unable to explain the negative coefficient for single-client audit firms, and may be evidence of corporate philanthropy or of audit firms with two or more clients charging higher audit fees based on perceived auditor expertise. Either way, this was an interesting finding, not in evidence in earlier studies of the charity sector, and hence warrants further exploration.

Table 42: *Results of Multiple Regression – Hypothesis 3 – Non-Big Four with Seven Clients*

Model	**R^2**	**F**	**Sig.**			
Regression	.781	25.986	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.888		2.659	.009*		
ABNCOMPANY	.296	.132	2.221	.029*	.771	1.297
INDUSTRY	-.010	-.036	-.619	.538	.828	1.208
LNINCOME	.507	.760	12.642	.000**	.756	1.322
DONATIONS	-.038	-.014	-.266	.791	.943	1.060
TRADING	-.249	-.093	-1.667	.100	.871	1.148
GRANTS	.345	.125	2.148	.035*	.808	1.238
STATE	-.006	-.012	-.204	.839	.836	1.196
NONAUDITFEE	-.188	-.075	-1.277	.205	.801	1.248
AUDITOFFICE	-.003	-.059	-.951	.344	.722	1.385
AUDITPARTNER	.000	.003	.048	.962	.897	1.115
NONB4CLIENTS7	.202	.045	.757	.451	.785	1.274

Note: a = one-tailed; N = 91; * $p < .05$, ** $p < .01$

Table 43: *Results of Multiple Regression – Hypothesis 3 – Non-Big Four with Six Clients*

Model	**R^2**	**F**	**Sig.**			
Regression	.783	26.279	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	2.057		2.884	.005*		
ABNCOMPANY	.309	.138	2.358	.021*	.788	1.268
INDUSTRY	-.010	-.033	-.582	.562	.826	1.210
LNINCOME	.498	.746	12.181	.000**	.723	1.384
DONATIONS	-.022	-.008	-.153	.879	.936	1.069
TRADING	-.273	-.102	-1.817	.073	.856	1.169
GRANTS	.347	.125	2.201	.031*	.835	1.197
STATE	-.008	-.015	-.271	.787	.843	1.187
NONAUDITFEE	-.197	-.078	-1.342	.183	.797	1.254
AUDITOFFICE	-.004	-.067	-1.186	.239	.839	1.191
AUDITPARTNER	-5.145E-5	-.001	-.023	.982	.896	1.116
NONB4CLIENTS6	.283	.062	1.133	.261	.894	1.119

Note: a = one-tailed; N = 91; * $p < .05$, ** $p < .01$

The analysis of non-Big Four audit premiums did not show support for the hypothesis, but did find evidence of discounting by single-client firms and

possibly, higher audit fees based on perceived auditor expertise. Hypothesis 4 attempted to shed further light on the existence or otherwise of audit fee premiums by non-Big Four firms with a larger share of the charity audit market.

Table 44: *Results of Multiple Regressions – Hypothesis 3 – Non-Big Four with Three Clients*

Model	**R^2**	**F**	**Sig.**			
Regression	.780	25.778	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.894		2.616	.011*		
ABNCOMPANY	.310	.138	2.341	.022*	.787	1.270
INDUSTRY	-.011	-.036	-.626	.533	.823	1.215
LNINCOME	.510	.764	12.398	.000**	.724	1.380
DONATIONS	-.039	-.015	-.275	.784	.936	1.068
TRADING	-.246	-.092	-1.631	.107	.861	1.161
GRANTS	.314	.114	2.011	.048*	.862	1.160
STATE	-.008	-.015	-.268	.790	.843	1.187
NONAUDITFEE	-.174	-.069	-1.181	.241	.806	1.241
AUDITOFFICE	-.004	-.082	-1.372	.174	.762	1.313
AUDITPARTNER	.000	.005	.084	.933	.845	1.183
NONB4CLIENTS3	.098	.016	.265	.792	.793	1.262

Note: a = one-tailed; N = 91; * $p < .05$, ** $p < .01$

Table 45: *Results of Multiple Regressions – Hypothesis 3 – Non-Big Four with Two Clients*

Model	**R^2**	**F**	**Sig.**			
Regression	.781	25.928	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.924		2.716	.008*		
ABNCOMPANY	.293	.131	2.179	.032*	.757	1.321
INDUSTRY	-.012	-.042	-.720	.474	.821	1.218
LNINCOME	.509	.763	12.660	.000**	.754	1.326
DONATIONS	-.052	-.020	-.362	.718	.916	1.091
TRADING	-.249	-.093	-1.663	.100	.871	1.148
GRANTS	.321	.116	2.059	.043*	.859	1.164
STATE	-.009	-.016	-.286	.775	.842	1.188
NONAUDITFEE	-.173	-.069	-1.181	.241	.809	1.237
AUDITOFFICE	-.004	-.074	-1.304	.196	.852	1.173
AUDITPARTNER	.000	.006	.112	.911	.880	1.136
NONB4CLIENTS2	-.121	-.036	-.657	.513	.891	1.122

Note: a = one-tailed; N = 91; * $p < .05$, ** $p < .01$

Table 46: *Results of Multiple Regression Hypothesis 3: Non-Big Four with One Client*

Model	**R^2**	**F**	**Sig.**			
Regression	.796	27.025	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	2.598		3.458	.001**		
ABNCOMPANY	.257	.113	1.872	.065	.738	1.355
INDUSTRY	-.011	-.037	-.652	.517	.820	1.219
LNINCOME	.475	.709	11.232	.000**	.672	1.487
DONATIONS	-.021	-.008	-.152	.880	.935	1.069
TRADING	-.291	-.107	-1.920	.059	.858	1.165
GRANTS	.389	.132	2.372	.020*	.869	1.151
STATE	-.007	-.013	-.224	.823	.826	1.211
NONAUDITFEE	-.118	-.047	-.808	.422	.800	1.250
AUDITOFFICE	-.003	-.061	-1.098	.276	.871	1.148
AUDITPARTNER	-.001	-.025	-.458	.648	.876	1.141
NONB4CLIENTS1	-.330	-.145	-2.470	.016*	.779	1.283

Note: a = one-tailed; N = 91; * $p < .05$, ** $p < .01$

5.9.6 Multivariate Analysis of Hypothesis Four: Individual Non-Big Four Audit Fee Premium

As noted above, no evidence of an audit fee premium was found for non-Big Four audit firms in the Australian charity market. However, there was evidence of single-client firms discounting audit fees and of auditors with more than one client earning higher fees, but not sufficient to be classified as a premium. Hypothesis four continued examination of the behaviour of the non-Big Four auditors by exploring the existence of non-Big four audit firms audit fee premiums in the charity market. The alternative form for hypothesis 4 with the basic regression model is:

H_4: Individual non-Big Four audit firms with expertise are rewarded with an audit free premium above other non-Big Four audit firms in the Australian charity sector.

$$LNAUDITFEE = \alpha + b_1 LNINCOME + b_2 NONAUDITFEE + b_2 AUDITOFFICE + b_2 AUDITPARTNER + b_2 BIG4 + b2ABNCOMPANY + b_2 STATE + b_2 DONATIONS + b_2 GRANTS + b_2 TRADING + b_2 INDUSTRY + b_2 specialist\ non\text{-}big\ four\ audit\ firm + \varepsilon$$

The approach adopted by Beattie et al. (2001) was applied to this study, whereby top non-Big Four audit firms were identified by the number of clients or percentage of audit fees earned. Four firms were identified as dominating the non-Big Four, either in terms of number of clients and/or percentage of audit fees, those being WHK NG, BDO, Grant Thornton and RSM Bird Cameron. Multivariate regression analysis was undertaken for each of these four firms and the results reported in Table 48 to Table 51. The multivariate results showed no support for the hypothesis that non-Big Four audit firms with expertise were rewarded with an audit fee premium above other non-Big Four audit firms. This is interesting in itself, as despite lacking a feasible explanation, it provides further insights into hypothesis three and the finding that single-client audit firms were

reducing fees. Hypotheses 5 to eight explored the personal connections between auditors and charities with particular audit firm offices or partners who had taken an interest in the sector, hence developing specific expertise that commanded audit fee premiums.

Table 47: *Results of Multiple Regression – Hypothesis 4 – Non-Big Four Specialist WHK NG*

Model	**R^2**	**F**	**Sig.**			
Regression	.780	25.778	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.894		2.616	.011*		
ABNCOMPANY	.310	.138	2.341	.022*	.787	1.270
INDUSTRY	-.011	-.036	-.626	.533	.823	1.215
LNINCOME	.510	.764	12.398	.000**	.724	1.380
DONATIONS	-.039	-.015	-.275	.784	.936	1.068
TRADING	-.246	-.092	-1.631	.107	.861	1.161
GRANTS	.314	.114	2.011	.048*	.862	1.160
STATE	-.008	-.015	-.268	.790	.843	1.187
NONAUDITFEE	-.174	-.069	-1.181	.241	.806	1.241
AUDITOFFICE	-.004	-.082	-1.372	.174	.762	1.313
AUDITPARTNER	.000	.005	.084	.933	.845	1.183
NONB4WHKNG	.098	.016	.265	.792	.793	1.262

Note: a = one-tailed; N = 91; * $p < .05$, ** $p < .01$

Table 48: *Results of multiple regressions – Hypothesis 4 – Hypothesis 4 – Non-Big Four Specialist BDO*

Model	**R^2**	**F**	**Sig.**			
Regression	.781	25.986	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.888		2.659	.009*		
ABNCOMPANY	.296	.132	2.221	.029*	.771	1.297
INDUSTRY	-.010	-.036	-.619	.538	.828	1.208
LNINCOME	.507	.760	12.642	.000**	.756	1.322
DONATIONS	-.038	-.014	-.266	.791	.943	1.060
TRADING	-.249	-.093	-1.667	.100	.871	1.148
GRANTS	.345	.125	2.148	.035*	.808	1.238
STATE	-.006	-.012	-.204	.839	.836	1.196
NONAUDITFEE	-.188	-.075	-1.277	.205	.801	1.248
AUDITOFFICE	-.003	-.059	-.951	.344	.722	1.385
AUDITPARTNER	.000	.003	.048	.962	.897	1.115
NONB4BDO	.202	.045	.757	.451	.785	1.274

Note: a = one-tailed; N = 91; * $p < .05$, ** $p < .01$

Table 49: *Results of Multiple Regressions – Hypothesis 4 – Non-Big Four Specialist Grant Thornton*

Model	**R^2**	**F**	**Sig.**			
Regression	.783	26.279	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	2.057		2.884	.005*		
ABNCOMPANY	.309	.138	2.358	.021*	.788	1.268
INDUSTRY	-.010	-.033	-.582	.562	.826	1.210
LNINCOME	.498	.746	12.181	.000**	.723	1.384
DONATIONS	-.022	-.008	-.153	.879	.936	1.069
TRADING	-.273	-.102	-1.817	.073	.856	1.169
GRANTS	.347	.125	2.201	.031*	.835	1.197
STATE	-.008	-.015	-.271	.787	.843	1.187
NONAUDITFEE	-.197	-.078	-1.342	.183	.797	1.254
AUDITOFFICE	-.004	-.067	-1.186	.239	.839	1.191
AUDITPARTNER	-5.145E-5	-.001	-.023	.982	.896	1.116
NONB4GRANT	.283	.062	1.133	.261	.894	1.119

Note: a = one-tailed; N = 91; * $p < .05$, ** $p < .01$

Table 50: *Results of Multiple Regressions – Hypothesis 4 - Non-Big Four Specialist RSM Bird Cameron*

Model	**R^2**	**F**	**Sig.**			
Regression	.782	26.165	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	2.127		2.905	.005*		
ABNCOMPANY	.308	.138	2.343	.022*	.788	1.269
INDUSTRY	-.009	-.032	-.557	.579	.822	1.216
LNINCOME	.499	.748	12.191	.000**	.723	1.383
DONATIONS	-.047	-.018	-.335	.738	.937	1.067
TRADING	-.250	-.094	-1.677	.097	.871	1.148
GRANTS	.312	.113	2.013	.047*	.862	1.159
STATE	-.014	-.027	-.466	.642	.808	1.237
NONAUDITFEE	-.202	-.080	-1.366	.176	.785	1.274
AUDITOFFICE	-.005	-.088	-1.529	.130	.830	1.204
AUDITPARTNER	.000	-.005	-.091	.928	.887	1.128
NONB4RSM	.433	.056	1.003	.319	.859	1.165

Note: a = one-tailed; N = 91; * $p < .05$, ** $p < .01$

5.9.7 Multivariate Analysis of Hypothesis Five: Big Four Audit Offices Earning Audit Fee Premiums

More recent literature on private sector audit premiums (Ferguson et al., 2003) extended the research by looking for evidence of “office-level” or “city-level” audit fee premiums. Francis (2011) strongly advocated that audit specialisation may be office-specific rather than firm-wide and recommended further studies of auditor specialisation at this lower level. The remaining four hypotheses in this study took up the challenge by exploring the question of audit fee premiums at the audit firm office or partner level in both Big Four and non-Big Four firms.

The first hypothesis in this series, hypothesis 5, examined whether individual Big Four audit firm offices commanded an audit premium in the Australian charity sector. The alternative form for hypothesis 5 with the basic regression model is:

H_5: Individual offices of Big Four audit firms are rewarded with an audit fee premium above other non-Big Four audit firms in the Australian charity sector.

$$LNAUDITFEE = \alpha + b_1LNINCOME + b_2NONAUDITFEE + b_2AUDITOFFICE + b_2AUDITPARTNER + b_2BIG4 + b2ABNCOMPANY + b_2STATE + b_2DONATIONS + b_2GRANTS + b_2TRADING + b_2INDUSTRY + b_2Big\ Four\ audit\ firm\ office + \varepsilon$$

Table 52 to Table 61 report the results of the analysis of hypothesis five with regression testing of Big Four audit firm offices. Ten audit firm/audit office combinations were examined, with no support for the hypothesis that individual Big Four audit firm offices were rewarded with an audit fee premium above other Big Four audit firms, and hence the null hypothesis was not rejected. This suggests that Big Four audit firm offices in the Australian charity market were not earning audit fee premiums as specialist charity auditors.

Table 51: *Results of Multiple Regressions – Hypothesis 5 – Big Four Offices – Deloitte Melbourne*

Model	**R^2**	**F**	**Sig.**			
Regression	.778	28.444	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.830		2.626	.010*		
ABNCOMPANY	.293	.131	2.248	.027*	.804	1.243
INDUSTRY	-.016	-.056	-.995	.322	.855	1.170
LNINCOME	.506	.758	12.493	.000**	.743	1.346
DONATIONS	-.063	-.024	-.438	.663	.895	1.117
TRADING	-.245	-.092	-1.642	.104	.872	1.146
GRANTS	.366	.132	2.447	.017*	.934	1.071
STATE	-.011	-.021	-.369	.713	.828	1.208
NONAUDITFEE	-.174	-.069	-1.187	.239	.810	1.235
AUDITPARTNER	8.979E-5	.002	.040	.969	.878	1.138
B4OFFICEDELMEL	.328	.066	1.161	.249	.837	1.195

Note: a = one-tailed; N = 91; * $p < .05$, ** $p < .01$

Table 52: *Results of Multiple Regressions – Hypothesis 5 – Big Four Offices – Deloitte Sydney*

Model	**R^2**	**F**	**Sig.**			
Regression	.777	28.637	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.684		2.432	.017*		
ABNCOMPANY	.286	.127	2.181	.032*	.796	1.256
INDUSTRY	-.016	-.054	-.966	.337	.862	1.160
LNINCOME	.517	.771	12.927	.000**	.764	1.309
DONATIONS	-.018	-.007	-.129	.897	.941	1.062
TRADING	-.229	-.085	-1.531	.130	.875	1.143
GRANTS	.380	.136	2.519	.014*	.928	1.077
STATE	-.007	-.014	-.249	.804	.826	1.210
NONAUDITFEE	-.171	-.068	-1.160	.250	.801	1.249
AUDITPARTNER	-.001	-.022	-.402	.689	.932	1.073
B4OFFICEDELSYD	.030	.003	.051	.959	.946	1.058

Note: a = one-tailed; N = 91; * $p < .05$, ** $p < .01$

Table 53: *Results of Multiple Regressions – Hypothesis 5 – Big Four Offices – Deloitte Parramatta*

Model	**R^2**	**F**	**Sig.**			
Regression	.775	27.899	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
ABNCOMPANY	1.693		2.436	.017*		
INDUSTRY	.283	.126	2.155	.034*	.809	1.237
LNINCOME	-.016	-.054	-.945	.347	.848	1.179
DONATIONS	.515	.771	12.835	.000**	.769	1.300
TRADING	-.023	-.009	-.159	.874	.946	1.057
GRANTS	-.234	-.088	-1.549	.125	.865	1.156
STATE	.364	.132	2.378	.020*	.904	1.106
NONAUDITFEE	-.005	-.009	-.162	.871	.831	1.203
AUDITPARTNER	-.163	-.065	-1.093	.277	.793	1.261
B4OFFICEDELPAR	.000	-.011	-.199	.843	.917	1.091

Note: a = one-tailed; N = 91; * $p < .05$, ** $p < .01$

Table 54: *Results of Multiple Regressions – Hypothesis 5 – Big Four Offices – Deloitte Parramatta*

Model	**R^2**	**F**	**Sig.**			
Regression	.780	28.800	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.733		2.527	.013		
ABNCOMPANY	.277	.124	2.137	.036	.808	1.238
INDUSTRY	-.022	-.074	-1.267	.209	.803	1.246
LNINCOME	.517	.774	13.033	.000	.769	1.301
DONATIONS	-.014	-.006	-.103	.918	.945	1.059
TRADING	-.248	-.093	-1.667	.099	.872	1.146
GRANTS	.355	.129	2.381	.020	.929	1.077
STATE	-.011	-.021	-.365	.716	.835	1.198
NONAUDITFEE	-.150	-.060	-1.029	.306	.803	1.245
AUDITPARTNER	-.001	-.031	-.566	.573	.887	1.127
B4OFFICEEYMEL	.629	.082	1.466	.146	.867	1.153

Note: a = one-tailed; N = 91; * $p < .05$, ** $p < .01$

Table 55: *Results of Multiple Regressions – Hypothesis 5 – Big Four Offices – Ernst & Young Sydney*

Model	**R^2**	**F**	**Sig.**			
Regression	.777	28.640	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.675		2.407	.018		
ABNCOMPANY	.286	.127	2.185	.032	.800	1.251
INDUSTRY	-.016	-.053	-.940	.350	.843	1.186
LNINCOME	.517	.771	12.937	.000	.764	1.309
DONATIONS	-.017	-.007	-.123	.902	.938	1.066
TRADING	-.233	-.087	-1.527	.131	.845	1.184
GRANTS	.376	.135	2.466	.016	.906	1.103
STATE	-.007	-.014	-.249	.804	.834	1.199
NONAUDITFEE	-.168	-.066	-1.124	.264	.783	1.278
AUDITPARTNER	-.001	-.021	-.393	.696	.935	1.070
B4OFFICEEYSYD	.064	.006	.105	.917	.861	1.161

Note: a = one-tailed; N = 91; * $p < .05$, ** $p < .01$

Table 56: *Results of Multiple Regressions – Hypothesis 5 – Big Four Offices – KPMG Melbourne*

Model	**R^2**	**F**	**Sig.**			
Regression	.775	27.937	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.683		2.420	.018*		
ABNCOMPANY	.278	.124	2.109	.038*	.803	1.246
INDUSTRY	-.017	-.056	-.978	.331	.832	1.201
LNINCOME	.517	.775	12.769	.000**	.753	1.328
DONATIONS	-.033	-.013	-.232	.817	.928	1.077
TRADING	-.240	-.090	-1.598	.114	.873	1.145
GRANTS	.384	.139	2.525	.014*	.918	1.090
STATE	-.005	-.009	-.160	.874	.835	1.197
NONAUDITFEE	-.184	-.073	-1.224	.225	.779	1.283
AUDITPARTNER	-.001	-.014	-.252	.802	.932	1.073
B4OFFICEKPMGMEL	-.198	-.026	-.454	.651	.863	1.158

Note: a = one-tailed; N = 91; * $p < .05$, ** $p < .01$

Table 57: *Results of Multiple Regressions – Hypothesis 5 – Big Four Offices – KPMG Sydney*

Model	**R^2**	**F**	**Sig.**			
Regression	.779	28.586	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.869		2.675	.009*		
ABNCOMPANY	.271	.121	2.084	.040*	.805	1.242
INDUSTRY	-.015	-.052	-.920	.360	.859	1.165
LNINCOME	.502	.752	12.273	.000**	.726	1.378
DONATIONS	-.018	-.007	-.128	.899	.946	1.057
TRADING	-.271	-.102	-1.795	.076	.850	1.176
GRANTS	.359	.130	2.400	.019*	.930	1.075
STATE	.002	.003	.052	.959	.811	1.233
NONAUDITFEE	-.143	-.057	-.970	.335	.794	1.260
AUDITPARTNER	-.001	-.024	-.438	.663	.912	1.097
B4OFFICEKPMGSYD	.421	.077	1.292	.200	.775	1.291

Note: a = one-tailed; N = 91; * $p < .05$, ** $p < .01$

Table 58: *Results of Multiple Regressions – Hypothesis 5 – Big Four Offices – KPMG Perth*

Model	**R^2**	**F**	**Sig.**			
Regression	.787	30.227	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.800		2.646	.010		
ABNCOMPANY	.252	.112	1.943	.055	.785	1.275
INDUSTRY	-.013	-.045	-.825	.412	.856	1.169
LNINCOME	.513	.764	13.091	.000	.764	1.309
DONATIONS	.002	.001	.012	.990	.940	1.064
TRADING	-.228	-.085	-1.556	.123	.877	1.141
GRANTS	.390	.140	2.648	.010	.933	1.071
STATE	-.013	-.026	-.457	.649	.829	1.207
NONAUDITFEE	-.200	-.079	-1.384	.170	.797	1.254
AUDITPARTNER	-.001	-.031	-.579	.564	.930	1.075
B4OFFICEKPMGPER	1.078	.099	1.882	.063	.943	1.061

Note: a = one-tailed; N = 91; * $p < .05$, ** $p < .01$

Table 59: *Results of Multiple Regressions – Hypothesis 5 – Big Four Offices – PWC Sydney*

Model	**R^2**	**F**	**Sig.**			
Regression	.777	28.227	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.703		2.466	.016*		
ABNCOMPANY	.267	.119	2.030	.046*	.796	1.257
INDUSTRY	-.019	-.065	-1.108	.271	.812	1.232
LNINCOME	.514	.770	12.881	.000**	.769	1.300
DONATIONS	-.034	-.013	-.240	.811	.941	1.062
TRADING	-.222	-.083	-1.472	.145	.861	1.162
GRANTS	.393	.142	2.598	.011*	.919	1.089
STATE	-.004	-.008	-.133	.895	.839	1.192
NONAUDITFEE	-.154	-.061	-1.042	.301	.798	1.252
AUDITPARTNER	-.001	-.015	-.274	.785	.932	1.073
B4OFFICEPWCSYD	.328	.052	.928	.356	.877	1.140

Note: a = one-tailed; N = 91; * $p < .05$, ** $p < .01$

Table 60: *Results of Multiple Regressions – Hypothesis 5 – Big Four Offices – PWC Newcastle*

Model	**R^2**	**F**	**Sig.**			
Regression	.787	30.338	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.537		2.258	.027*		
ABNCOMPANY	.297	.132	2.320	.023*	.800	1.250
INDUSTRY	-.009	-.029	-.522	.603	.818	1.223
LNINCOME	.524	.780	13.367	.000**	.761	1.313
DONATIONS	.043	.016	.302	.764	.899	1.113
TRADING	-.186	-.069	-1.261	.211	.857	1.167
GRANTS	.424	.152	2.850	.006*	.912	1.096
STATE	-.012	-.022	-.400	.690	.834	1.200
NONAUDITFEE	-.208	-.082	-1.432	.156	.793	1.261
AUDITPARTNER	.000	-.003	-.061	.951	.909	1.100
B4OFFICEPWCNEW	-1.215	-.112	-1.947	.055	.790	1.265

Note: a = one-tailed; N = 91; * $p < .05$, ** $p < .01$

5.9.8 Multivariate Analysis of Hypothesis Six: Big Four Audit Partners Earning Audit Fee Premium

Hypothesis 6 explored whether Big Four audit partners were earning audit fee premiums as specialist charity auditors and continued the theme of audit specialisation at city and office level, as advocated by Francis (2011). This had not been previously explored in the private or not-for-profit literature. The alternative form for hypothesis 6 with the basic regression model is:

H_6: Individual audit partners of Big Four audit firms are rewarded with an audit fee premium above other Big Four audit firm's partners in the Australian charity sector.

$$LNAUDITFEE = \alpha + b_1 LNINCOME + b_2 NONAUDITFEE + b_2 AUDITOFFICE + b_2 AUDITPARTNER + b_2 BIG4 + b2ABNCOMPANY + b_2 STATE + b_2 DONATIONS + b_2 GRANTS + b_2 TRADING + b_2 INDUSTRY + b_2 Big\ Four\ audit\ firm\ partner + \varepsilon$$

Table 62 to Table 80 report the results of the analysis of hypothesis six with regression testing of Big Four audit partner. The analysis showed no support for the hypothesis that individual Big Four audit firm partners were rewarded with an audit fee premium above other Big Four audit firms, and hence the null hypothesis was not rejected. In summary, hypotheses 5 and 6 did not show support for city- or office-level Big Four audit firms earning an audit premium in the Australian charity audit market, which partly contrasts with the private-sector literature. Hypotheses seven and eight continued testing for evidence of audit fee premiums earned by audit firms and/or audit partners in non-Big Four audit firms.

Table 61: *Results of Multiple Regressions – Hypothesis 6 – Big Four Partners – Deloitte Brown, A.*

Model	**R^2**	**F**	**Sig.**			
Regression	.780	29.026	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.758		2.537	.013*		
ABNCOMPANY	.301	.134	2.295	.024*	.791	1.265
INDUSTRY	-.015	-.052	-.932	.354	.860	1.162
LNINCOME	.512	.763	12.742	.000**	.750	1.333
DONATIONS	-.044	-.017	-.306	.760	.913	1.096
TRADING	-.228	-.085	-1.530	.130	.877	1.141
GRANTS	.380	.137	2.546	.013*	.935	1.070
STATE	-.009	-.017	-.295	.769	.836	1.196
NONAUDITFEE	-.186	-.073	-1.262	.211	.797	1.254
AUDITPARTNER	-.001	-.013	-.237	.813	.911	1.098
B4DELBROWN_A	.555	.051	.933	.354	.901	1.110

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 62: Results of Multiple Regressions – Hypothesis 6 – Big Four Partners – Deloitte Lefevre

Model	**R2**	**F**	**Sig.**			
Regression	.777	28.650	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.671		2.407	.018*		
ABNCOMPANY	.284	.126	2.159	.034*	.792	1.263
INDUSTRY	-.017	-.057	-.981	.330	.800	1.249
LNINCOME	.518	.772	12.887	.000**	.756	1.323
DONATIONS	-.025	-.010	-.174	.863	.891	1.123
TRADING	-.227	-.084	-1.508	.136	.867	1.153
GRANTS	.381	.137	2.530	.013*	.931	1.075
STATE	-.008	-.015	-.264	.793	.836	1.196
NONAUDITFEE	-.166	-.065	-1.112	.269	.784	1.276
AUDITPARTNER	-.001	-.022	-.406	.686	.937	1.067
B4DELLEFEVRE	.113	.010	.183	.855	.854	1.171

Note: a = one-tailed; N = 92; * p < .05, ** p < .01

Table 63: *Results of Multiple Regressions – Hypothesis 6 – Big Four Partners – Deloitte Pearce*

Model	**R^2**	**F**	**Sig.**			
Regression	.777	28.637	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.684		2.432	.017		
ABNCOMPANY	.286	.127	2.181	.032	.796	1.256
INDUSTRY	-.016	-.054	-.966	.337	.862	1.160
LNINCOME	.517	.771	12.927	.000	.764	1.309
DONATIONS	-.018	-.007	-.129	.897	.941	1.062
TRADING	-.229	-.085	-1.531	.130	.875	1.143
GRANTS	.380	.136	2.519	.014	.928	1.077
STATE	-.007	-.014	-.249	.804	.826	1.210
NONAUDITFEE	-.171	-.068	-1.160	.250	.801	1.249
AUDITPARTNER	-.001	-.022	-.402	.689	.932	1.073
B4DELPEARCE	.030	.003	.051	.959	.946	1.058

Note: a = one-tailed; N = 92; * p < .05, ** p < .01

Table 64: *Results of Multiple Regressions – Hypothesis 6 – Big Four Partners – Deloitte Brown*

Model	**R^2**	**F**	**Sig.**			
Regression	.777	28.641	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.698		2.411	.018*		
ABNCOMPANY	.288	.128	2.192	.031*	.793	1.261
INDUSTRY	-.016	-.055	-.973	.334	.857	1.167
LNINCOME	.516	.769	12.714	.000**	.741	1.350
DONATIONS	-.018	-.007	-.129	.897	.945	1.058
TRADING	-.233	-.087	-1.526	.131	.839	1.191
GRANTS	.375	.135	2.430	.017*	.886	1.128
STATE	-.008	-.015	-.269	.789	.826	1.210
NONAUDITFEE	-.173	-.068	-1.165	.247	.795	1.257
AUDITPARTNER	-.001	-.020	-.376	.708	.915	1.093
B4DELBROWN	.072	.007	.116	.908	.837	1.194

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 65: *Results of Multiple Regressions – Hypothesis 6 – Big Four Partners – Deloitte Angleucci*

Model	**R^2**	**F**	**Sig.**			
Regression	.781	29.230	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.698		2.411	.018*		
ABNCOMPANY	.288	.128	2.192	.031*	.793	1.261
INDUSTRY	-.016	-.055	-.973	.334	.857	1.167
LNINCOME	.516	.769	12.714	.000**	.741	1.350
DONATIONS	-.018	-.007	-.129	.897	.945	1.058
TRADING	-.233	-.087	-1.526	.131	.839	1.191
GRANTS	.375	.135	2.430	.017*	.886	1.128
STATE	-.008	-.015	-.269	.789	.826	1.210
NONAUDITFEE	-.173	-.068	-1.165	.247	.795	1.257
AUDITPARTNER	-.001	-.020	-.376	.708	.915	1.093
B4DELANGLEUCCI	.072	.007	.116	.908	.837	1.194

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 66: Results of Multiple Regressions – Hypothesis 6 – Big Four Partners – Deloitte Collie

Model	**R2**	**F**	**Sig.**			
Regression	.779	29.938	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.726		2.497	.015*		
ABNCOMPANY	.290	.129	2.224	.029*	.800	1.249
INDUSTRY	-.015	-.049	-.877	.383	.852	1.174
LNINCOME	.513	.765	12.803	.000**	.755	1.325
DONATIONS	-.027	-.010	-.191	.849	.941	1.062
TRADING	-.228	-.085	-1.533	.129	.877	1.141
GRANTS	.384	.138	2.563	.012*	.933	1.071
STATE	-.010	-.018	-.321	.749	.833	1.201
NONAUDITFEE	-.169	-.067	-1.152	.252	.807	1.239
AUDITPARTNER	-.001	-.014	-.266	.791	.915	1.093
B4DELCOLLIE	.342	.044	.820	.414	.931	1.074

Note: a = one-tailed; N = 92; * p < .05, ** p < .01

Table 67: *Results of Multiple Regressions – Hypothesis 6 – Big Four Partners – Ernst & Young Wallace*

Model	**R^2**	**F**	**Sig.**			
Regression	.778	28.679	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.673		2.417	.018*		
ABNCOMPANY	.278	.123	2.070	.042*	.763	1.311
INDUSTRY	-.017	-.057	-1.005	.318	.839	1.192
LNINCOME	.519	.774	12.837	.000**	.746	1.340
DONATIONS	-.018	-.007	-.129	.898	.946	1.057
TRADING	-.236	-.088	-1.565	.121	.859	1.164
GRANTS	.369	.133	2.412	.018*	.898	1.114
STATE	-.009	-.018	-.304	.762	.816	1.226
NONAUDITFEE	-.173	-.068	-1.175	.243	.805	1.243
AUDITPARTNER	-.001	-.024	-.448	.655	.910	1.099
B4EYWALLACE	.196	.018	.313	.755	.820	1.220

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 68: *Results of Multiple Regressions – Hypothesis 6 – Big Four Partners – Ernst & Young Painter*

Model	**R^2**	**F**	**Sig.**			
Regression	.786	30.158	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.790		2.630	.010*		
ABNCOMPANY	.328	.146	2.518	.014*	.778	1.286
INDUSTRY	-.022	-.075	-1.337	.185	.827	1.209
LNINCOME	.508	.757	12.888	.000**	.755	1.325
DONATIONS	-.006	-.002	-.044	.965	.944	1.060
TRADING	-.210	-.078	-1.426	.158	.872	1.147
GRANTS	.399	.143	2.701	.008*	.930	1.075
STATE	-.007	-.013	-.236	.814	.838	1.194
NONAUDITFEE	-.122	-.048	-.833	.407	.781	1.281
AUDITPARTNER	-.001	-.035	-.649	.518	.921	1.085
B4EYPAINTER	1.099	.101	1.841	.069	.868	1.152

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 69: *Results of Multiple Regressions – Hypothesis 6 – Big Four Partners – Ernst & Young Lewis*

Model	**R^2**	**F**	**Sig.**			
Regression	.777	28.640	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.675		2.407	.018*		
ABNCOMPANY	.286	.127	2.185	.032*	.800	1.251
INDUSTRY	-.016	-.053	-.940	.350	.843	1.186
LNINCOME	.517	.771	12.937	.000**	.764	1.309
DONATIONS	-.017	-.007	-.123	.902	.938	1.066
TRADING	-.233	-.087	-1.527	.131	.845	1.184
GRANTS	.376	.135	2.466	.016*	.906	1.103
STATE	-.007	-.014	-.249	.804	.834	1.199
NONAUDITFEE	-.168	-.066	-1.124	.264	.783	1.278
AUDITPARTNER	-.001	-.021	-.393	.696	.935	1.070
B4EYLEWIS	.064	.006	.105	.917	.861	1.161

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 70: *Results of Multiple Regressions – Hypothesis 6 – Big Four Partners – KPMG Scammell*

Model	**R^2**	**F**	**Sig.**			
Regression	.778	28.670	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.688		2.440	.017*		
ABNCOMPANY	.293	.130	2.208	.030*	.778	1.285
INDUSTRY	-.015	-.053	-.931	.355	.852	1.174
LNINCOME	.516	.770	12.905	.000**	.763	1.311
DONATIONS	-.015	-.006	-.106	.916	.937	1.067
TRADING	-.228	-.085	-1.520	.132	.875	1.143
GRANTS	.369	.132	2.393	.019*	.885	1.129
STATE	-.008	-.016	-.273	.786	.835	1.198
NONAUDITFEE	-.163	-.064	-1.091	.278	.781	1.281
AUDITPARTNER	-.001	-.023	-.423	.673	.930	1.075
B4KPMGSCAMMELL	.170	.016	.279	.781	.865	1.156

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 71: *Results of Multiple Regressions – Hypothesis 6 – Big Four Partners – KPMG Napier*

Model	**R^2**	**F**	**Sig.**			
Regression	.777	28.647	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.679		2.427	.017*		
ABNCOMPANY	.287	.128	2.191	.031*	.801	1.248
INDUSTRY	-.016	-.055	-.978	.331	.853	1.172
LNINCOME	.518	.772	12.923	.000**	.761	1.313
DONATIONS	-.021	-.008	-.148	.883	.937	1.067
TRADING	-.231	-.086	-1.542	.127	.875	1.143
GRANTS	.384	.138	2.510	.014*	.902	1.108
STATE	-.008	-.015	-.270	.788	.831	1.203
NONAUDITFEE	-.174	-.069	-1.171	.245	.793	1.260
AUDITPARTNER	-.001	-.021	-.391	.697	.936	1.069
B4KPMGNAPIER	-.098	-.009	-.163	.871	.893	1.120

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 72 *Results of Multiple Regressions – Hypothesis 6 – Big Four Partners – KPMG Mitchel*

Model	**R^2**	**F**	**Sig.**			
Regression	.780	29.029	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.719		2.494	.015*		
ABNCOMPANY	.283	.126	2.177	.032*	.801	1.249
INDUSTRY	-.015	-.050	-.899	.371	.857	1.167
LNINCOME	.513	.765	12.838	.000**	.757	1.320
DONATIONS	-.005	-.002	-.035	.972	.936	1.069
TRADING	-.262	-.097	-1.715	.090	.832	1.202
GRANTS	.395	.142	2.628	.010*	.922	1.085
STATE	-.005	-.009	-.161	.873	.829	1.206
NONAUDITFEE	-.151	-.060	-1.024	.309	.791	1.264
AUDITPARTNER	-.001	-.024	-.454	.651	.935	1.070
B4KPMGMITCHEL	.564	.052	.936	.352	.880	1.137

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 73: *Results of Multiple Regressions – Hypothesis 6 – Big Four Partners – KPMG Travers*

Model	**R^2**	**F**	**Sig.**			
Regression	.778	28.656	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.728		2.389	.019*		
ABNCOMPANY	.285	.127	2.179	.032*	.799	1.251
INDUSTRY	-.016	-.054	-.965	.337	.862	1.160
LNINCOME	.515	.767	12.402	.000**	.709	1.410
DONATIONS	-.025	-.009	-.170	.865	.913	1.095
TRADING	-.228	-.085	-1.527	.131	.876	1.142
GRANTS	.372	.134	2.422	.018*	.893	1.119
STATE	-.007	-.014	-.248	.805	.836	1.196
NONAUDITFEE	-.177	-.070	-1.179	.242	.777	1.288
AUDITPARTNER	-.001	-.023	-.421	.675	.926	1.080
B4KPMGTRAVERS	.134	.012	.213	.832	.811	1.233

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 74: *Results of Multiple Regressions – Hypothesis 6 – Big Four Partners – KPMG Robinson*

Model	**R^2**	**F**	**Sig.**			
Regression	.787	30.227	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.800		2.646	.010*		
ABNCOMPANY	.252	.112	1.943	.055	.785	1.275
INDUSTRY	-.013	-.045	-.825	.412	.856	1.169
LNINCOME	.513	.764	13.091	.000**	.764	1.309
DONATIONS	.002	.001	.012	.990	.940	1.064
TRADING	-.228	-.085	-1.556	.123	.877	1.141
GRANTS	.390	.140	2.648	.010*	.933	1.071
STATE	-.013	-.026	-.457	.649	.829	1.207
NONAUDITFEE	-.200	-.079	-1.384	.170	.797	1.254
AUDITPARTNER	-.001	-.031	-.579	.564	.930	1.075
B4KPMGROBINSON	1.078	.099	1.882	.063	.943	1.061

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 75: *Results of Multiple Regressions – Hypothesis 6 – Big Four Partners – KPMG Mattera*

Model	**R^2**	**F**	**Sig.**			
Regression	.782	29.494	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.640		2.395	.019*		
ABNCOMPANY	.278	.124	2.144	.035*	.799	1.251
INDUSTRY	-.020	-.068	-1.214	.228	.833	1.200
LNINCOME	.518	.772	13.129	.000**	.767	1.305
DONATIONS	-.010	-.004	-.071	.944	.944	1.059
TRADING	-.262	-.098	-1.751	.084	.855	1.169
GRANTS	.407	.146	2.718	.008*	.917	1.090
STATE	-.002	-.004	-.068	.946	.822	1.216
NONAUDITFEE	-.133	-.053	-.901	.370	.780	1.282
AUDITPARTNER	-.001	-.027	-.510	.611	.932	1.073
B4KPMGMATTERA	.833	.076	1.383	.170	.867	1.154

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 76: *Results of Multiple Regressions – Hypothesis 6 – Big Four Partners – KPMG Cinanni*

Model	**R^2**	**F**	**Sig.**			
Regression	.780	28.993	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.634		2.367	.020*		
ABNCOMPANY	.293	.130	2.244	.028*	.799	1.251
INDUSTRY	-.018	-.061	-1.083	.282	.846	1.182
LNINCOME	.522	.778	13.022	.000**	.754	1.327
DONATIONS	-.031	-.012	-.220	.827	.937	1.067
TRADING	-.226	-.084	-1.519	.133	.876	1.141
GRANTS	.374	.134	2.500	.014*	.933	1.071
STATE	-.005	-.010	-.184	.854	.832	1.202
NONAUDITFEE	-.183	-.072	-1.244	.217	.800	1.250
AUDITPARTNER	-.001	-.027	-.495	.622	.927	1.079
B4KPMGCINANNI	-.526	-.048	-.892	.375	.918	1.090

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 77: *Results of Multiple Regressions – Hypothesis 6 – Big Four Partners – PWC McConnel*

Model	**R^2**	**F**	**Sig.**			
Regression	.778	28.728	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.675		2.423	.018*		
ABNCOMPANY	.287	.128	2.198	.031*	.801	1.248
INDUSTRY	-.016	-.053	-.954	.343	.861	1.161
LNINCOME	.518	.773	12.969	.000**	.763	1.311
DONATIONS	-.008	-.003	-.054	.957	.918	1.089
TRADING	-.233	-.087	-1.559	.123	.874	1.144
GRANTS	.373	.134	2.476	.015*	.927	1.078
STATE	-.010	-.018	-.319	.751	.821	1.218
NONAUDITFEE	-.179	-.071	-1.211	.230	.793	1.261
AUDITPARTNER	-.001	-.020	-.377	.707	.936	1.069
B4PWCMCCONEL	-.271	-.025	-.454	.651	.901	1.109

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 78 *Results of Multiple Regressions – Hypothesis 6 – Big Four Partners – PWC Turner*

Model	**R^2**	**F**	**Sig.**			
Regression	.787	30.338	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.537		2.258	.027*		
ABNCOMPANY	.297	.132	2.320	.023*	.800	1.250
INDUSTRY	-.009	-.029	-.522	.603	.818	1.223
LNINCOME	.524	.780	13.367	.000**	.761	1.313
DONATIONS	.043	.016	.302	.764	.899	1.113
TRADING	-.186	-.069	-1.261	.211	.857	1.167
GRANTS	.424	.152	2.850	.006*	.912	1.096
STATE	-.012	-.022	-.400	.690	.834	1.200
NONAUDITFEE	-.208	-.082	-1.432	.156	.793	1.261
AUDITPARTNER	.000	-.003	-.061	.951	.909	1.100
B4PWCTURNER	-1.215	-.112	-1.947	.055	.790	1.265

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 79 *Results of Multiple Regressions – Hypothesis 6 – Big Four Partners – PWC Maher*

Model	**R^2**	**F**	**Sig.**			
Regression	.778	28.774	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.705		2.465	.016*		
ABNCOMPANY	.281	.125	2.145	.035*	.796	1.256
INDUSTRY	-.018	-.060	-1.054	.295	.833	1.200
LNINCOME	.516	.769	12.925	.000**	.764	1.308
DONATIONS	-.017	-.006	-.117	.907	.945	1.058
TRADING	-.222	-.083	-1.485	.141	.870	1.149
GRANTS	.387	.139	2.569	.012*	.926	1.080
STATE	-.005	-.010	-.180	.858	.822	1.216
NONAUDITFEE	-.178	-.070	-1.207	.231	.800	1.249
AUDITPARTNER	-.001	-.023	-.433	.666	.935	1.070
B4PWCMAHER	.329	.030	.556	.580	.917	1.091

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

5.9.9 Multivariate Analysis of Hypothesis Seven: Non-Big Four Audit Offices Earning Audit Fee Premiums

Hypotheses 5 and 6 tested for evidence of audit fee premiums earned by Big Four audit firm offices and/or partners as advocated by Francis (2011). Hypotheses seven and eight extended the study by testing for evidence of an audit premium earned by non-Big Four audit firm offices and/or partners in the Australian charity market. Specifically, hypothesis 7 proposed an audit fee premium for specialist non-Big Four audit firm offices with an alternative form with the basic regression model as follows:

H_7: Individual offices of multi-office non-Big Four audit firms are rewarded with an audit fee premium above other multi-office non-Big Four audit firms in the Australian charity sector.

$$LNAUDITFEE = \alpha + b_1 LNINCOME + b_2 NONAUDITFEE + b_2 AUDITOFFICE + b_2 AUDITPARTNER + b_2 BIG4 + b2ABNCOMPANY + b_2 STATE + b_2 DONATIONS + b_2 GRANTS + b_2 TRADING + b_2 INDUSTRY + b_2 Non\text{-}big\ Four\ audit\ firm\ office + \varepsilon$$

As with hypothesis 4, the approach adopted by Beattie et al. (2001) was applied. The number of clients or percentage of audit fees earned was used to identify the top non-Big Four audit firms with multiple offices. Four firms were identified as dominating the non-Big Four audit firms: WHK NG, BDO, Grant Thornton and RSM Bird Cameron. The offices of these firms were identified as separate variables and a control variable was included for all remaining audit firm offices.

Table 81 to Table 92 report the results of the analysis of hypothesis seven, which showed no support for non-Big Four audit firm offices being rewarded with an audit fee premium above other non-Big Four audit firms. Hypothesis 7 was therefore rejected, suggesting that in the Australian charity audit market, non-Big Four audit firm offices were not earning audit fee premiums as specialist charity auditors. Having tested for the existence of non-Big Four audit firm office premiums in the Australian charity market, hypothesis 8 explored a further aspect; whether non-Big Four audit partners were earning audit fee premiums as specialist charity auditors.

Table 80: *Results of Multiple Regressions – Hypothesis 7 – Non-Big Four Offices – BDO Sydney*

Model	**R^2**	**F**	**Sig.**			
Regression	.789	28.039	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.688		2.380	.020*		
ABNCOMPANY	.319	.140	2.337	.022*	.782	1.278
INDUSTRY	-.021	-.071	-1.252	.215	.880	1.136
LNINCOME	.520	.770	12.731	.000**	.769	1.301
DONATIONS	-.046	-.017	-.308	.759	.927	1.078
TRADING	-.271	-.099	-1.759	.083	.885	1.130
GRANTS	.372	.136	2.450	.017*	.913	1.096
STATE	-.009	-.018	-.305	.761	.817	1.223
NONAUDITFEE	-.173	-.068	-1.156	.251	.808	1.238
AUDITPARTNER	-.001	-.027	-.501	.618	.942	1.061
NB4BDOSYD	-.274	-.044	-.813	.419	.947	1.056

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 81: *Results of Multiple Regressions – Hypothesis 7 – Non-Big Four Offices – BDO Perth*

Model	**R^2**	**F**	**Sig.**			
Regression	..794	28.843	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.507		2.156	.034		
ABNCOMPANY	.280	.123	2.058	.043	.769	1.300
INDUSTRY	-.026	-.089	-1.563	.122	.848	1.179
LNINCOME	.531	.786	13.115	.000**	.766	1.306
DONATIONS	-.028	-.010	-.192	.848	.935	1.070
TRADING	-.262	-.096	-1.714	.091	.883	1.133
GRANTS	.401	.147	2.693	.009*	.929	1.076
STATE	-.015	-.028	-.479	.633	.803	1.245
NONAUDITFEE	-.129	-.051	-.860	.393	.789	1.268
AUDITPARTNER	-.001	-.022	-.401	.689	.937	1.067
NB4BDOPER	.918	.087	1.540	.128	.868	1.152

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 82: *Results of Multiple Regressions – Hypothesis 7 – Non-Big Four Offices – BDO Brisbane*

Model	**R^2**	**F**	**Sig.**			
Regression	.792	28.595	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.651		2.364	.021*		
ABNCOMPANY	.279	.123	2.041	.045*	.764	1.309
INDUSTRY	-.023	-.079	-1.403	.165	.874	1.145
LNINCOME	.523	.775	12.978	.000**	.777	1.287
DONATIONS	-.058	-.021	-.387	.700	.924	1.083
TRADING	-.294	-.107	-1.913	.060	.878	1.139
GRANTS	.418	.153	2.774	.007*	.913	1.095
STATE	-.005	-.009	-.163	.871	.825	1.213
NONAUDITFEE	-.193	-.076	-1.295	.199	.796	1.257
AUDITPARTNER	-.001	-.019	-.357	.722	.929	1.076
NB4BDOBRI	-.566	-.075	-1.358	.179	.903	1.107

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 83: *Results of Multiple Regressions – Hypothesis 7 – Non-Big Four Offices – Grant Thornton Melbourne*

Model	**R^2**	**F**	**Sig.**			
Regression	.787	27.729	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.613		2.283	.025*		
ABNCOMPANY	.311	.137	2.239	.028*	.761	1.315
INDUSTRY	-.021	-.072	-1.266	.209	.877	1.140
LNINCOME	.523	.775	12.822	.000**	.777	1.288
DONATIONS	-.035	-.013	-.233	.817	.934	1.070
TRADING	-.275	-.100	-1.771	.081	.883	1.133
GRANTS	.390	.142	2.579	.012*	.931	1.074
STATE	-.007	-.013	-.221	.826	.823	1.214
NONAUDITFEE	-.166	-.066	-1.103	.274	.800	1.250
AUDITPARTNER	-.001	-.028	-.508	.613	.924	1.082
NB4GTMEL	-.004	-.001	-.010	.992	.919	1.088

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 84: *Results of Multiple Regressions – Hypothesis 7 – Non-Big Four Offices – Grant Thornton Sydney*

Model	**R^2**	**F**	**Sig.**			
Regression	.777	28.164	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.720		2.488	.015*		
ABNCOMPANY	.273	.122	2.076	.041*	.802	1.247
INDUSTRY	-.015	-.053	-.929	.356	.858	1.165
LNINCOME	.514	.770	12.865	.000**	.769	1.300
DONATIONS	-.016	-.006	-.109	.913	.942	1.062
TRADING	-.230	-.086	-1.534	.129	.870	1.150
GRANTS	.386	.140	2.561	.012*	.928	1.078
STATE	-.003	-.006	-.106	.916	.832	1.201
NONAUDITFEE	-.179	-.071	-1.217	.227	.806	1.240
AUDITPARTNER	-.001	-.022	-.396	.693	.902	1.109
NB4GTSYD	.500	.046	.847	.399	.924	1.082

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 85 *Results of Multiple Regressions – Hypothesis 7 – Non-Big Four Offices – Grant Thornton Adelaide*

Model	**R^2**	**F**	**Sig.**			
Regression	.787	27.779	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.569		2.184	.032*		
ABNCOMPANY	.312	.137	2.286	.025*	.786	1.273
INDUSTRY	-.021	-.070	-1.233	.222	.872	1.146
LNINCOME	.526	.779	12.666	.000**	.749	1.334
DONATIONS	-.033	-.012	-.216	.830	.933	1.072
TRADING	-.284	-.104	-1.805	.075	.855	1.169
GRANTS	.393	.144	2.599	.011*	.926	1.080
STATE	-.007	-.013	-.224	.824	.826	1.210
NONAUDITFEE	-.165	-.065	-1.099	.275	.810	1.235
AUDITPARTNER	-.001	-.029	-.526	.601	.941	1.062
NB4GTADL	.195	.018	.327	.745	.890	1.123

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 86: *Results of Multiple Regressions – Hypothesis 7 – Non-Big Four Offices – Grant Thornton Perth*

Model	**R^2**	**F**	**Sig.**			
Regression	.779	28.570	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.456		2.037	.045		
ABNCOMPANY	.263	.117	2.007	.048	.797	1.255
INDUSTRY	-.019	-.064	-1.122	.265	.835	1.198
LNINCOME	.530	.795	12.754	.000	.703	1.423
DONATIONS	-.046	-.018	-.326	.745	.933	1.072
TRADING	-.185	-.069	-1.193	.236	.808	1.238
GRANTS	.362	.131	2.420	.018	.932	1.073
STATE	-.004	-.008	-.148	.883	.842	1.187
NONAUDITFEE	-.148	-.059	-1.006	.318	.799	1.252
AUDITPARTNER	.000	-.006	-.115	.908	.923	1.084
NB4GTPER	-.787	-.073	-1.277	.205	.836	1.196

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 87 *Results of multiple regressions – Hypothesis 7 – Non-Big Four Offices – Moore Stephens Perth*

Model	**R^2**	**F**	**Sig.**			
Regression	.775	27.861	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.683		2.385	.019*		
ABNCOMPANY	.284	.127	2.159	.034*	.807	1.239
INDUSTRY	-.015	-.051	-.888	.377	.850	1.177
LNINCOME	.516	.773	12.658	.000**	.745	1.342
DONATIONS	-.022	-.008	-.156	.876	.941	1.062
TRADING	-.244	-.091	-1.598	.114	.849	1.178
GRANTS	.376	.136	2.490	.015*	.932	1.074
STATE	-.006	-.012	-.206	.837	.844	1.185
NONAUDITFEE	-.169	-.067	-1.149	.254	.809	1.236
AUDITPARTNER	-.001	-.014	-.254	.800	.931	1.074
NB4MSPER	.112	.010	.186	.853	.897	1.115

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 88: *Results of Multiple Regressions – Hypothesis 7 – Non-Big Four Offices – Moore Stephens Campbell*

Model	**R^2**	**F**	**Sig.**			
Regression	.776	28.030	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.685		2.430	.017*		
ABNCOMPANY	.273	.122	2.071	.042*	.798	1.253
INDUSTRY	-.016	-.055	-.970	.335	.851	1.175
LNINCOME	.517	.774	12.871	.000**	.765	1.306
DONATIONS	-.034	-.013	-.237	.813	.936	1.068
TRADING	-.240	-.090	-1.599	.114	.874	1.145
GRANTS	.372	.135	2.473	.015*	.935	1.069
STATE	-.003	-.005	-.091	.928	.818	1.222
NONAUDITFEE	-.187	-.075	-1.255	.213	.785	1.274
AUDITPARTNER	.000	-.009	-.156	.876	.915	1.093
NB4MSCAM	-.391	-.036	-.646	.520	.879	1.138

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 89: *Results of Multiple Regressions – Hypothesis 7 – Non-Big Four Offices – Pitcher Partners Adelaide*

Model	**R^2**	**F**	**Sig.**			
Regression	.780	28.664	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.771		2.574	.012*		
ABNCOMPANY	.259	.116	1.981	.051	.795	1.259
INDUSTRY	-.011	-.039	-.678	.499	.834	1.199
LNINCOME	.513	.769	12.930	.000**	.769	1.301
DONATIONS	-.029	-.011	-.204	.839	.946	1.057
TRADING	-.262	-.098	-1.750	.084	.862	1.160
GRANTS	.359	.130	2.403	.019*	.931	1.075
STATE	-.013	-.024	-.424	.673	.823	1.216
NONAUDITFEE	-.168	-.067	-1.152	.253	.810	1.234
AUDITPARTNER	-.001	-.017	-.313	.755	.930	1.075
NB4PPADL	-.795	-.074	-1.358	.178	.925	1.081

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 90: *Results of Multiple Regressions – Hypothesis 7 – Non-Big Four Offices – Pitcher Partners Melbourne*

Model	**R^2**	**F**	**Sig.**			
Regression	.775	27.882	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.719		2.472	.016*		
ABNCOMPANY	.286	.128	2.170	.033*	.803	1.245
INDUSTRY	-.016	-.054	-.936	.352	.850	1.176
LNINCOME	.514	.771	12.820	.000**	.769	1.301
DONATIONS	-.028	-.011	-.194	.847	.940	1.064
TRADING	-.240	-.090	-1.593	.115	.873	1.145
GRANTS	.372	.135	2.469	.016*	.934	1.071
STATE	-.006	-.011	-.188	.852	.841	1.190
NONAUDITFEE	-.177	-.070	-1.186	.239	.793	1.261
AUDITPARTNER	-.001	-.014	-.259	.796	.930	1.075
NB4PPMEL	-.168	-.016	-.287	.775	.940	1.063

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 91: *Results of Multiple Regressions – Hypothesis 7 – Non-Big Four Offices – RSM Bird Cameron Perth*

Model	**R^2**	**F**	**Sig.**			
Regression	.775	27.858	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.720		2.461	.016*		
ABNCOMPANY	.285	.127	2.158	.034*	.797	1.255
INDUSTRY	-.015	-.051	-.892	.375	.851	1.176
LNINCOME	.514	.770	12.661	.000**	.753	1.329
DONATIONS	-.022	-.008	-.154	.878	.939	1.065
TRADING	-.239	-.089	-1.585	.117	.873	1.145
GRANTS	.375	.136	2.488	.015*	.934	1.071
STATE	-.006	-.012	-.205	.838	.844	1.185
NONAUDITFEE	-.172	-.068	-1.165	.247	.806	1.241
AUDITPARTNER	-.001	-.014	-.257	.798	.928	1.078
NB4RSMPER	.097	.009	.166	.869	.943	1.061

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 92: *Results of Multiple Regressions – Hypothesis 7 – Non-Big Four Offices – RSM Bird Cameron Canberra*

Model	**R^2**	**F**	**Sig.**			
Regression	.777	28.190	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.839		2.601	.011*		
ABNCOMPANY	.259	.116	1.945	.055	.777	1.288
INDUSTRY	-.015	-.052	-.926	.357	.859	1.165
LNINCOME	.511	.765	12.698	.000**	.759	1.317
DONATIONS	-.049	-.019	-.338	.736	.911	1.097
TRADING	-.240	-.090	-1.600	.113	.874	1.145
GRANTS	.375	.136	2.502	.014*	.936	1.069
STATE	-.014	-.027	-.445	.657	.778	1.285
NONAUDITFEE	-.192	-.076	-1.291	.200	.788	1.269
AUDITPARTNER	-.001	-.020	-.367	.715	.915	1.093
NB4RSMCAN	.544	.050	.881	.381	.843	1.186

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

5.9.10 Multivariate analysis of hypothesis eight: Non-Big Four audit partners earning audit fee premiums.

The final hypothesis tested in this study, hypothesis 8, also explored a heretofore untested element in the private and not-for-profit sectors, namely the existence of an audit fee premium for non-Big Four audit firm partners in the Australian charity market. The alternative form for hypothesis eight with the basic regression model is:

H_8: Individual audit partners of non-Big Four audit firms are rewarded with an audit fee premium above other non-Big Four audit firms partners in the Australian charity sector.

$$LNAUDITFEE = \alpha + b_1LNINCOME + b_2NONAUDITFEE + b_2AUDITOFFICE + b_2AUDITPARTNER + b_2BIG4 + b2ABNCOMPANY + b_2STATE + b_2DONATIONS + b_2GRANTS + b_2TRADING + b_2INDUSTRY + b_2Big\ Four\ audit\ firm\ partner + \varepsilon$$

As with hypothesis 6, the approach adopted by Beattie et al. (2001) was applied, with top non-Big Four audit firm partners identified by number of clients or percentage of audit fees earned. Five audit firm partners were identified as dominating the non-Big Four firms, either in terms of number of clients and/or percentage of audit fees earned. The partners of these firms were identified via separate variables, and a control variable was included for all remaining audit firm partners.

Table 94 to Table 99 report the results of the analysis of hypothesis eight. The analysis showed no support for partners in non-Big Four audit firms being rewarded with an audit fee premium above other non-Big Four audit firm partners. Hypothesis eight was therefore rejected, suggesting that individual non-Big Four audit firm partners were not earning audit fee premiums as specialist charity auditors in the Australian charity market.

Table 93: *Results of Multiple Regressions – Hypothesis 8 – Non-Big Four Partners – BDO Paul*

Model	**R^2**	**F**	**Sig.**			
Regression	.779	28.623	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	2.007		2.808	.006*		
ABNCOMPANY	.295	.132	2.218	.029*	.772	1.296
INDUSTRY	-.010	-.034	-.610	.543	.871	1.148
LNINCOME	.507	.750	12.507	.000**	.757	1.321
DONATIONS	-.018	-.007	-.128	.898	.943	1.060
TRADING	-.271	-.100	-1.798	.076	.883	1.132
GRANTS	.338	.122	2.207	.030*	.885	1.130
STATE	-.011	-.021	-.366	.715	.797	1.255
NONAUDITFEE	-.185	-.075	-1.285	.203	.807	1.239
AUDITOFFICE	-.005	-.093	-1.518	.133	.731	1.368
NB4BDOPAUL	-.163	-.039	-.651	.517	.772	1.295

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 94: *Results of Multiple Regressions – Hypothesis 8 – Non-Big Four Partners – Ronald Smith – Smith*

Model	**R^2**	**F**	**Sig.**			
Regression	.783	29.522	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	2.051		2.891	.005*		
ABNCOMPANY	.273	.122	2.065	.042*	.761	1.314
INDUSTRY	-.013	-.044	-.787	.434	.866	1.155
LNINCOME	.504	.752	12.665	.000**	.752	1.330
DONATIONS	-.031	-.012	-.227	.821	.931	1.075
TRADING	-.274	-.102	-1.850	.068	.867	1.154
GRANTS	.330	.121	2.203	.030*	.877	1.140
STATE	-.014	-.028	-.472	.638	.776	1.289
NONAUDITFEE	-.195	-.078	-1.371	.174	.813	1.230
AUDITOFFICE	-.004	-.069	-1.240	.219	.863	1.158
NB4RSSMITH	-.374	-.048	-.861	.392	.836	1.196

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 95: *Results of Multiple Regressions – Hypothesis 8 – Non-Big Four Partners – Auditor General NSW – Watson*

Model	**R^2**	**F**	**Sig.**			
Regression	.785	29.573	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.991		2.848	.006*		
ABNCOMPANY	.330	.147	2.479	.015*	.751	1.332
INDUSTRY	-.016	-.055	-.982	.329	.853	1.172
LNINCOME	.501	.741	12.436	.000**	.748	1.337
DONATIONS	-.006	-.002	-.045	.965	.940	1.064
TRADING	-.243	-.090	-1.641	.105	.891	1.122
GRANTS	.359	.130	2.363	.021*	.877	1.140
STATE	-.006	-.012	-.215	.830	.823	1.214
NONAUDITFEE	-.155	-.062	-1.076	.285	.790	1.266
AUDITOFFICE	-.004	-.068	-1.230	.222	.877	1.141
NB4AGNWATSON	.945	.088	1.590	.116	.876	1.142

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 96: *Results of Multiple Regressions – Hypothesis 8 – Non-Big Four Partners – Danby Winnett*

Model	**R^2**	**F**	**Sig.**			
Regression	.778	28.436	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.949		2.723	.008*		
ABNCOMPANY	.294	.132	2.202	.030*	.768	1.303
INDUSTRY	-.011	-.038	-.678	.500	.875	1.142
LNINCOME	.508	.751	12.415	.000**	.747	1.339
DONATIONS	-.018	-.007	-.126	.900	.931	1.074
TRADING	-.261	-.096	-1.722	.089	.873	1.146
GRANTS	.333	.121	2.154	.034*	.874	1.144
STATE	-.008	-.015	-.263	.793	.801	1.249
NONAUDITFEE	-.195	-.079	-1.339	.184	.793	1.262
AUDITOFFICE	-.004	-.075	-1.347	.182	.872	1.147
NB4DANWINNETT	.038	.005	.089	.929	.900	1.111

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 97: *Results of Multiple Regressions – Hypothesis 8 – Non-Big Four Partners – WKH NG Flakemore*

Model	**R^2**	**F**	**Sig.**			
Regression	.782	29.523	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	1.784		2.489	.015*		
ABNCOMPANY	.303	.135	2.287	.025*	.770	1.299
INDUSTRY	-.010	-.035	-.633	.528	.881	1.135
LNINCOME	.517	.765	12.614	.000**	.733	1.365
DONATIONS	-.036	-.014	-.256	.798	.933	1.072
TRADING	-.239	-.088	-1.592	.115	.882	1.133
GRANTS	.341	.123	2.234	.028*	.885	1.130
STATE	-.004	-.008	-.131	.896	.815	1.228
NONAUDITFEE	-.168	-.068	-1.162	.249	.794	1.259
AUDITOFFICE	-.005	-.092	-1.620	.109	.830	1.205
NB4WKHFLAKEMORE	.489	.064	1.142	.257	.864	1.158

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

Table 98: *Results of Multiple Regressions – Hypothesis 8 – Non-Big Four Partners – Others*

Model	**R^2**	**F**	**Sig.**			
Regression	.784	29.400	.000			
Variable	**B**	**Beta**	**T**	**Sig.[a]**	**Tolerance**	**VIF**
(CONSTANT)	2.094		2.951	.004*		
ABNCOMPANY	.291	.130	2.228	.029*	.783	1.277
INDUSTRY	-.011	-.039	-.712	.478	.879	1.138
LNINCOME	.501	.750	12.544	.000**	.746	1.341
DONATIONS	-.041	-.016	-.297	.767	.944	1.059
TRADING	-.256	-.096	-1.741	.085	.879	1.137
GRANTS	.300	.109	1.964	.053	.872	1.146
STATE	.000	-.001	-.009	.993	.807	1.238
NONAUDITFEE	-.144	-.057	-.990	.325	.791	1.264
AUDITOFFICE	-.003	-.065	-1.170	.245	.866	1.155
NB4OTHERS	-.171	-.073	-1.261	.211	.790	1.266

Note: a = one-tailed; N = 92; * $p < .05$, ** $p < .01$

5.8.11 Summary

This chapter reported the results of testing the eight hypotheses put forward in the study and found support for the existence of an audit fee premium in Big Four audit firms, indications of a Big Four auditor discounting charity audit fees, and evidence of non-Big Four audit firms with single clients earning lower fees than those with more than two clients. It also identified that audit fees paid by Australian charities are influenced by client size, corporate structure, choice of auditor (Big Four or non-Big Four), trading income and grant income. These results were reported in the context of the descriptive characteristics of the charities that made up the sample in this study, by undertaking tests of normality and multivariate regression analysis.

This chapter concludes the statistical analyses and testing of the hypotheses in this study, and is followed by the closing chapter, which

summarises the study, discusses the major findings, implications and limitations of the study, and provides suggestions for future research.

CHAPTER SIX
DISCUSSION AND CONCLUSION

6.1 Introduction

This chapter summarises the previous chapters and discusses the major findings of this study. It concludes with a discussion of the implications and limitations of the study, and puts forward suggestions for future research.

Below is a summary of the preceding chapters:

- Chapter 1 introduced the study and provided the background, including a definition of charities in the context of an Australian political and economic milieu. The significance of the study and the design format were also outlined.
- Chapter 2 provided a review of the limited literature on audit-related issues in the not-for-profit sector, and highlighted opportunities for extending our understanding of audit fee pricing, with a particular focus on the Australian charity sector.
- Chapter 3 developed the conceptual framework for the study, as well as the hypotheses. It expanded the literature review with a focus on the private sector, and explored its influence on the pricing model for Australian charities and related hypotheses.
- Chapter 4 outlined the research methodology applied in this study. Sample selection, independent variable constructs and dependent variable constructs were described and justified.
- Chapter 5 presented the analyses and results of testing the charity audit fee model in the context of the eight hypotheses examined in this study. The results of descriptive statistics, tests of normality, correlation testing and multiple regression analyses were reported in this chapter.

- The final chapter, Chapter 6, concludes the study with a summary of the major findings. It presents the limitations of the project and provides suggestions for future research.

6.2 Findings from this Study

This study developed a model of Australian charity audit fee determinants in conjunction with an examination of eight additional resource questions related to:

1. Big Four audit firm premiums in the charity sector at an industry level, firm level, audit office level and audit firm partner level;
2. Non-big Four audit firm premiums in the charity sector at an industry level, firm level, audit office level and audit firm partner level.

The proposed charity audit fees model encompasses aspects of the existing not-for-profit and private sector literature, adapted to reflect the Australian economy. As discussed in Chapter 3, the private sector literature contains evidence of the influence on audit fee pricing of choice of a Big Four/Six/Eight audit firm, auditee complexity and inherent risk. This study concurred in its findings, with choice of auditor (Big Four versus non-Big Four) showing an influence on audit fee pricing. Auditee size was also found to be a significant attribute, and supports the literature in both the not-for-profit and private sectors. Auditee complexity, a well-established attribute in the private sector, also indicated an effect on audit fee pricing, as measured by the form of incorporation variable, and in cases where a charity's income was sourced at least in part from trading activities.

The audit fee-pricing model (Figure 1), as reported in Table 37, outlines 76.5% of charities' audit fee prices. Audit fee prices are primarily predicted by income (measure of size), choice of Big Four audit firm, incorporation as a company, and to a lesser extent, income from trading activities. Using size as an explanatory variable is well established in the private sector literature (see Table 1, Hay 2013, Hay et al., 2011). Beattie et al. (2001) and Vermeer et al. (2009) also found size to be an explanatory variable, and the results of this study reflect this literature.

The second explanatory variable was choice of audit firm, i.e. Big Four or non-Big-Four. The results of this study were consistent with the findings of Vermeer et al. (2009), but did not concur with Beattie et al. (2001) when income was used as the measure of size. In the private sector literature there is strong support for a Big 4/5/6/8 effect on audit fee price, but this is not consistent across all sectors. This study also found inconsistent results. There was no apparent reason for Big Four audit firms obtaining a higher audit fee, and this aspect warrants further research to determine, for example, whether there is a small auditee effect in play.

Incorporation as a variable had not previously been explored in the private sector literature, but form of ownership had been examined in a small number of studies, with significant results (Hay et al., 2011). In the not-for-profit literature, Beattie et al. (2001) included a similar variable (company or constitution – Trust or Act of Parliament) and did not find any explanatory power. In contrast to the findings in the UK market, the results of this study suggest that the incorporated form does have explanatory power, and may reflect the nature of the Corporations Law in Australia that imposes stringent demands on auditors. Similar variables shown to have explanatory power in private sector studies, supports this view.

Trading activities was a proxy in this study for auditee complexity, a well-established attribute in the private sector literature shown to have an

influence on audit fee pricing. As in Beattie et al. (2001), trading activities, measured by a dichotomous variable in this study, was shown to have some explanatory power, suggesting that charities with trading activities add an element of complexity to the audit, which in turn is reflected in the audit fee pricing.

In summary, the audit fee-pricing model in this study has explanatory power and substantially supports earlier studies, thereby adding to our understanding of audit fee pricing in the Australian charity sector. Following establishment of the Australian charity audit fee-pricing model, a series of hypotheses, which encompassed elements of the existing literature, were tested in the context of the Australian charity sector. These hypotheses examined three aspects:

1. The existence of a Big Four audit fee premium in the charity market. This was examined from both a nationwide Big Four perspective and an individual Big Four audit firm view. Hypotheses 1 and 2 refer.
2. A similar approach was taken for the non-Big Four firms to determine if there was evidence of a small auditee effect in the market. Hypotheses 3 and 4 refer.
3. Hypotheses 5 to 8 further explore a relatively new aspect of audit fee pricing: city level (referred to as offices in this study) specialisation. This was examined from the perspective of audit firm offices and audit partners earning audit fee premiums.

The existence of a Big Four audit fee premium in the private sector market is strongly supported in the literature but was not a conclusive finding in this study as shown in Table 1, or as found by Hay, 2013. From the perspective of the not-for-profit literature, a similar variance was found in Beattie et al. (2001), who reported mixed results depending on the model. Their model used income as the size proxy and found no support for Big

Six audit premiums. In contrast, Vermeer et al. (2009) did find evidence of significant Big Four audit fee premiums.

In this study of Australian charity audit fee pricing, significant evidence of a Big Four audit premium was present. This is a preliminary finding and worthy of further exploration to determine if it represents a quality premium or is reflective of other attributes such as auditee characteristics. While the current study enhances our understanding of audit fee premiums in the charity audit fee market, further exploration is needed to better comprehend the drivers of this phenomenon.

Confirmation of a Big Four audit fee premium led to further exploratory analysis to determine whether one or more Big Four audit firms were earning an audit fee premium. No evidence of this was found.

Analysis was also undertaken to detect evidence of an audit premium in non-Big Four audit firms. No evidence was found, however a significant negative coefficient for non-Big Four audit firms with a single client suggested that these firms may have been providing audit services as an act of corporate philanthropy.

Further analysis was undertaken to determine if any evidence existed of the non-Big Four audit firms dominating the market in terms of number of clients and/or percentage of audit fees earned, attracting audit fee premiums. In this study no evidence of an audit fee premium was found, which was to be expected given the lack of audit fee premiums for non-Big Four firms.

Other aspects of the study explored the relatively new aspect of city level (referred to as offices in this study) specialisation not previously explored in the not-for-profit or charity literature. Hypotheses were tested for evidence of an audit fee premium at the Big Four audit firm office and

partner levels. This was repeated for the dominant non-Big Four firms. No evidence was found of a premium at either the city level (office) or partner level for Big Four and non-Big Four audit firms. Earlier research on the private sector does suggest some evidence of audit fee premiums at the city level (Basioudis & Francis, 2007, Francis et al., 2005), however this was more likely to be evident where the audit firm was both a national and city specialist. Further investigation into specialist audit fee premiums in the charity sector will be valuable to increase our knowledge and understanding.

6.3 Implications of this Study

The research questions were answered in the context of the findings as discussed in the preceding chapters, providing insights into audit fee pricing in the Australian charity sector, exploring evidence of audit fee premiums, and developing an audit fee pricing model for the sector.

A base model of audit fee pricing will give charities a better understanding of the attributes that influence audit fee costs. The Australian charity fees model developed in this study is robust in the context of the existing literature, and signifies a first attempt at modelling audit fee pricing in the Australian not-for-profit sector. The model demonstrates that knowledge gained from private sector studies also has some explanatory power in the Australian charities sector.

In this study, Big Four audit fee premiums were found to be present, which is consistent with the private sector literature, and to a lesser extent the literature on the not-for-profit sector, opening up the way for further investigation. In contrast to its competitors and of particular note was PricewaterhouseCoopers' significant discounting of audit fees, possibly as an act of corporate philanthropy. Their actions suggest there are

opportunities for audit firms to make a positive contribution to the charity market through gestures of philanthropy.

Non-Big Four auditors who only audited one charity were also significantly discounting their audit fees as compared with other non-Big Four auditors with multiple clients. Whilst there was no evidence of a non-Big Four audit fee premium, there was evidence of single-client firms discounting, hence multiple client firms were earning higher fees. The motives remain unclear, and further exploration of audit fee pricing in this market will help to clarify and interpret these findings.

Finally, this study is the first exploration of city and partner specialisation in the Australian charities sector, and the first in the not-for-profit sector. The results showed no evidence of specialisation at this level, which reflects the findings of some studies on the private sector. However, this could be an indication of larger numbers of small audit firms undertaking audits in the charity sector, or a combined national/city specialisation factor at play. The early results of this study should not limit further exploration of this aspect of audit fee pricing.

6.4 Limitations and Suggestions for Further Research

By its very nature research of this type has its limitations. First and foremost is the clearly defined definition of what a charity is in the Australian economy, hence the lack of a well-established database from which to draw a representative sample of charities. Secondly and related to this is the sample size of the study, which in part reflects the difficulty of identifying Australian charities and obtaining annual reports and financial data. Future studies would benefit from work to develop a definition of a charity and build a more substantive sample of appropriate entities. Work in progress by the Australian Charities and Not-for-profits Commission may enhance the collection of financial reporting data in the future. The

second limitation is the analysis of one year's financial data. A deeper understanding of audit fees and the tenure of audit firms will serve to clarify the issue of charity audit fees more broadly. For example, future research could be undertaken as a time-series analysis. Related to this is the use of 2012 financial year data. With the formation of the Australian Charities and Not-for-profits Commission, changes in regulatory requirements may also have an influence on the role played by the auditor, and this will provide fertile ground for future research into the influence and impact of the Commission.

In addition, the suitability of the variables used to predict the independent variable may not be robust representations of the attributes being measured. In this study there where issues with normality, which meant that dichotomous variables had to be used in place of more robust interval variables. For example, Beattie et al. (2001) used alternate attributes for charity size with varying results. The validity of using a natural logarithm of income for size could also be further explored.

The examination of specialisation at city (office) and partner level was exploratory in this study and limited by the sample size. The small sample size brings into question the robustness of the testing of the hypothesis and the results should be interpreted with care. Further examination of this effect is warranted with a larger sample size and a combined national and city specialist explanatory attribute. Auditee size (small auditees versus large auditees) was not explored in this study. Some private sector studies noted an effect and recommended further exploration.

This study places a spotlight on audit fee pricing research in the Australian charity sector and adds to international research in the field. It provides evidence to support the private sector and international not-for-profit sector audit fee pricing models, and confirms that these models are robust across jurisdictions and different sectors of the economy.

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APPENDIX

Standard Q-Q Plots

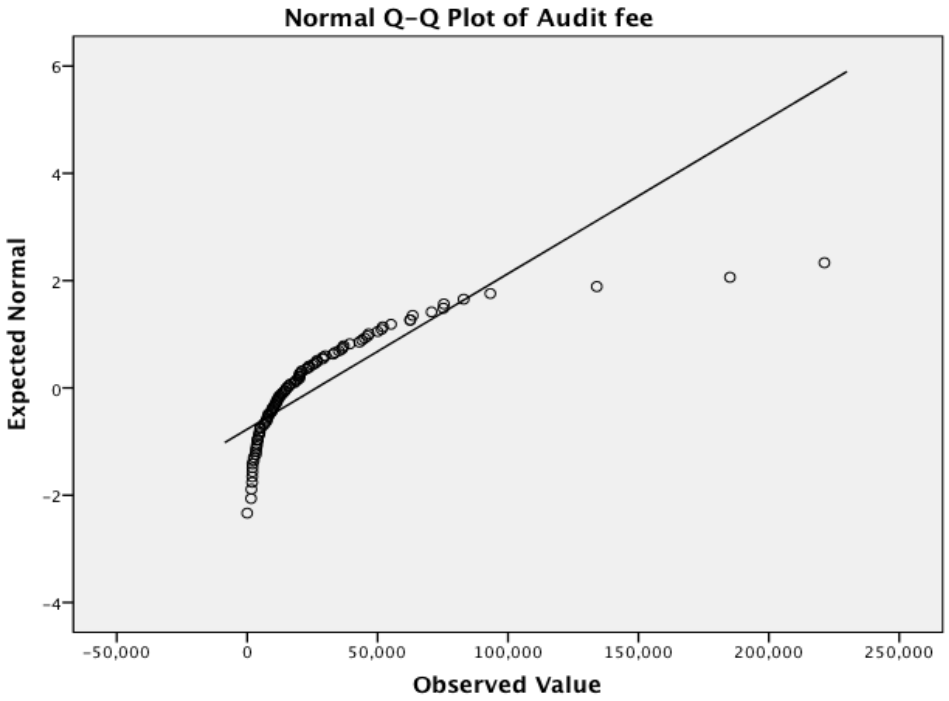

Figure 2: Standard Q-Q plot of AUDITFEE

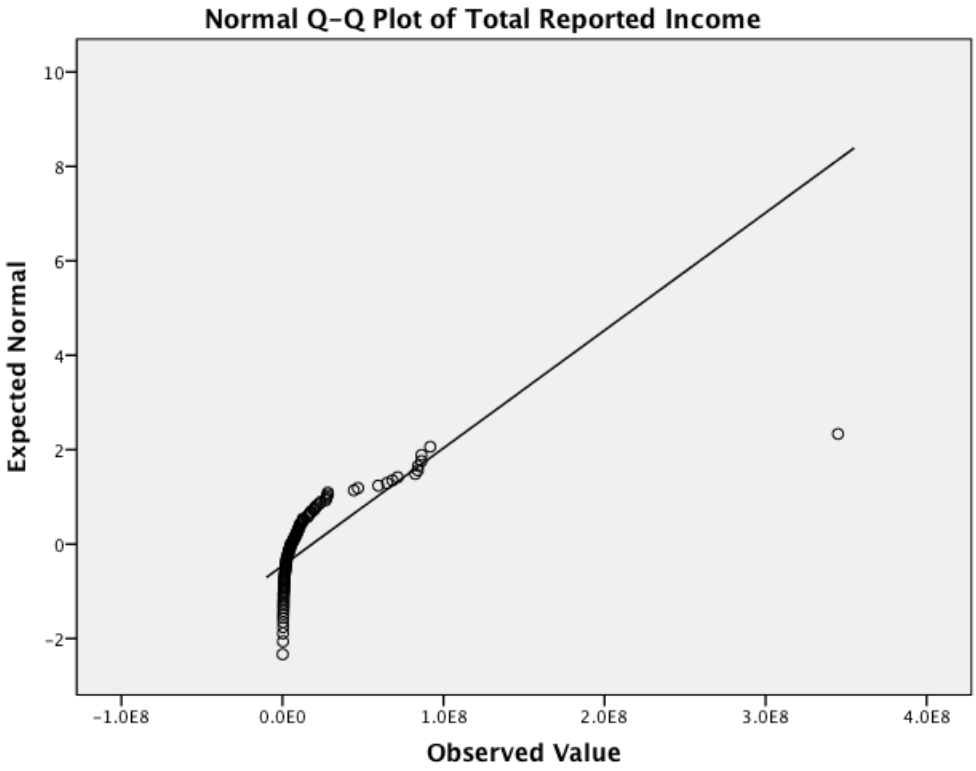

Figure 3: Standard Q-Q plot of INCOME

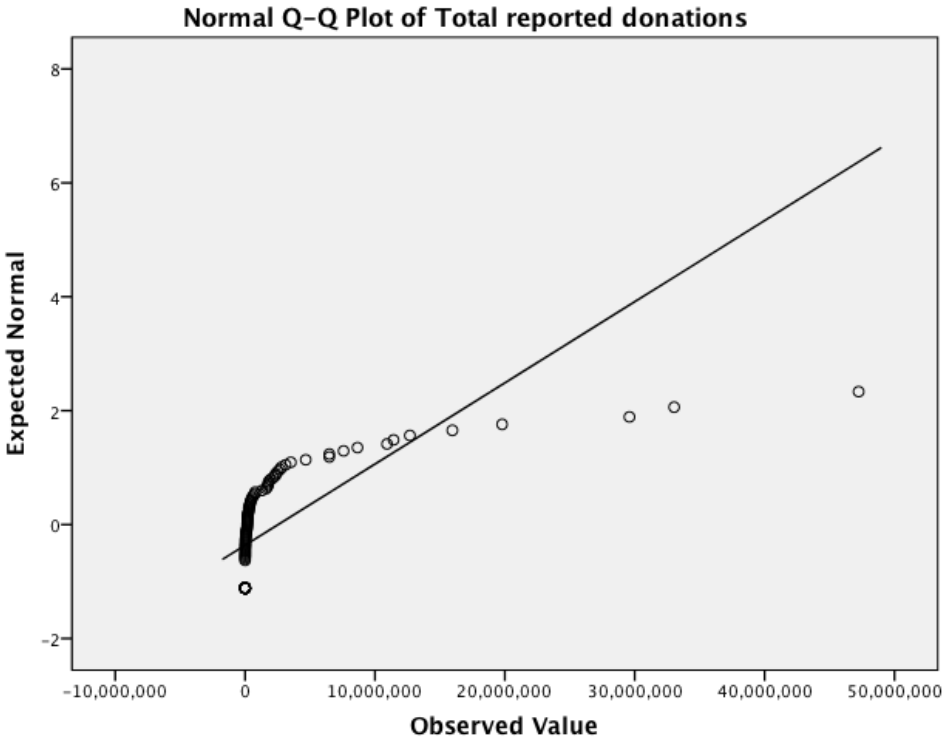

Figure 4: Standard Q-Q plot of R_DONATIONS

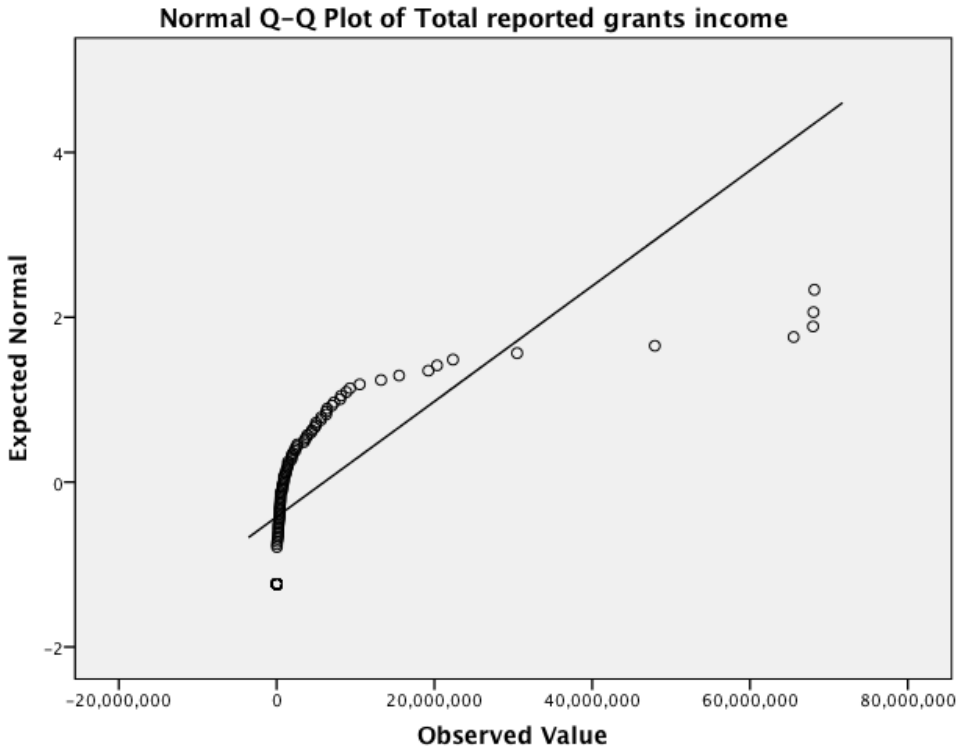

Figure 5: Standard Q-Q plot of R_GRANTS

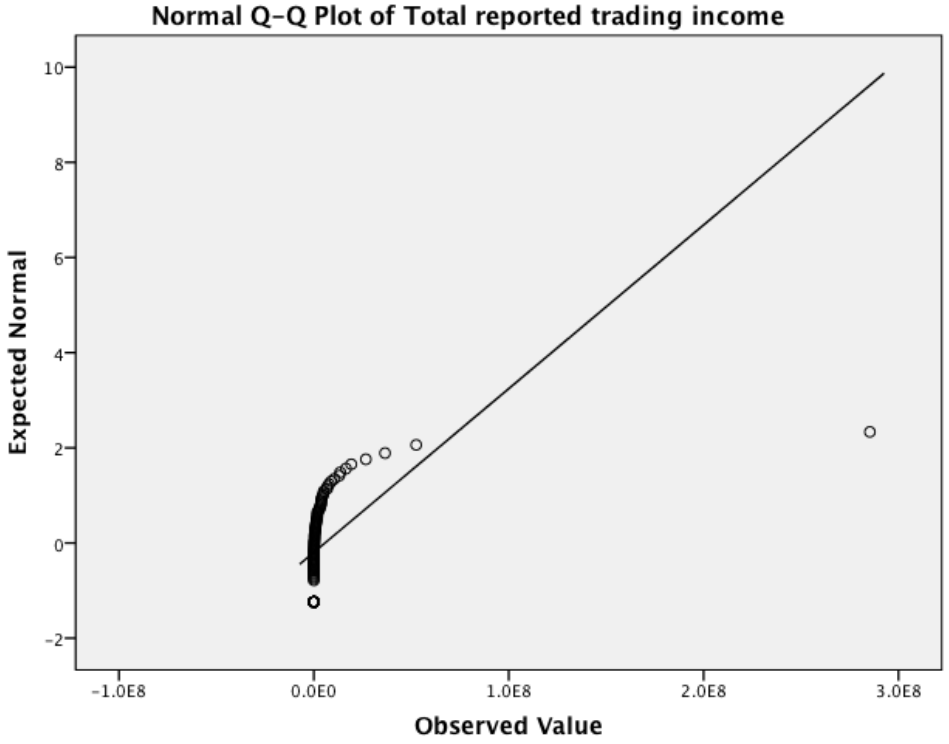

Figure 6: Standard Q-Q plot of R_TRADING

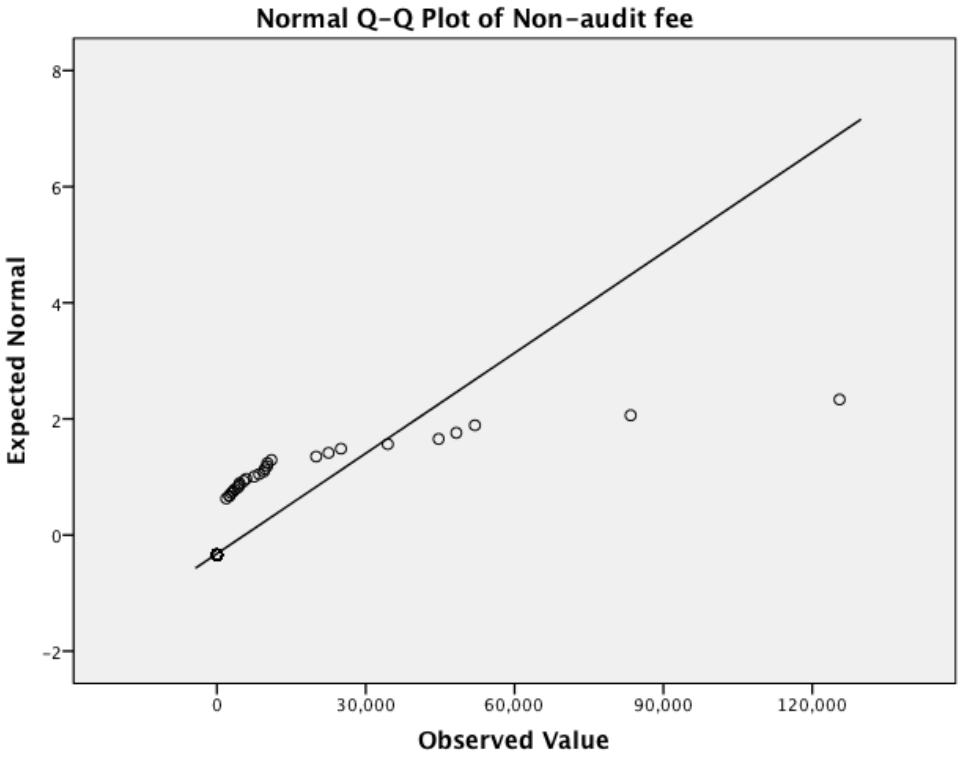

Figure 7: Standard Q-Q plot of R_NONAUDITFEE

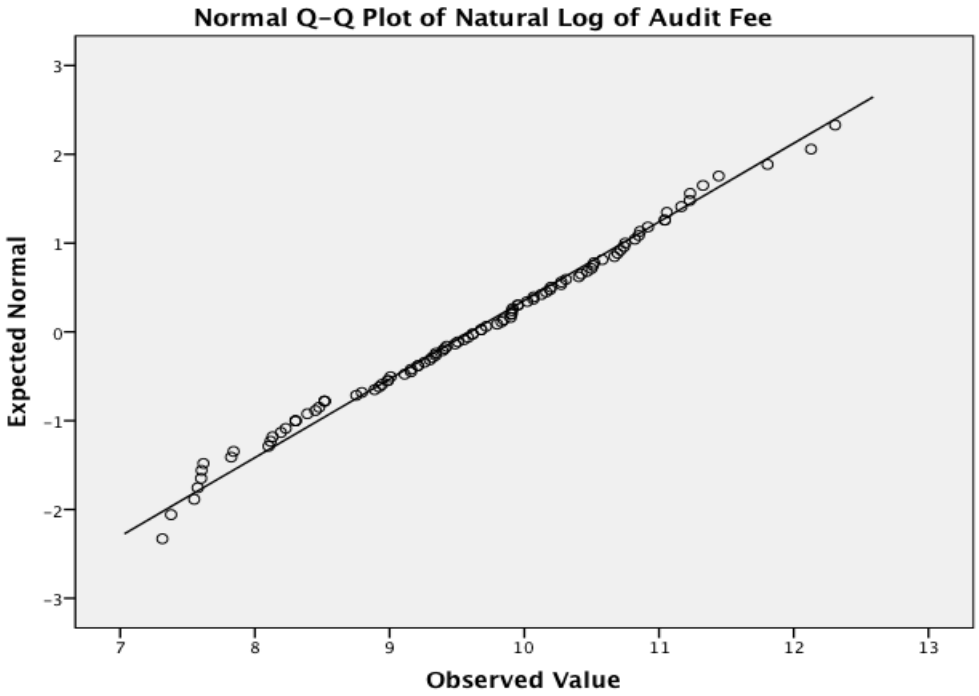

Figure 8: Standard Q-Q plot of LNAUDITFEE

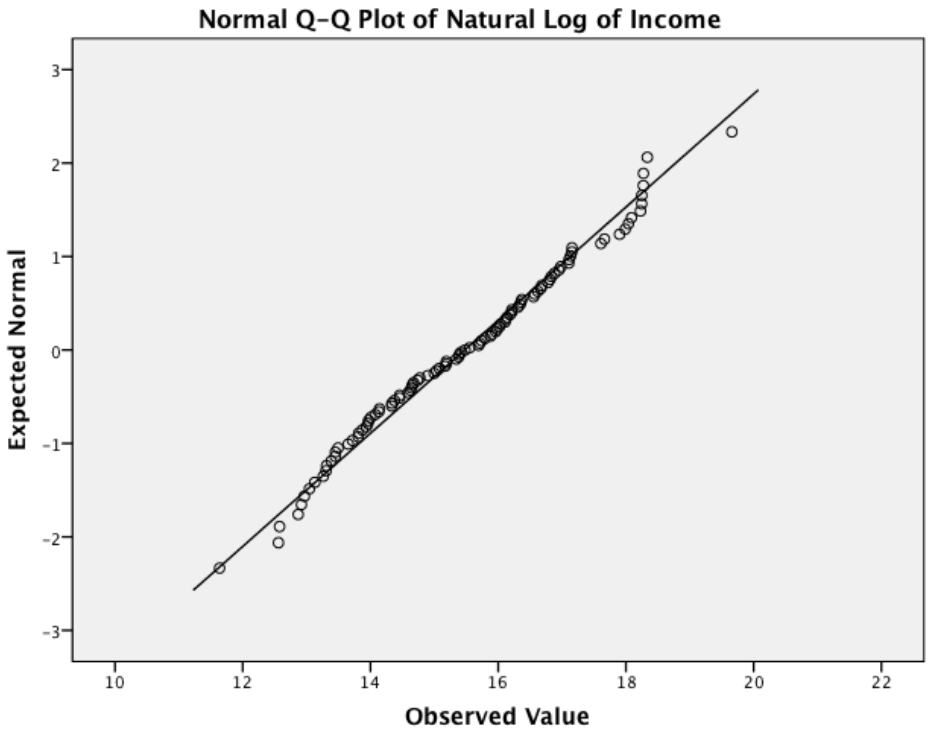

Figure 9: Standard Q-Q plot of LNINCOME

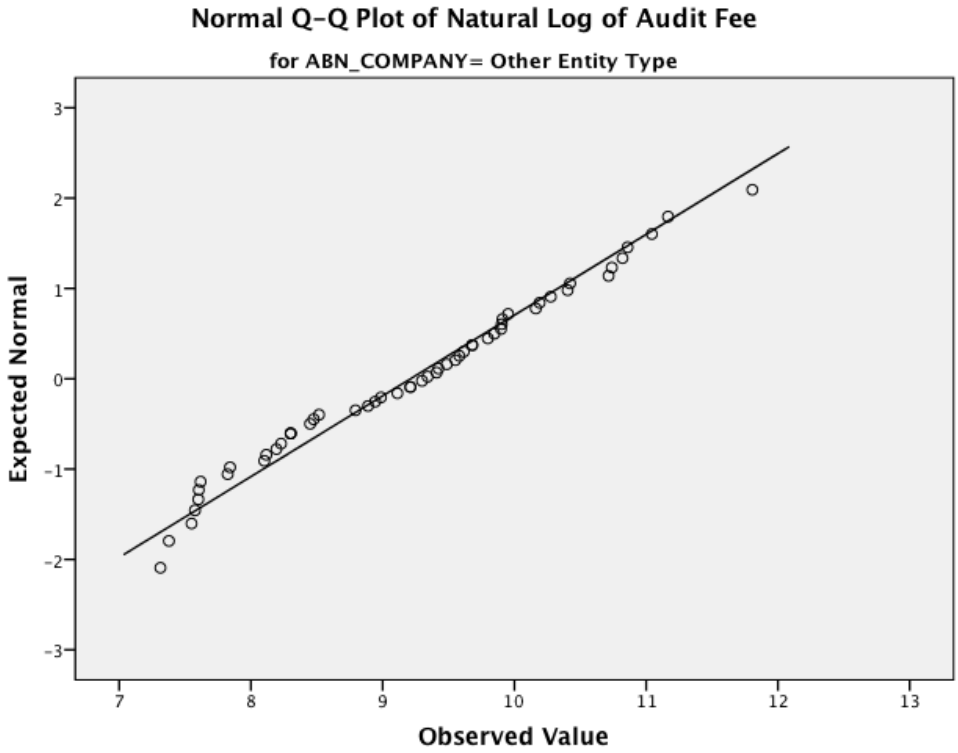

Figure 10: Standard Q-Q plot of ABNCOMPANY: Other Entity Type

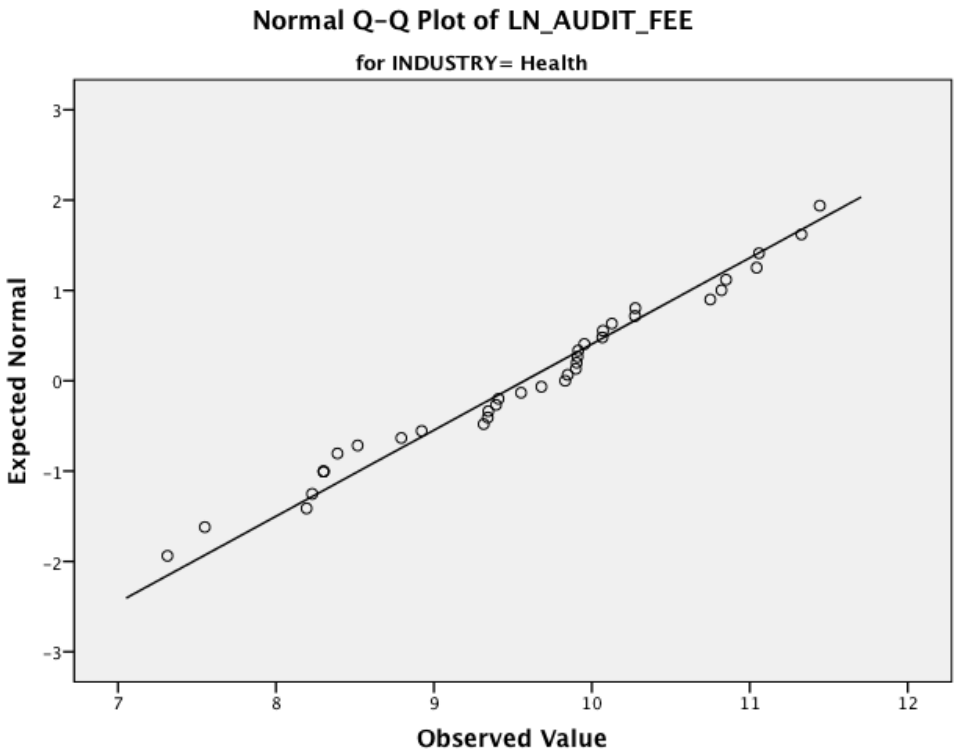

Figure 11: Standard Q-Q plot of INDUSTRY: Health

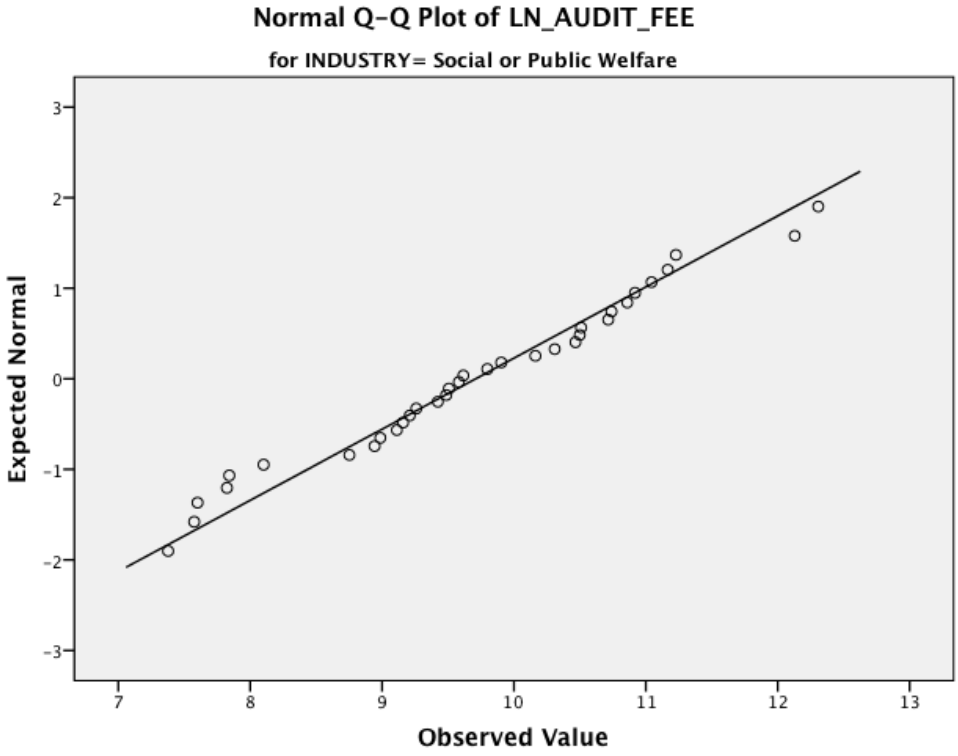

Figure 12: Standard Q-Q plot of INDUSTRY: Social or Public Welfare

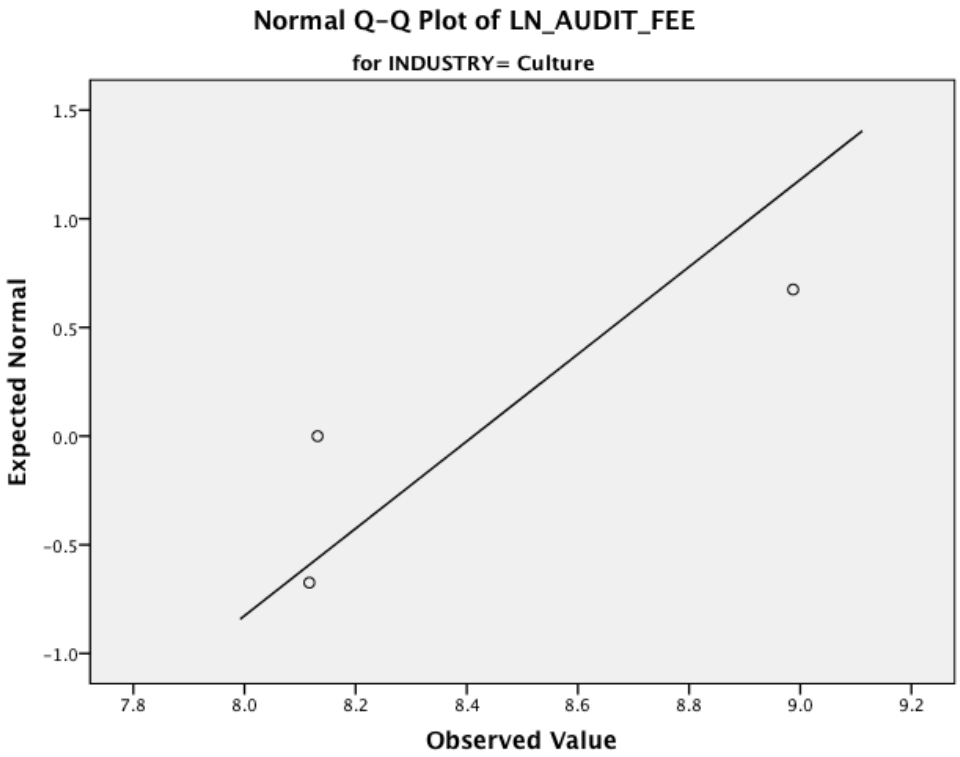

Figure 13: Standard Q-Q plot of INDUSTRY: Culture

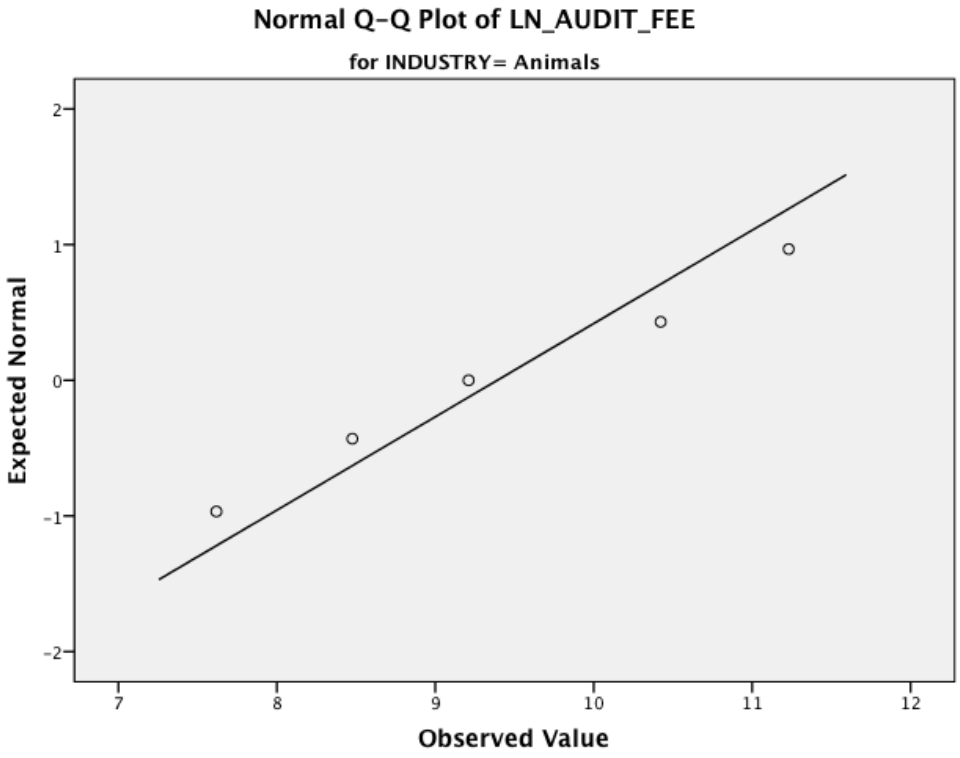

Figure 14: Standard Q-Q plot of INDUSTRY: Animals

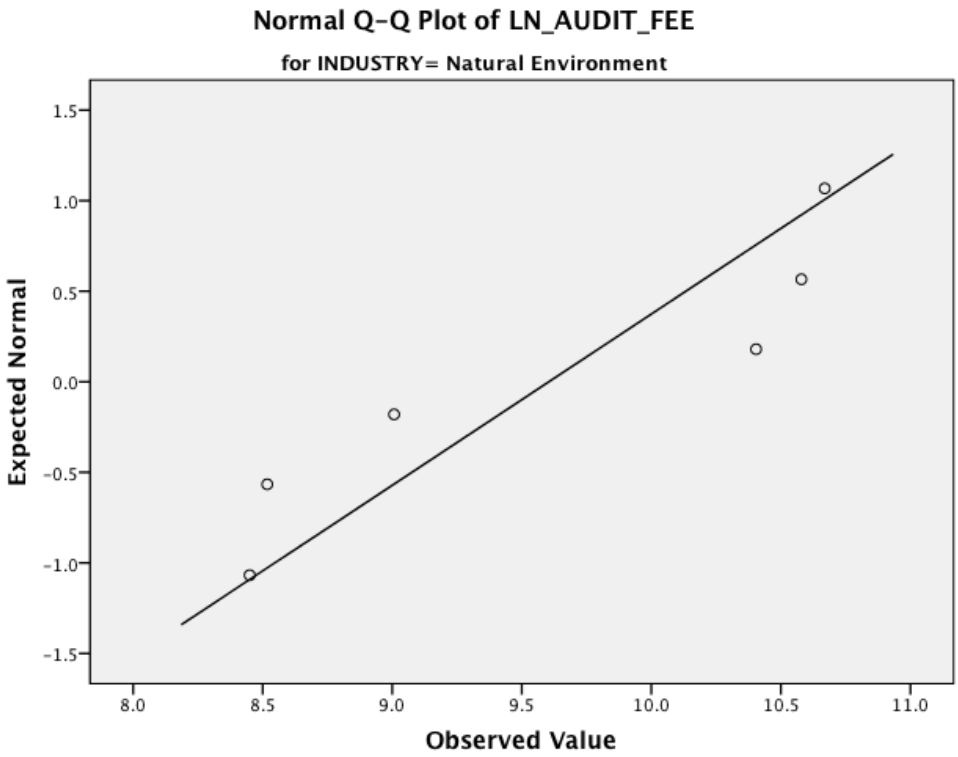

Figure 15: Standard Q-Q plot of INDUSTRY: Natural Environment

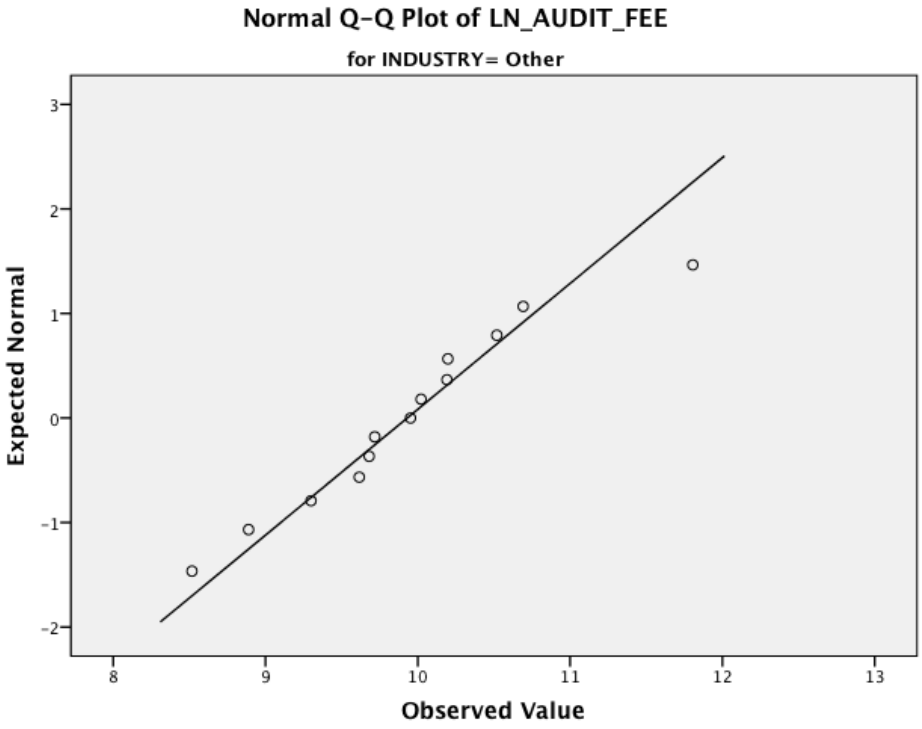

Figure 16: Standard Q-Q plot of INDUSTRY: Other

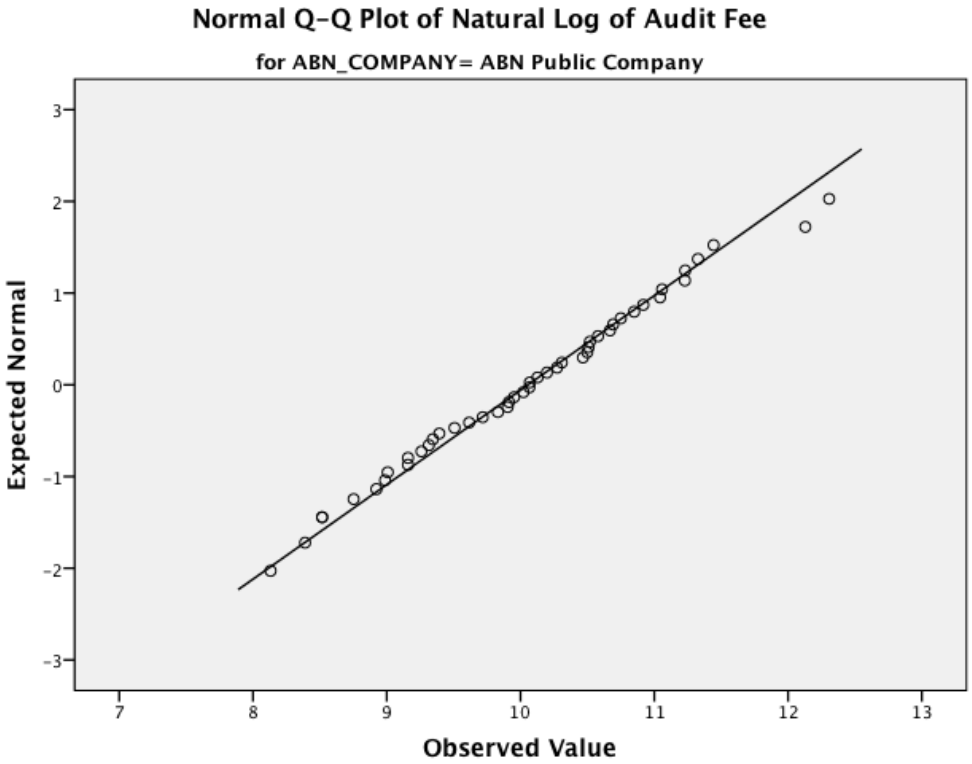

Figure 17: Standard Q-Q plot of ABNCOMPANY: ABN Public Company

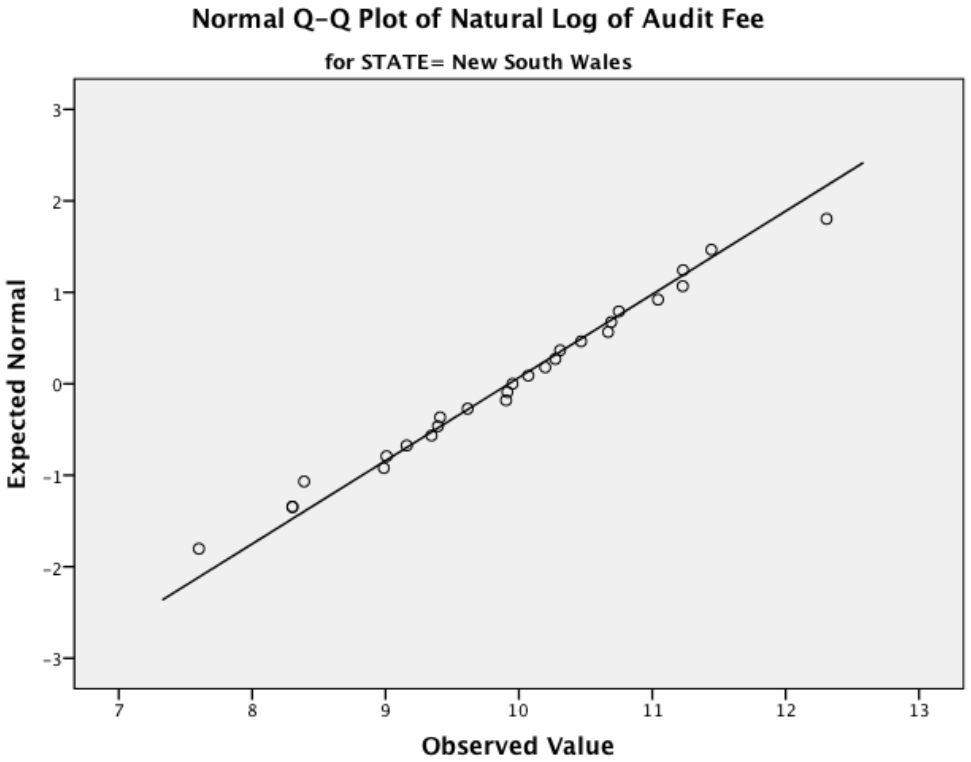

Figure 18: Standard Q-Q plot of STATE: New South Wales

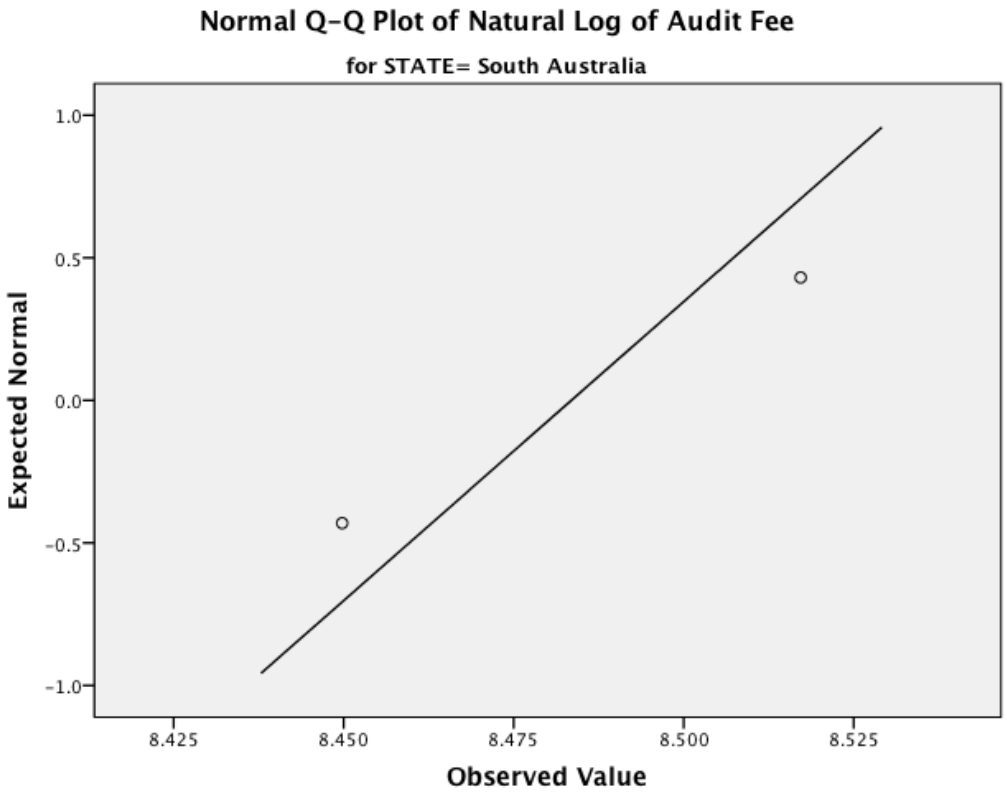

Figure 19: Standard Q-Q plot of STATE: South Australia

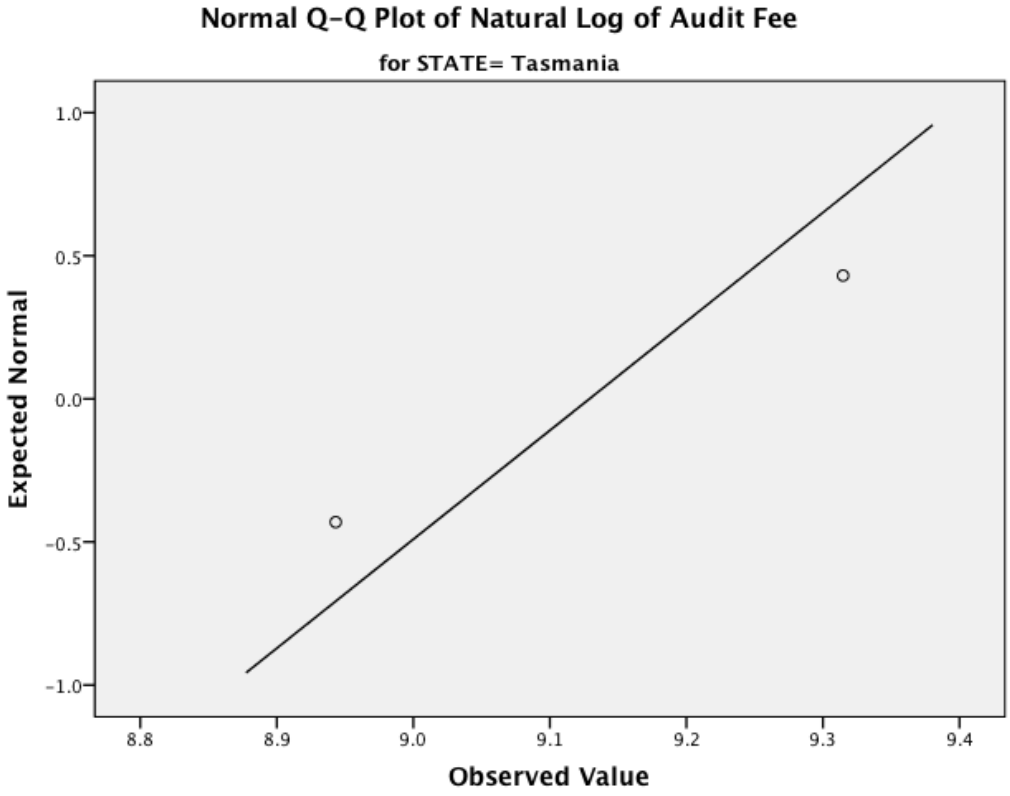

Figure 20: Standard Q-Q plot of STATE: Tasmania

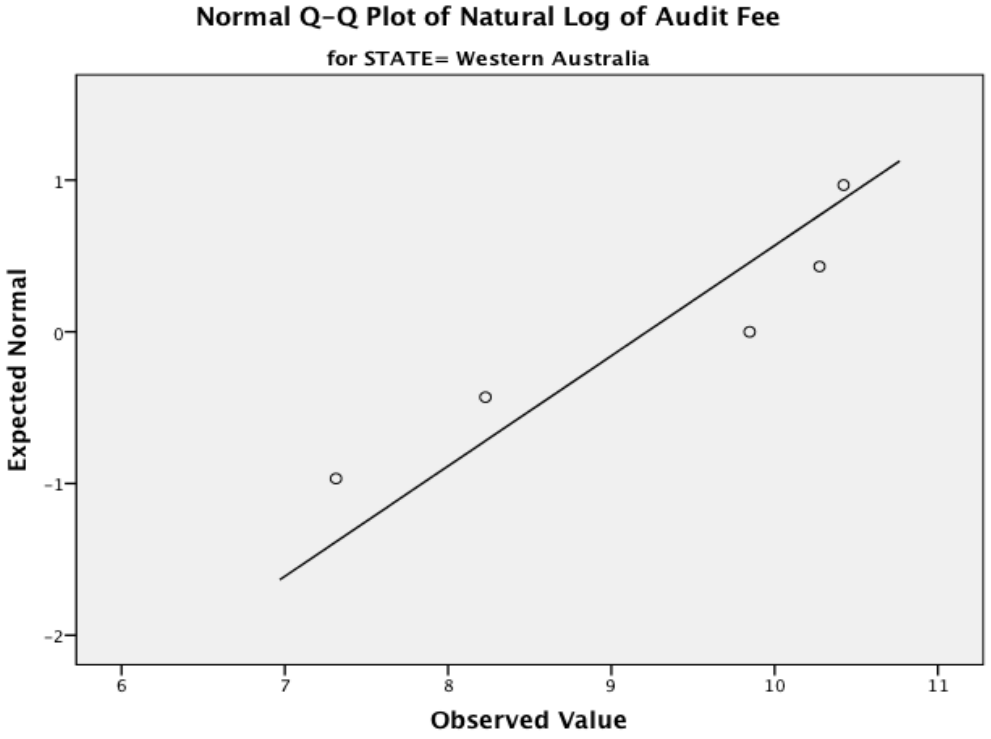

Figure 21: Standard Q-Q plot of STATE: Western Australia

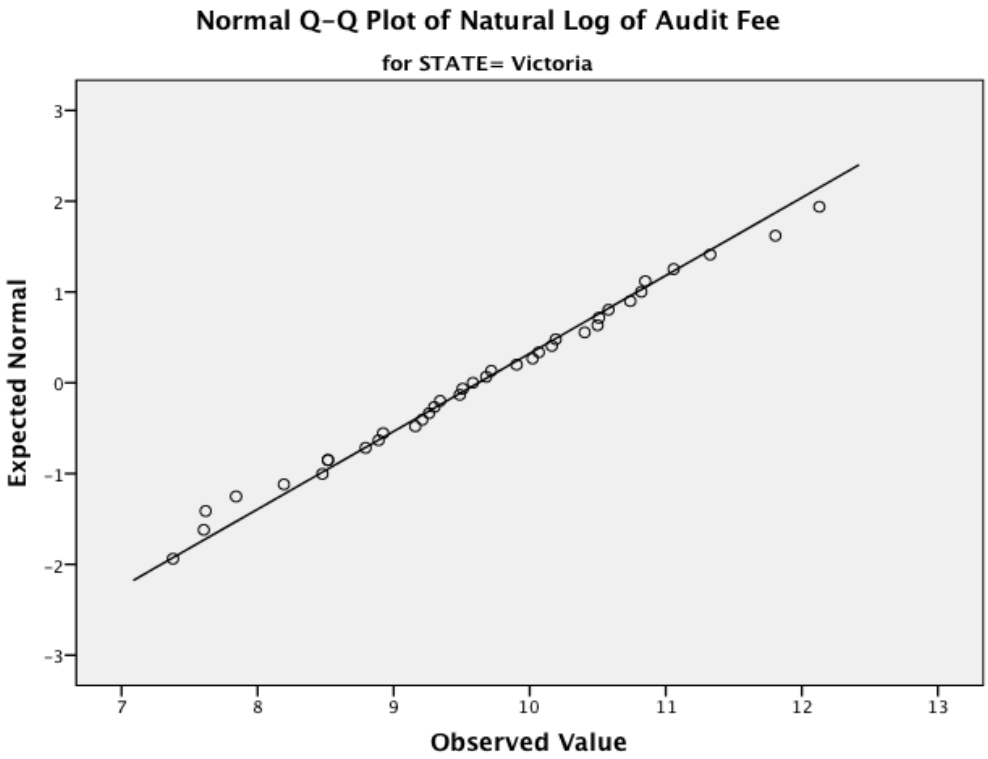

Figure 22: Standard Q-Q plot of STATE: Victoria

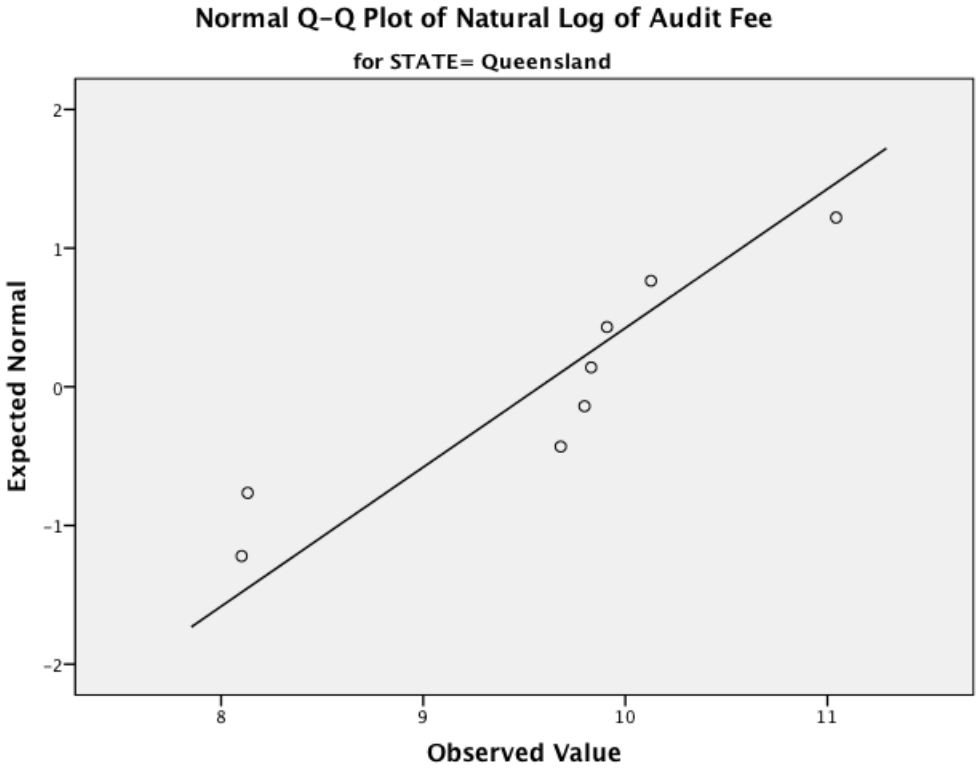

Figure 23: Standard Q-Q plot of STATE: Queensland

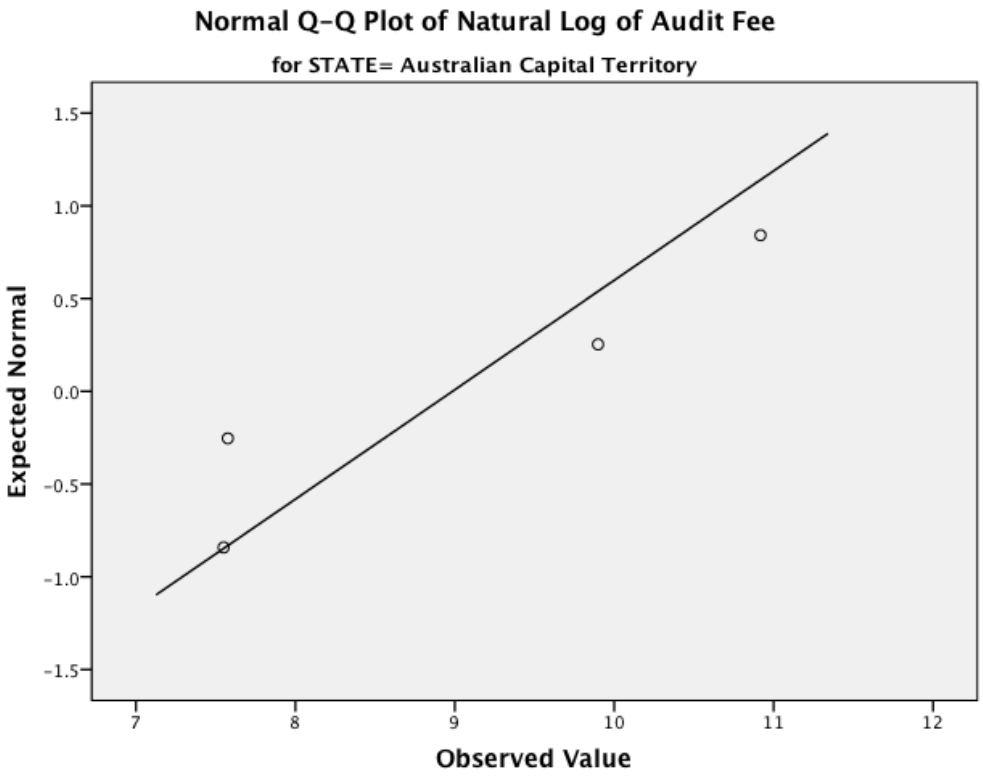

Figure 24: Standard Q-Q plot of STATE: Australian Capital Territory

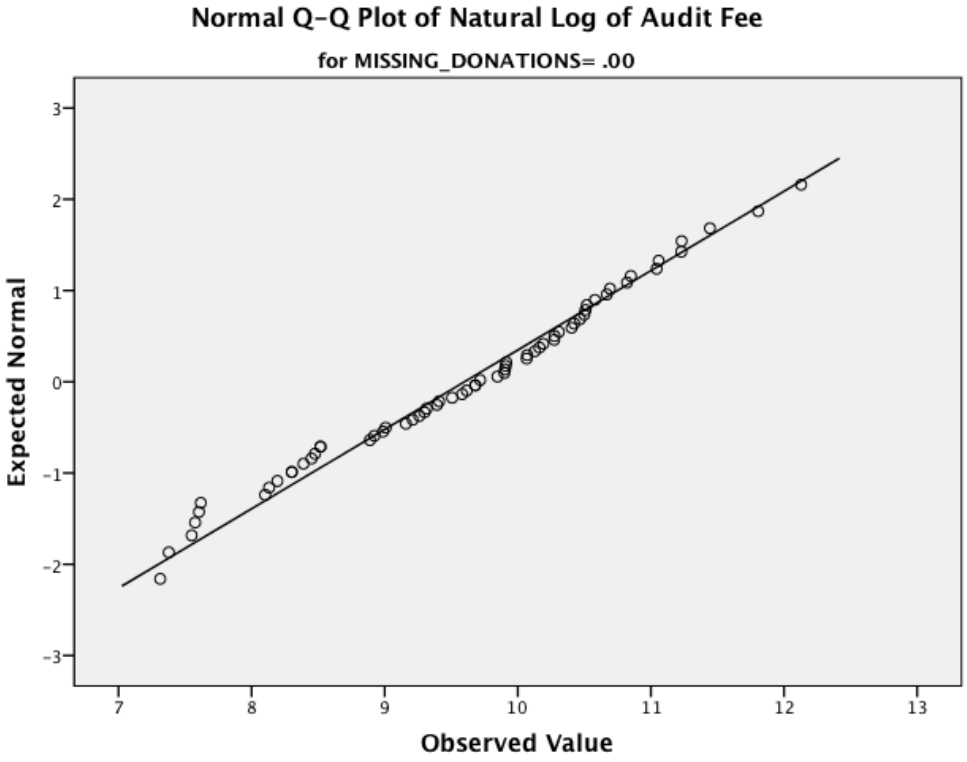

Figure 25: Standard Q-Q plot of DONATIONS: Donations Income

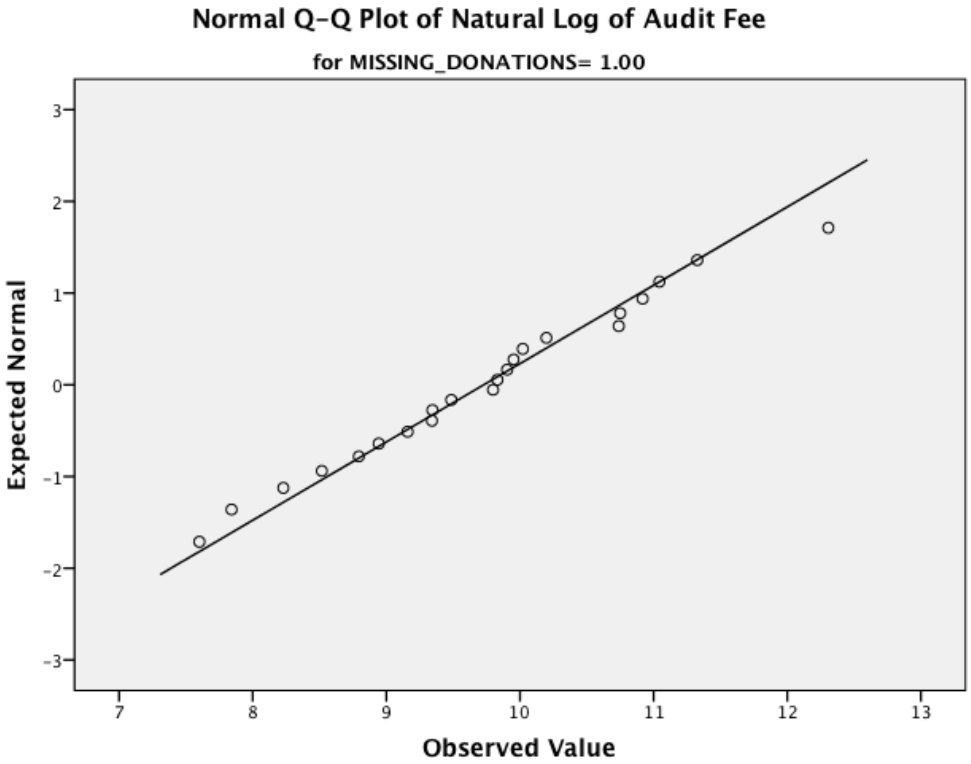

Figure 26: Standard Q-Q plot of DONATIONS: No Donations Income

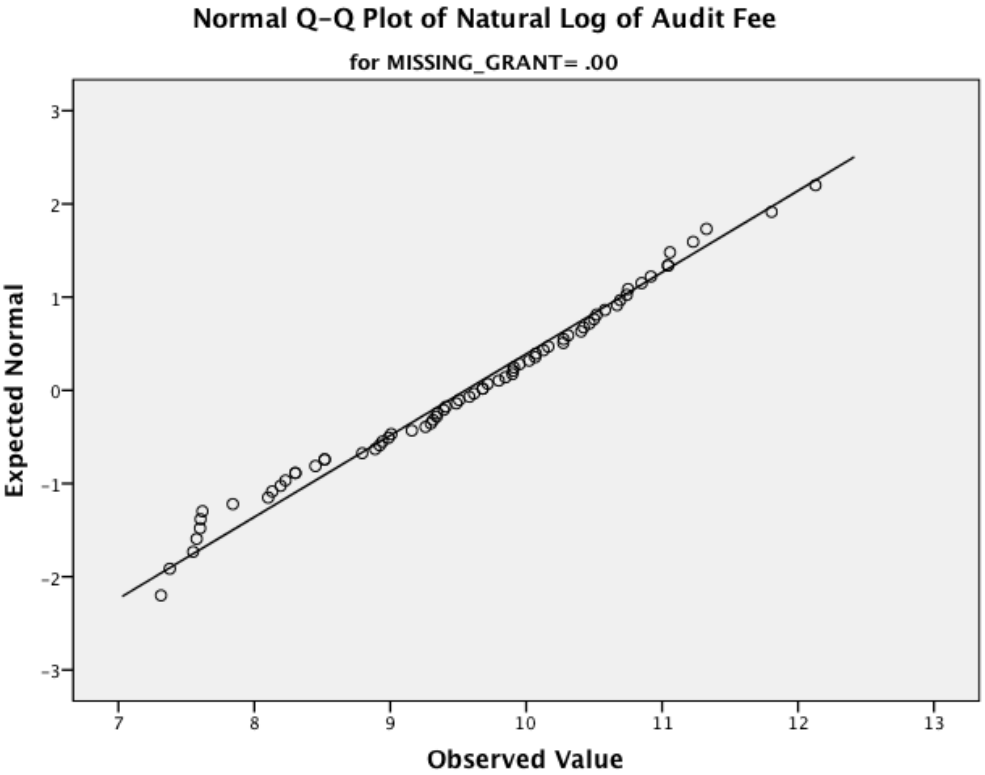

Figure 27: Standard Q-Q plot of GRANTS: Grants Income

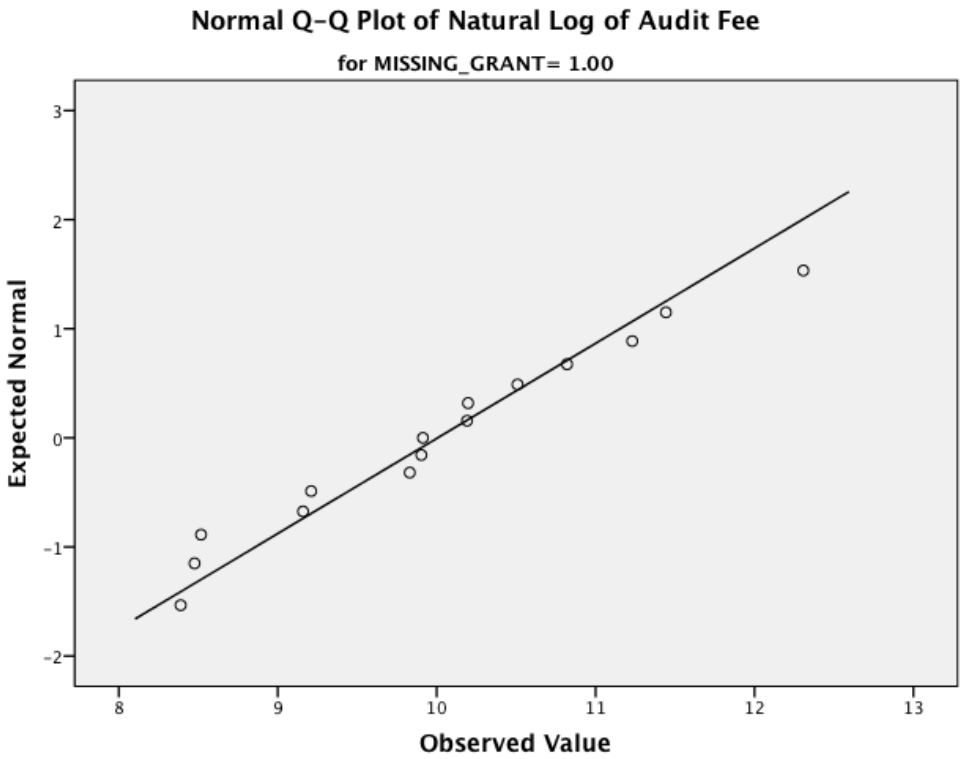

Figure 28: Standard Q-Q plot of GRANTS: No Grants Income

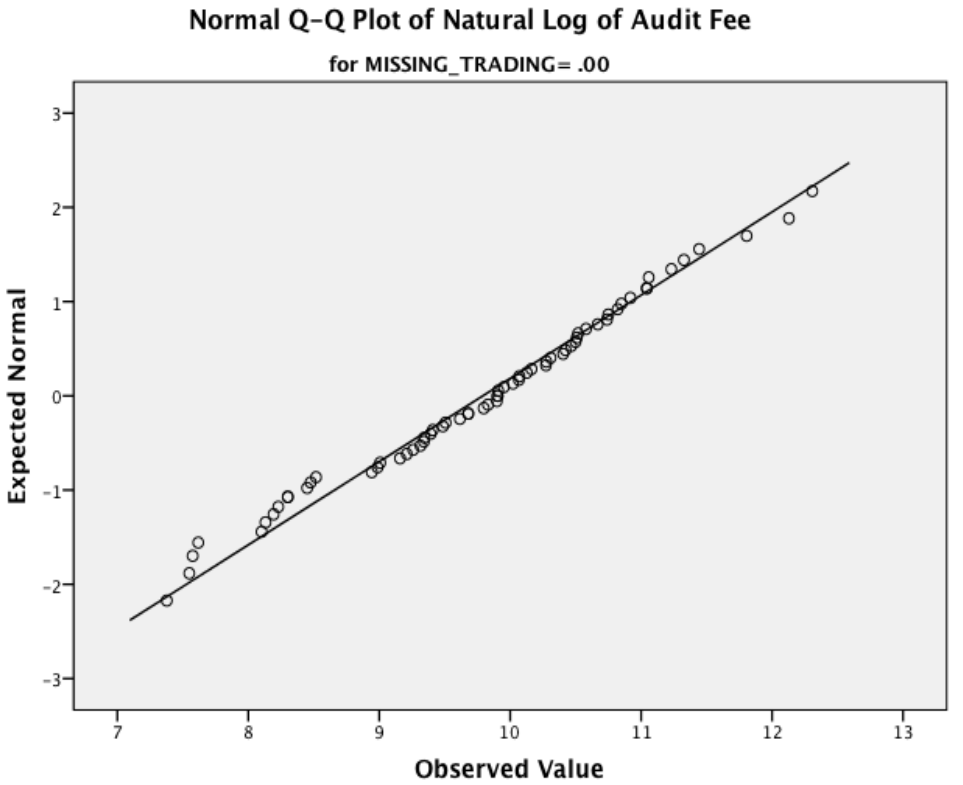

Figure 29: Standard Q-Q plot of TRADING: Trading Income

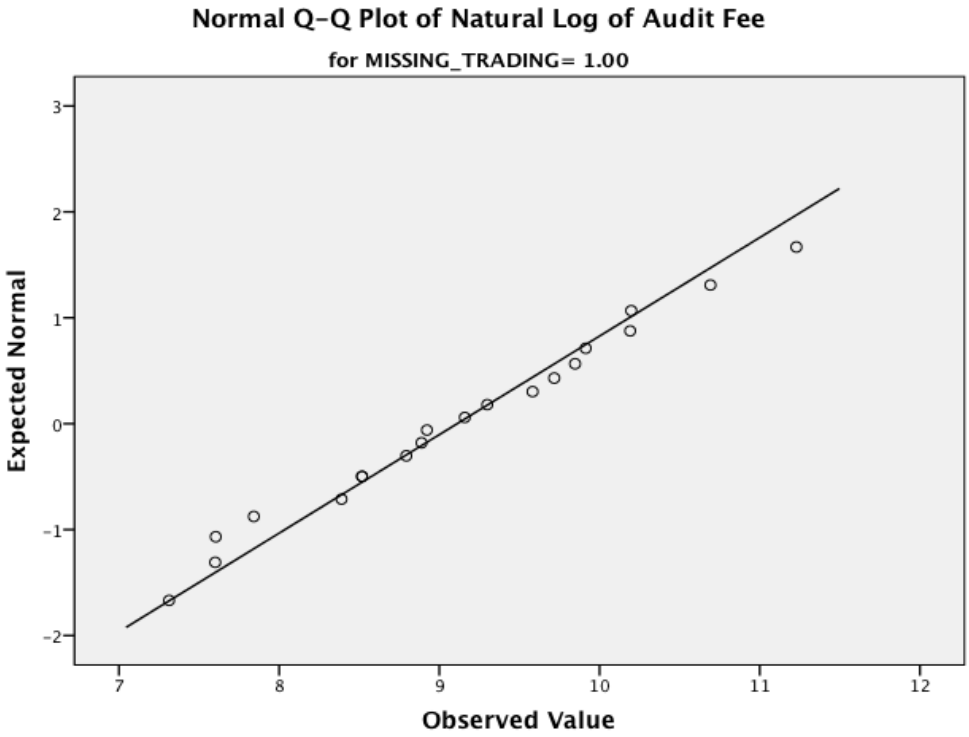

Figure 30: Standard Q-Q plot of TRADING: No Trading Income

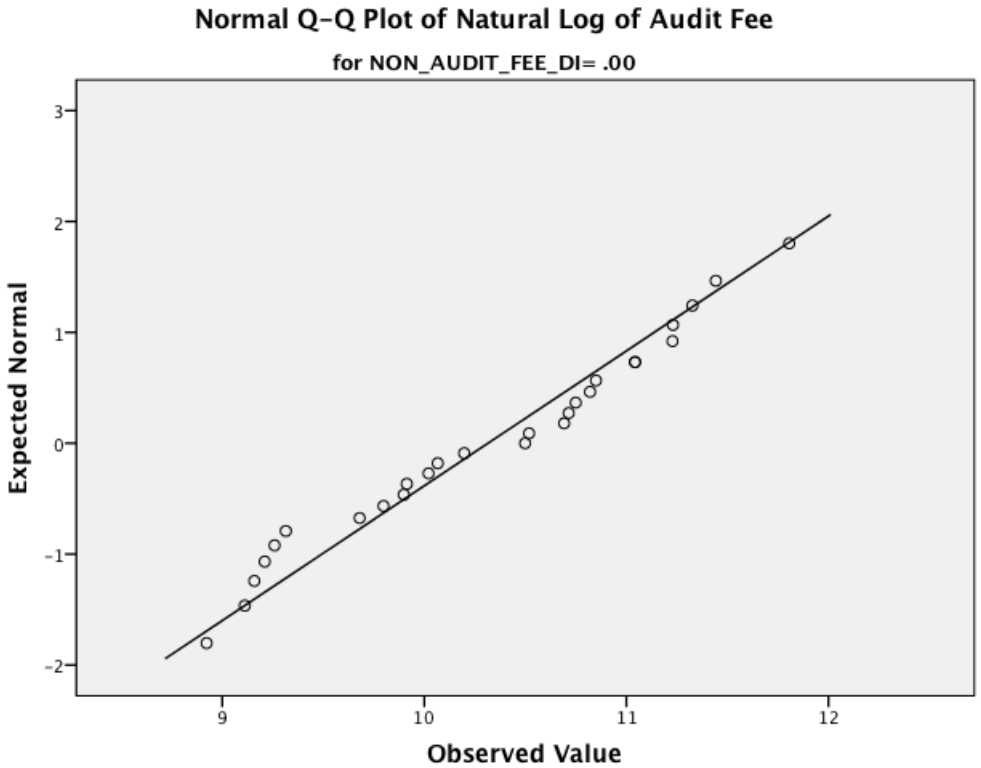

Figure 31: Standard Q-Q plot of NONAUDITFEE: Non-audit fee

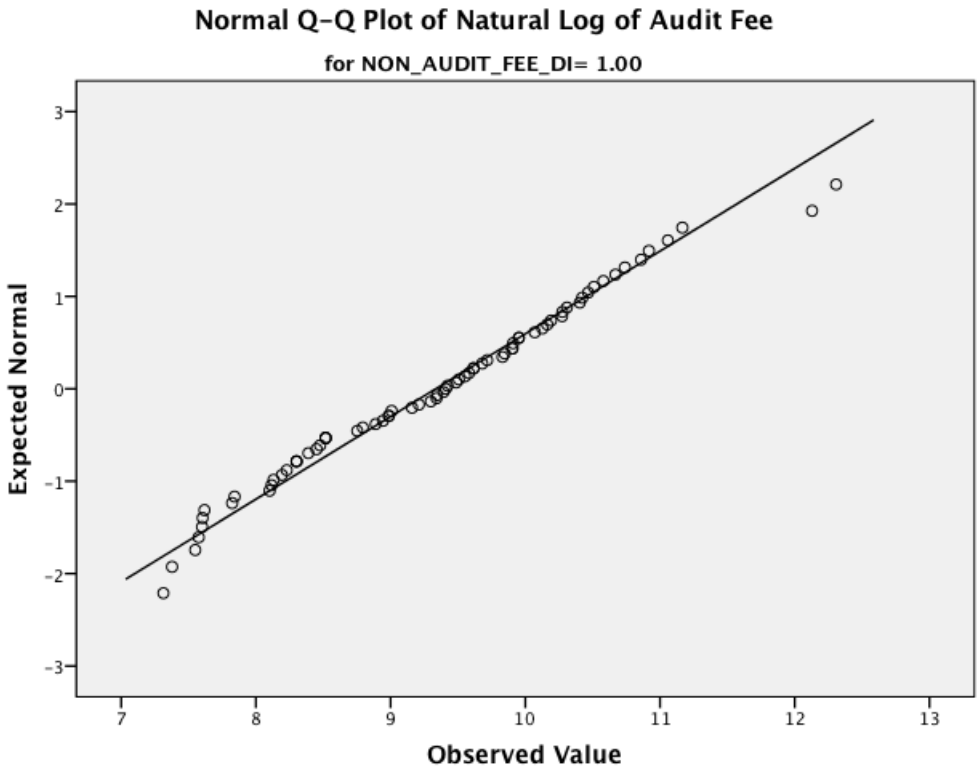

Figure 32: Standard Q-Q plot of NONAUDITFEE: No Non-audit fee

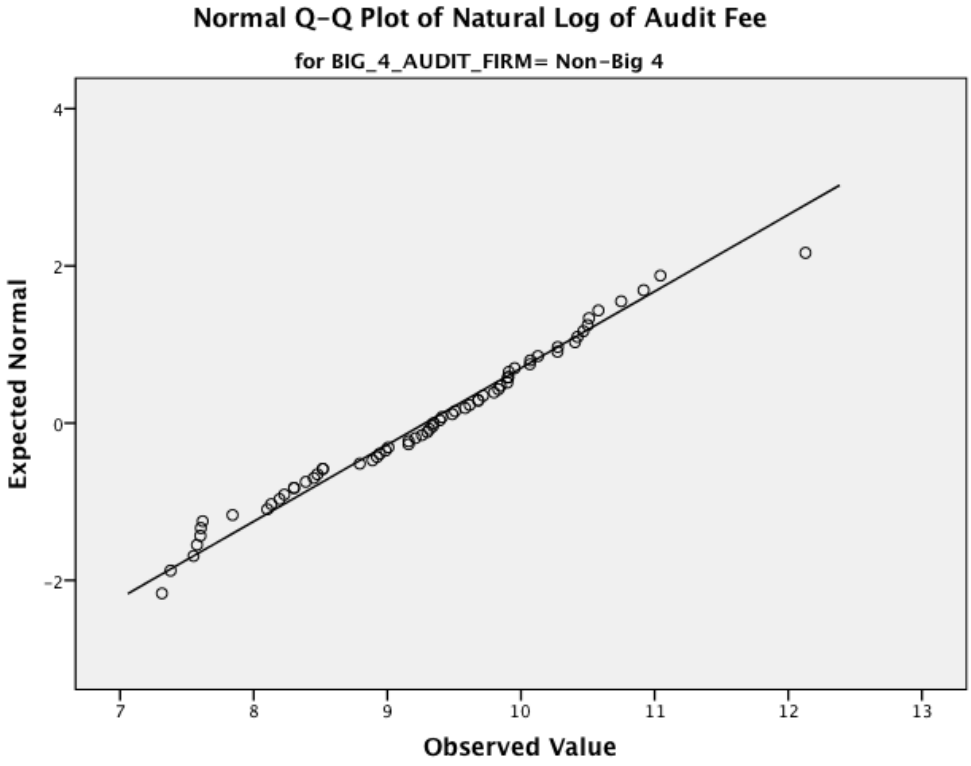

Figure 33: Standard Q-Q plot of BIG FOUR: Non Big Four auditor

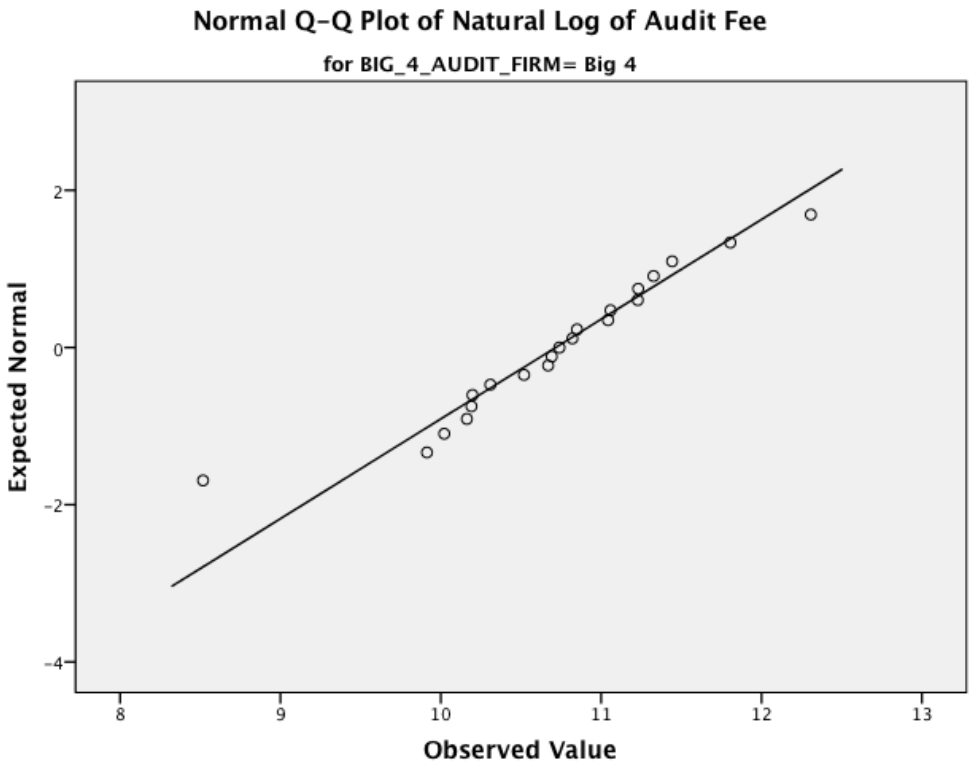

Figure 34: Standard Q-Q plot of BIG FOUR: Big Four auditor

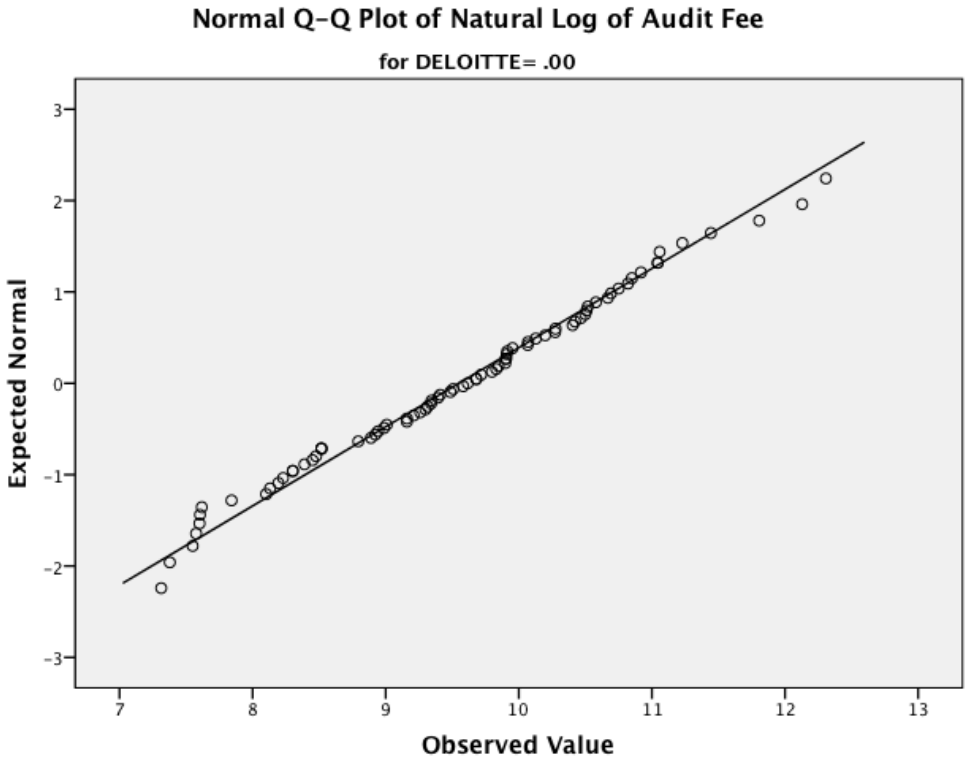

Figure 35: Standard Q-Q plot of DELOITTE: Not Deloitte

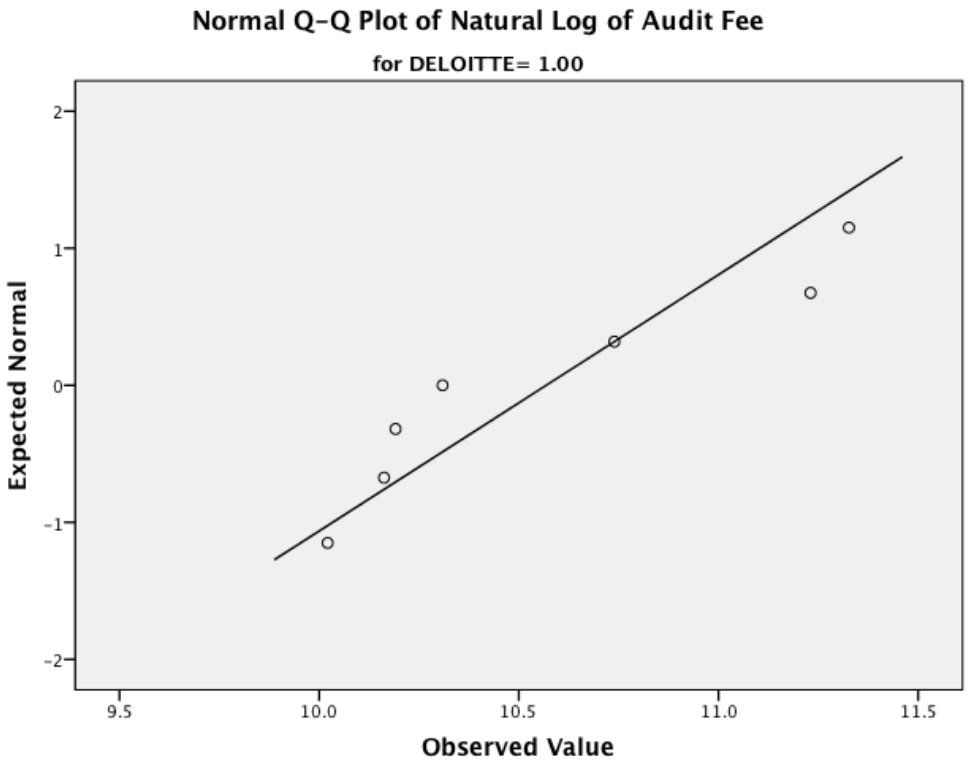

Figure 36: Standard Q-Q plot of DELOITTE: Deloitte

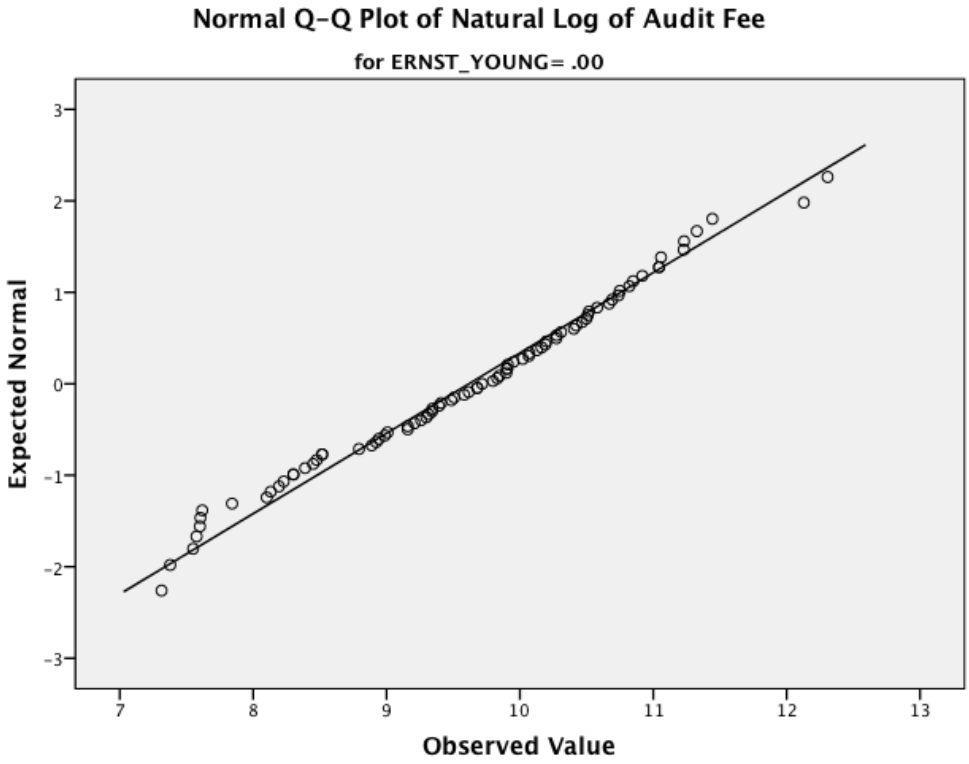

Figure 37: Standard Q-Q plot of ERNST&YOUNG: Not Ernst & Young

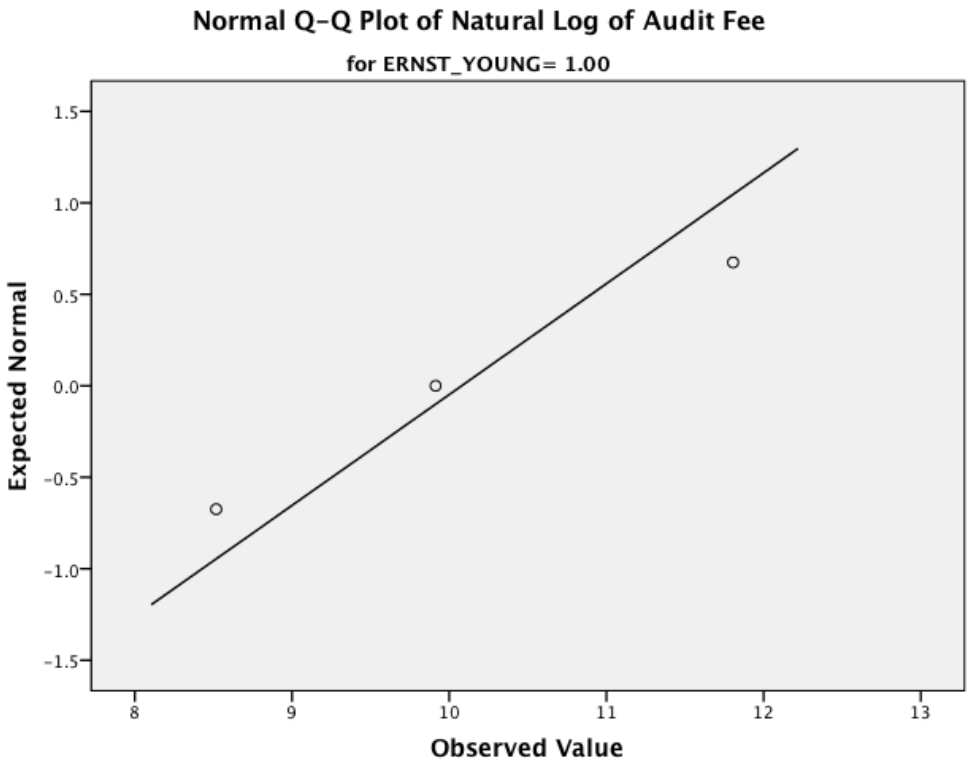

Figure 38: Standard Q-Q plot of ERNST&YOUNG: Ernst & Young

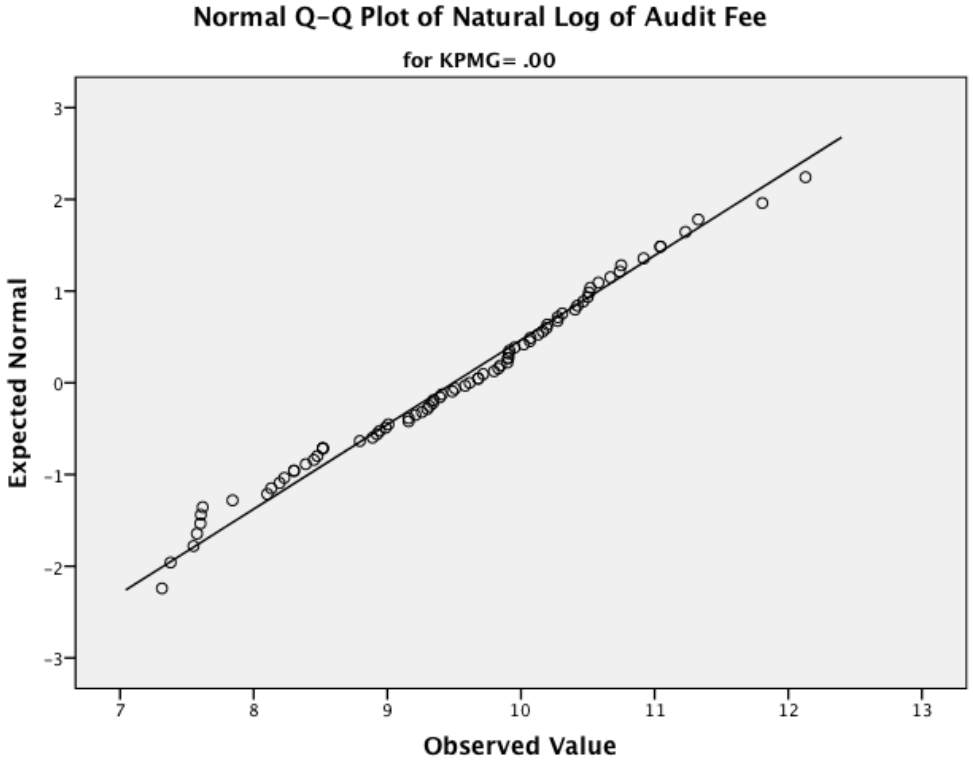

Figure 39: Standard Q-Q plot of KPMG: Not KPMG

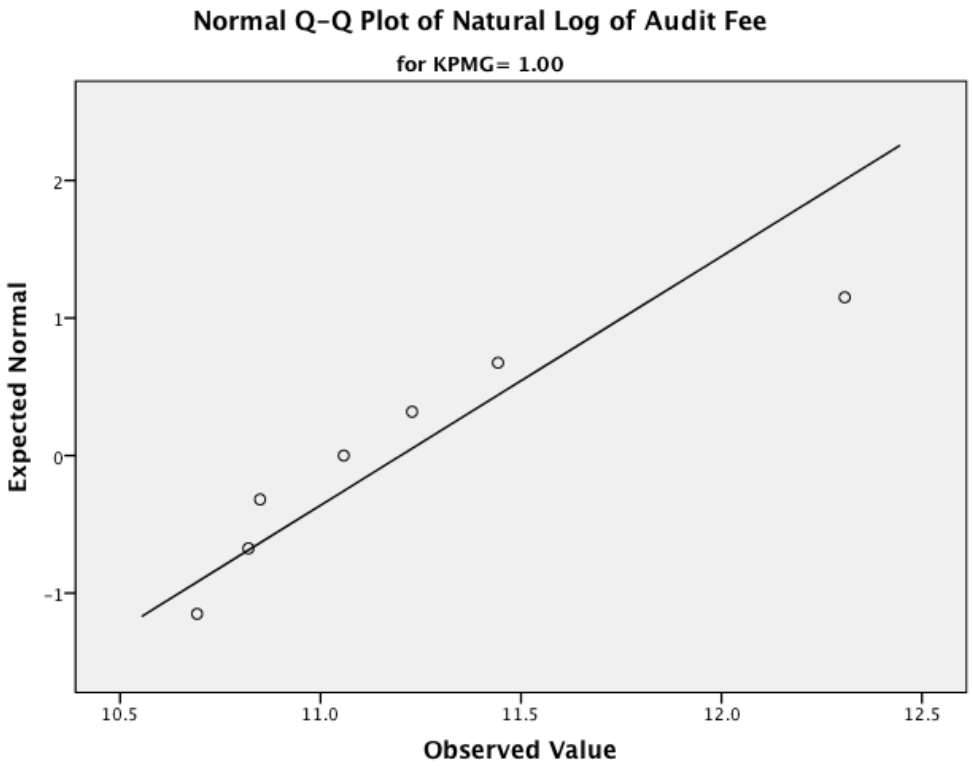

Figure 40: Standard Q-Q plot of KPMG: KPMG

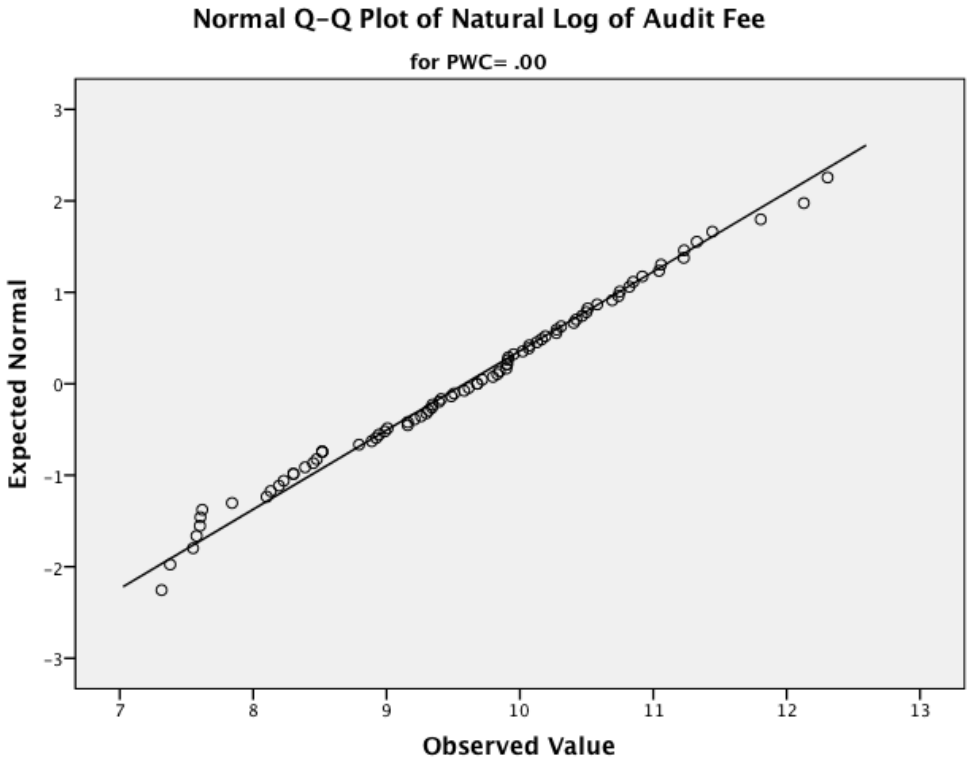

Figure 41: Standard Q-Q plot of PWC: Not PWC

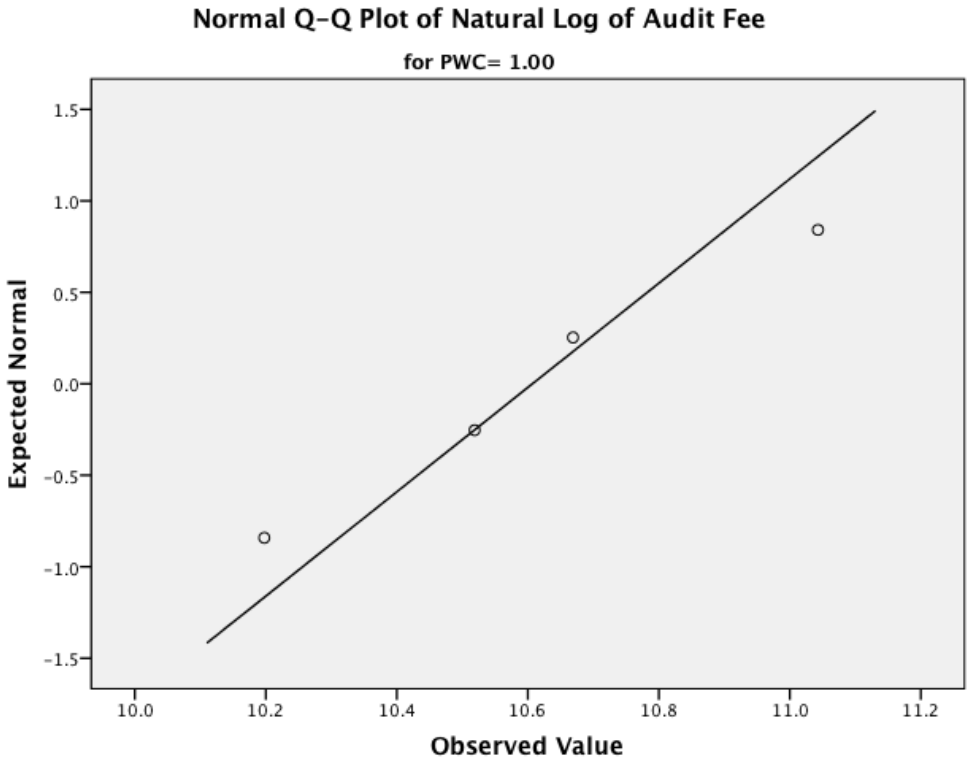

Figure 42: Standard Q-Q plot of PWC: PWC

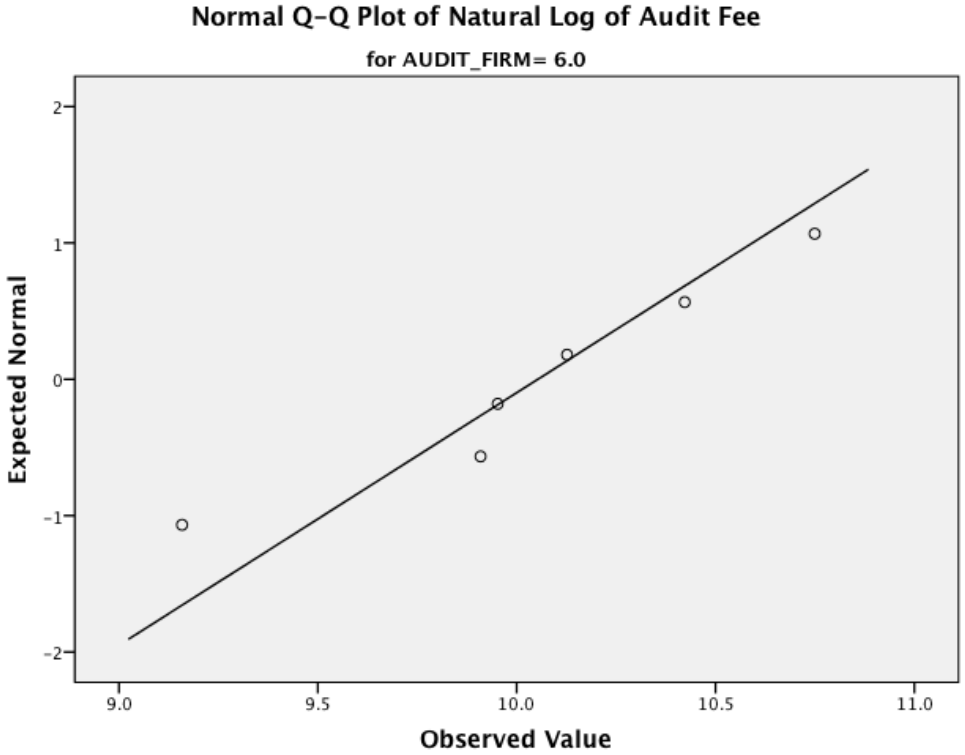

Figure 43: Standard Q-Q plot of AUDITFIRM = 6

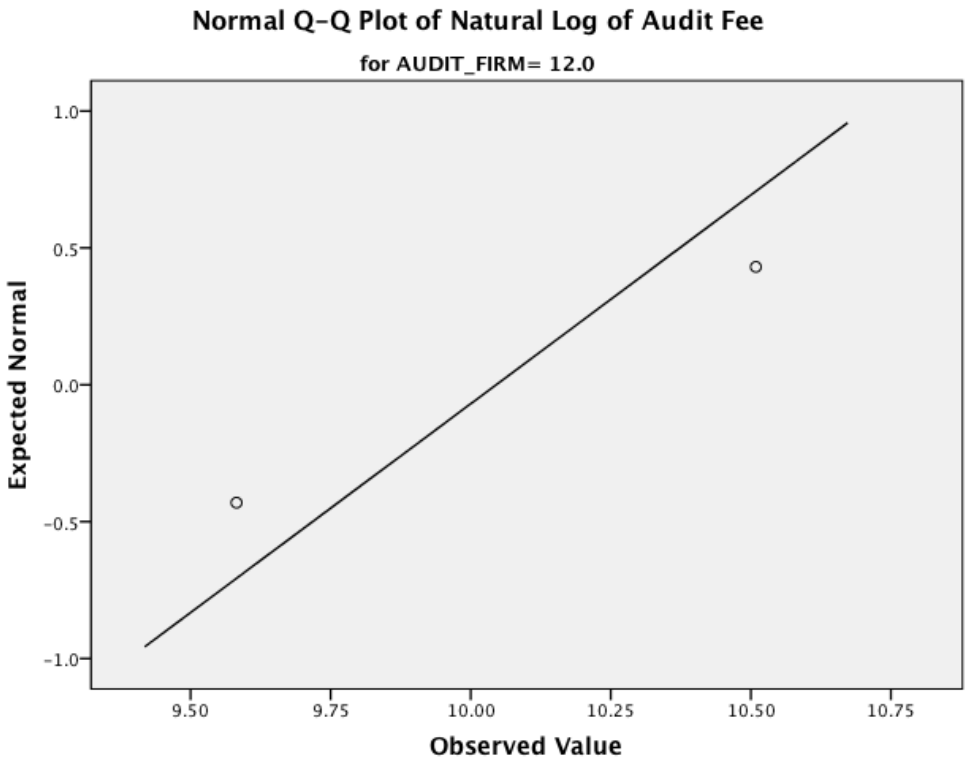

Figure 44: Standard Q-Q plot of AUDITFIRM = 12

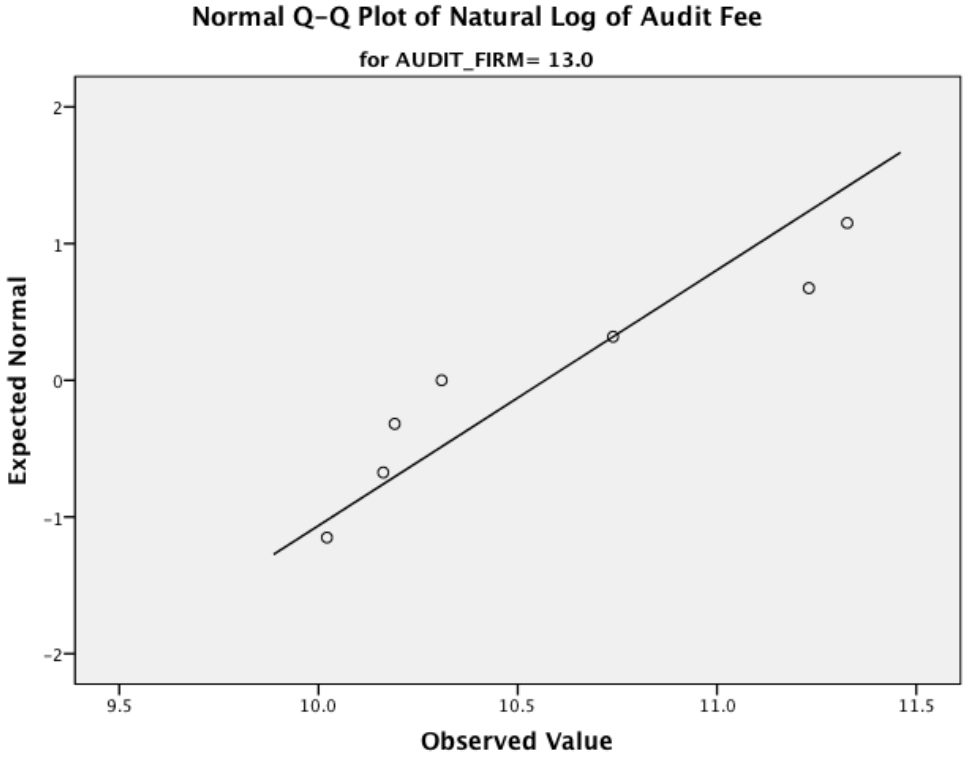

Figure 45: Standard Q-Q plot of AUDITFIRM = 13

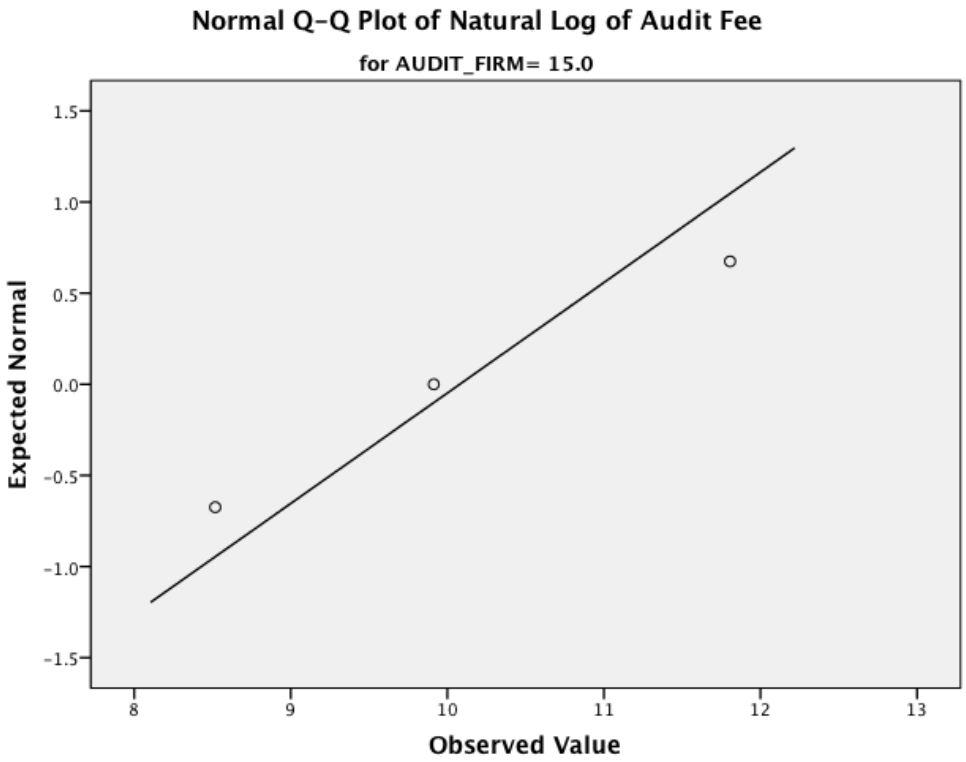

Figure 46: Standard Q-Q plot of AUDITFIRM = 15

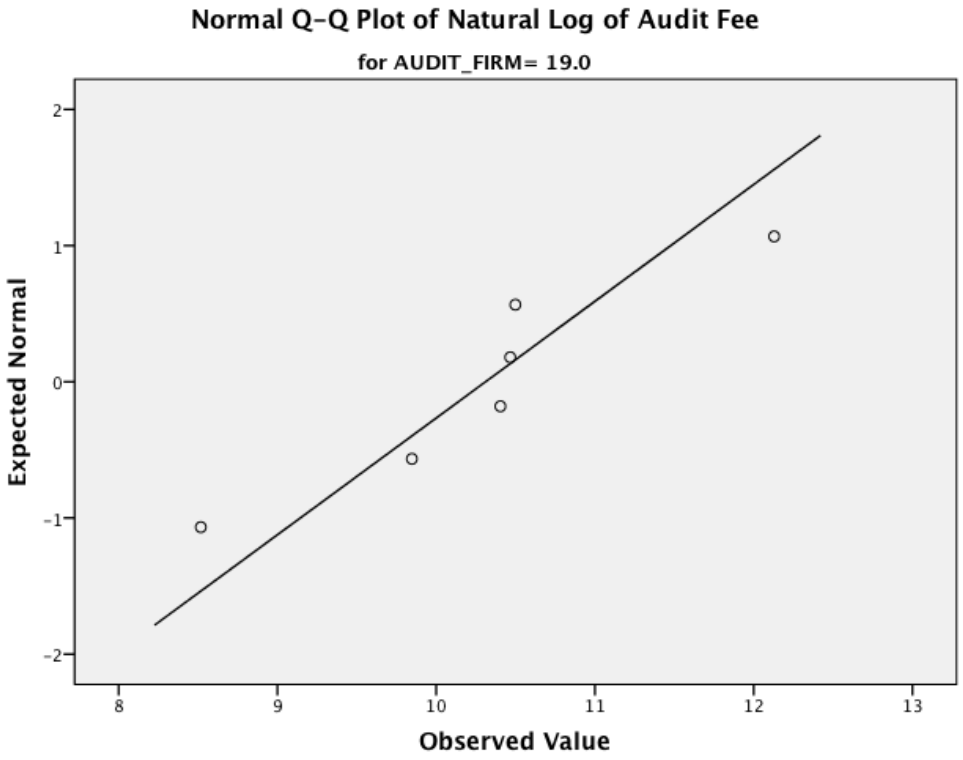

Figure 47: Standard Q-Q plot of AUDITFIRM = 19

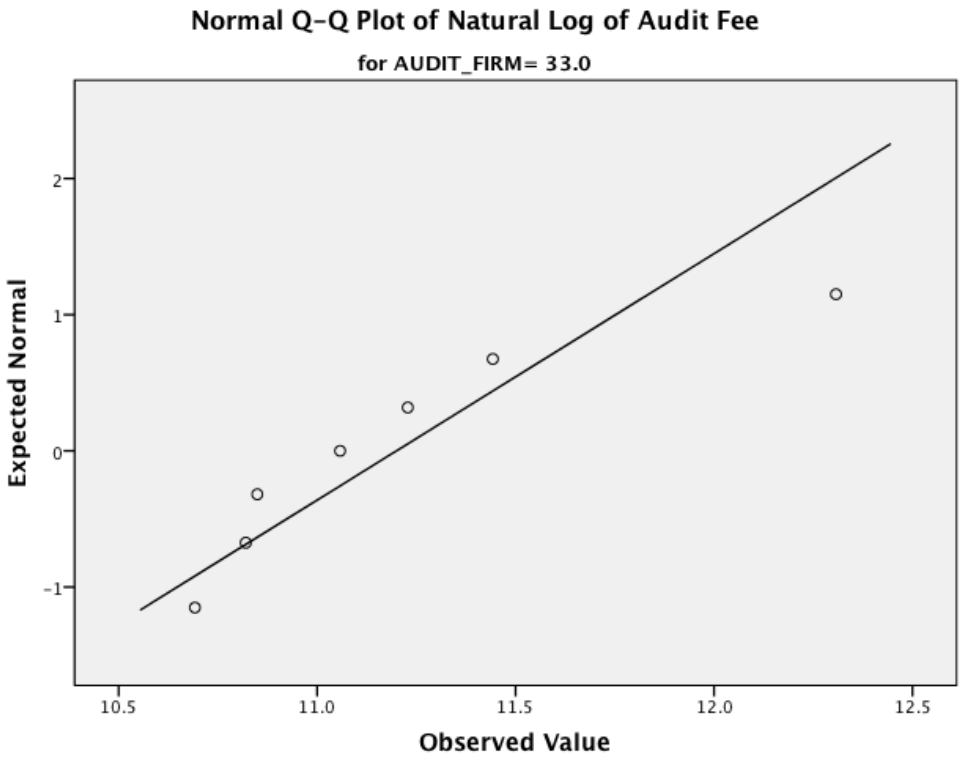

Figure 48: Standard Q-Q plot of AUDITFIRM = 33

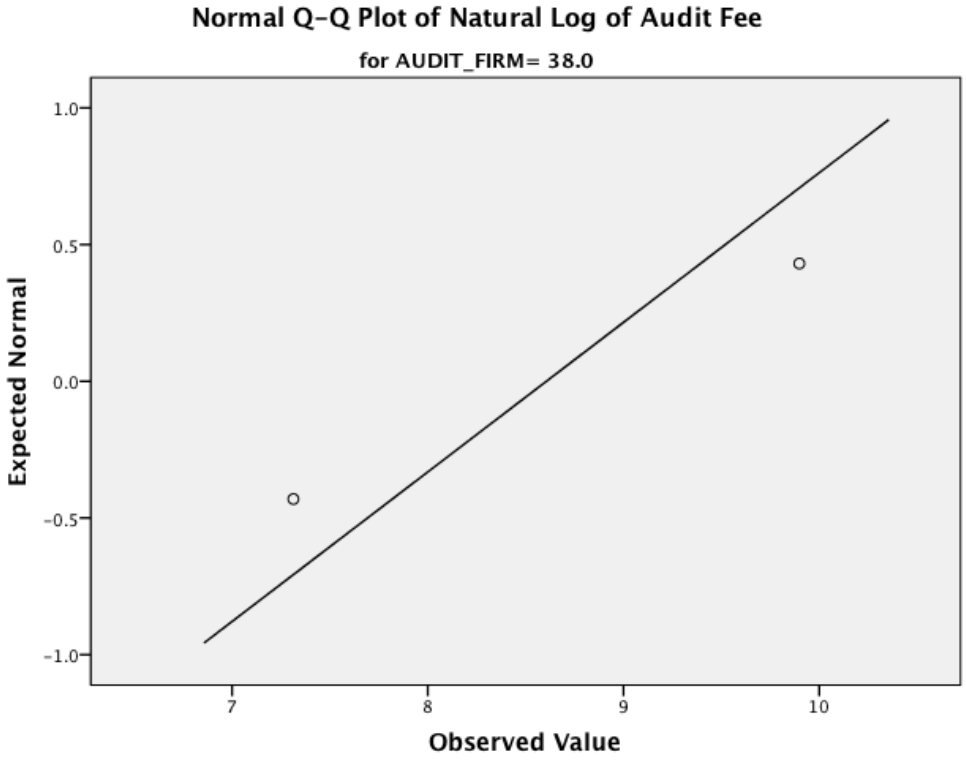

Figure 49: Standard Q-Q plot of AUDITFIRM = 38

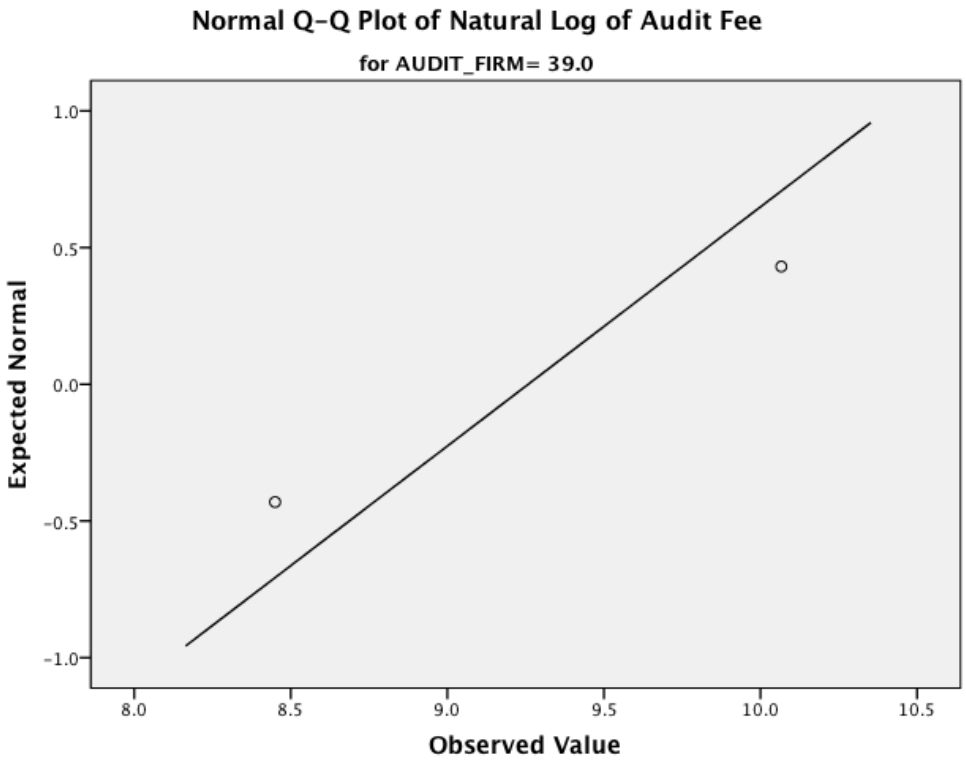

Figure 50: Standard Q-Q plot of AUDITFIRM = 39

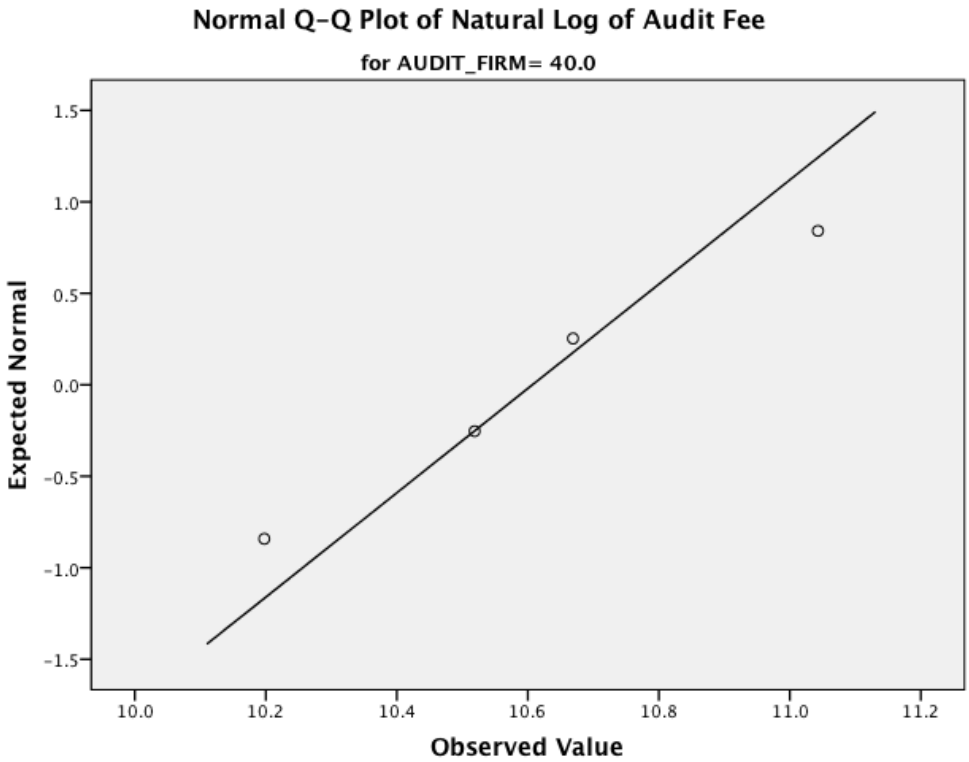

Figure 51: Standard Q-Q plot of AUDITFIRM = 40

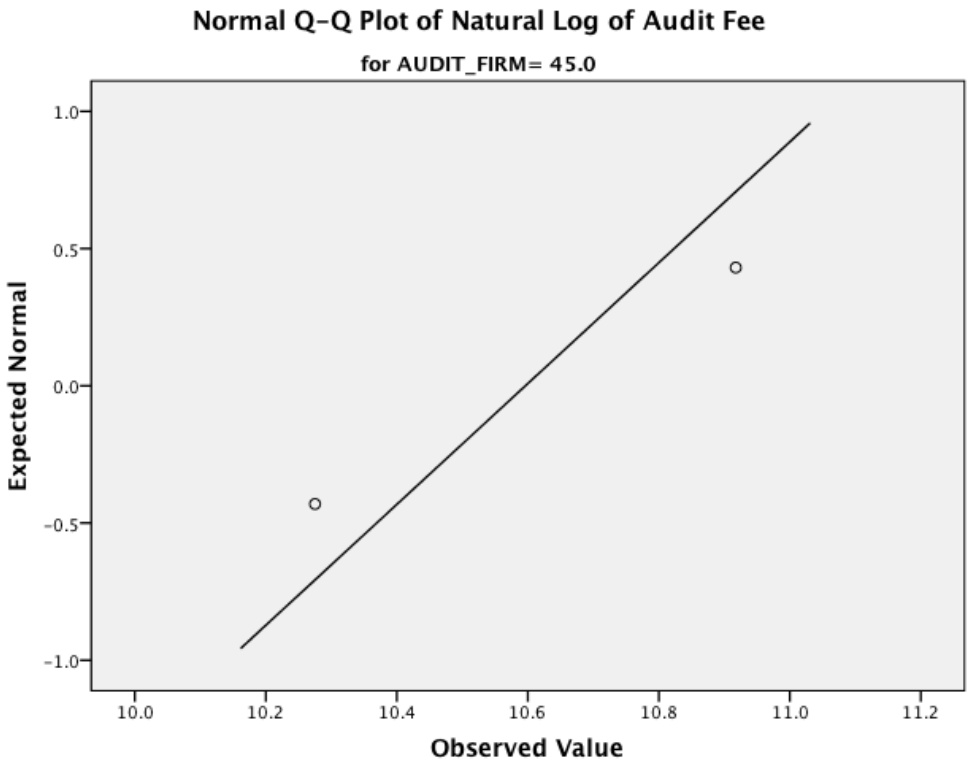

Figure 52: Standard Q-Q plot of AUDITFIRM = 45

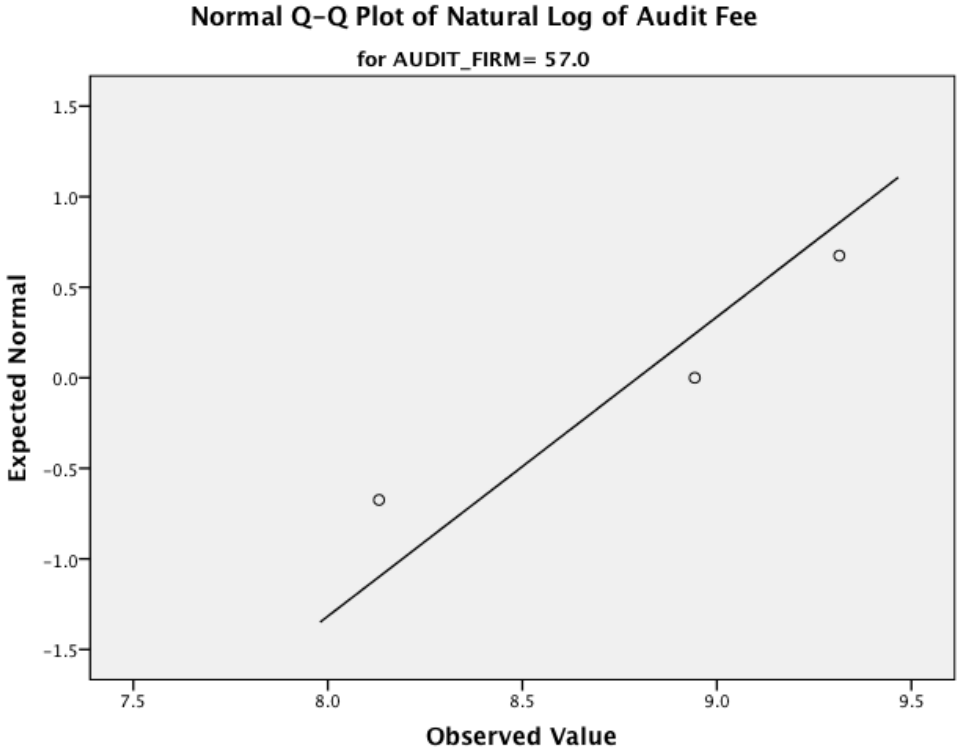

Figure 53: Standard Q-Q plot of AUDITFIRM = 57

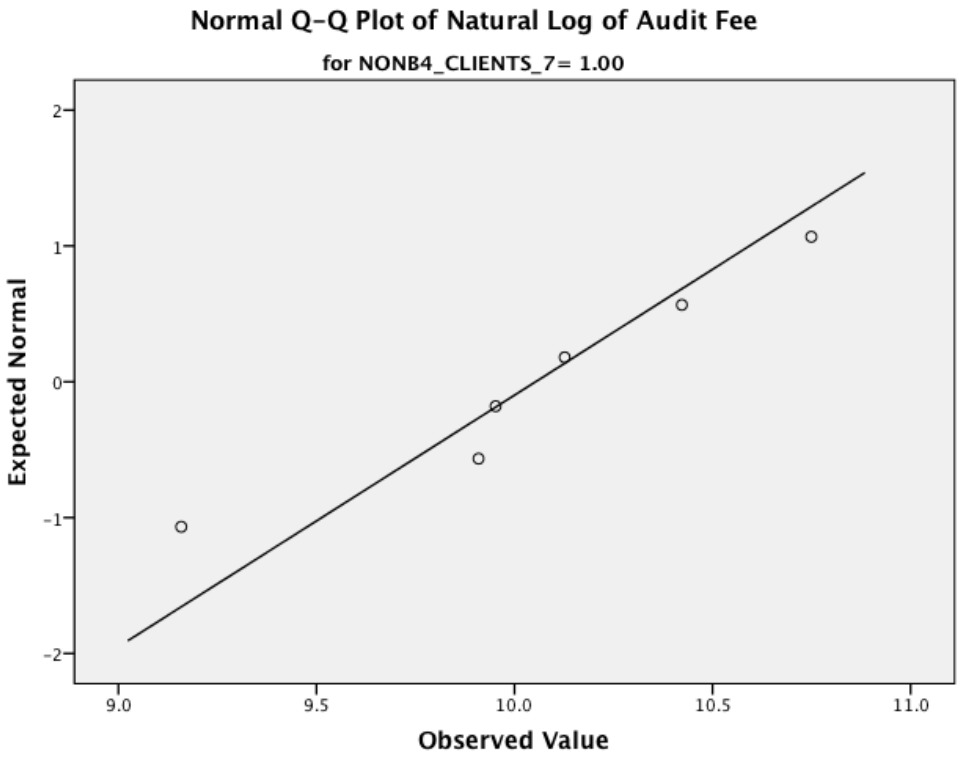

Figure 54: Standard Q-Q plot of NONB4CLIENTSS7: Seven Clients

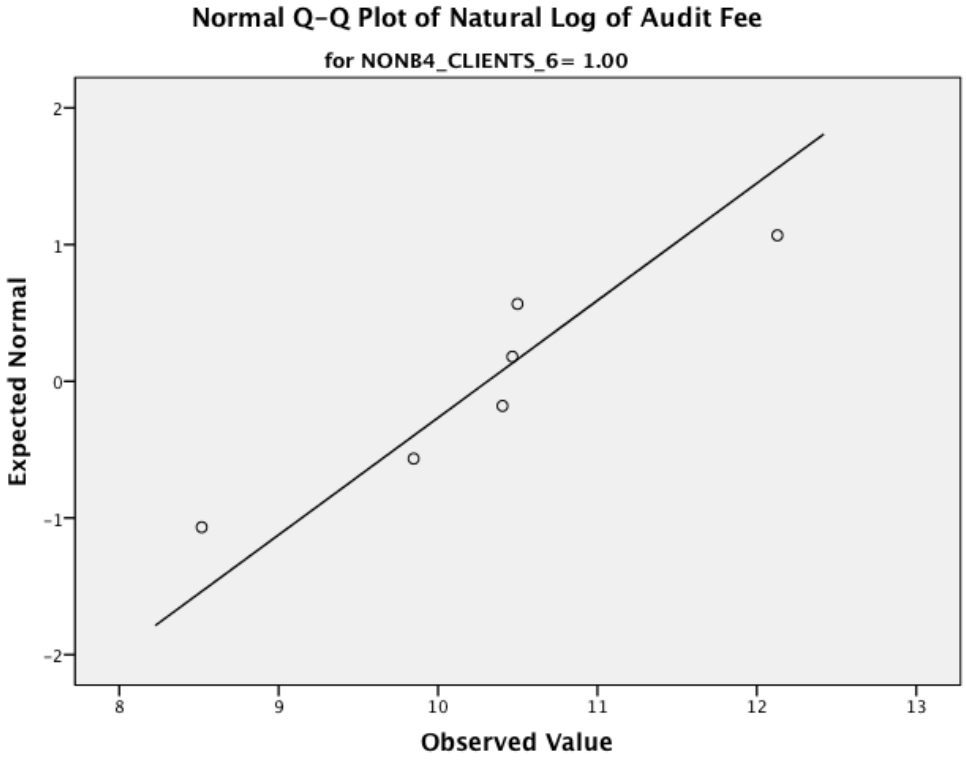

Figure 55: Standard Q-Q plot of NONB4CLIENTSS6: Six Clients

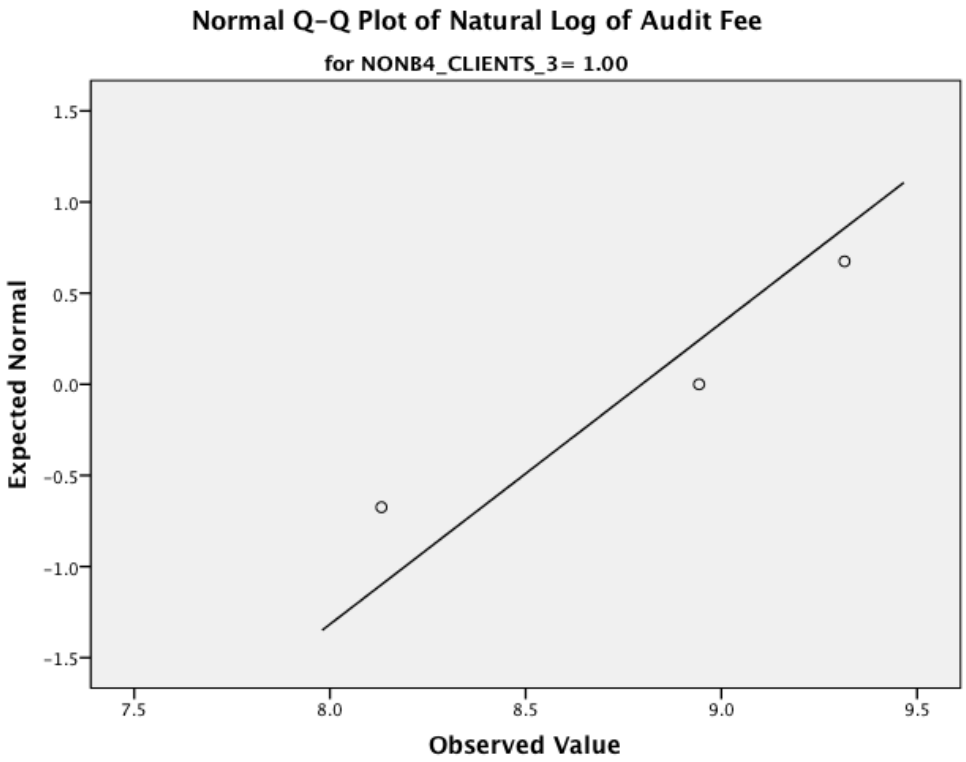

Figure 56: Standard Q-Q plot of NONB4CLIENTSS3: Three Clients

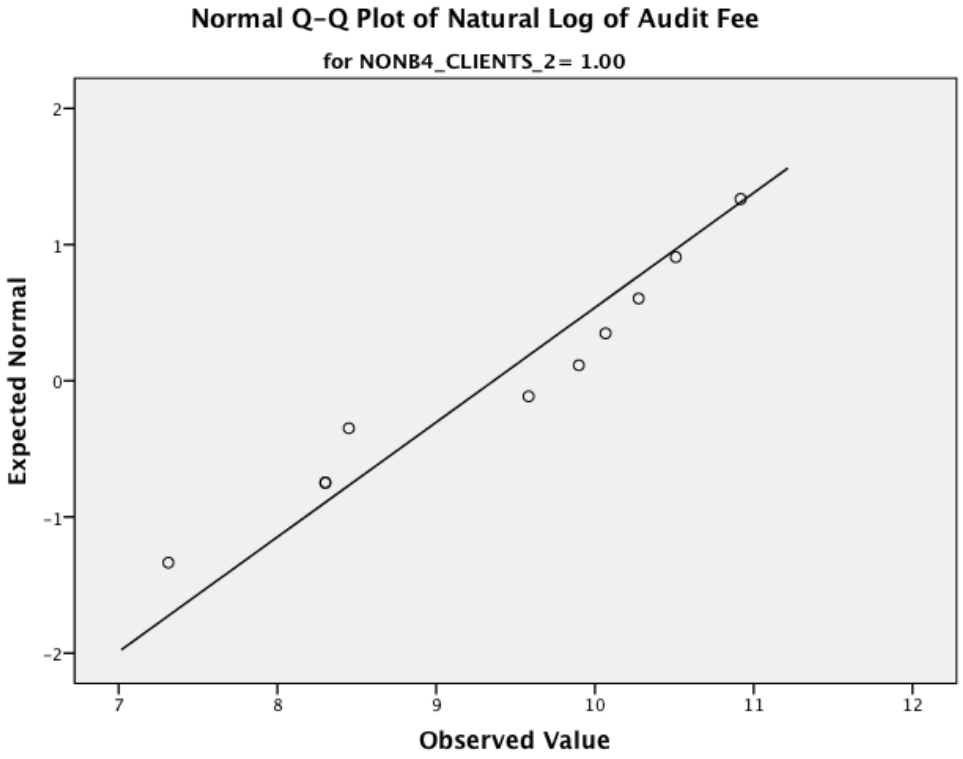

Figure 57: Standard Q-Q plot of NONB4CLIENTSS2: Two Clients

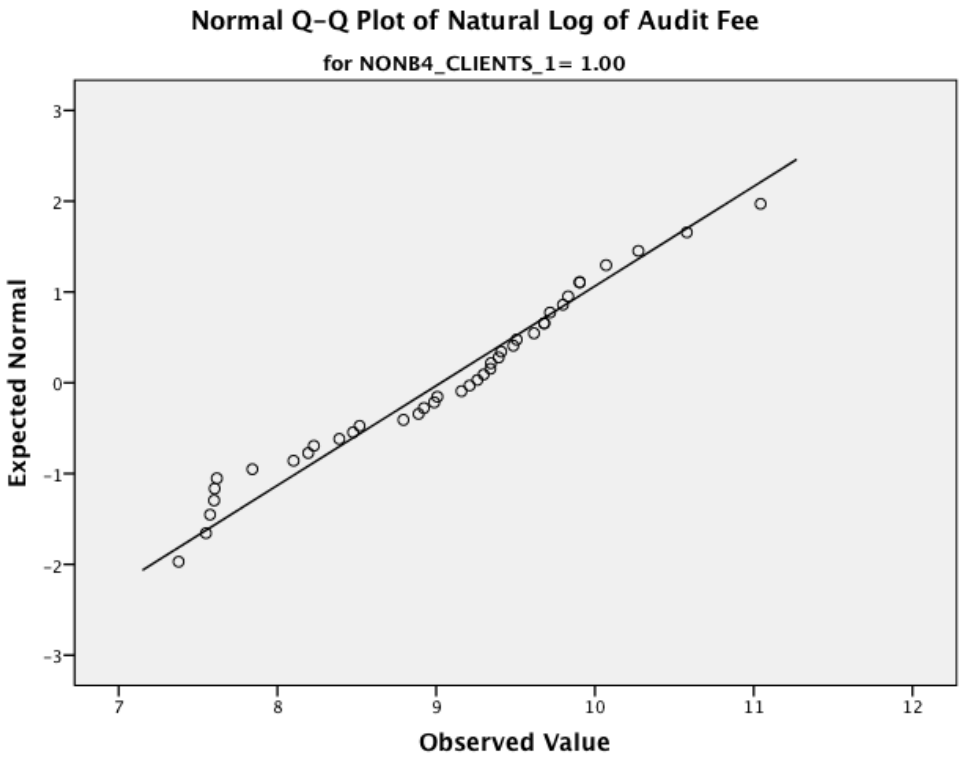

Figure 58: Standard Q-Q plot of NONB4CLIENTSS1: One Client

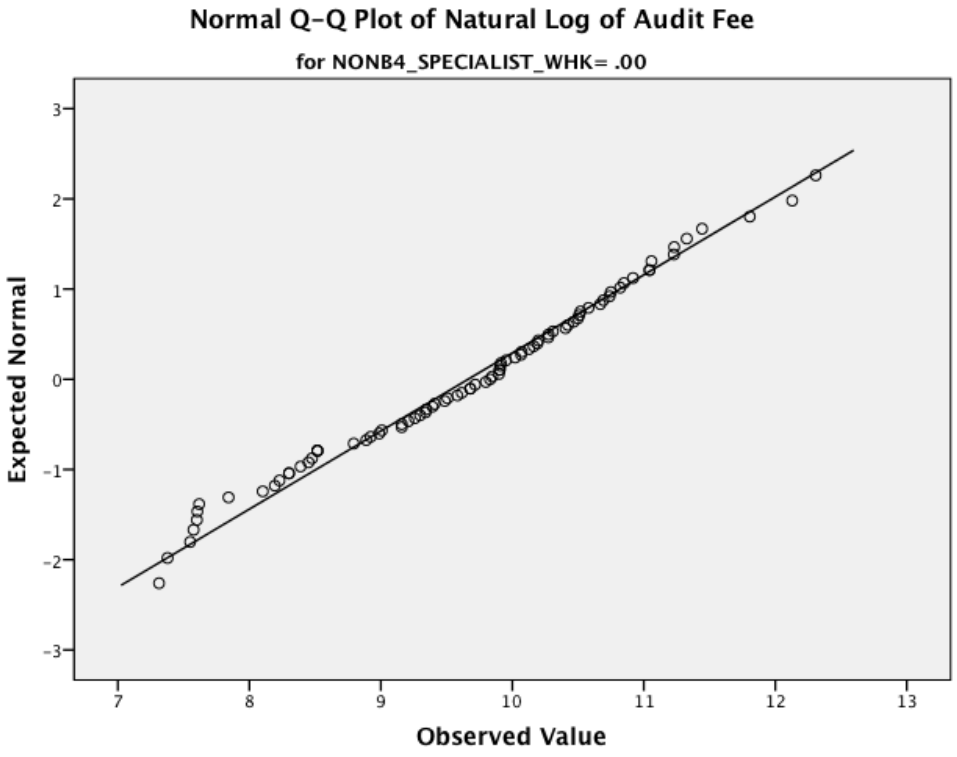

Figure 59: Standard Q-Q plot of NONB4WHKNG: Not WHK Auditor

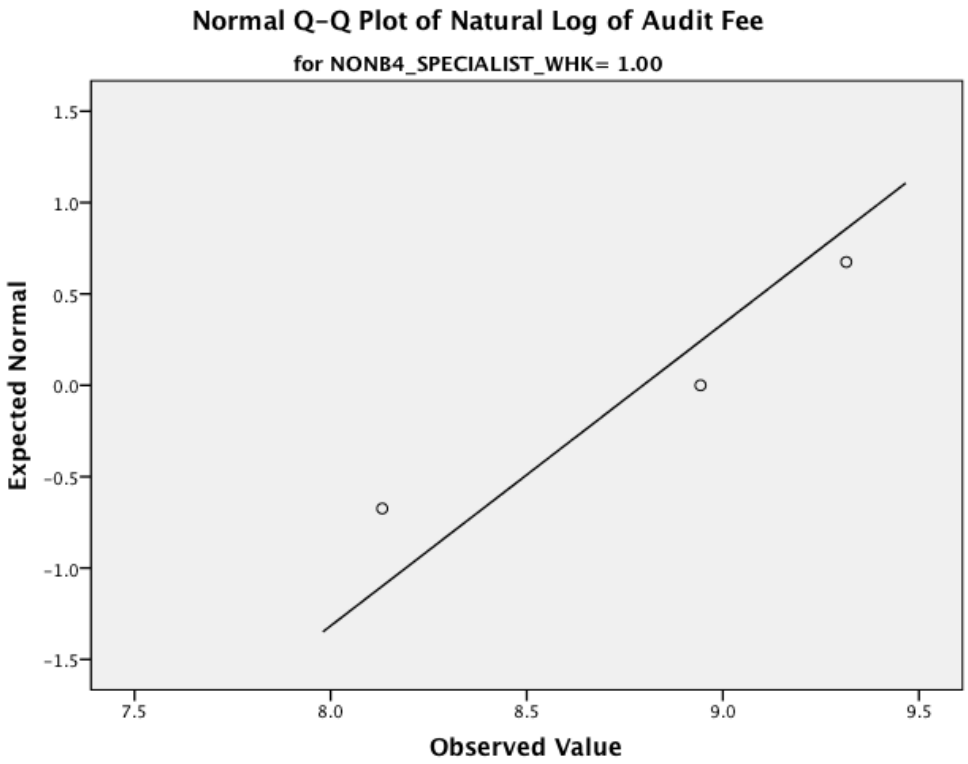

Figure 60: Standard Q-Q plot of NONB4WHKNG: WHK NG

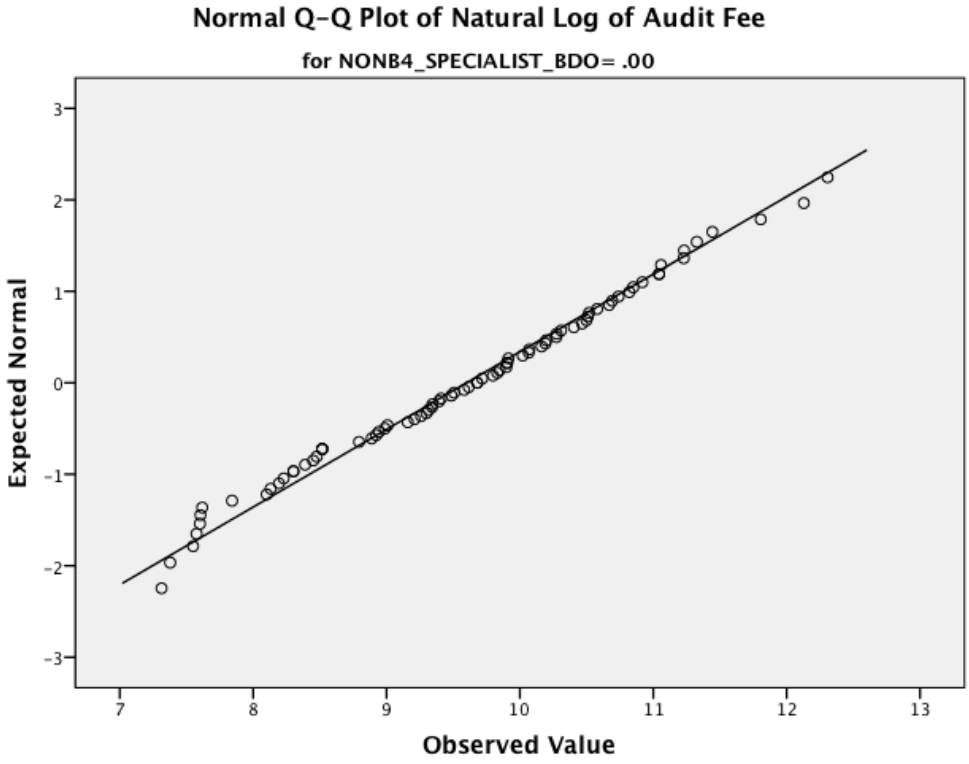

Figure 61: Standard Q-Q plot of NONB4BDO: Not BDO Auditor

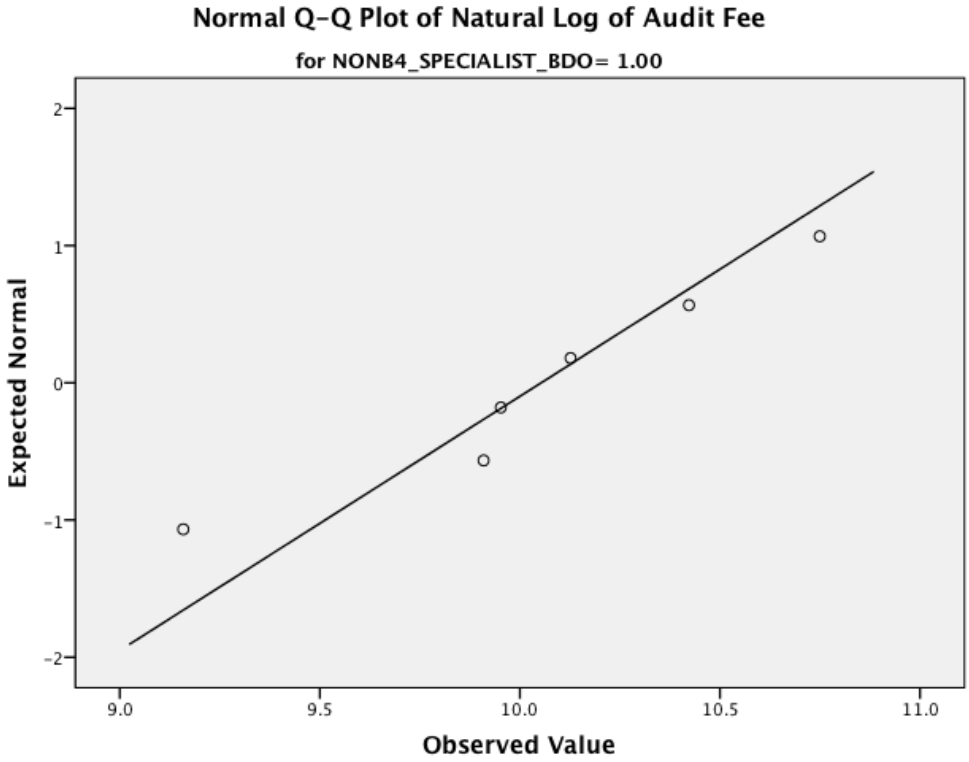

Figure 62: Standard Q-Q plot of NONB4BDO: BDO Auditor

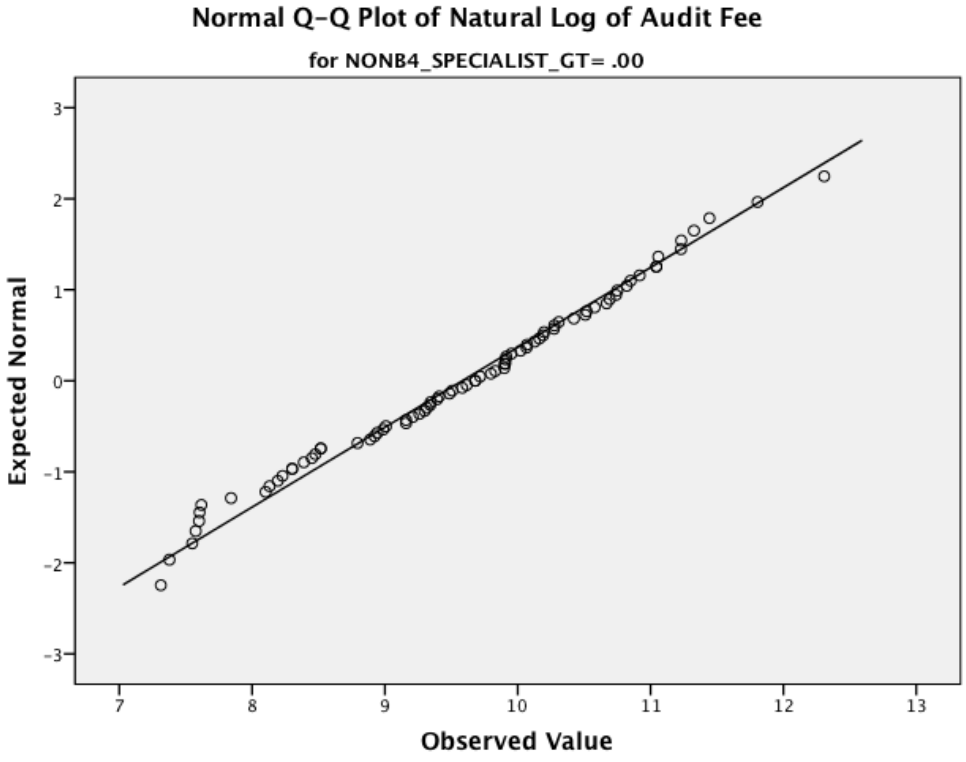

Figure 63: Standard Q-Q plot of NB4GRANT: Not Grant Thornton Auditor

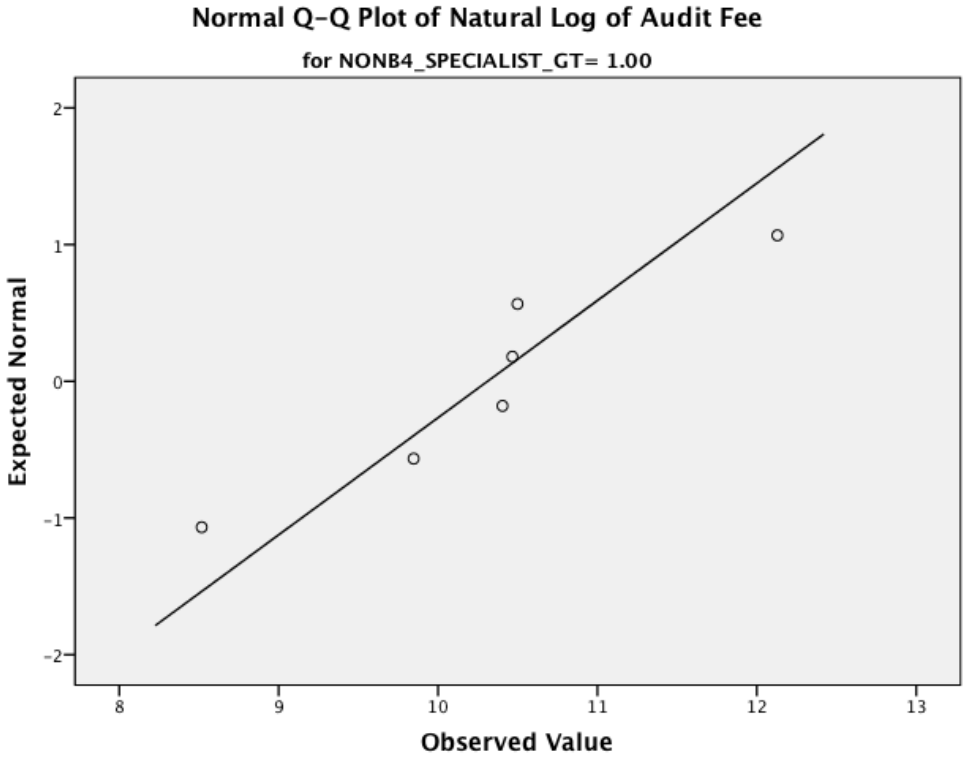

Figure 64: Standard Q-Q plot of NONB4GRANT: Grant Thornton

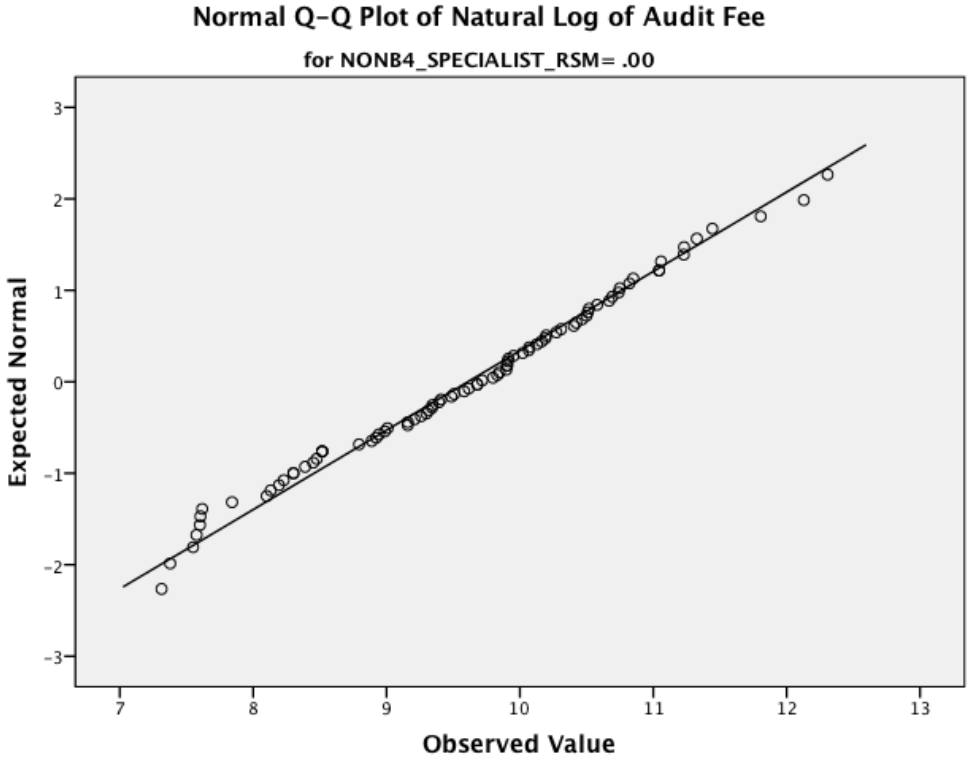

Figure 65: *Standard Q-Q plot of* NONB4RSM: *Not RSM Bird Cameron Auditor*

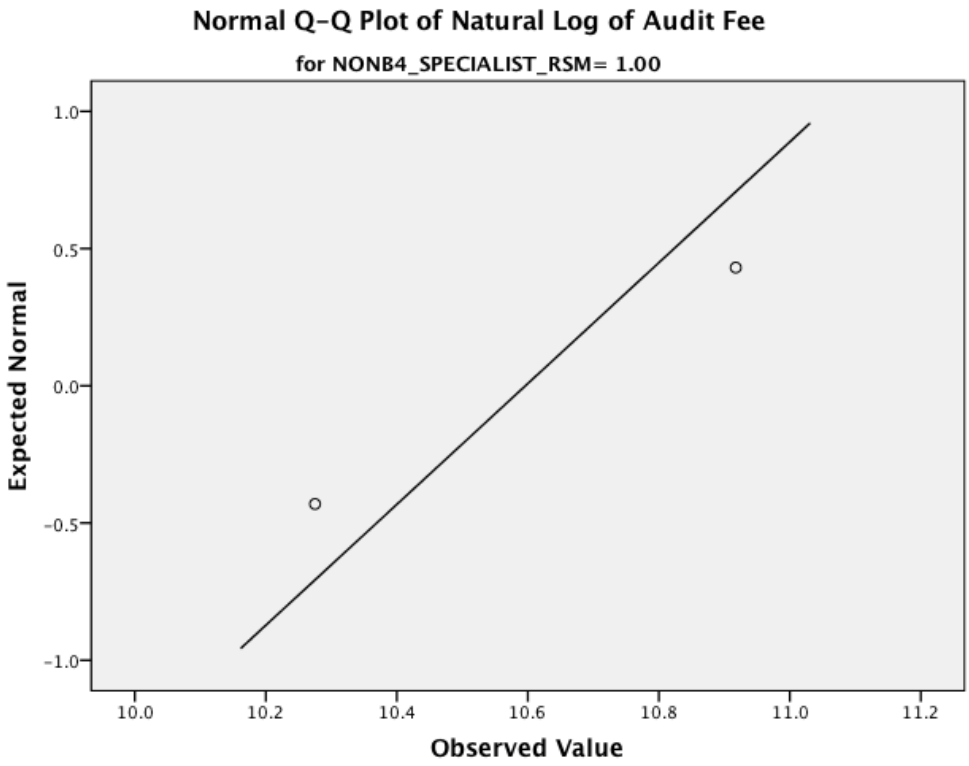

Figure 66: Standard Q-Q plot of NONB4RSM: RSM Bird Cameron

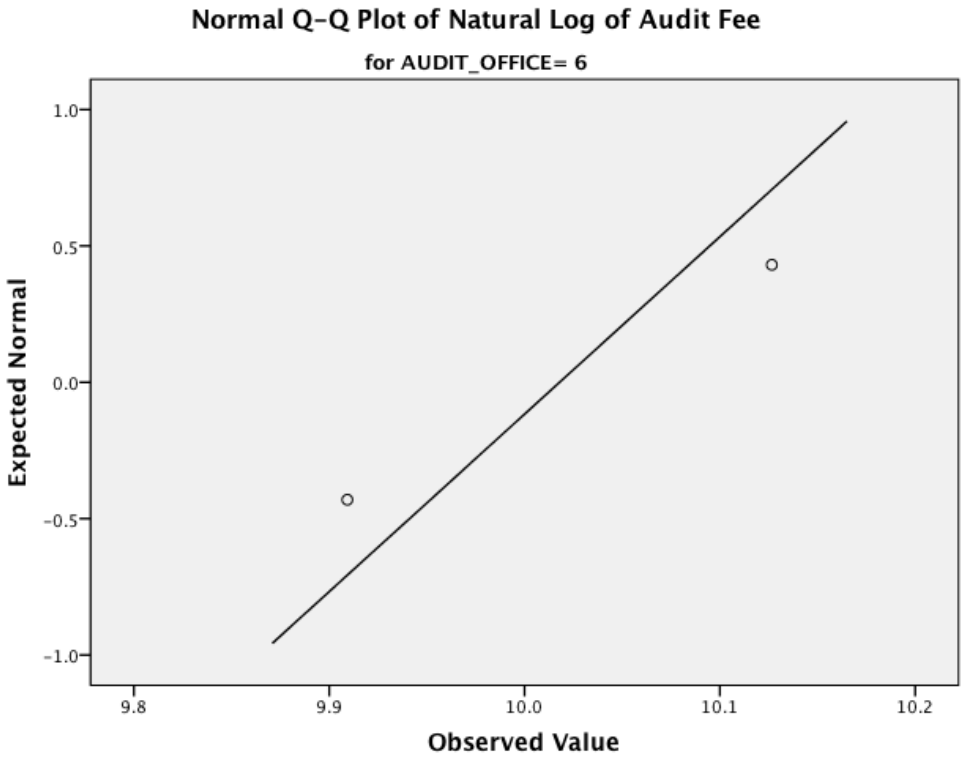

Figure 67: Standard Q-Q plot of AUDITOFFICE = 6

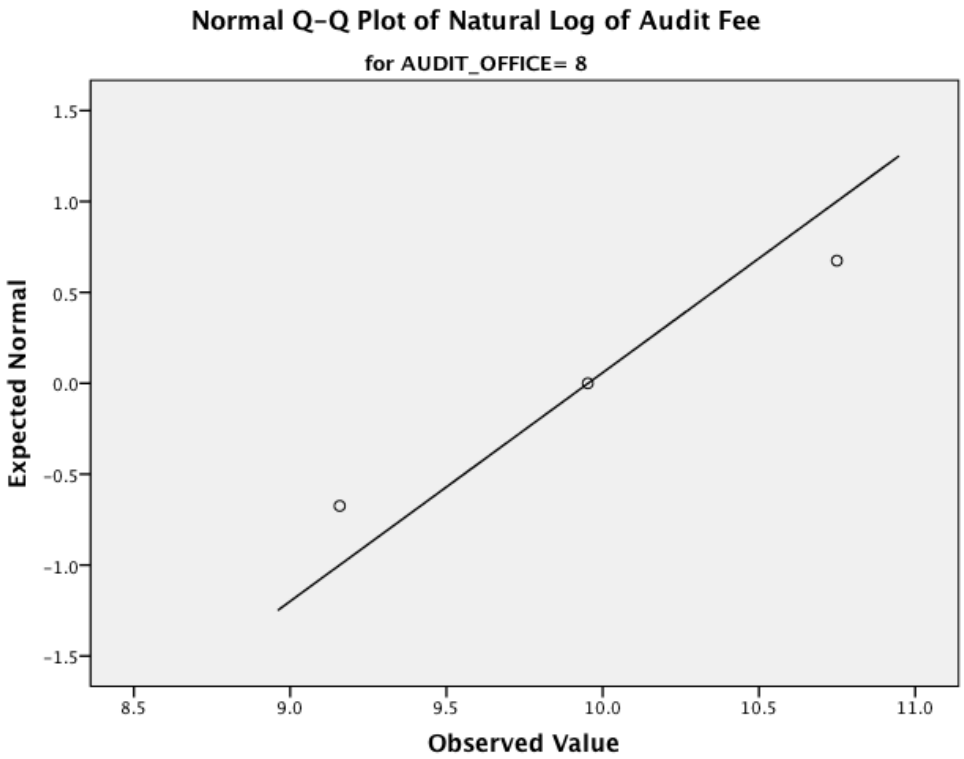

Figure 68: Standard Q-Q plot of AUDITOFFICE = 8

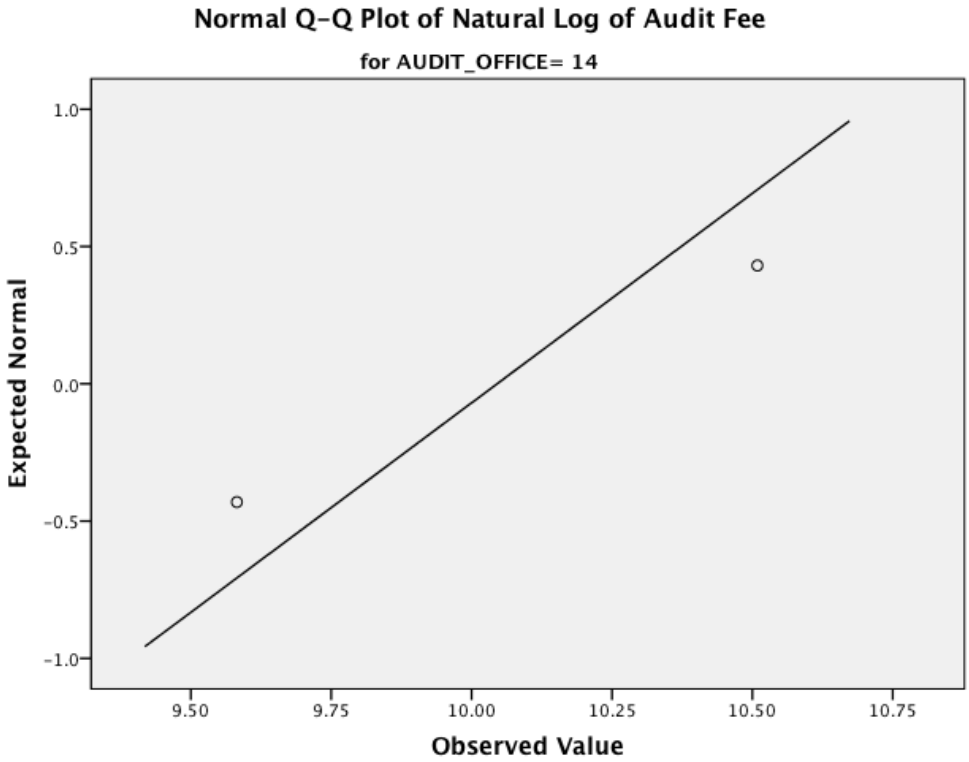

Figure 69: Standard Q-Q plot of AUDITOFFICE = 14

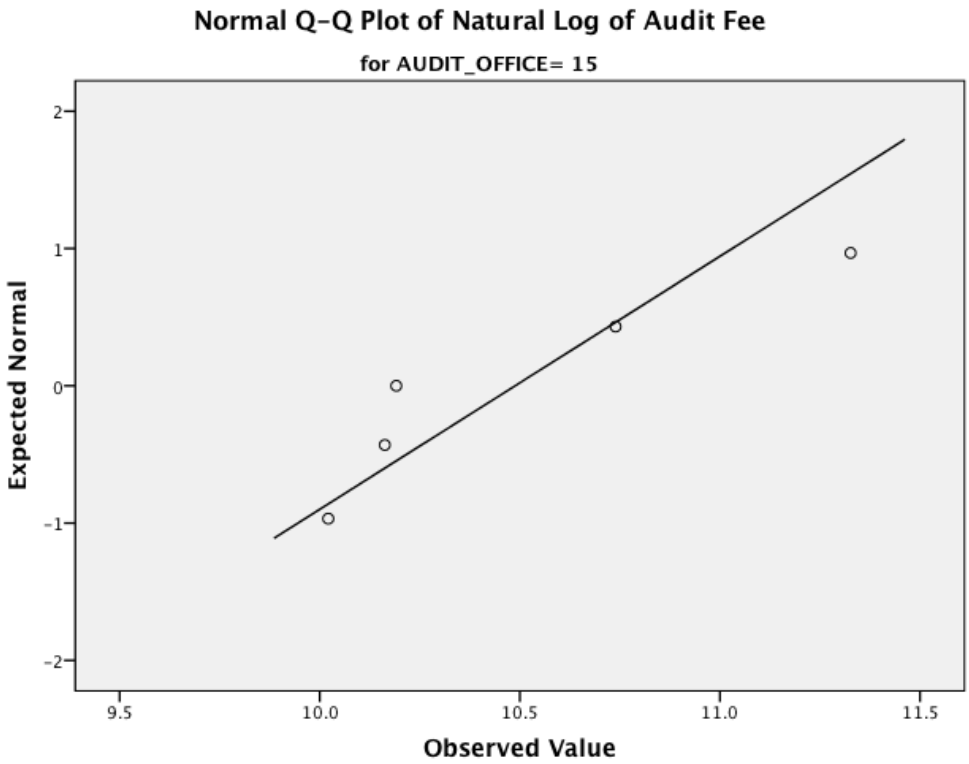

Figure 70: Standard Q-Q plot of AUDITOFFICE = 15

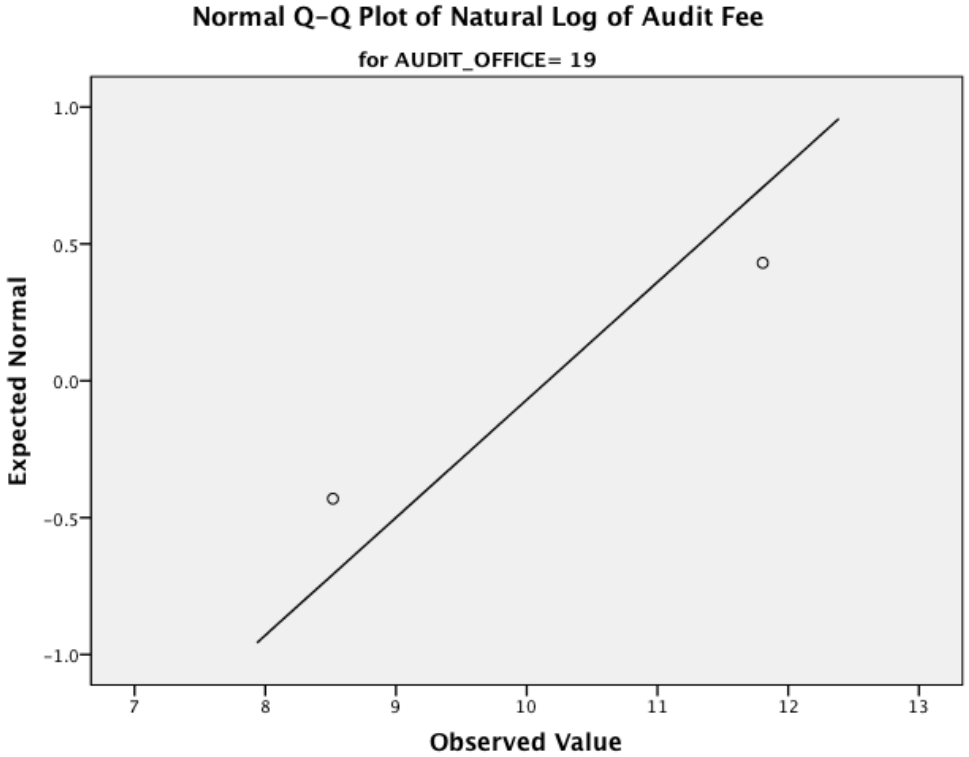

Figure 71: Standard Q-Q plot of AUDITOFFICE = 19

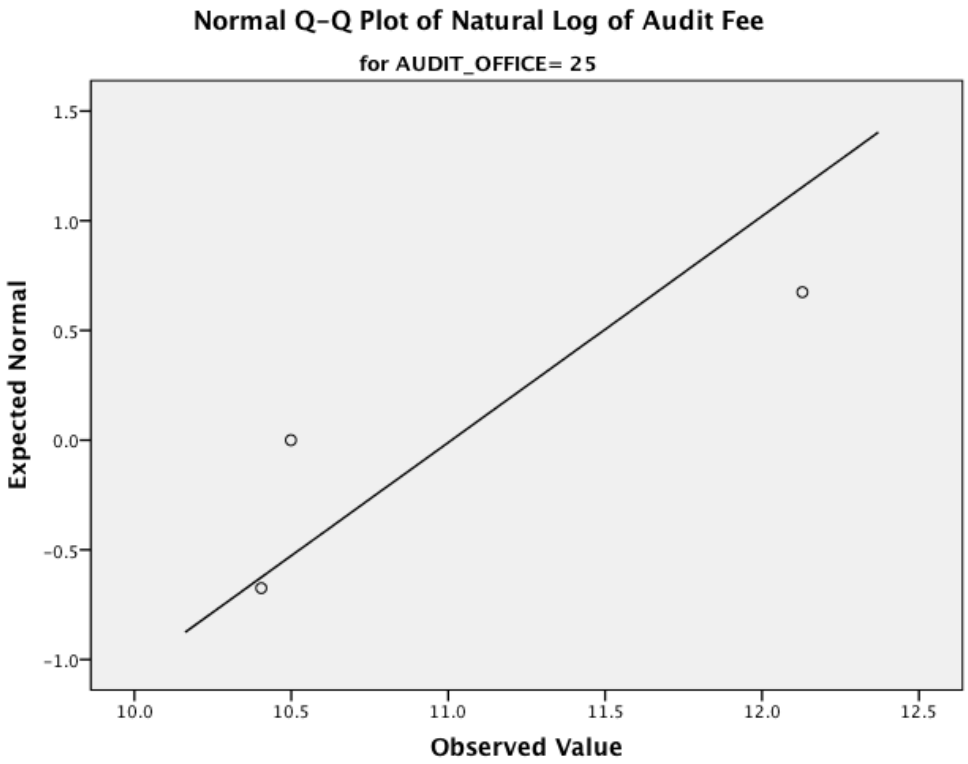

Figure 72: Standard Q-Q plot of AUDITOFFICE = 25

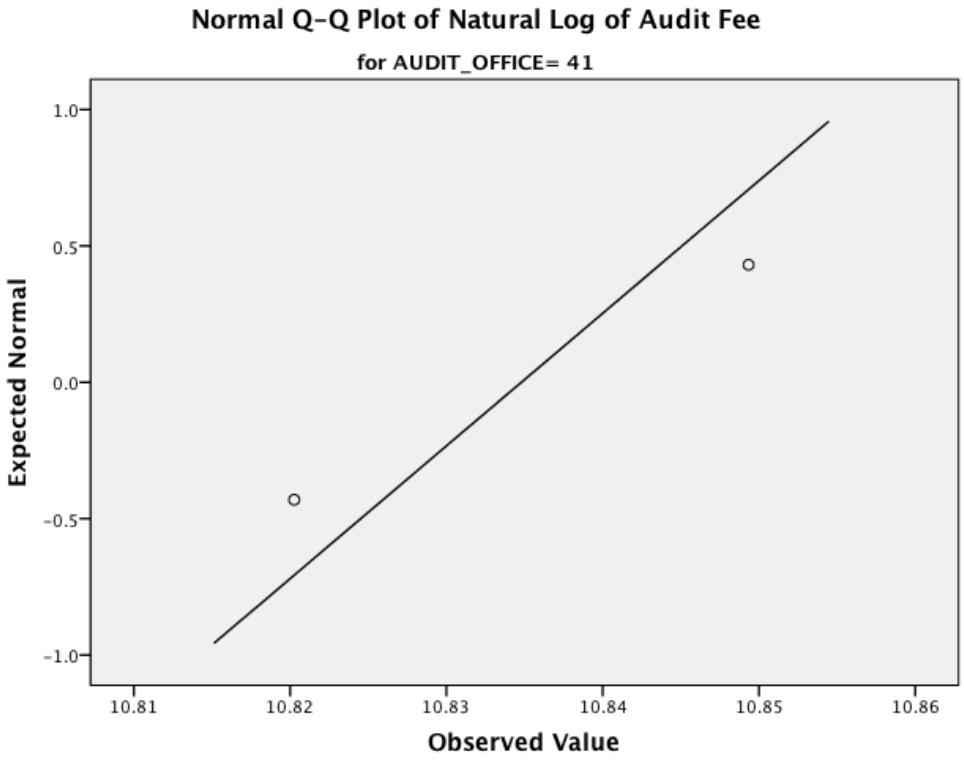

Figure 73: Standard Q-Q plot of AUDITOFFICE = 41

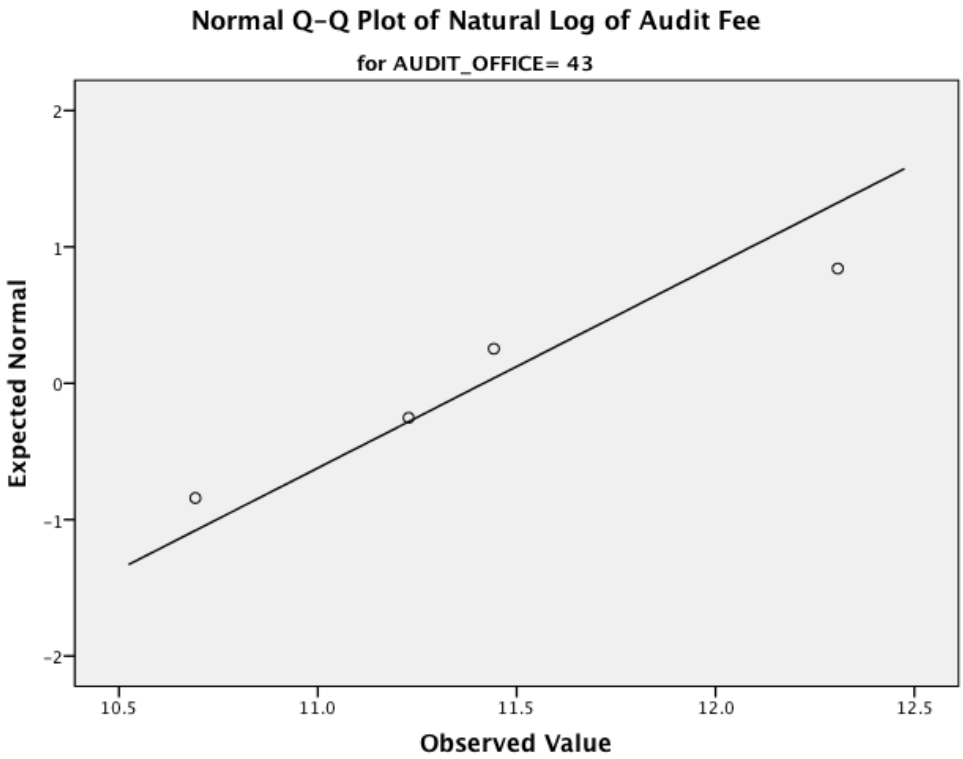

Figure 74: Standard Q-Q plot of AUDITOFFICE = 43

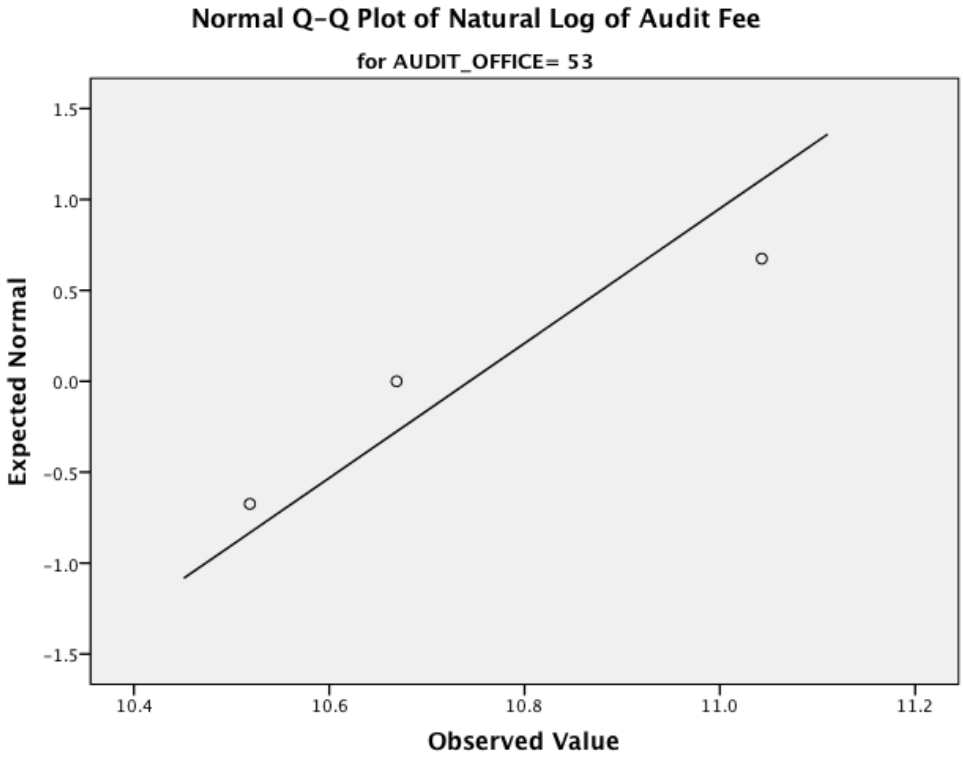

Figure 75: Standard Q-Q plot of AUDITOFFICE = 53

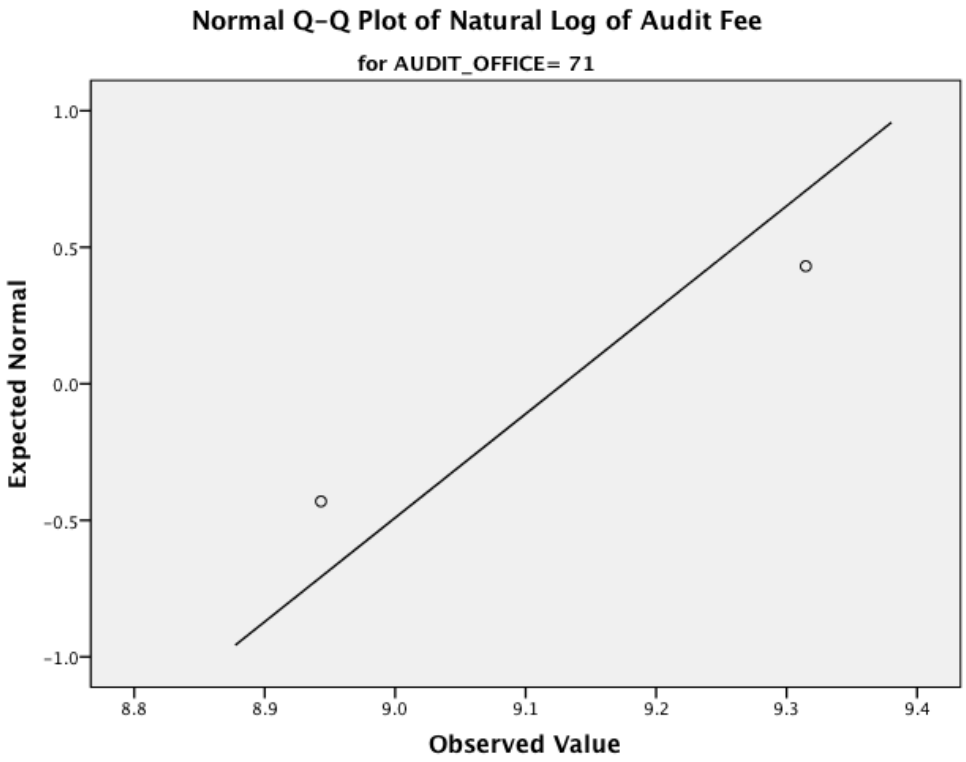

Figure 76: Standard Q-Q plot of AUDITOFFICE = 71

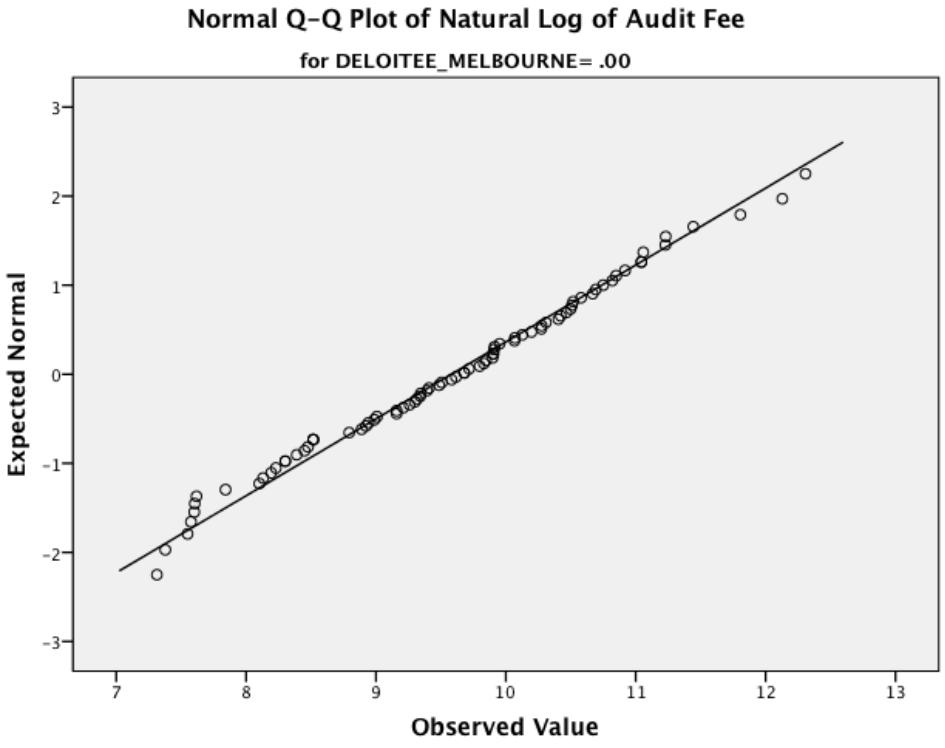

Figure 77: Standard Q-Q plot of B4OFFICEDELMEL: Non Deloitte Melbourne Office

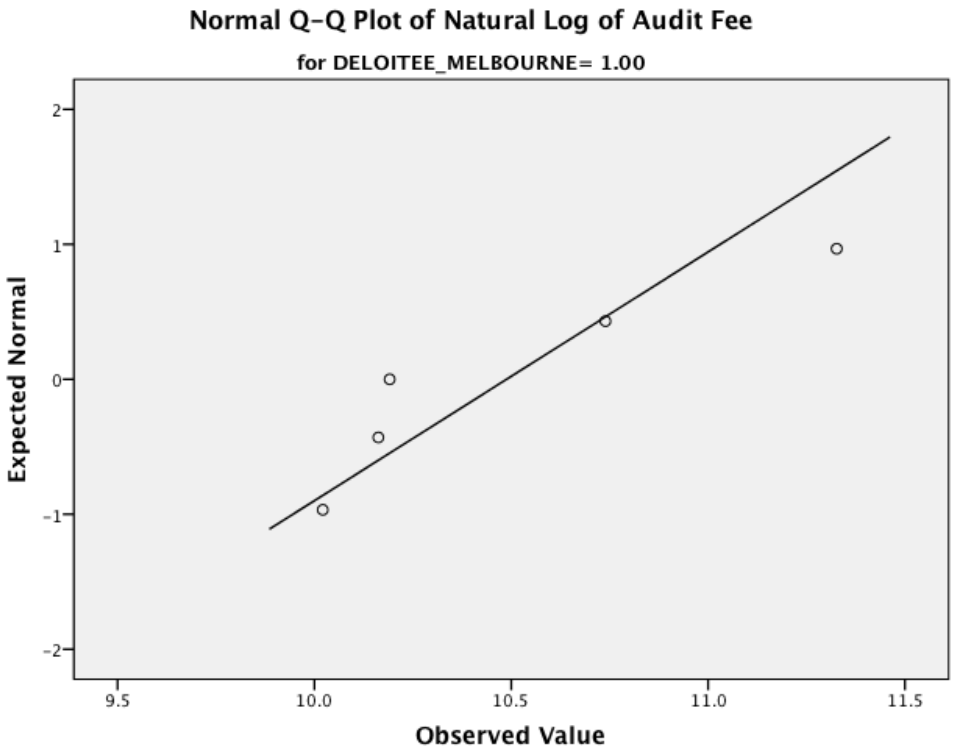

Figure 78: Standard Q-Q plot of *B4OFFICEDELMEL:* Deloitte Melbourne Office

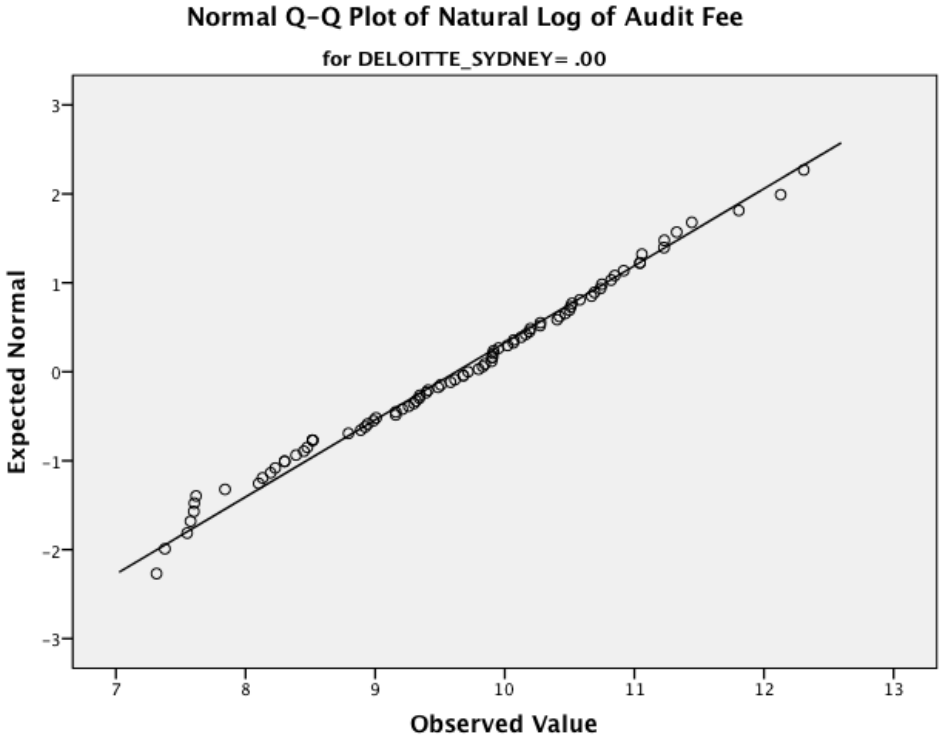

Figure 79: Standard Q-Q plot of *B4OFFICEDEL*SYD: Non Deloitte Sydney Office

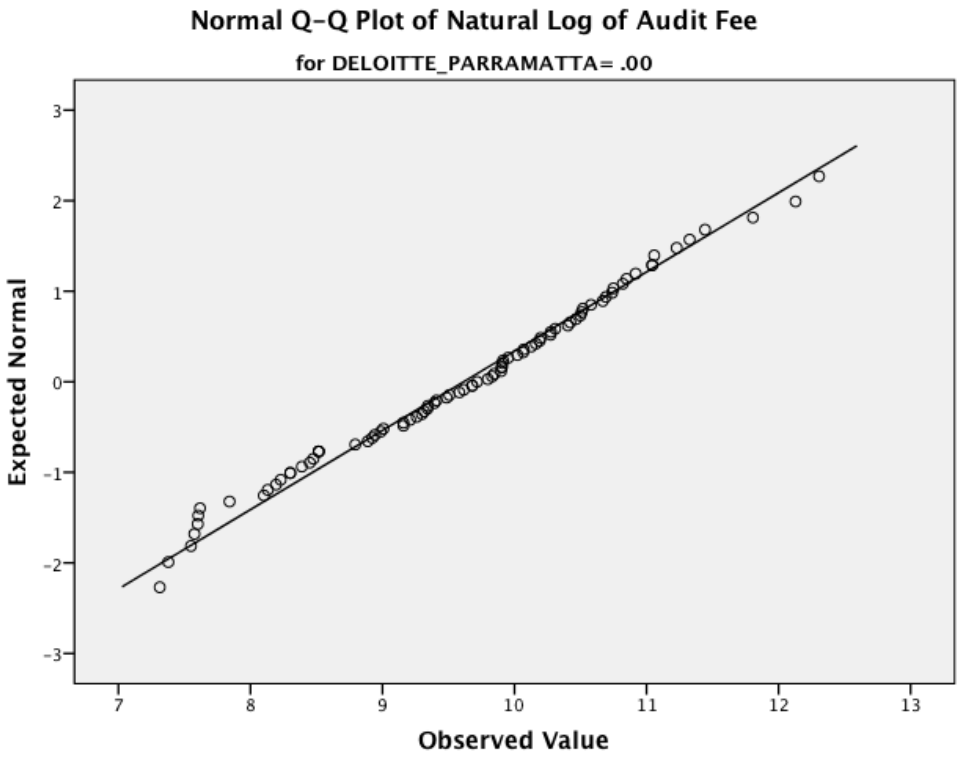

Figure 80: Standard Q-Q plot of *B4OFFICEDEL*PAR: Non Deloitte Parramatta Office

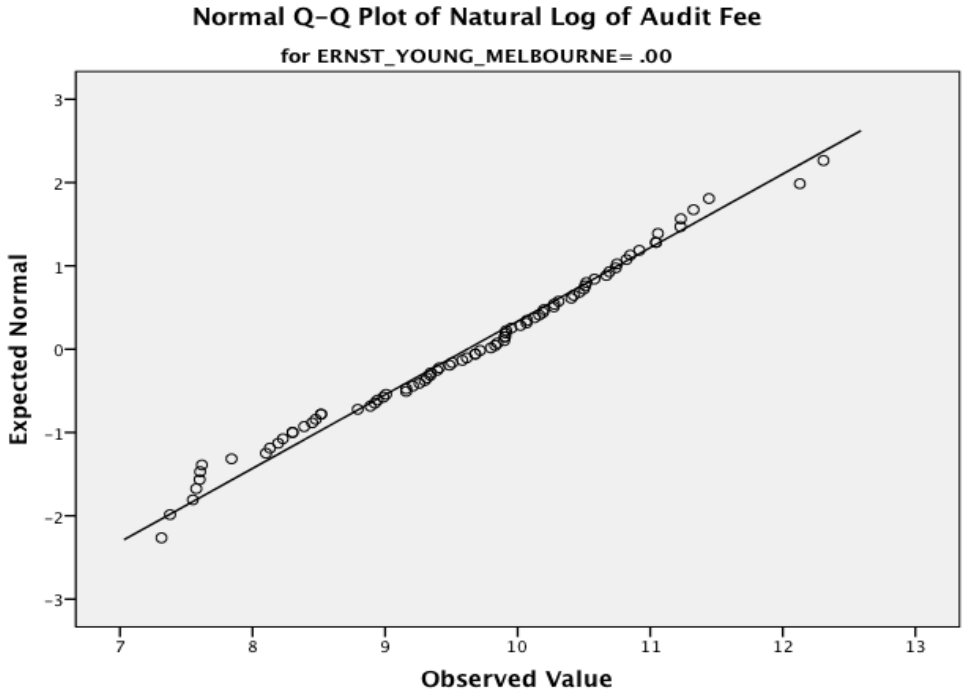

Figure 81: Standard Q-Q plot of *B4OFFICEDEYMEL:* Non Ernst & Young Melbourne Office

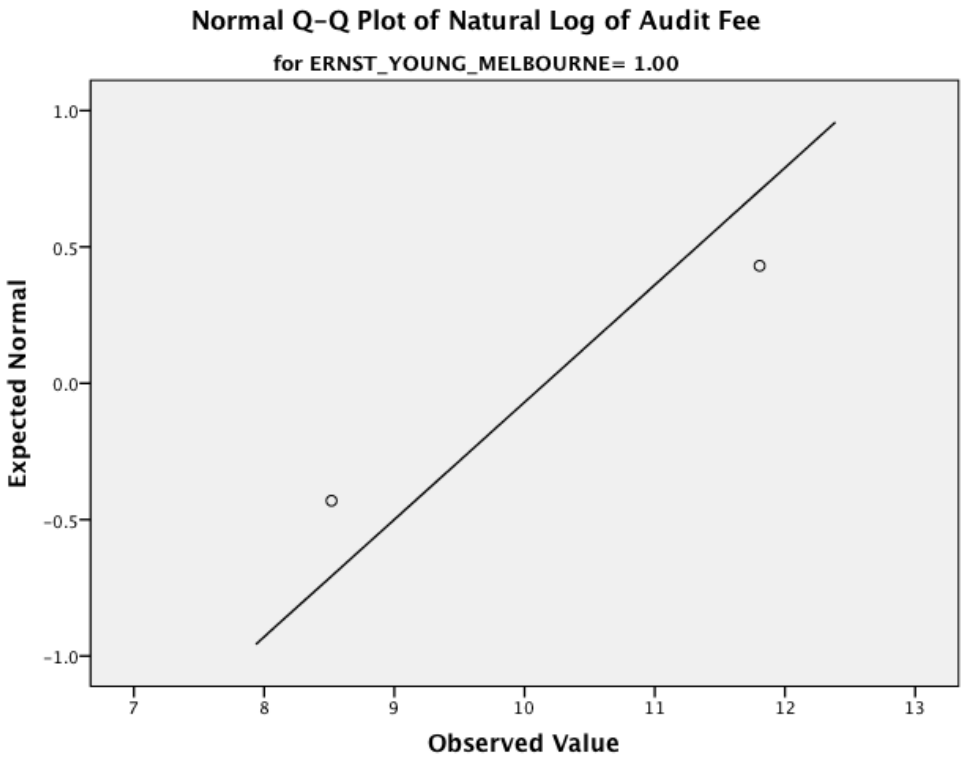

Figure 82: Standard Q-Q plot of *B4OFFICEDEY*MEL: Ernst & Young Melbourne Office

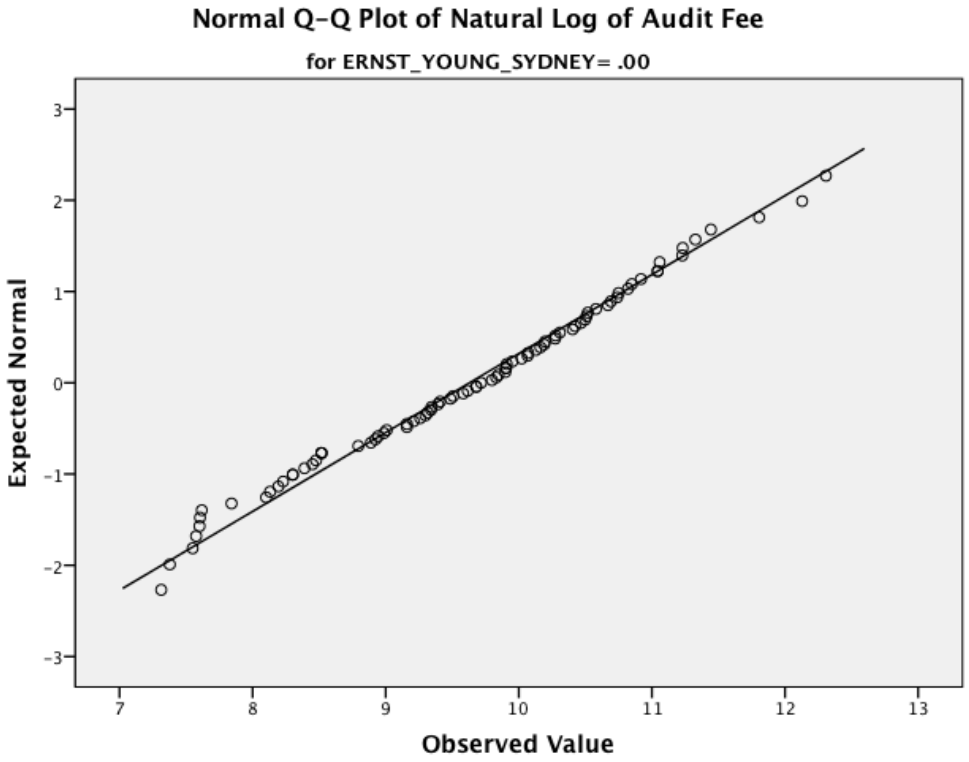

Figure 83: Standard Q-Q plot of *B4OFFICEDEY*SYD: Non Ernst & Young Sydney Office

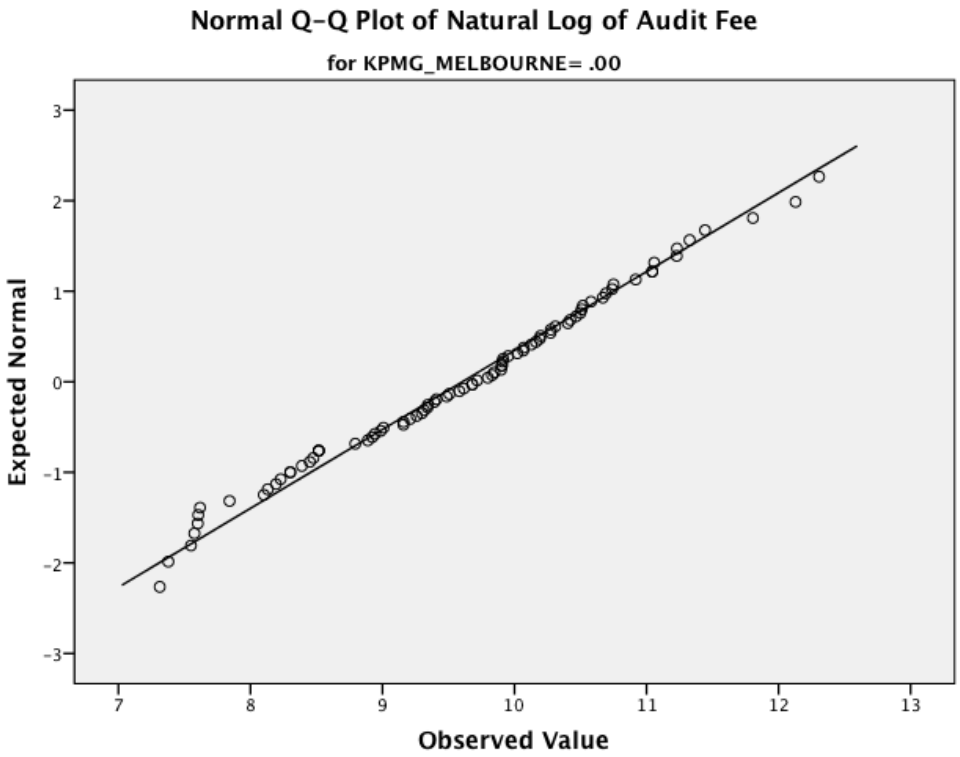

Figure 84: Standard Q-Q plot of *B4OFFICEKPMGMEL:* Non KPMG Melbourne Office

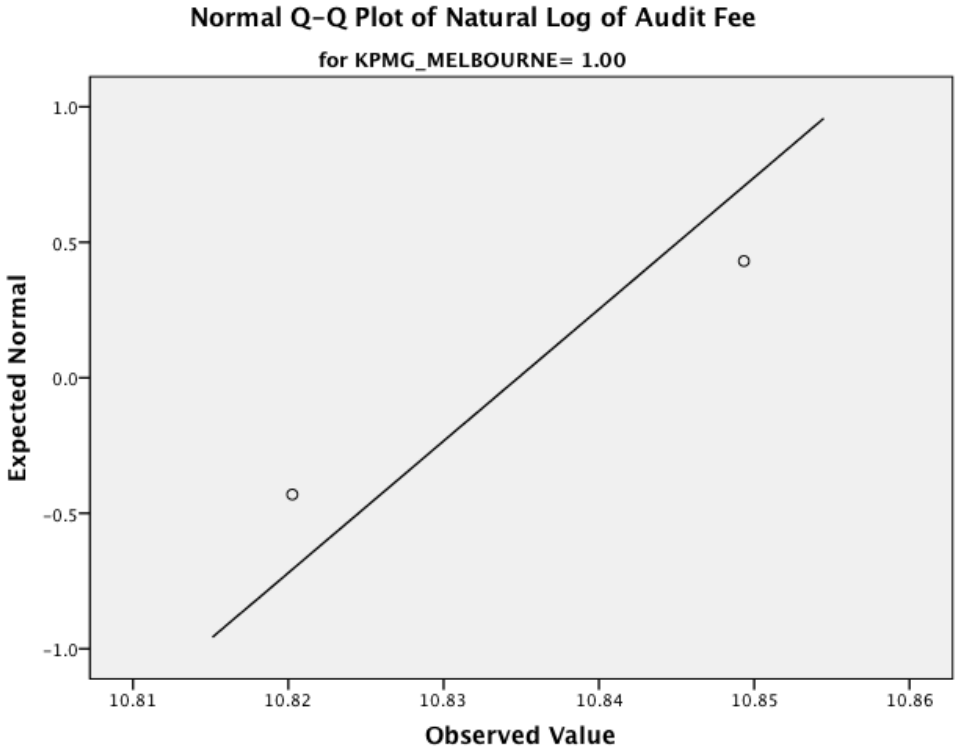

Figure 85: Standard Q-Q plot of *B4OFFICEKPMGMEL*: KPMG Melbourne Office

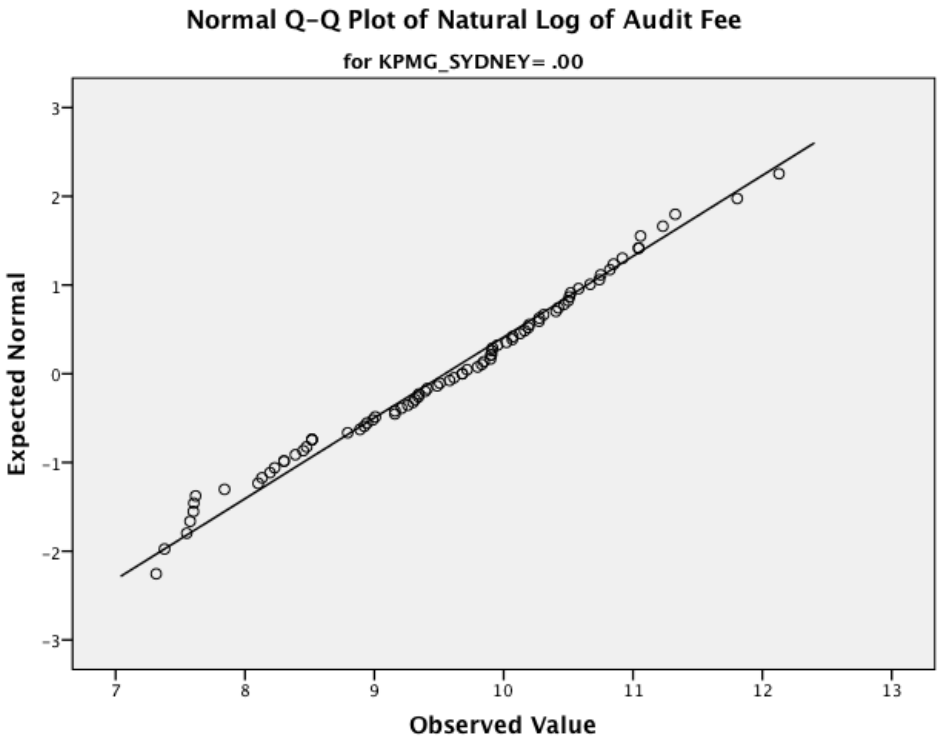

Figure 86: Standard Q-Q plot of *B4OFFICEKPMGSYD:* Non KPMG Sydney Office

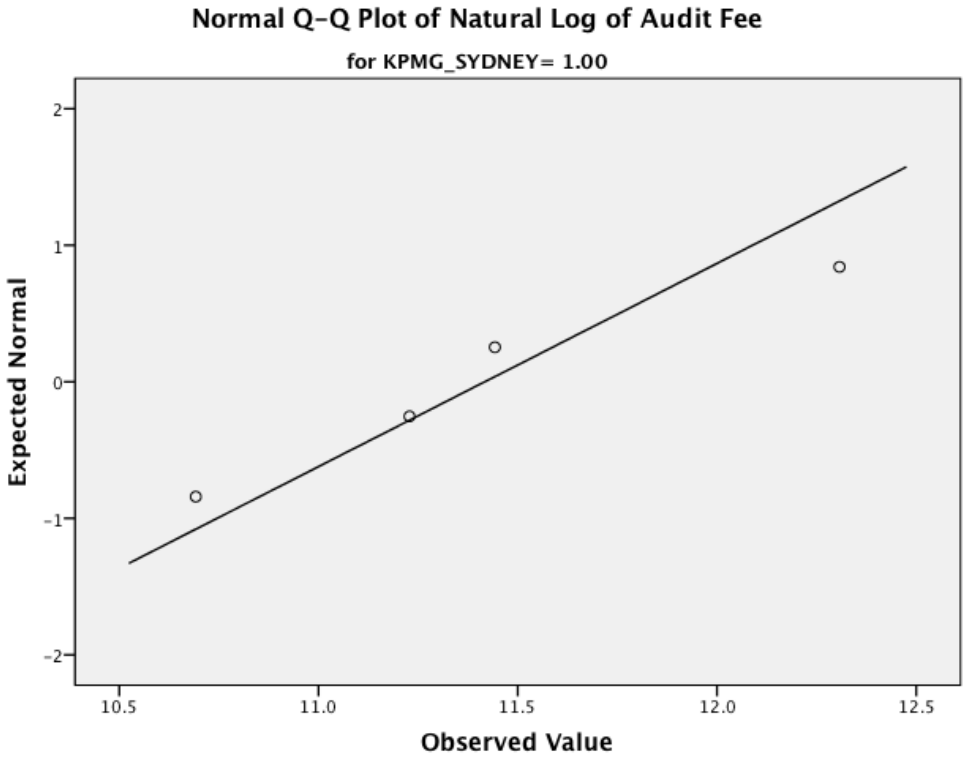

Figure 87: Standard Q-Q plot of *B4OFFICEKPMGSYD:* Non KPMG Sydney Office

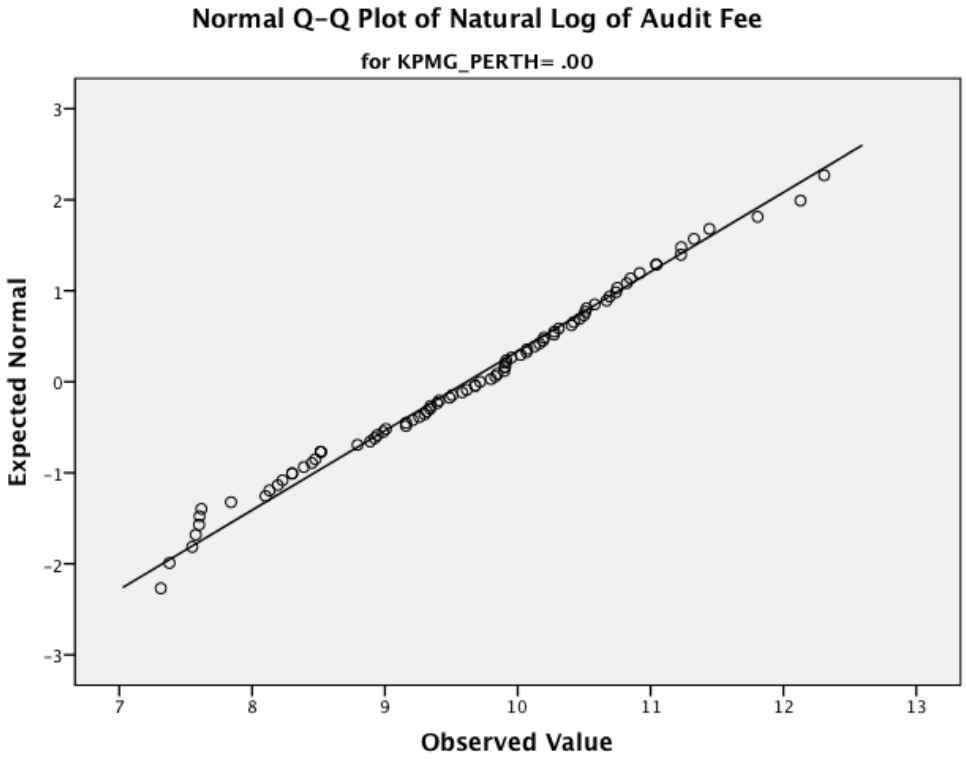

Figure 88: Standard Q-Q plot of *B4OFFICEKPMGPER:* Non KPMG Perth Office

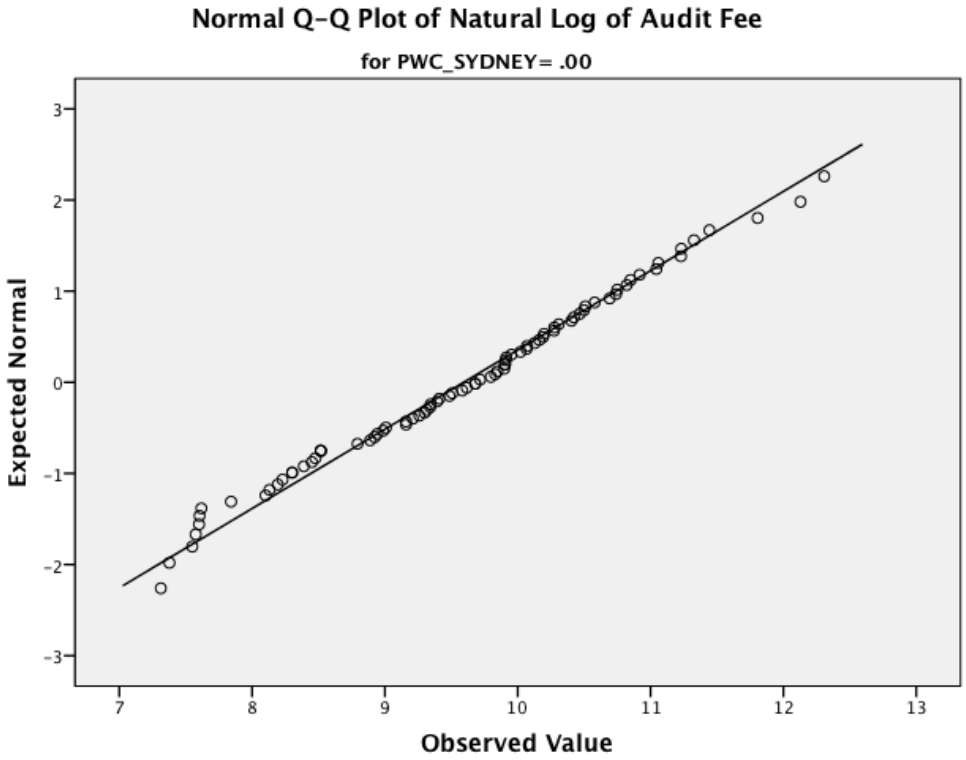

Figure 89: Standard Q-Q plot of *B4OFFICEPWCSYD:* Non PWC Sydney Office

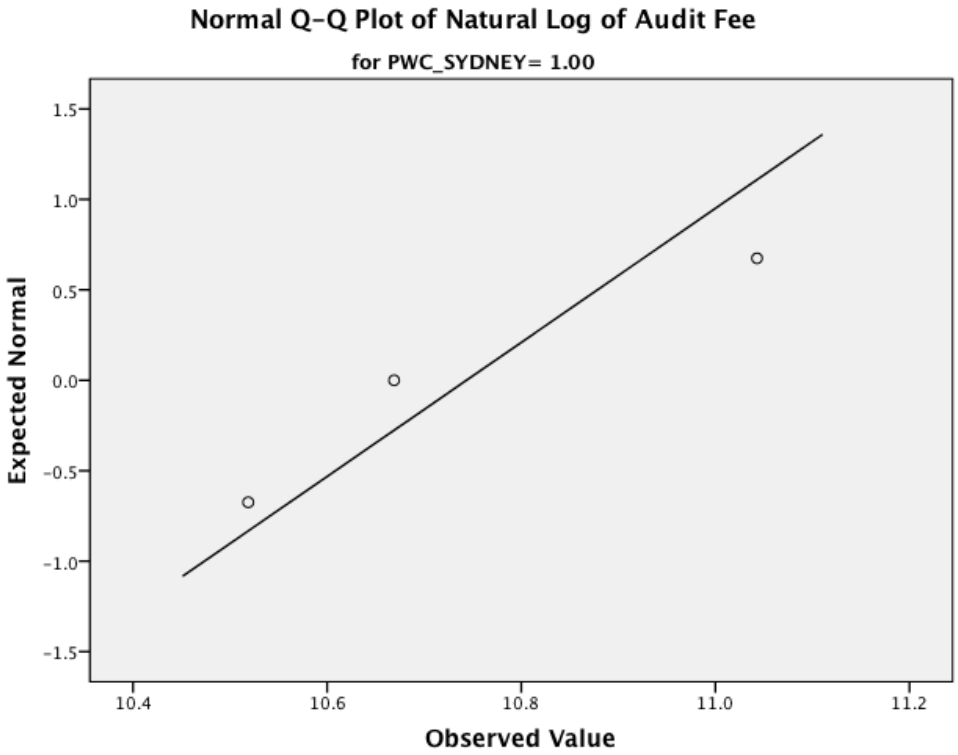

Figure 90: Standard Q-Q plot of *B4OFFICEPWCSYD:* PWC Sydney Office

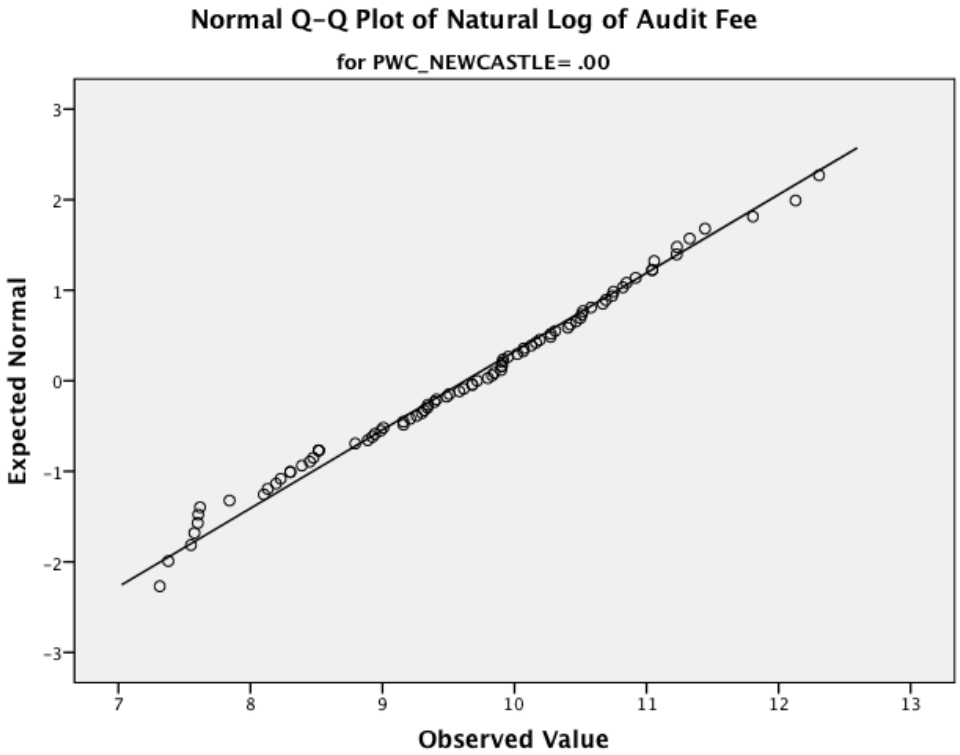

Figure 91: Standard Q-Q plot of *B4OFFICEPWCNEW:* Non PWC Newcastle Office

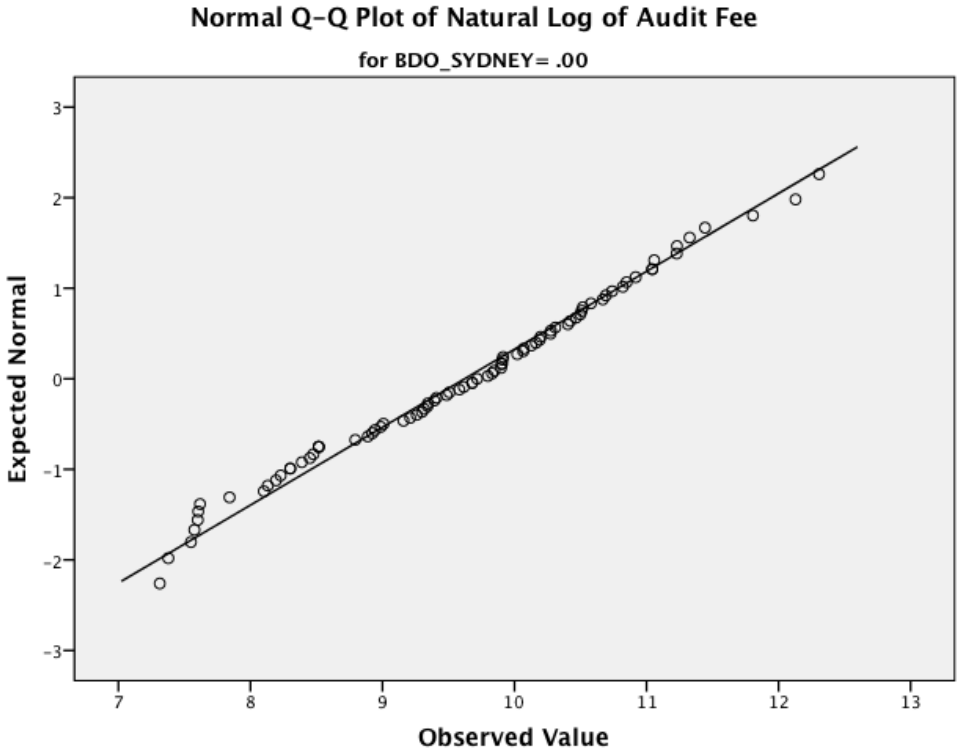

Figure 92: Standard Q-Q plot of NB4BDOSYD: Non BDO Sydney Office

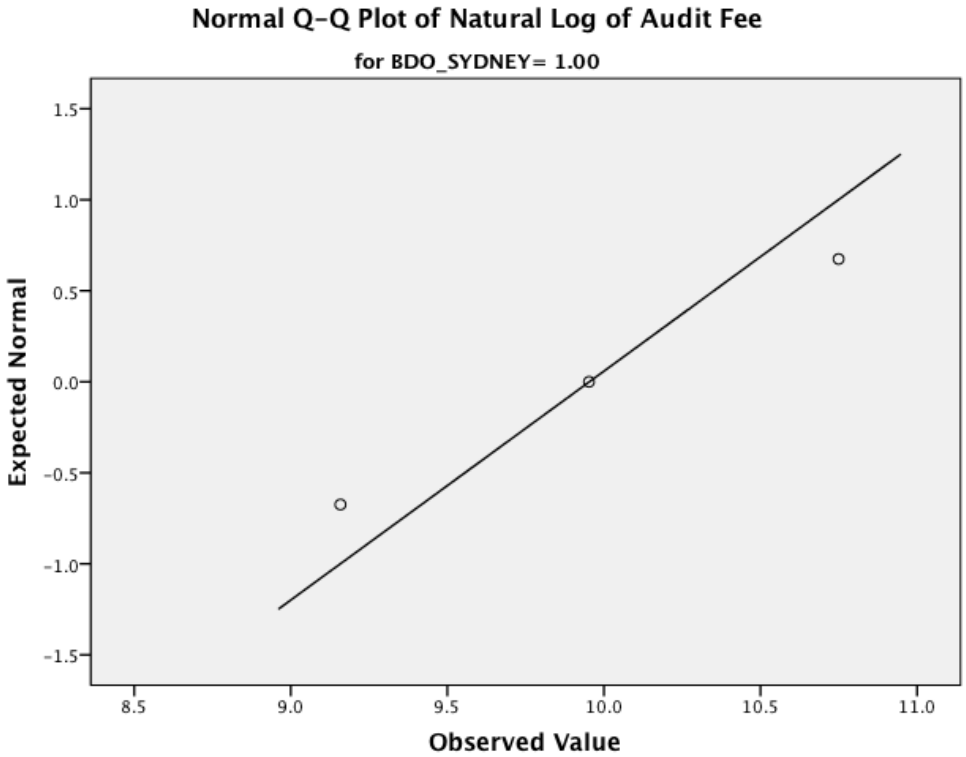

Figure 93: Standard Q-Q plot of NB4BDOSYD: BDO Sydney Office

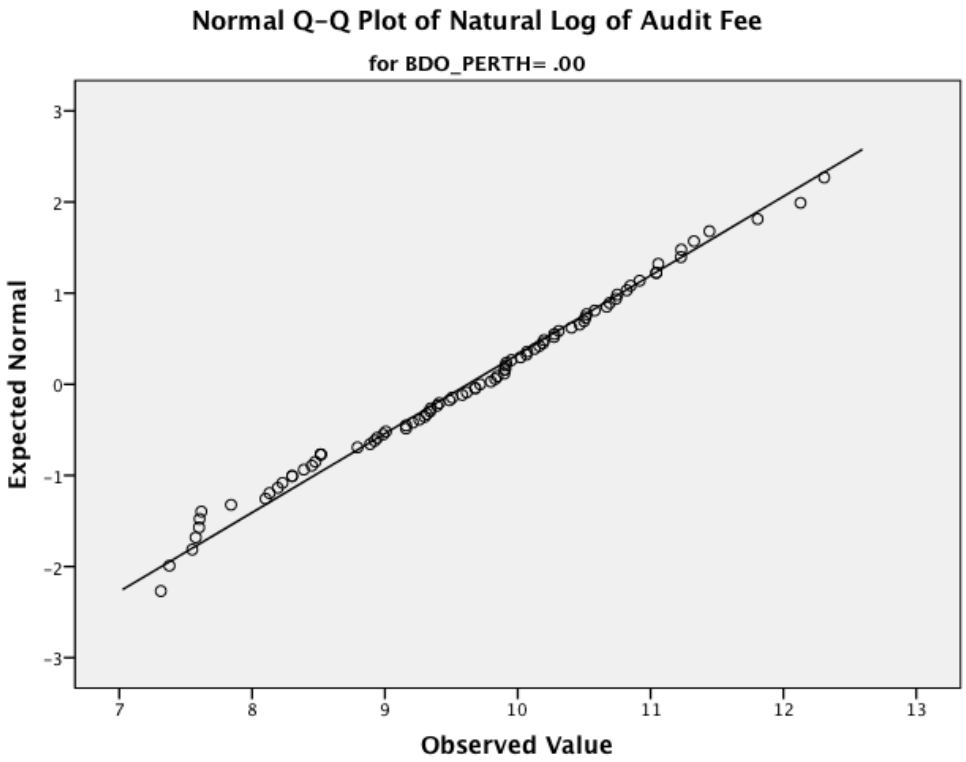

Figure 94: Standard Q-Q plot of NB4BDOPER: Non BDO Perth Office

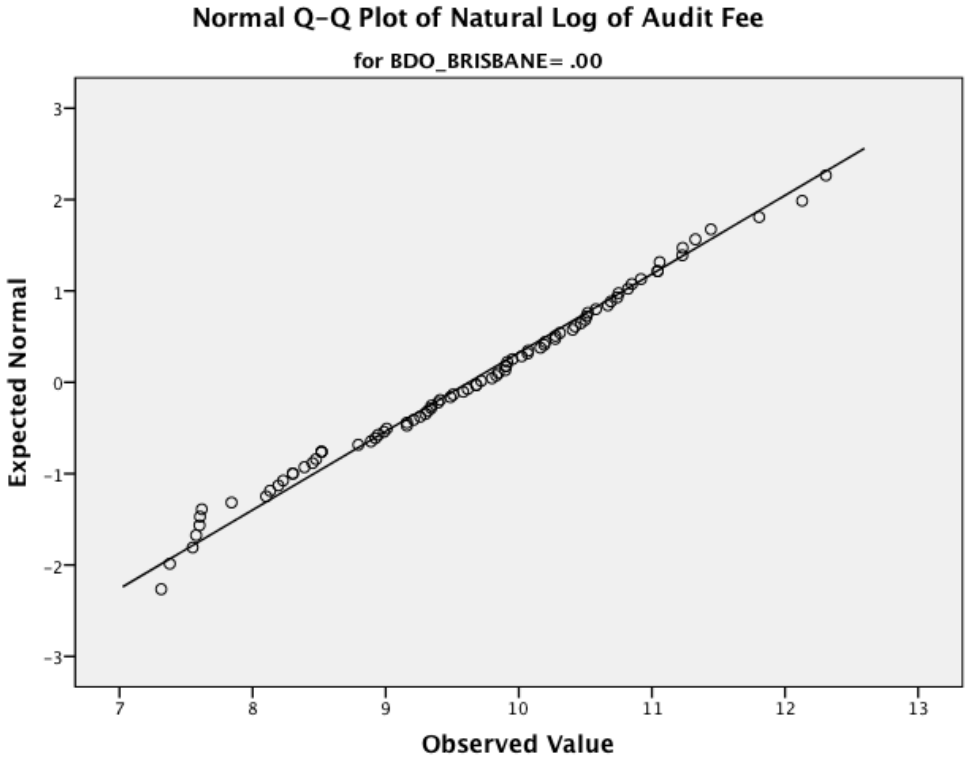

Figure 95: Standard Q-Q plot of NB4BDOBRI: Non BDO Brisbane Office

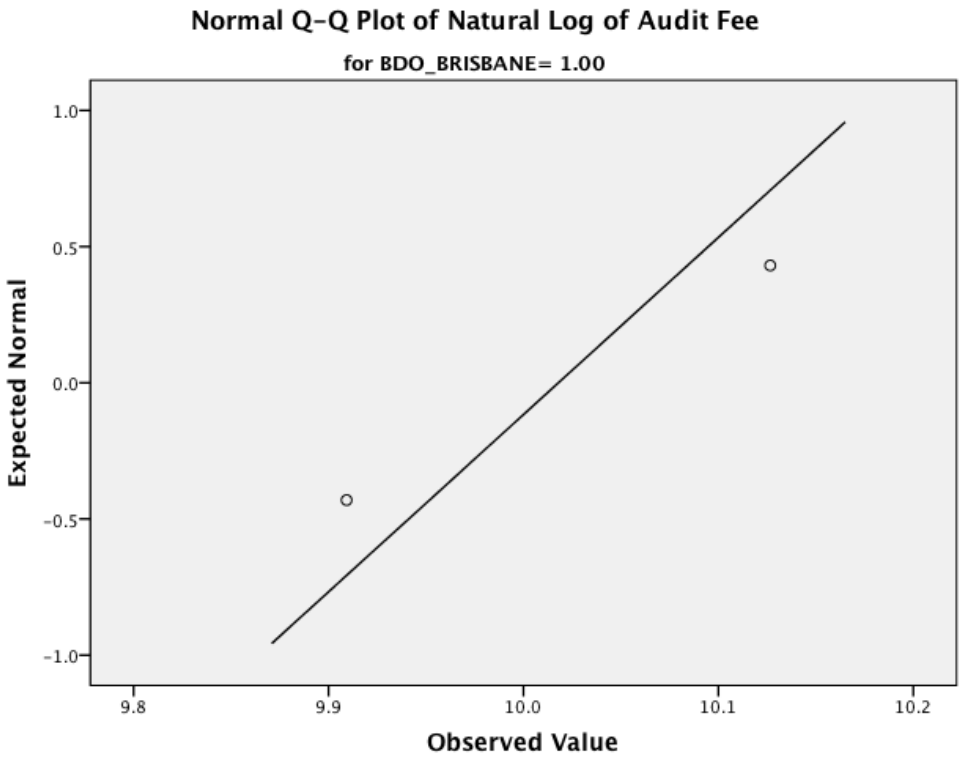

Figure 96: Standard Q-Q plot of NB4BDOBRI: BDO Brisbane Office

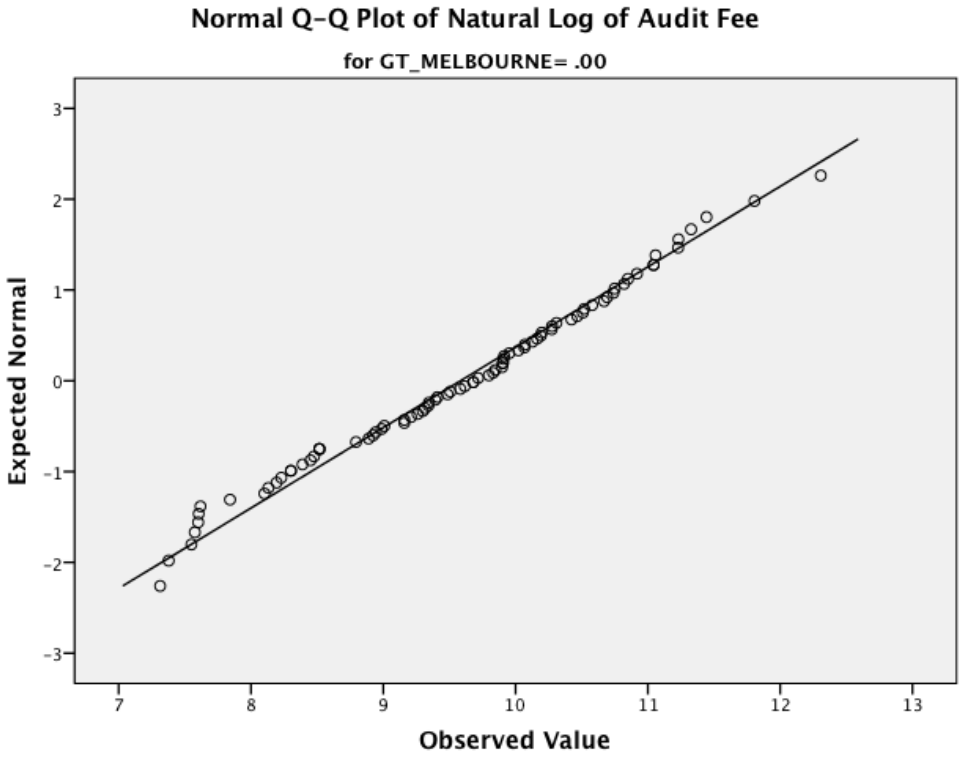

Figure 97: Standard Q-Q plot of NB4GTMEL: Non Grant Thornton Melbourne Office

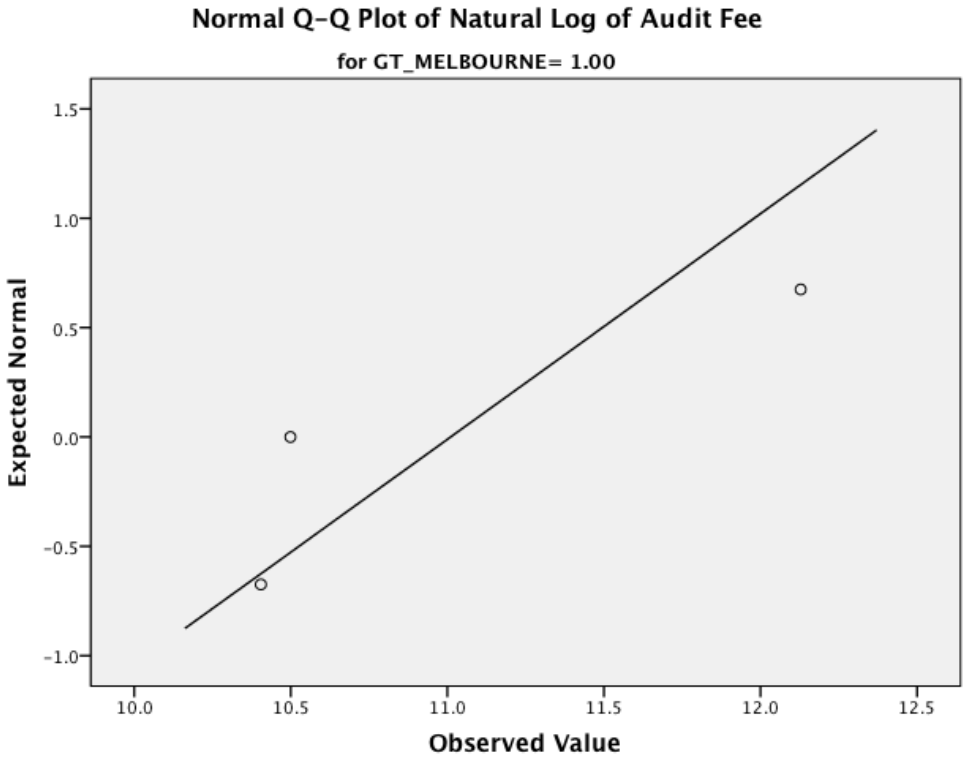

Figure 98: Standard Q-Q plot of NB4GTMEL: Grant Thornton Melbourne Office

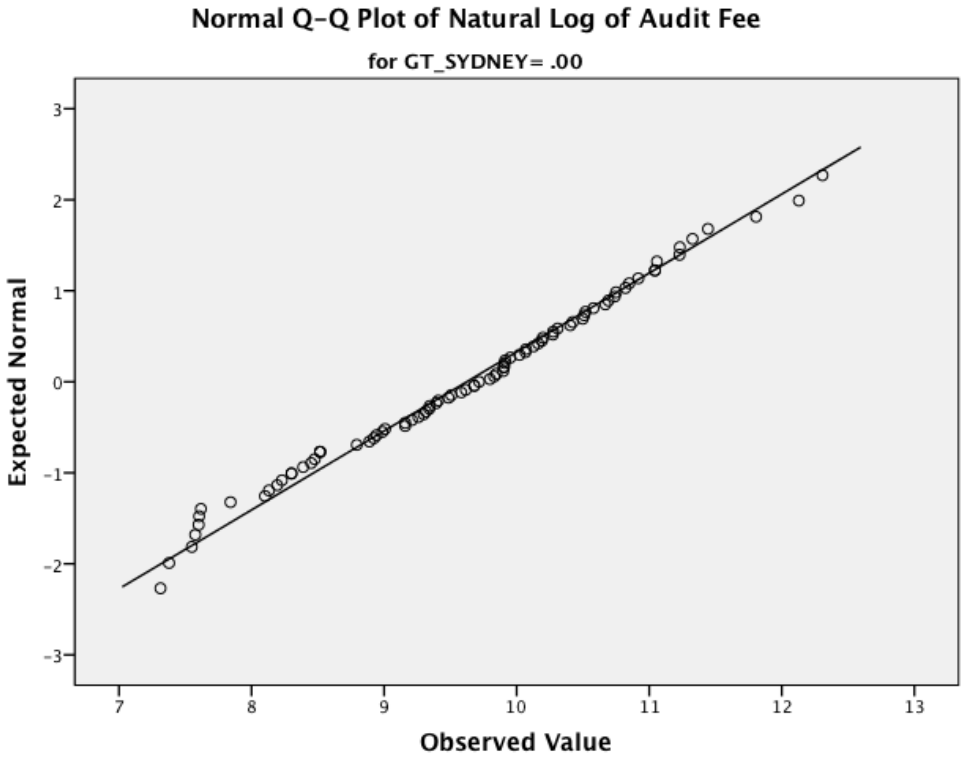

Figure 99: Standard Q-Q plot of NB4GTSYD: Non Grant Thornton Sydney Office

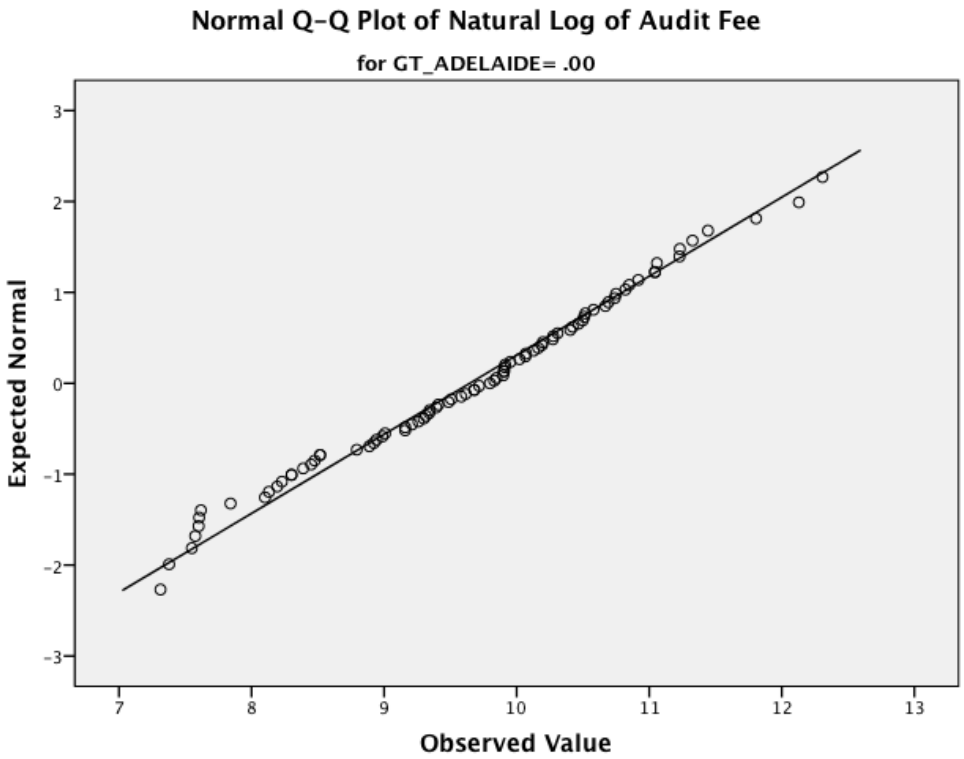

Figure 100: Standard Q-Q plot of NB4GTADL: Non Grant Thornton Adelaide Office

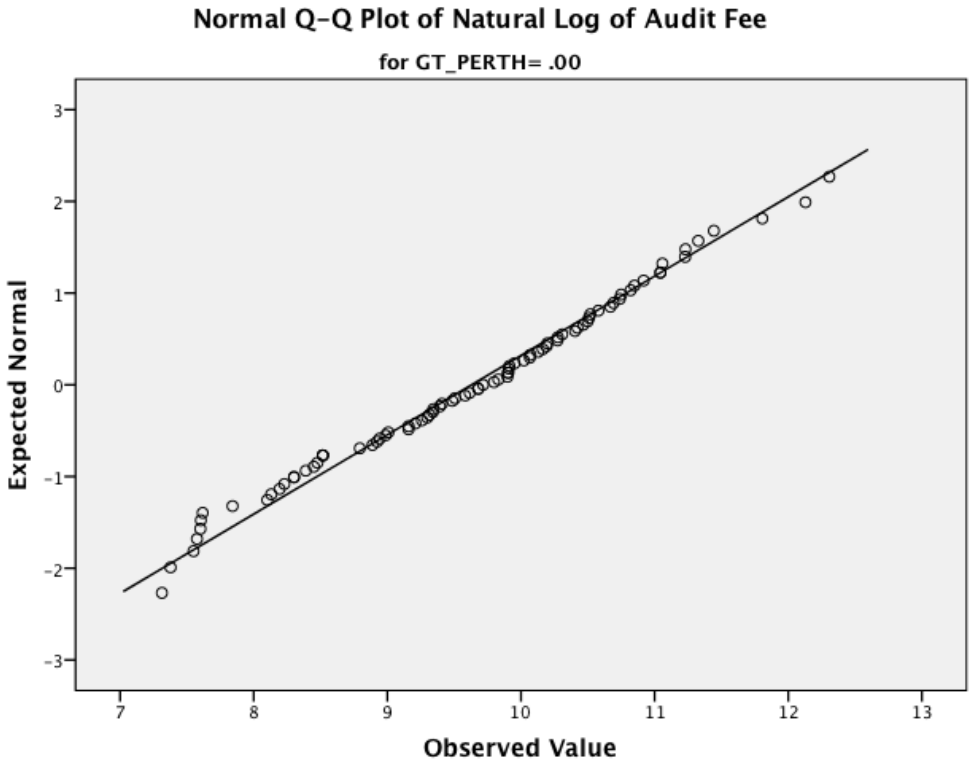

Figure 101: Standard Q-Q plot of NB4GTPER: Non Grant Thornton Perth Office

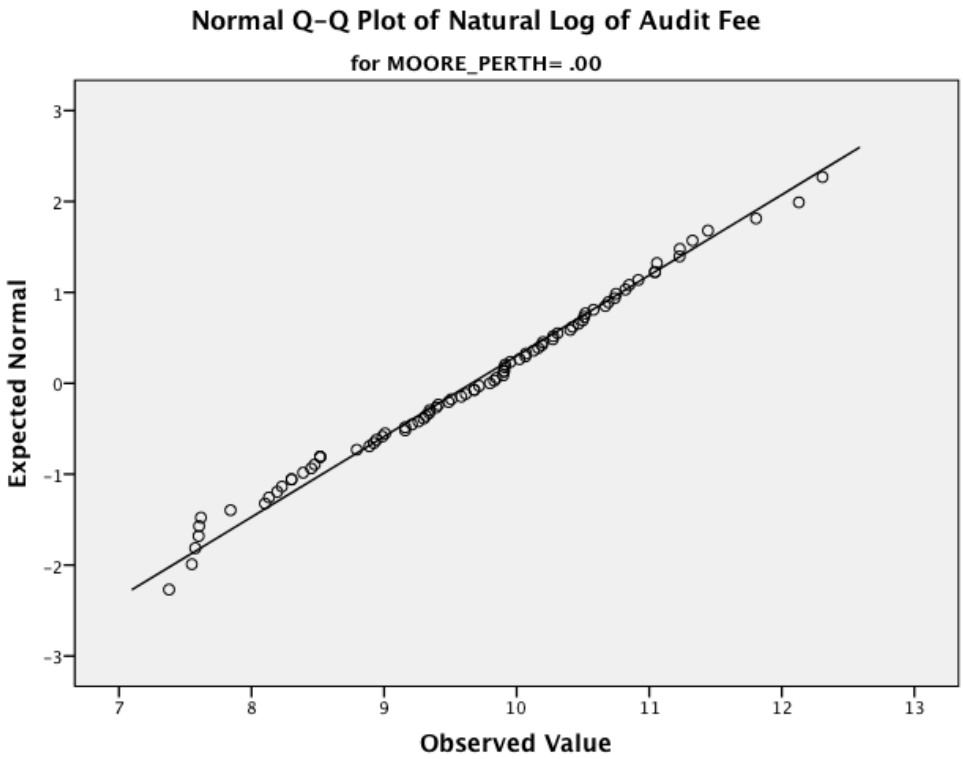

Figure 102: Standard Q-Q plot of NB4MSPER: Non Moore Stephens Perth Office

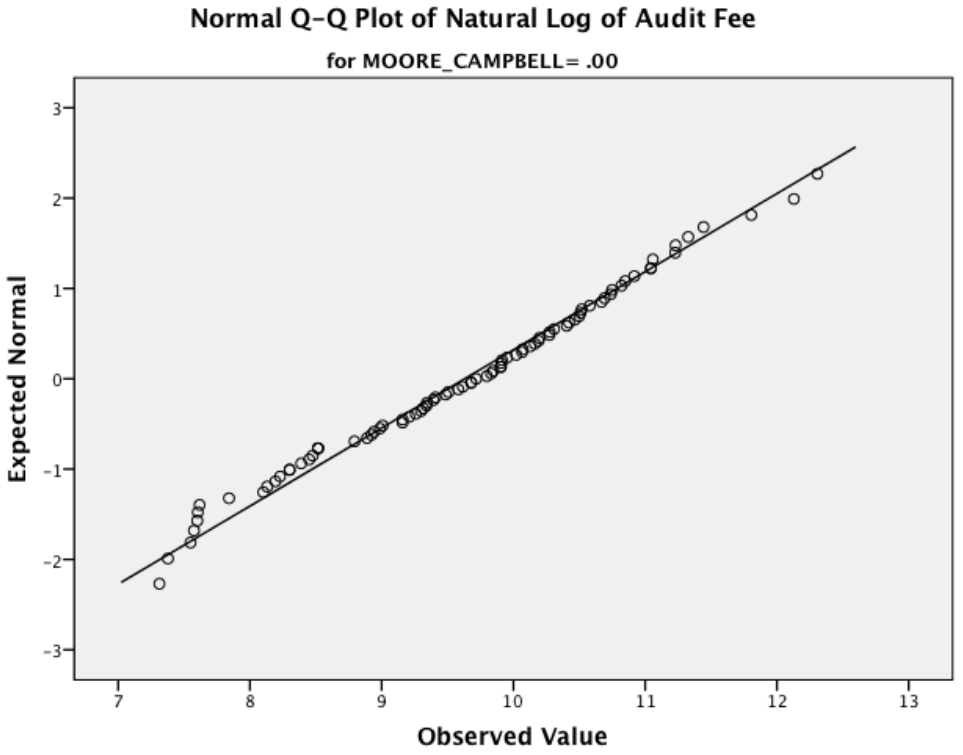

Figure 103: Standard Q-Q plot of NB4MSCAM: Non Moore Stephens Campbell Office

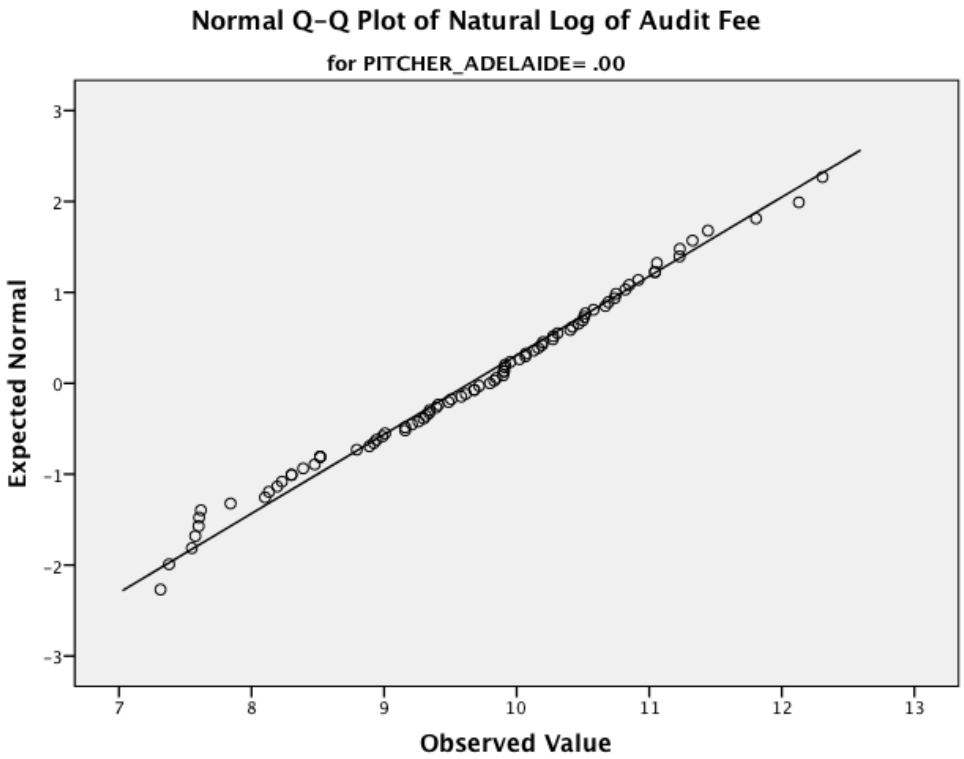

Figure 104: Standard Q-Q plot of NB4PPADL:Non Pitcher Partners Adelaide Office

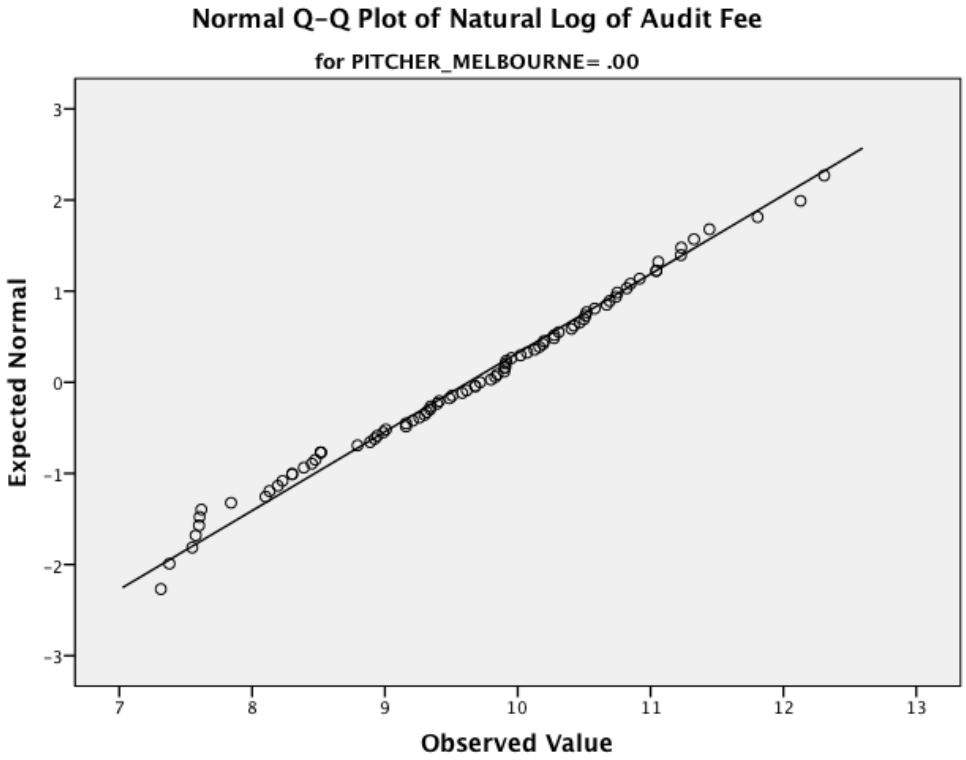

Figure 105: Standard Q-Q plot of NB4PPMEL: Non Pitcher Partners Melbourne Office

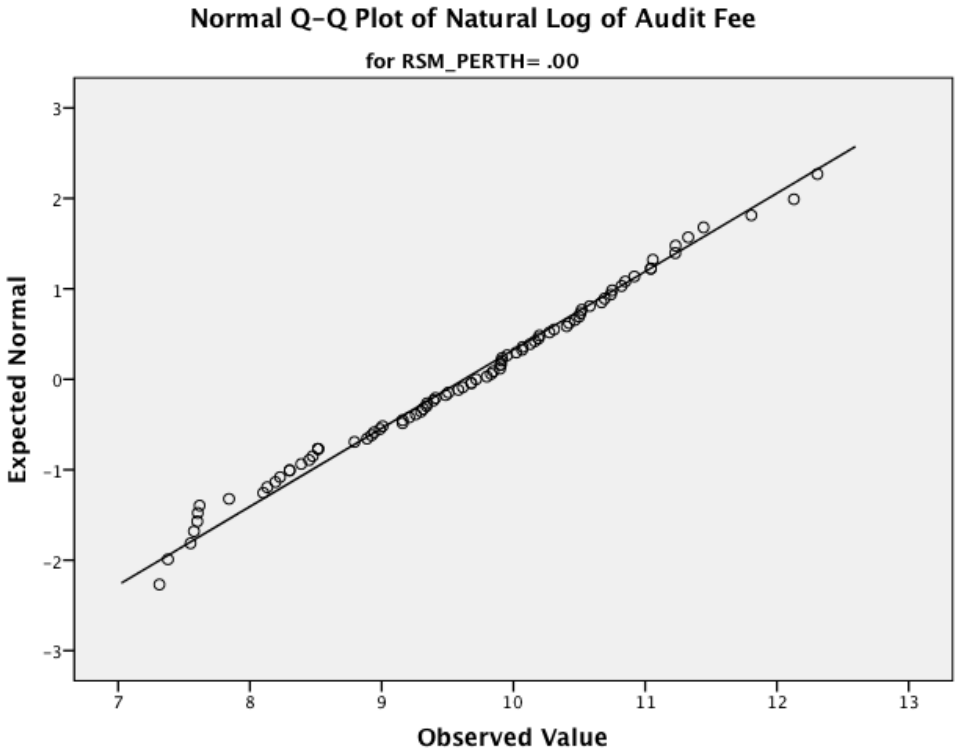

Figure 106: Standard Q-Q plot of NB4RSMPER: Non RSM Bird Cameron Perth Office

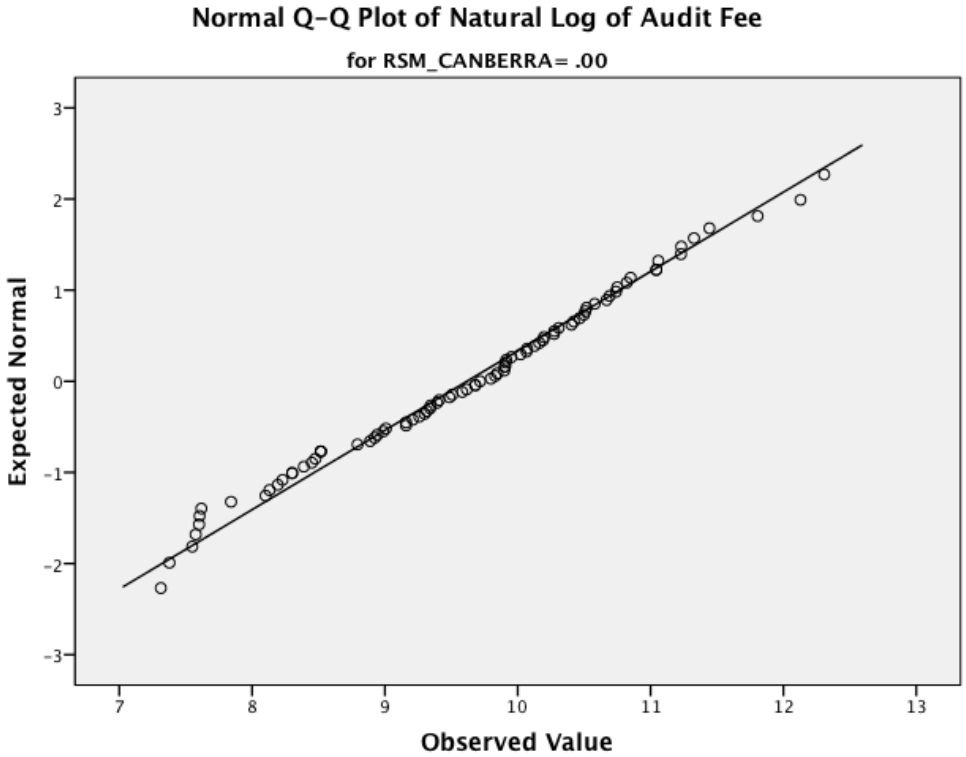

Figure 107: Standard Q-Q plot of NB4RSMCAN: Non RSM Bird Cameron Canberra Office

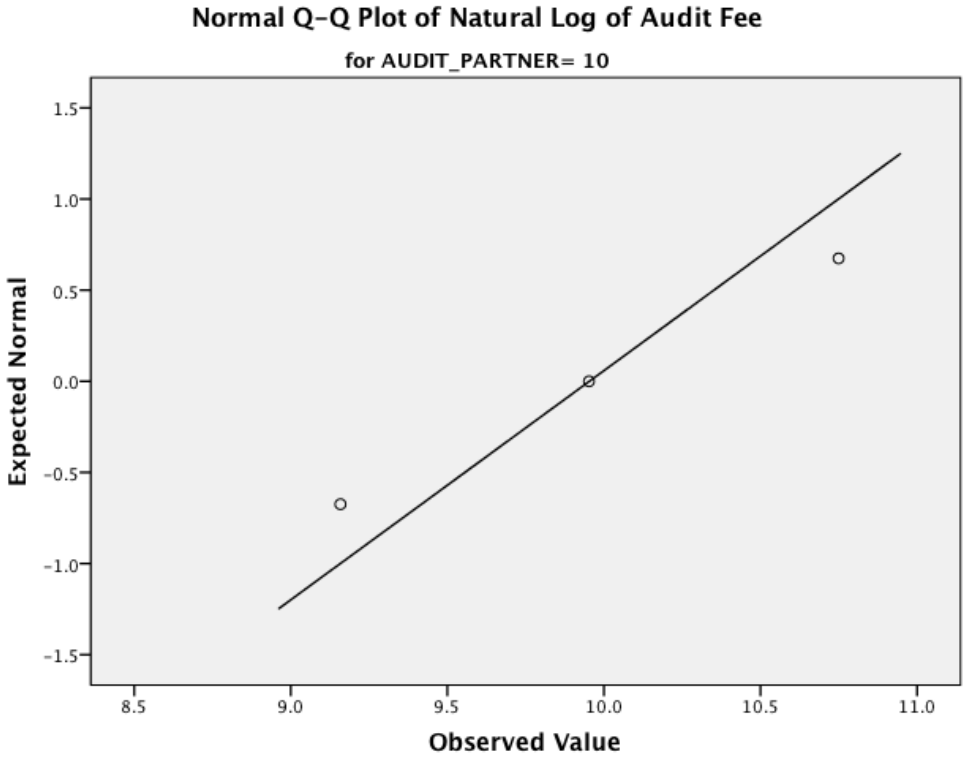

Figure 108: Standard Q-Q plot of AUDITFIRM_PARTNER = 10

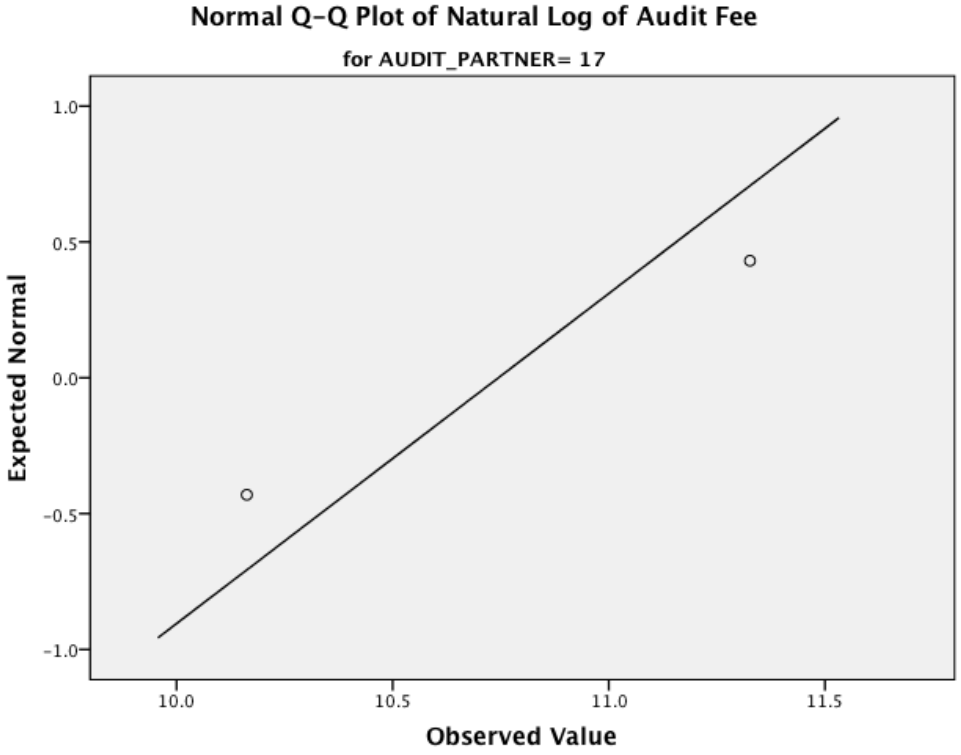

Figure 109: Standard Q-Q plot of AUDITFIRM_PARTNER = 17

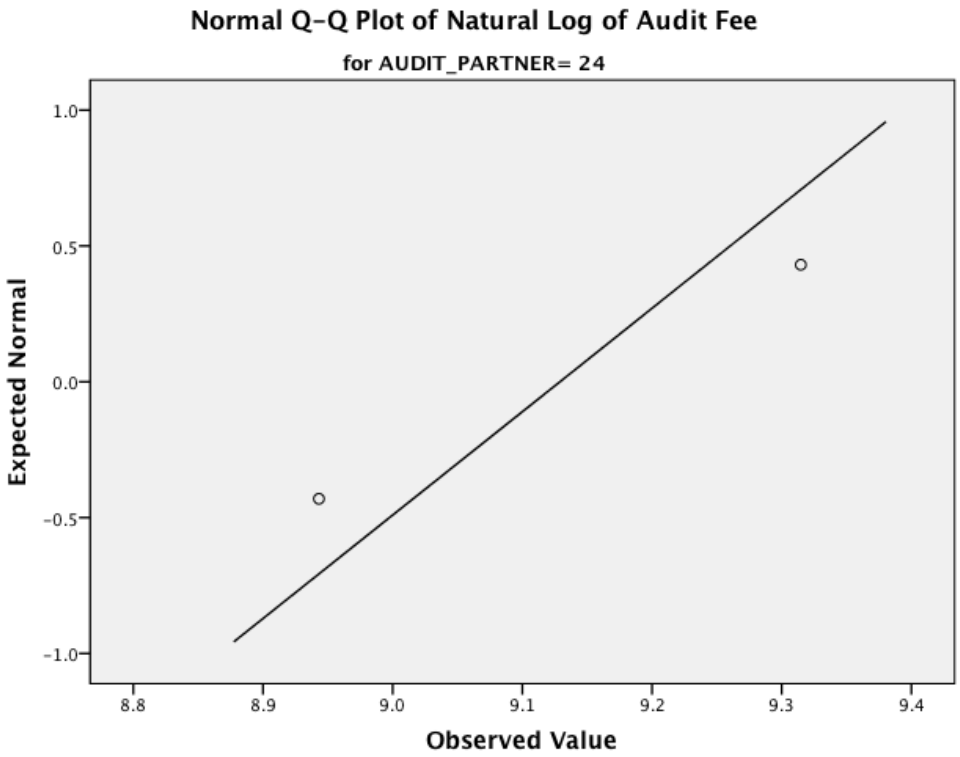

Figure 110: Standard Q-Q plot of AUDITFIRM_PARTNER = 24

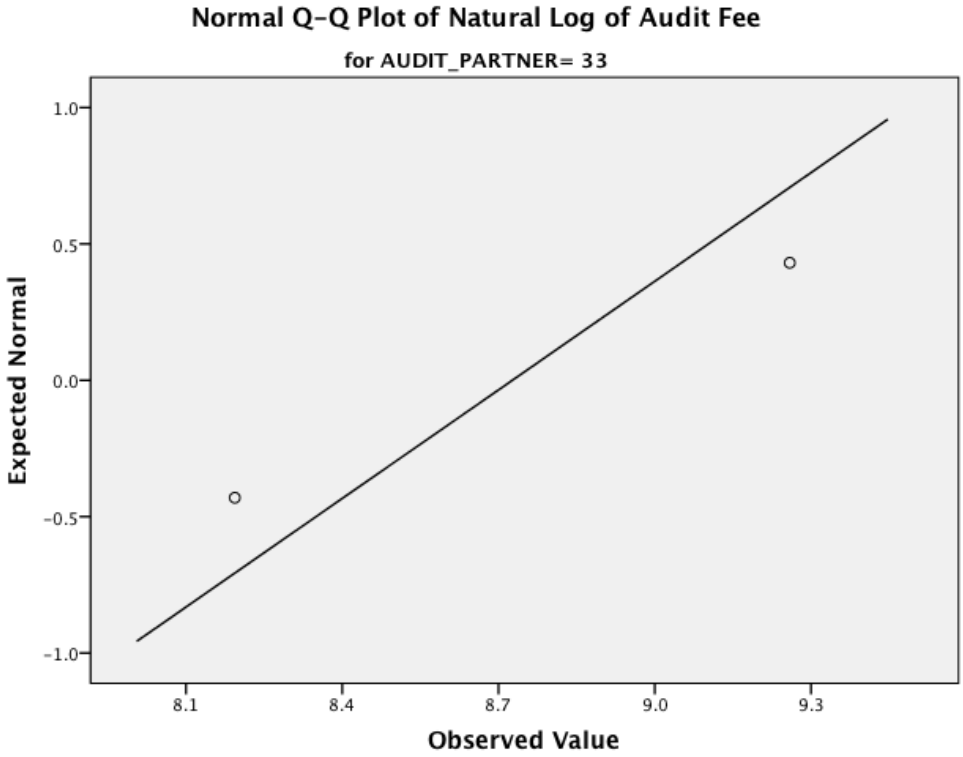

Figure 111: Standard Q-Q plot of AUDITFIRM_PARTNER = 33

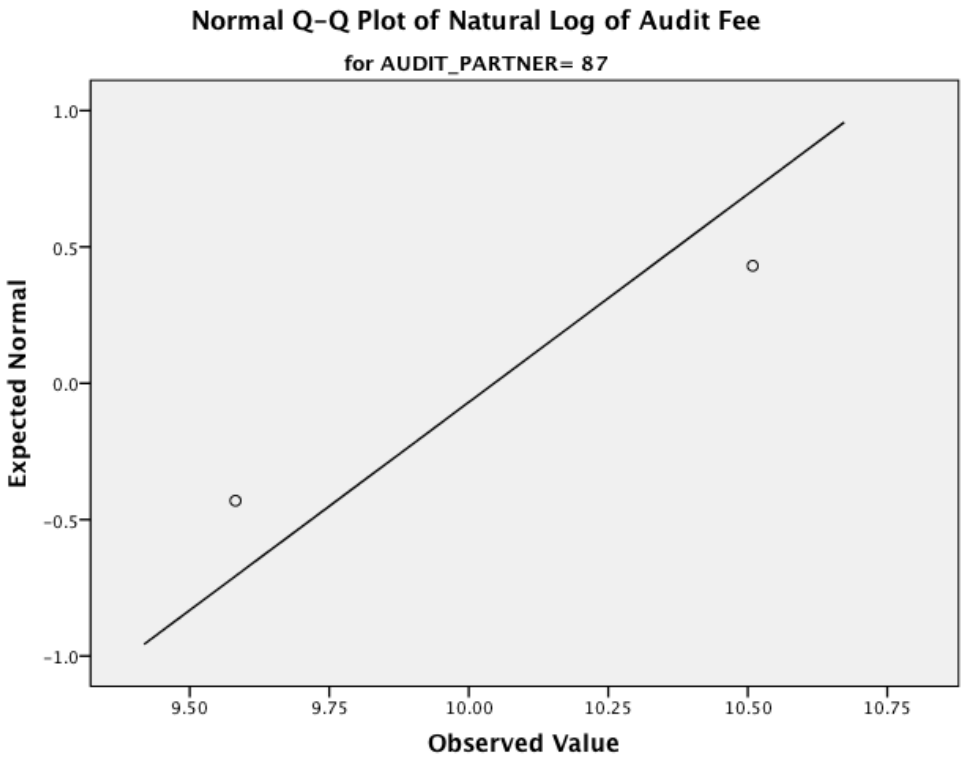

Figure 112: Standard Q-Q plot of AUDITFIRM_PARTNER = 87

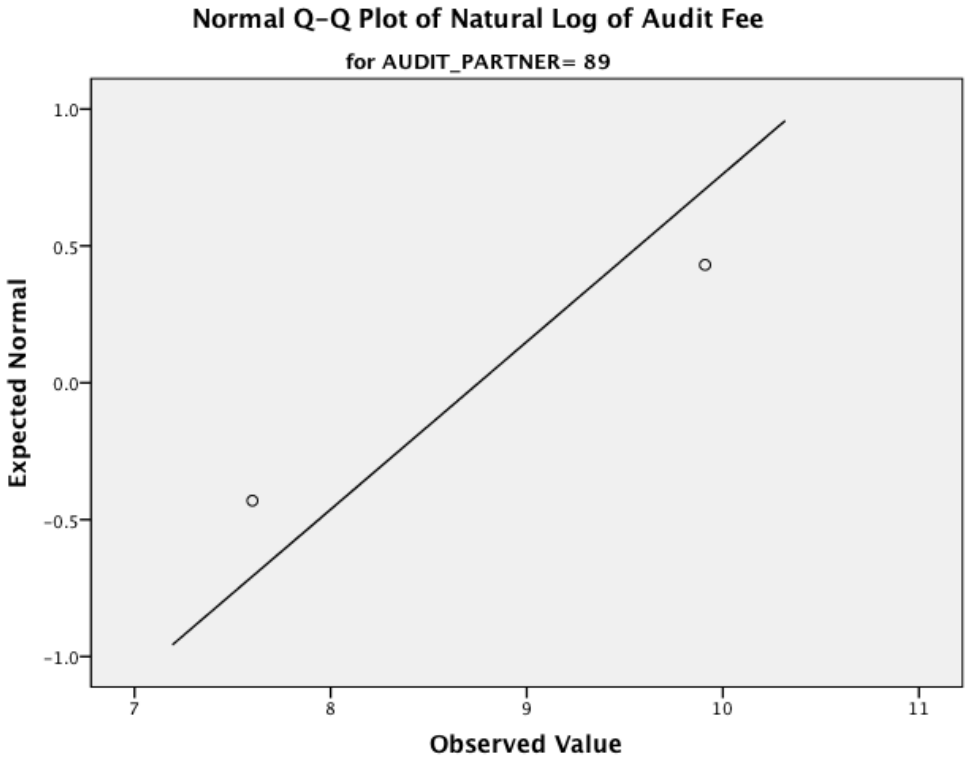

Figure 113: Standard Q-Q plot of AUDITFIRM_PARTNER = 89

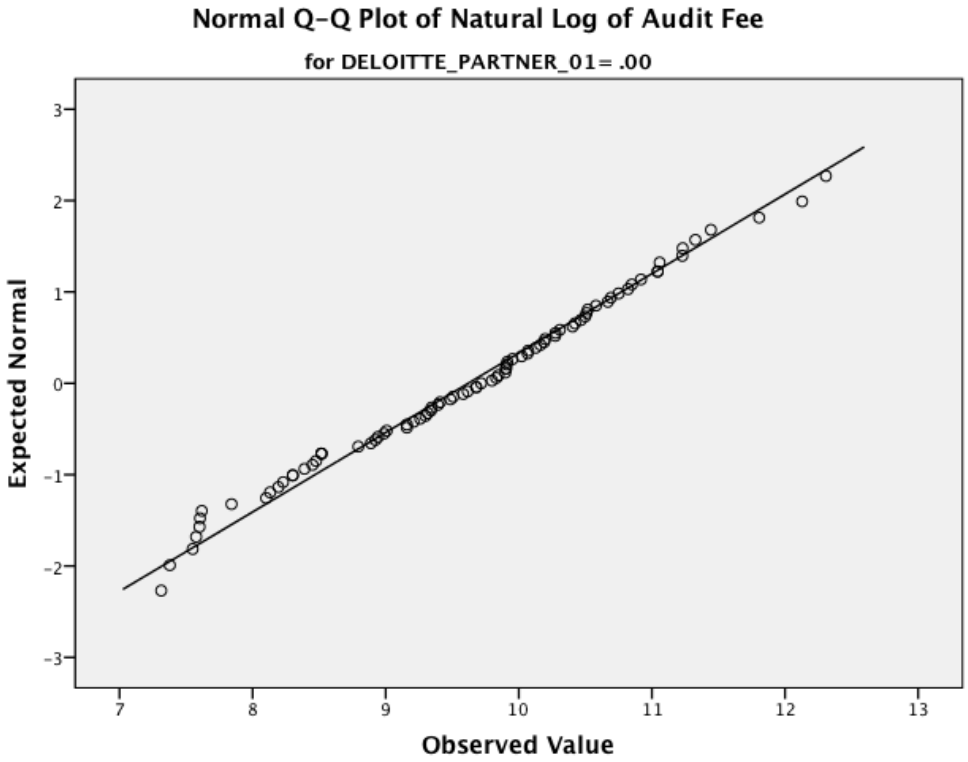

Figure 114: Standard Q-Q plot of B4DELBROWN_A Non Deloitte Partner Brown_A

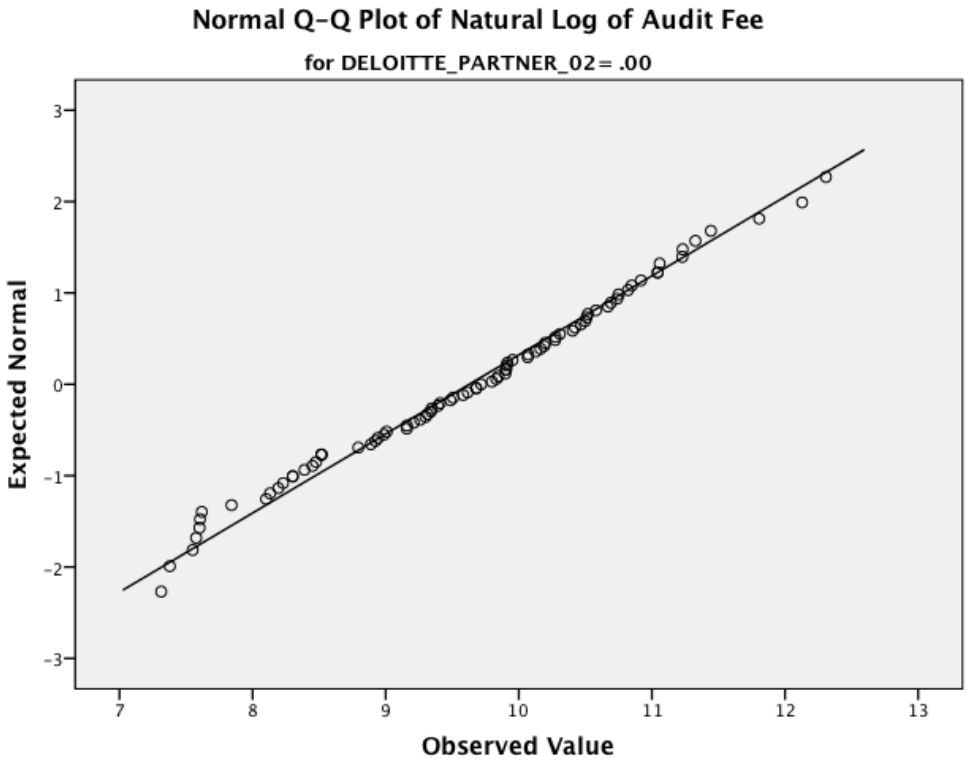

Figure 115: Standard Q-Q plot of B4DELLEFEVRE Non Deloitte Partner Lefevre

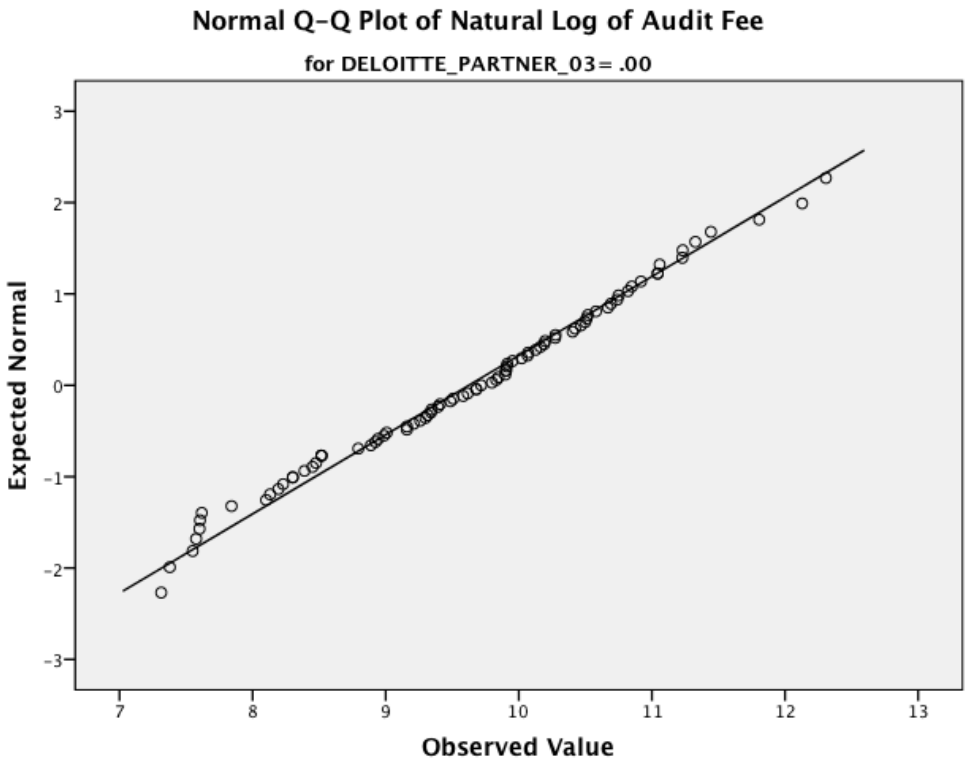

Figure 116: Standard Q-Q plot of B4DELPEARCE Non Deloitte Partner Pearce

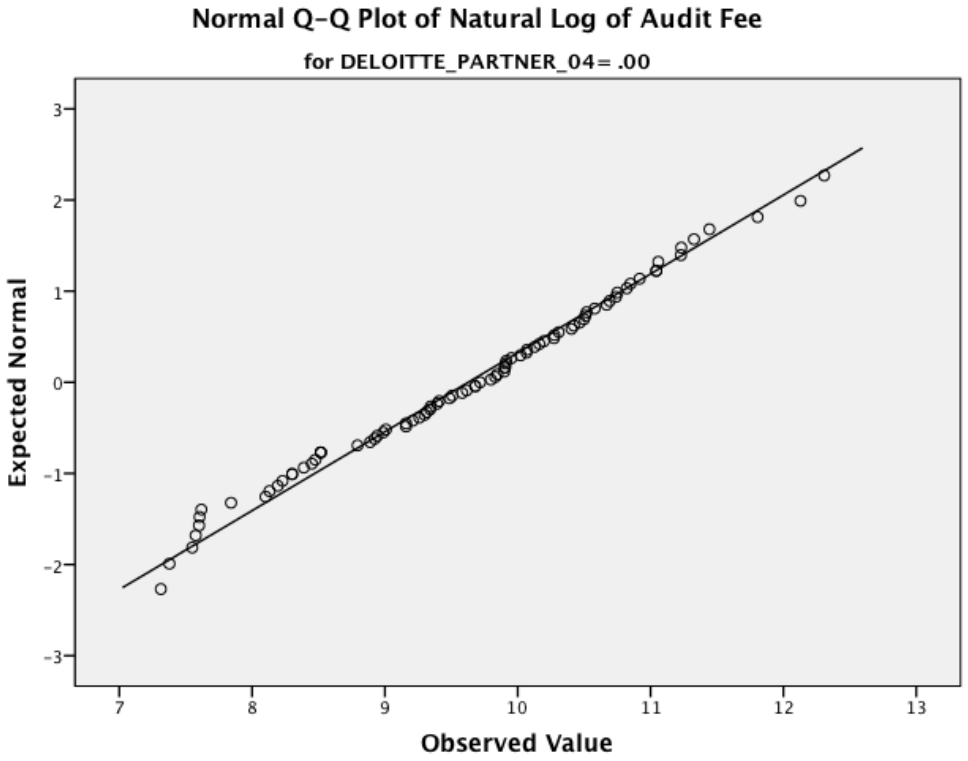

Figure 117: Standard Q-Q plot of B4DELBROWN Non Deloitte Partner Brown

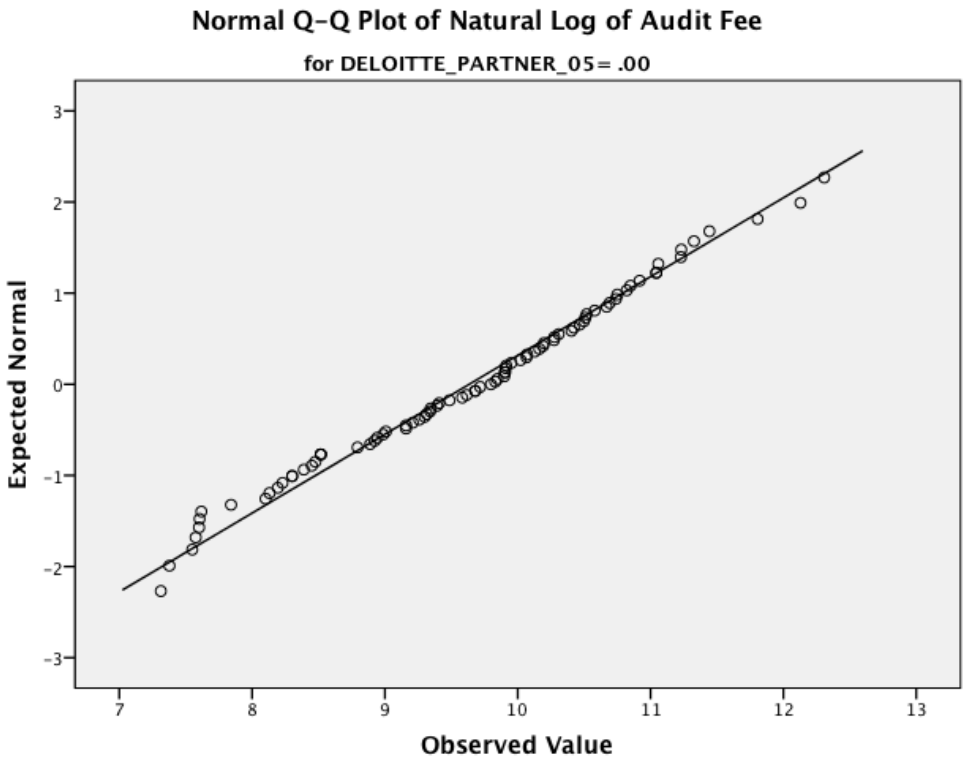

Figure 118: Standard Q-Q plot of B4DELBANGLEUCCI Non Deloitte Partner Angleucci

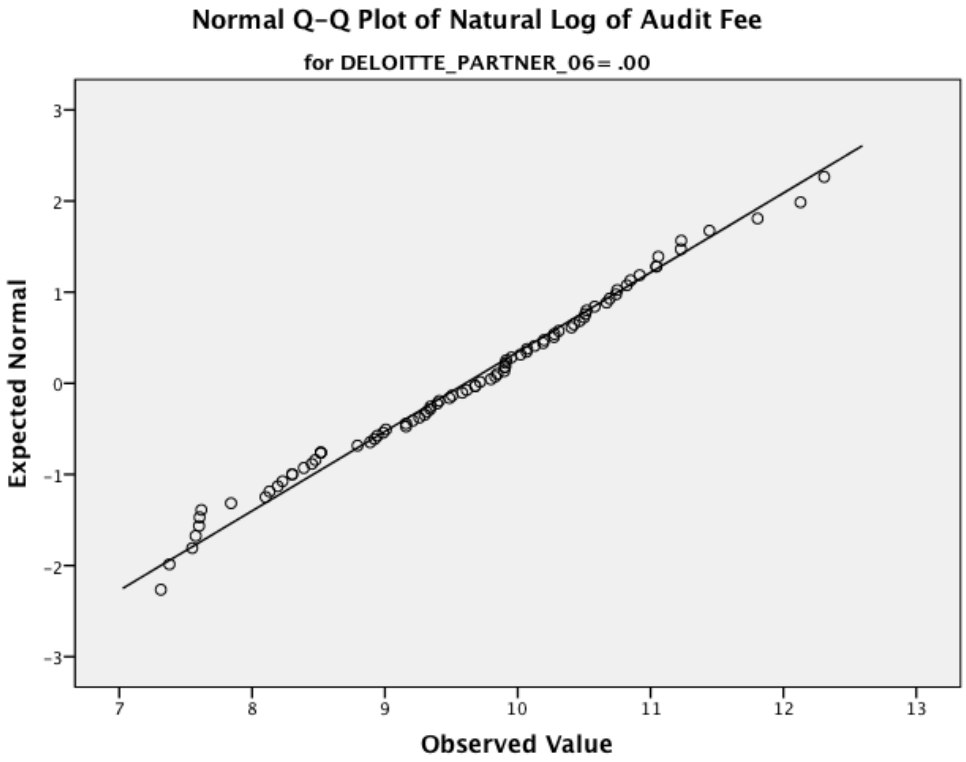

Figure 119: Standard Q-Q plot of B4DELCOLLIE: Non Deloitte Partner Collie

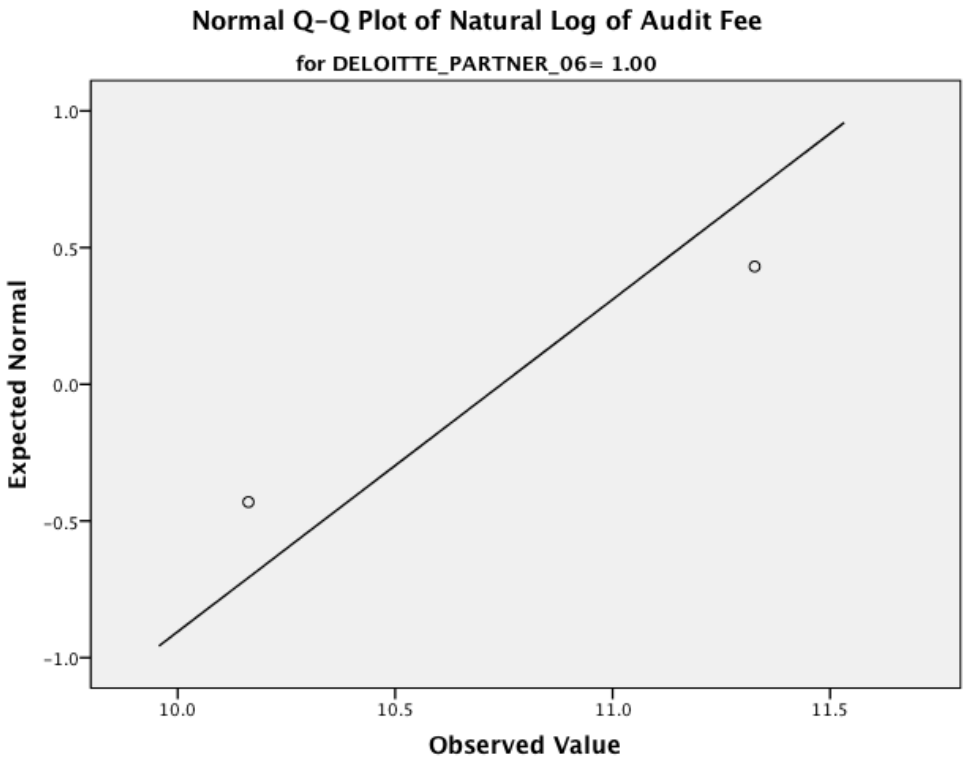

Figure 120: Standard Q-Q plot of B4DELCOLLIE: Deloitte Partner Collie

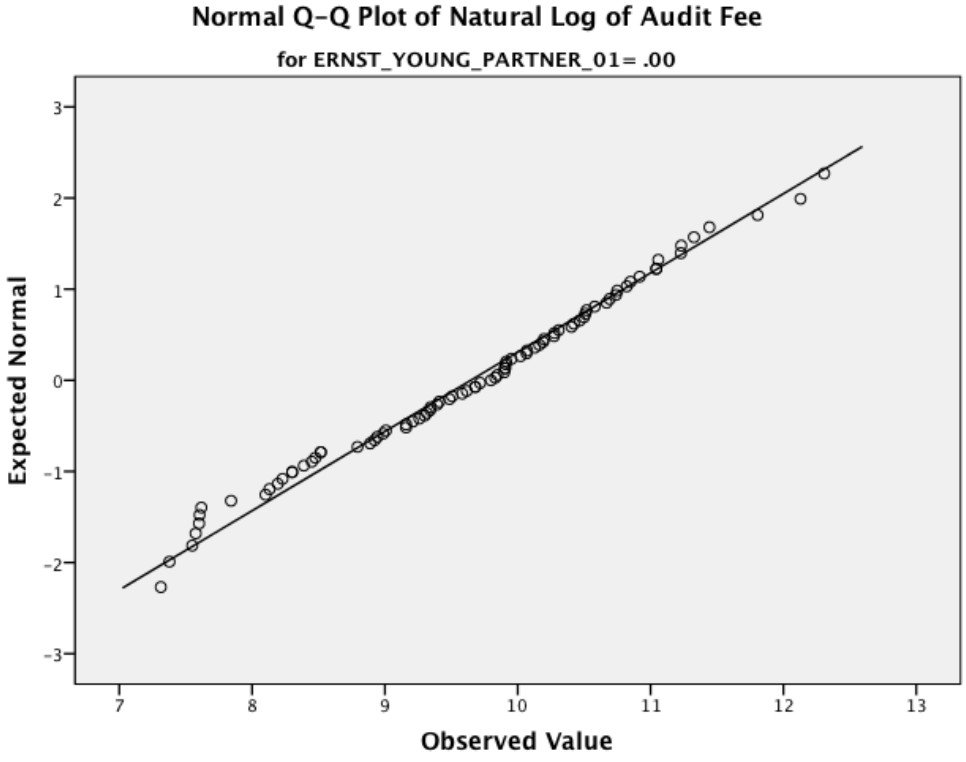

Figure 121: Standard Q-Q plot of B4EYWALLANCE: Non Ernst & Young Partner Wallace

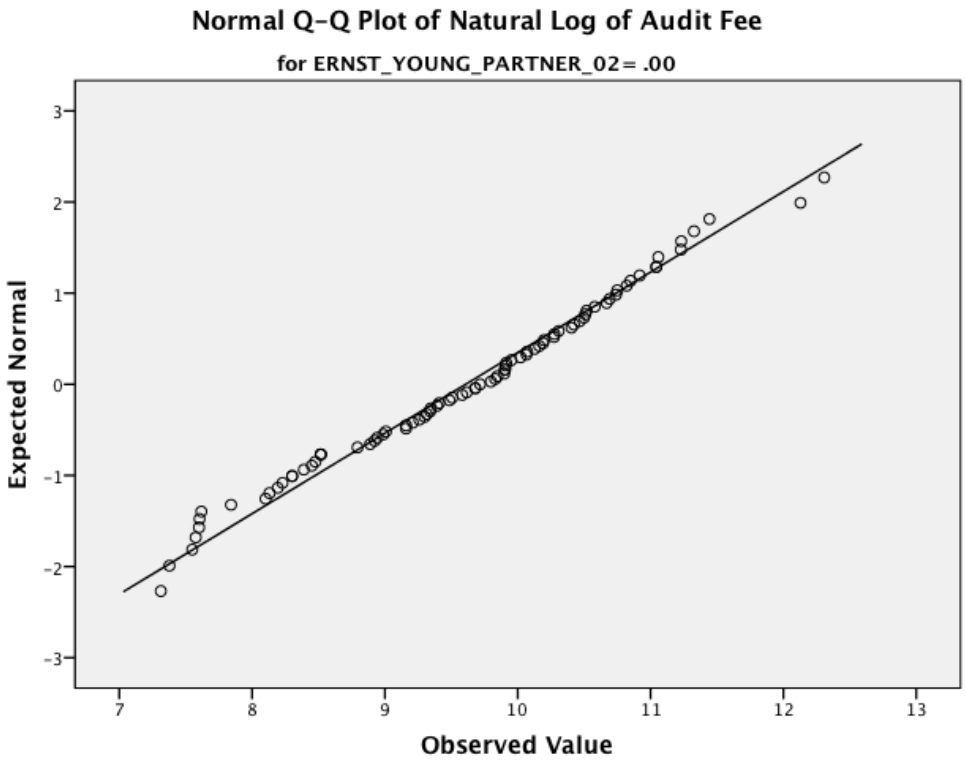

Figure 122: Standard Q-Q plot of B4EYPAINTER: Non Ernst & Young Partner Painter

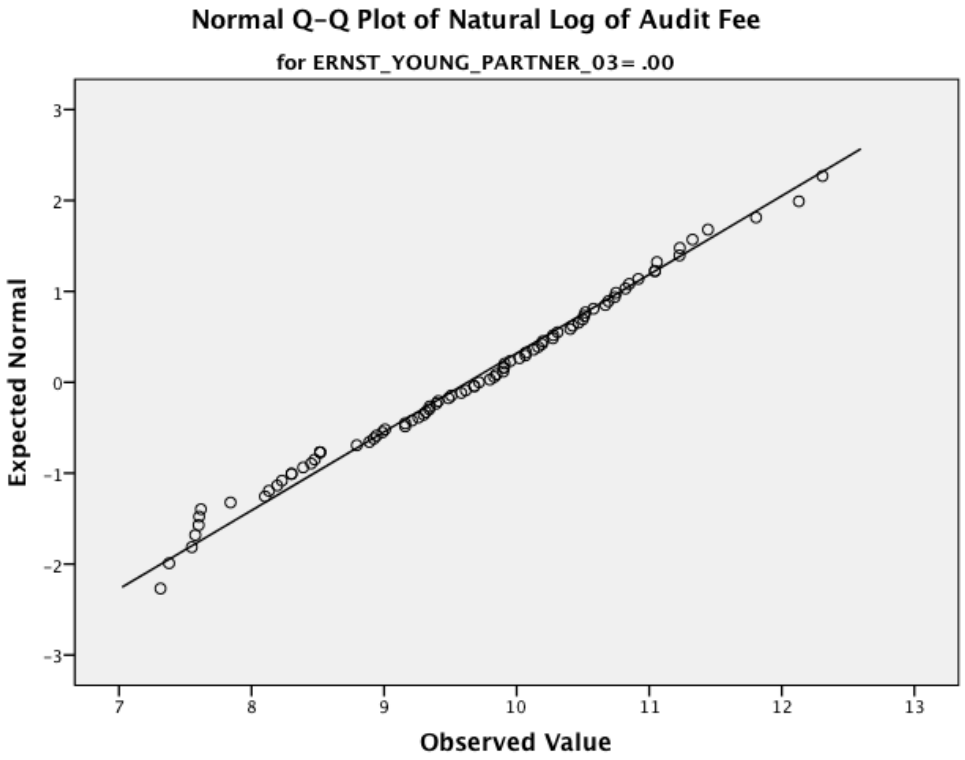

Figure 123: Standard Q-Q plot of B4EYLEWIS: Non Ernst & Young Partner Lewis

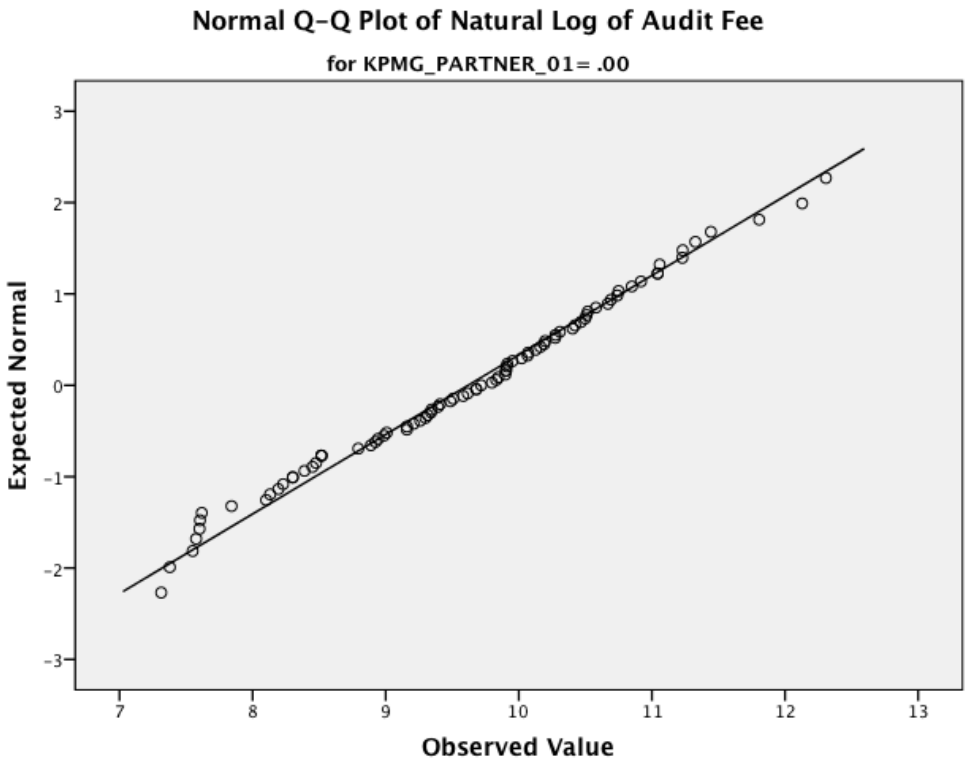

Figure 124: Standard Q-Q plot of B4KPMGSCAMMELL: Non KPMG Partner Scammell

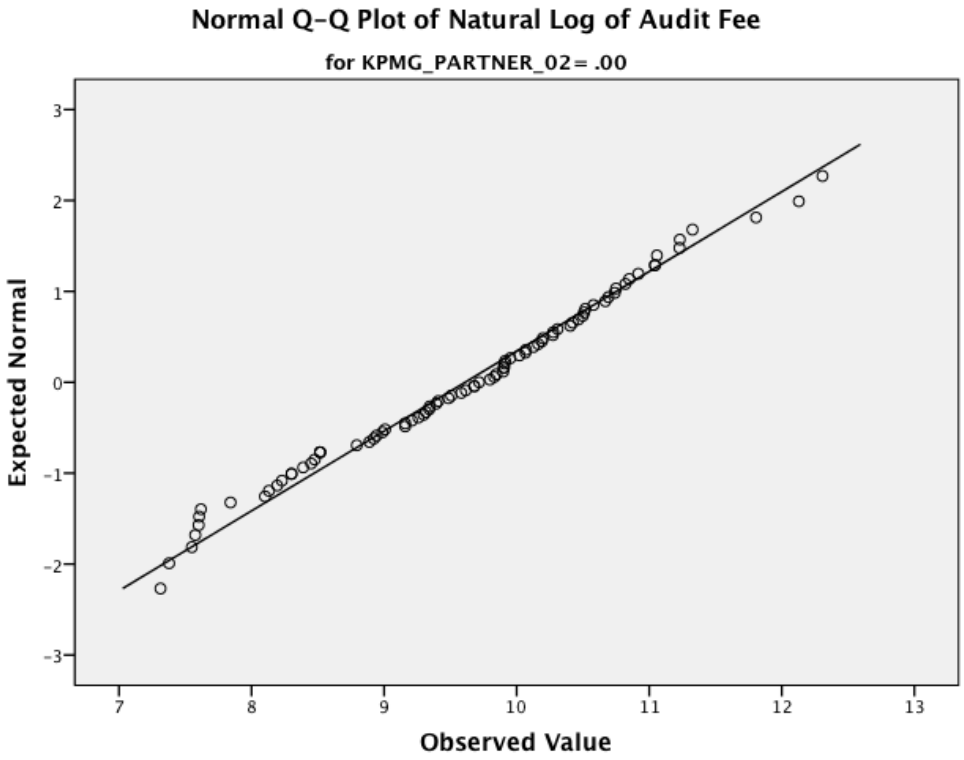

Figure 125: Standard Q-Q plot of B4KPMGNAPIER: Non KPMG Partner Napier

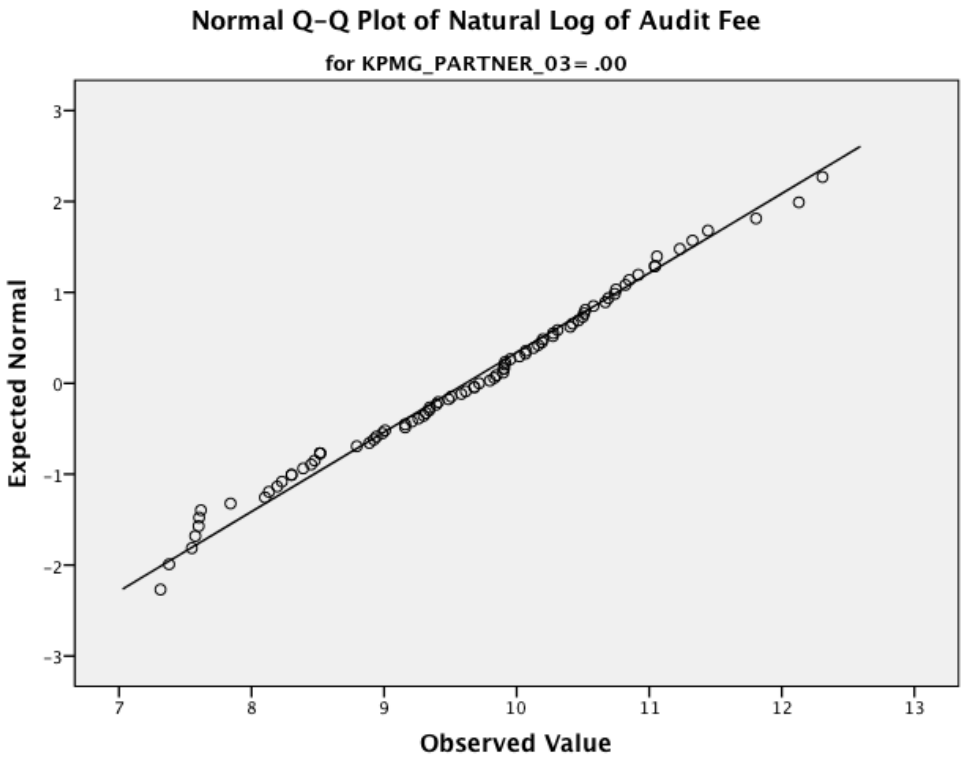

Figure 126: Standard Q-Q plot of B4KPMGMITCHEL: Non KPMG Partner Mitchel

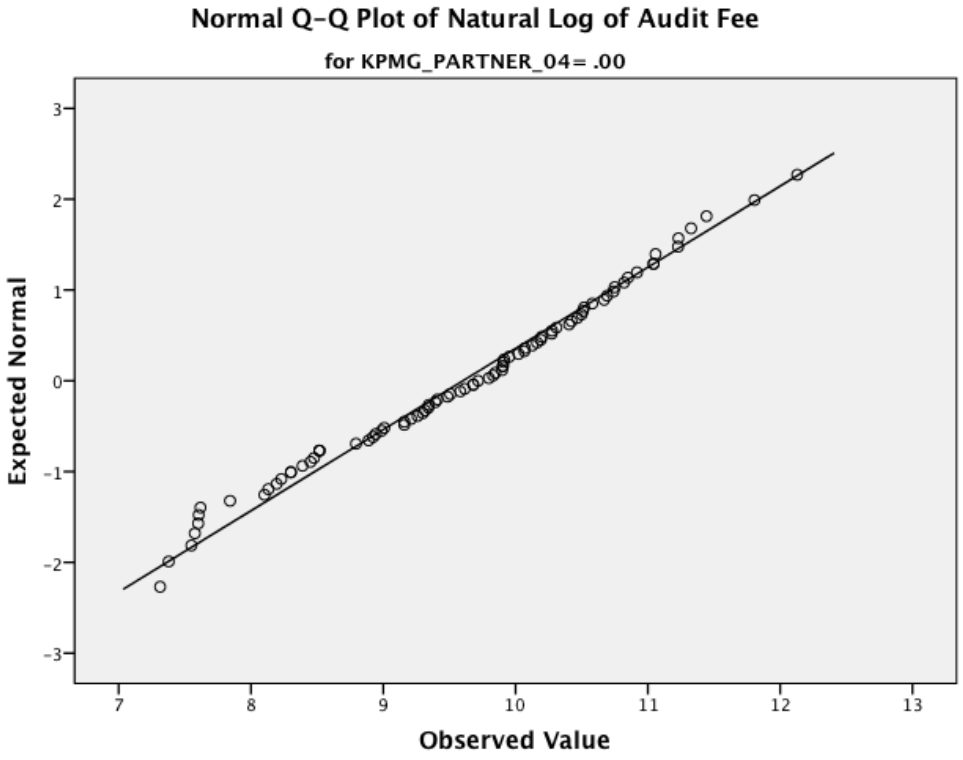

Figure 127: Standard Q-Q plot of B4KPMGTRAVERS: Non KPMG Partner Travers

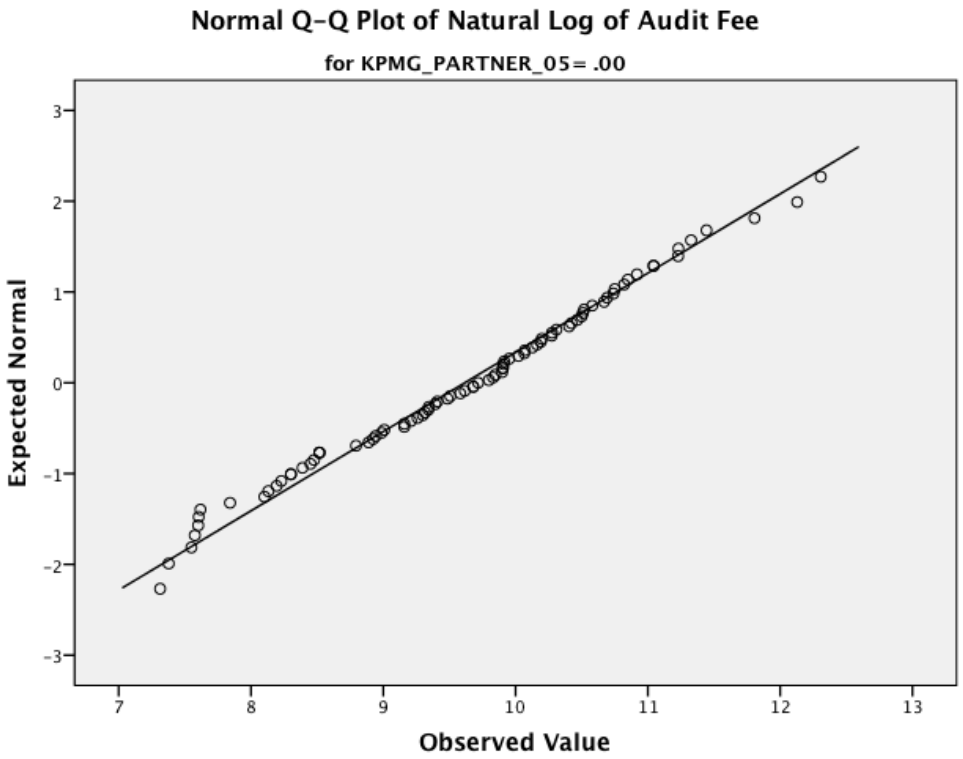

Figure 128: Standard Q-Q plot of B4KPMGROBINSON: Non KPMG Partner Robinson

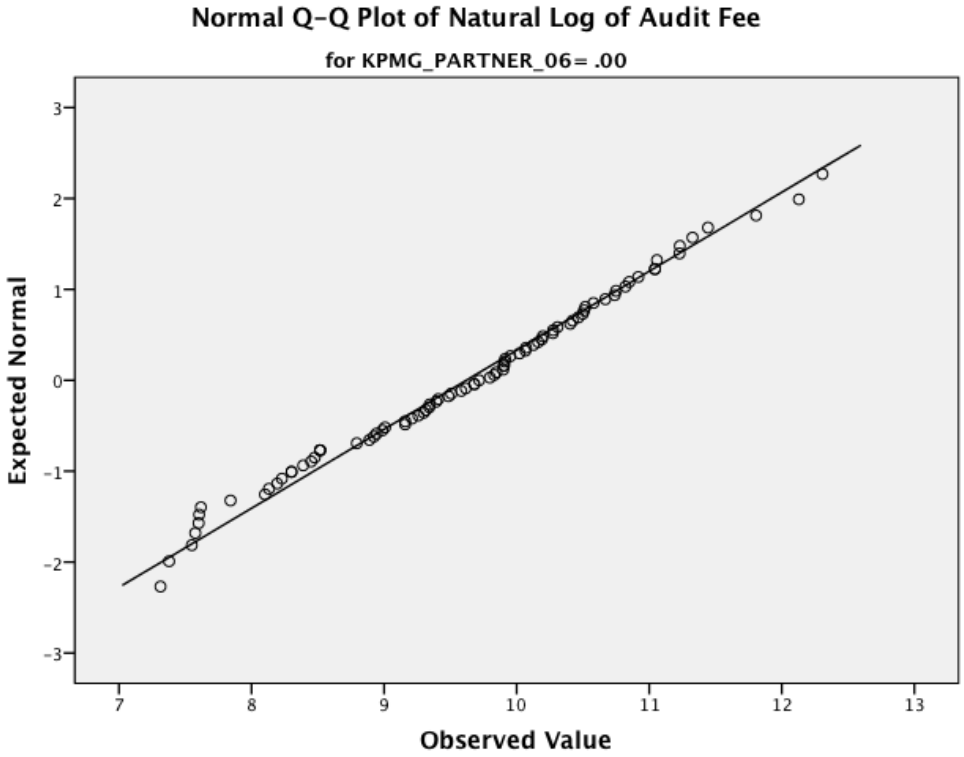

Figure 129: Standard Q-Q plot of B4KPMGMATTERA: Non KPMG Partner Mattera

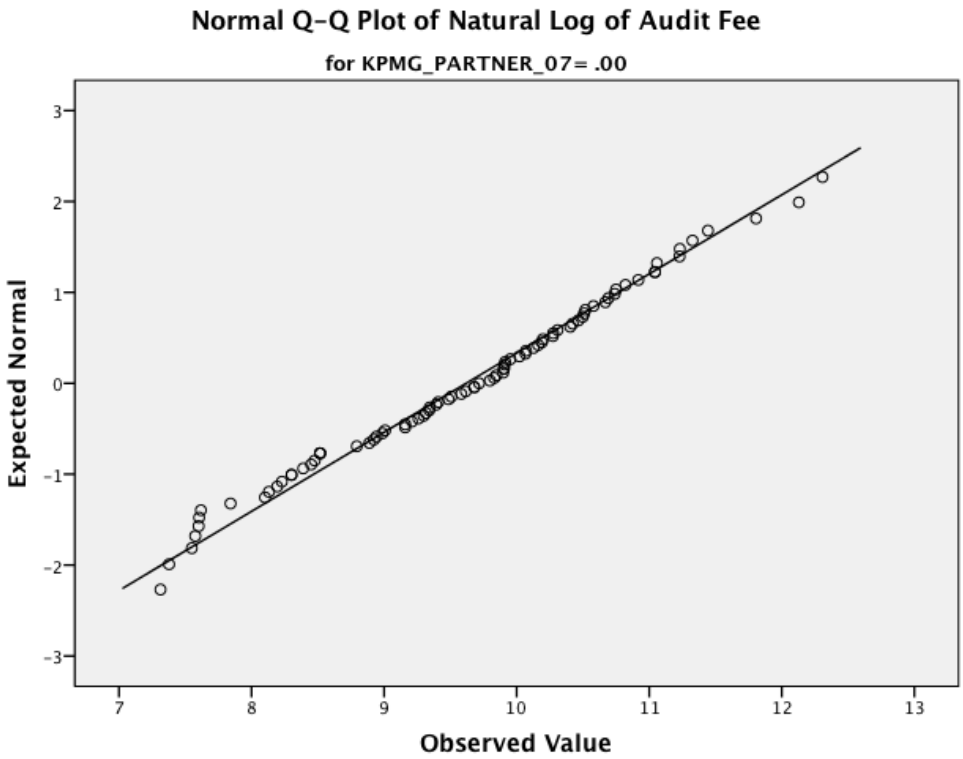

Figure 130: Standard Q-Q plot of B4KPMGCINANNL: Non KPMG Partner Cinannl

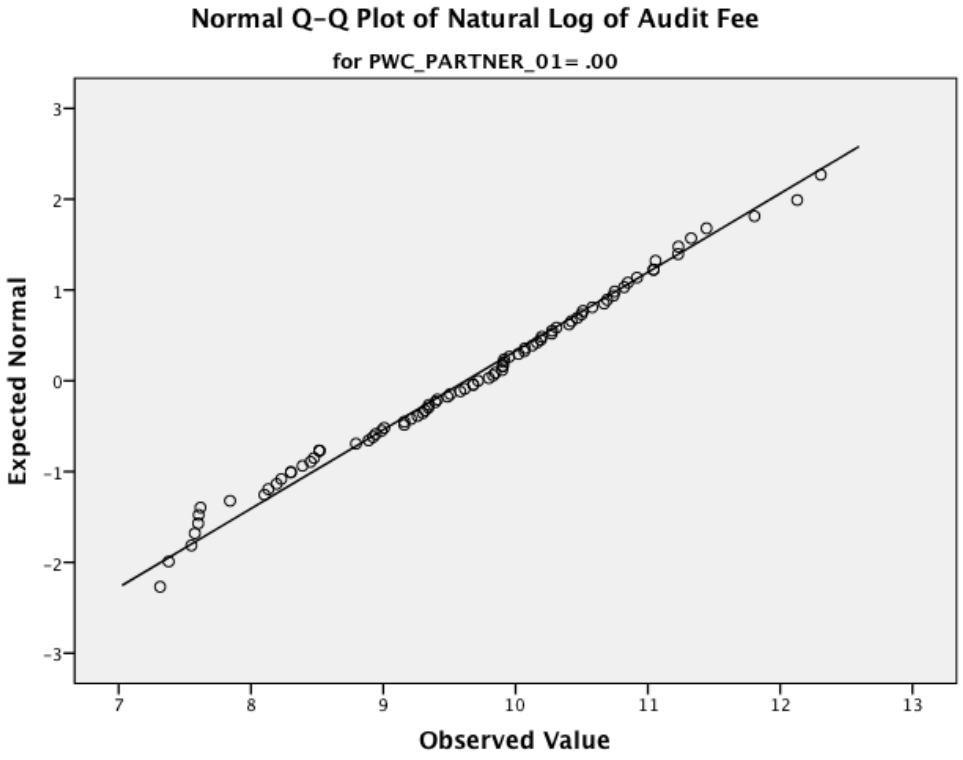

Figure 131: Standard Q-Q plot of B4KPWCBUCHOLZ: Non PWC Partner Bucholz

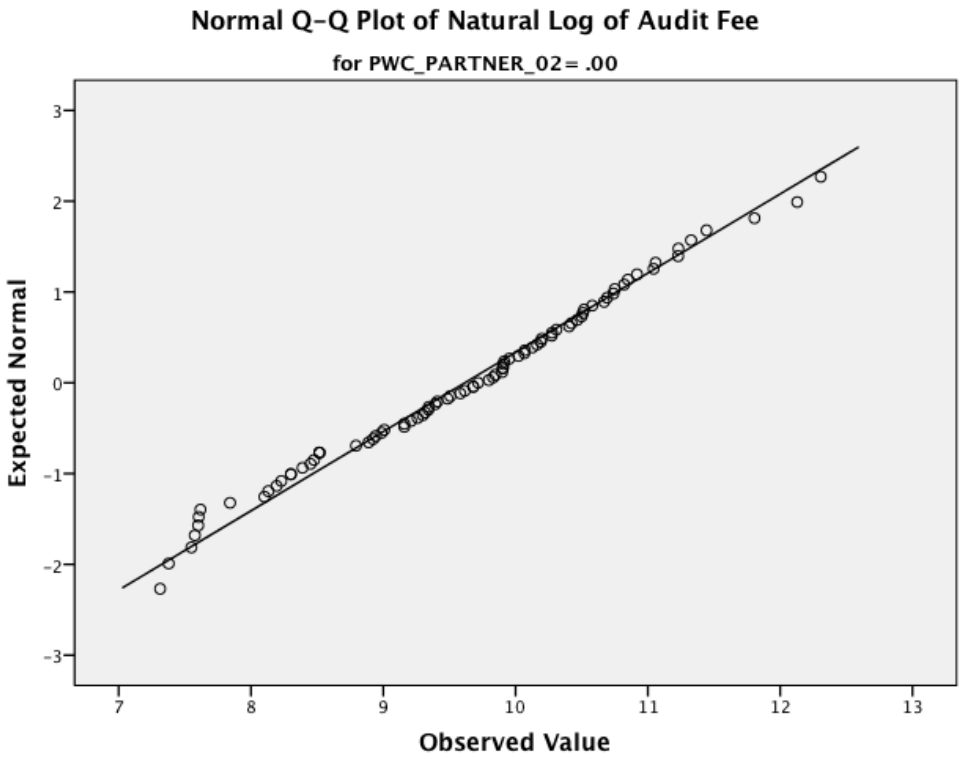

Figure 132: Standard Q-Q plot of B4KPWCMCCONNEL: Non PWC Partner McConnel

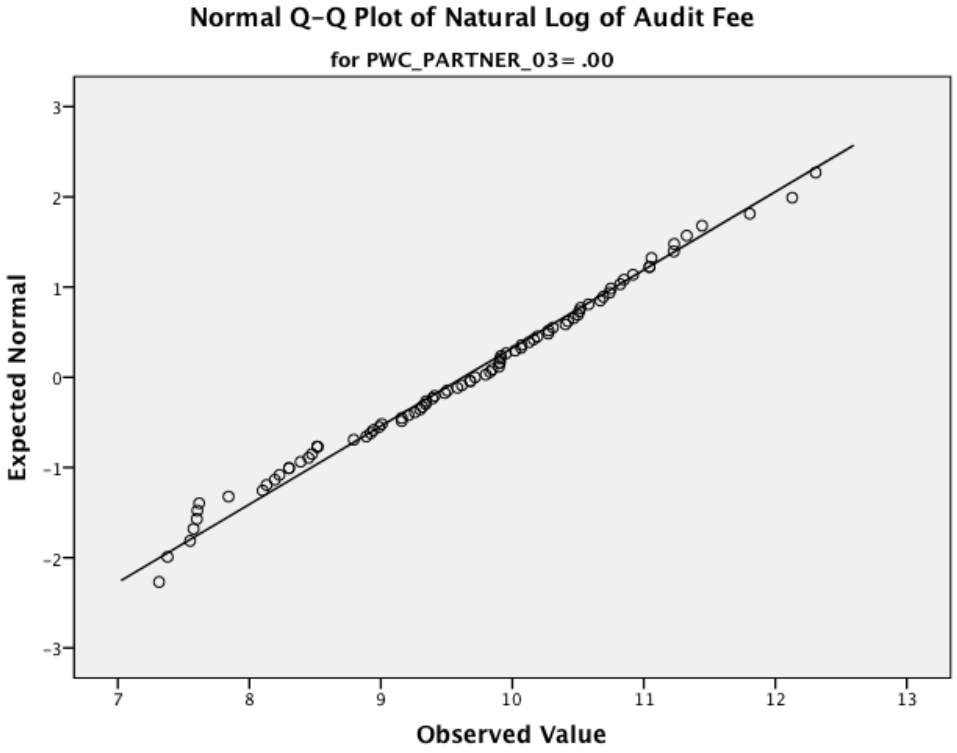

Figure 133: Standard Q-Q plot of B4KPWCTURNER: Non PWC Partner Turner

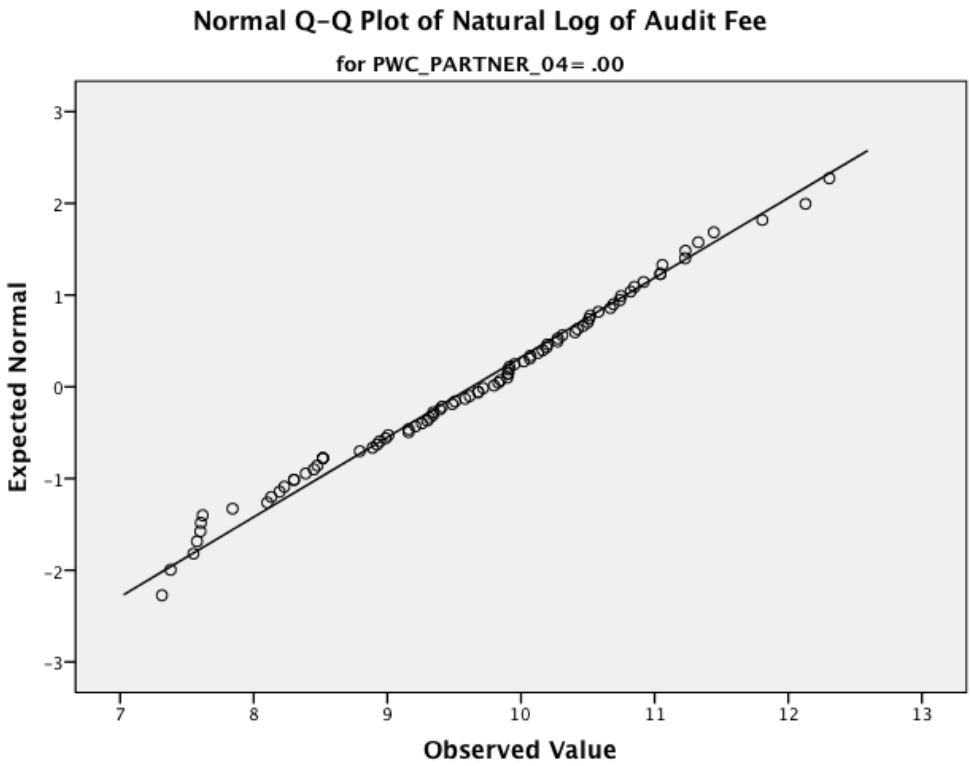

Figure 134: Standard Q-Q plot of B4KPWCTURNER: Non PWC Partner Scoular

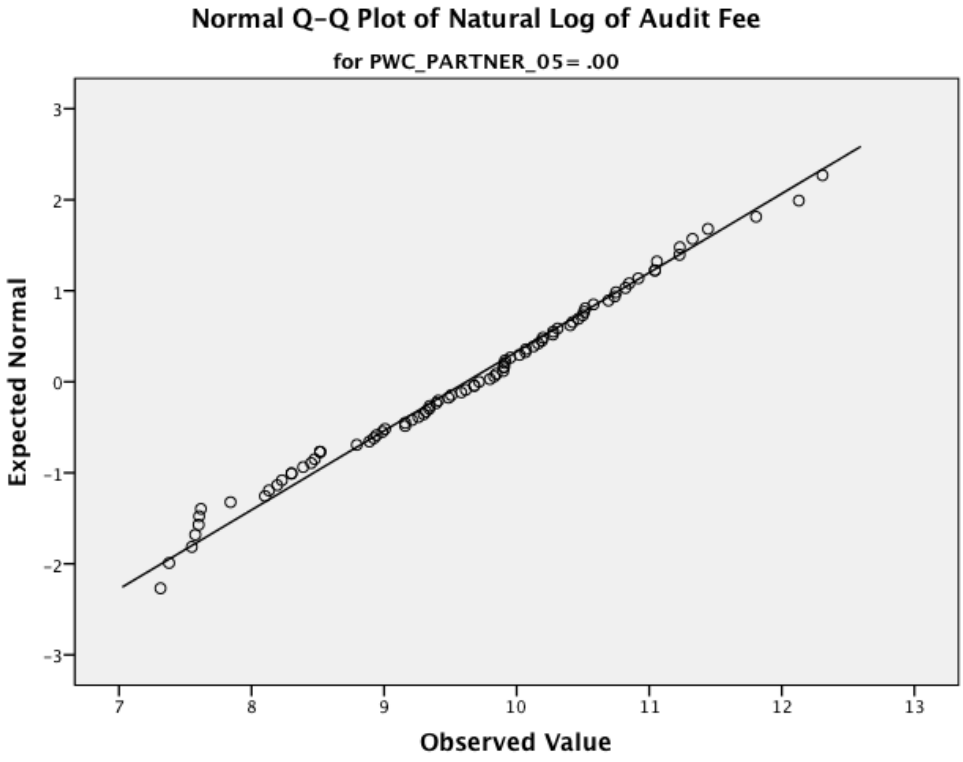

Figure 135: Standard Q-Q plot of B4KPWCMAHER:- Non PWC Partner Maher

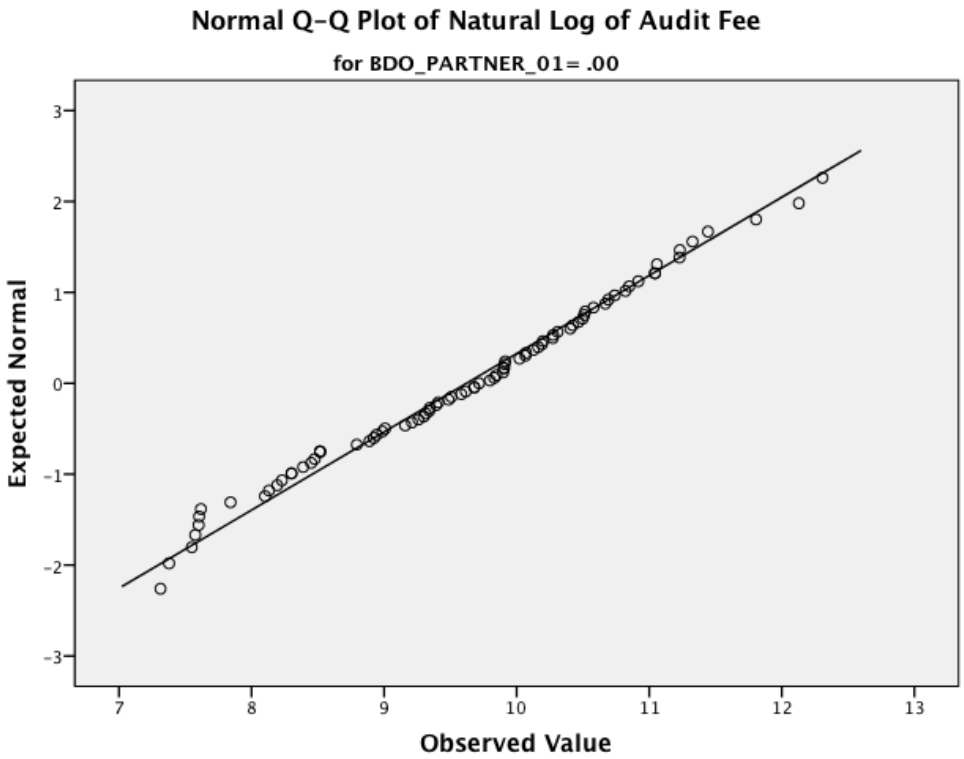

Figure 136: Standard Q-Q plot of NB4BDOPAUL: Non BDO Partner Paul

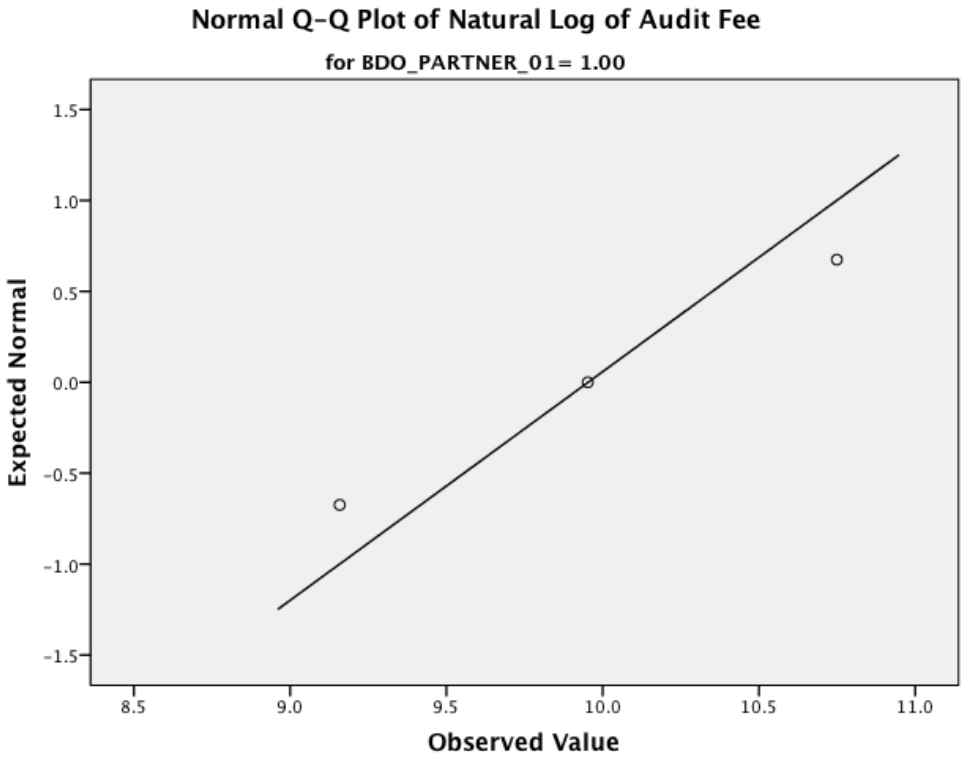

Figure 137: Standard Q-Q plot of NB4BDOPAUL: BDO Partner Paul

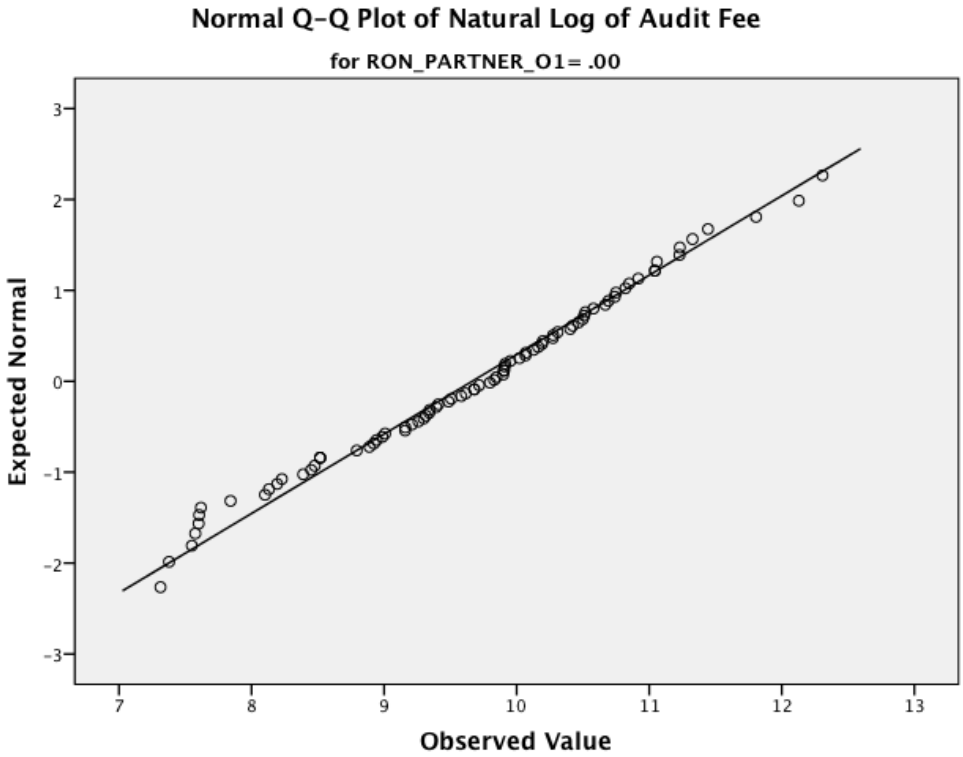

Figure 138: Standard Q-Q plot of NB4RSSMITH: Non Ronald Smith Partner Smith

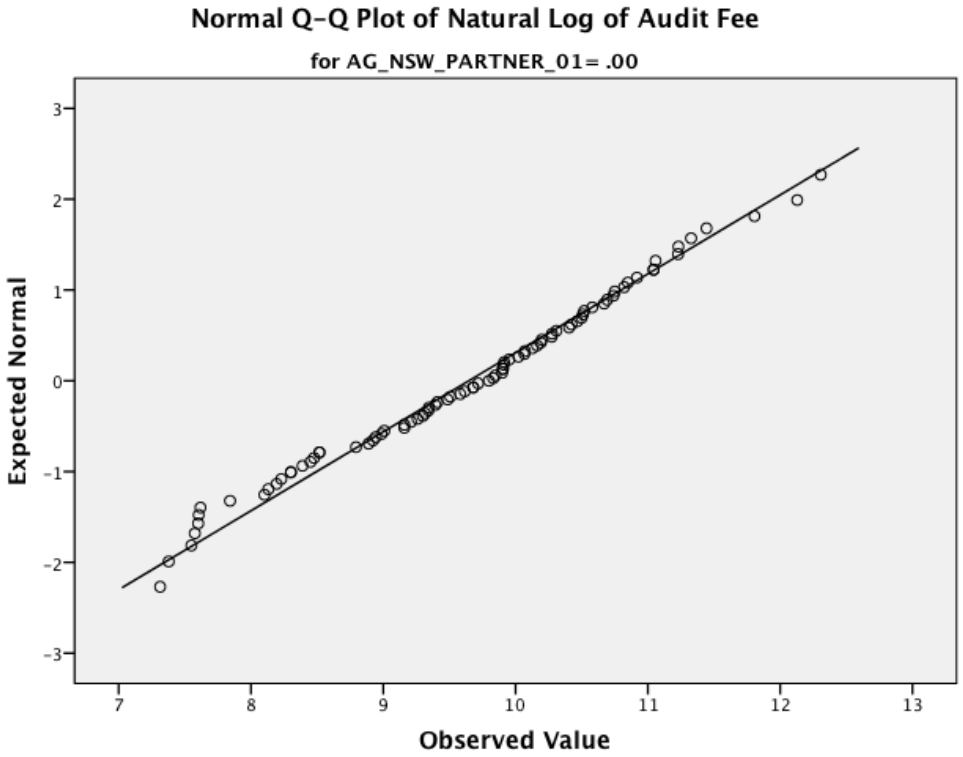

Figure 139: Standard Q-Q plot of NB4AGNWATSON: Non Auditor General NSW Partner Watson

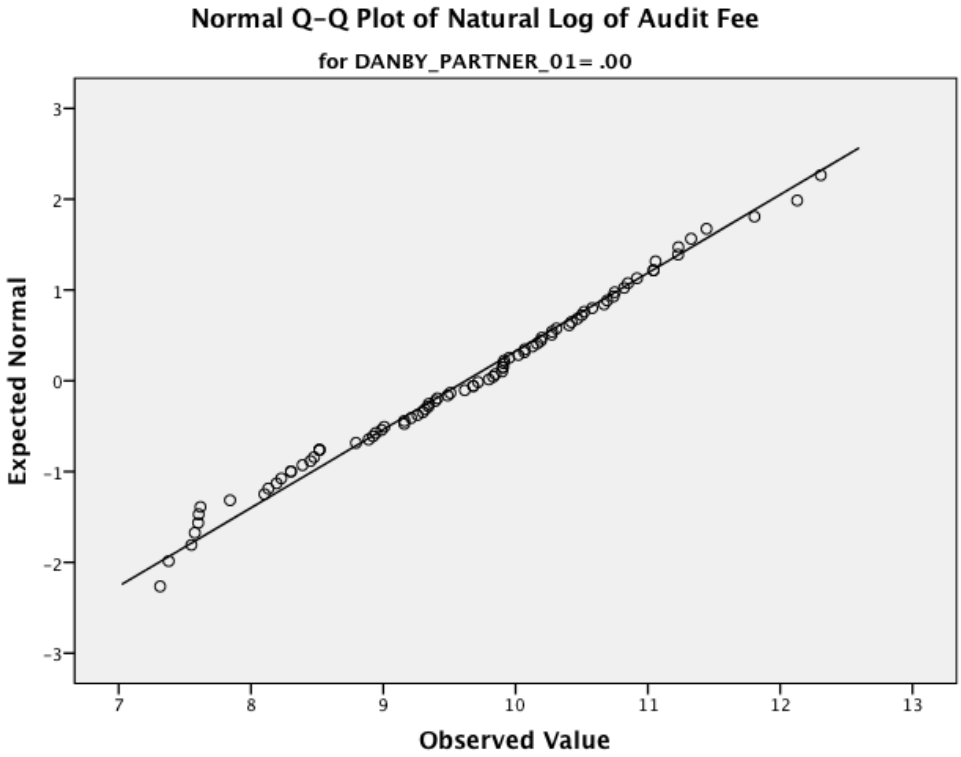

Figure 140: Standard Q-Q plot of NB4DANWINNETT: Non Danby Partner Winnett

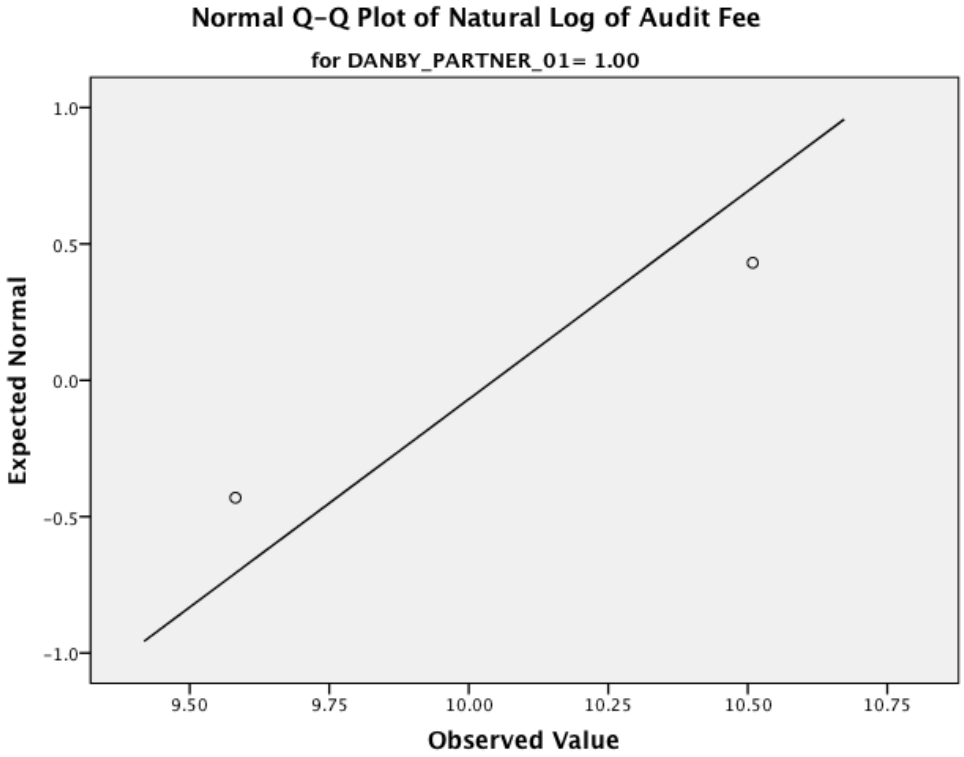

Figure 141: Standard Q-Q plot of NB4DANWINNETT: Danby Partner Winnett

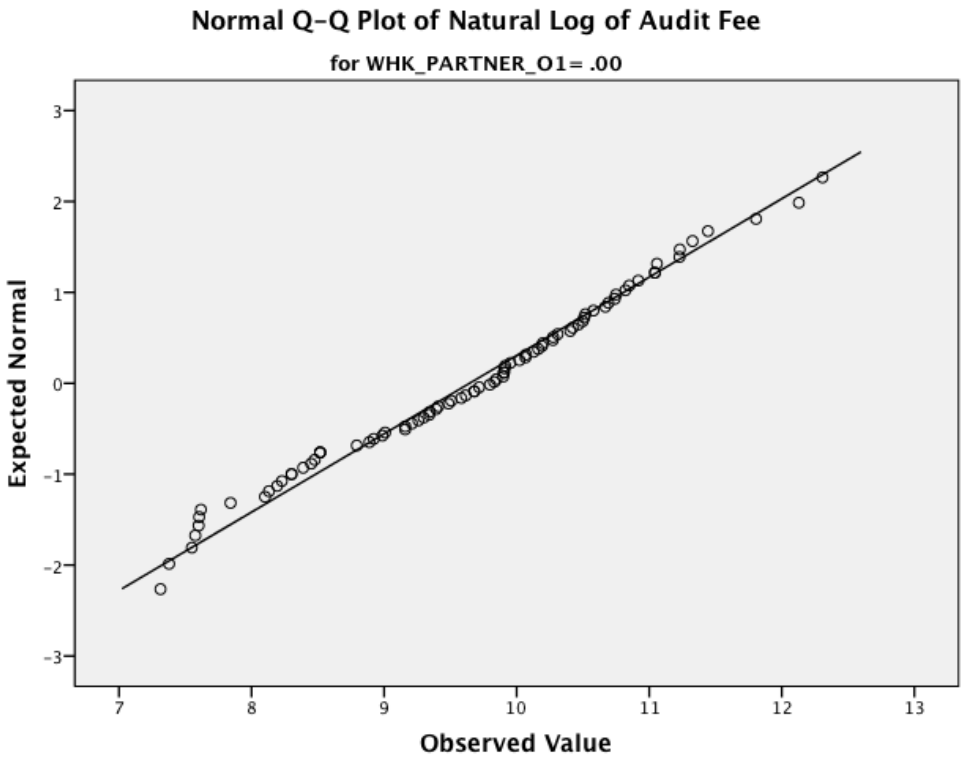

Figure 142: Standard Q-Q plot of NB4WHKFAKEMORE: Non WHK NG Partner Flakemore

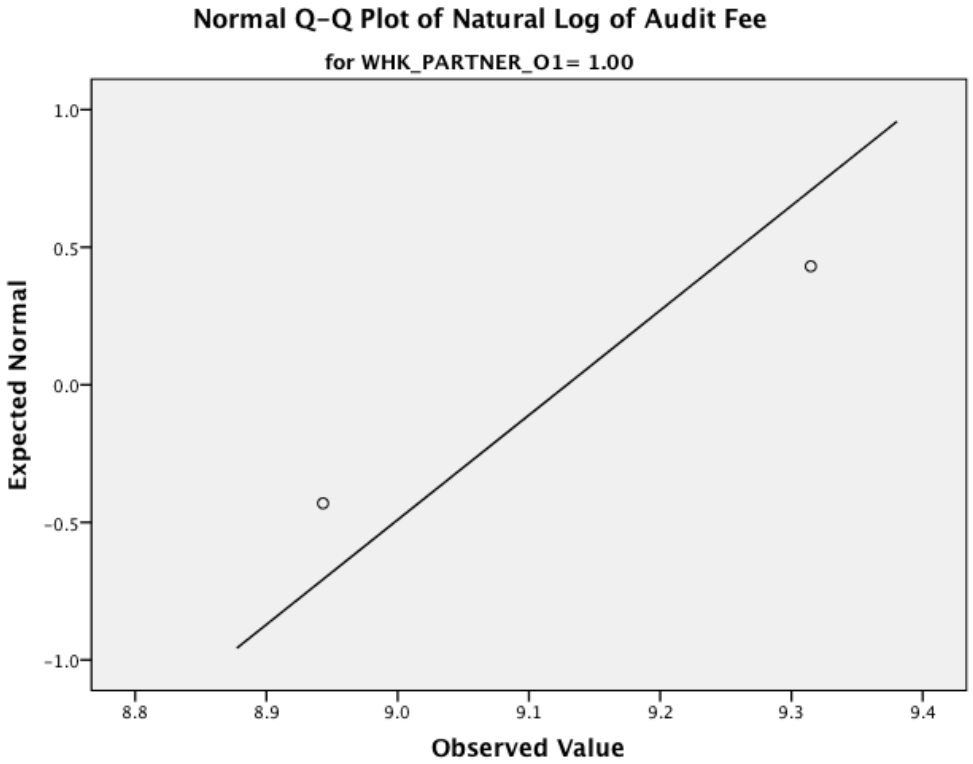

Figure 143: Standard Q-Q plot of NB4WHKFLAKEMORE: WHK NG Partner Flakemore

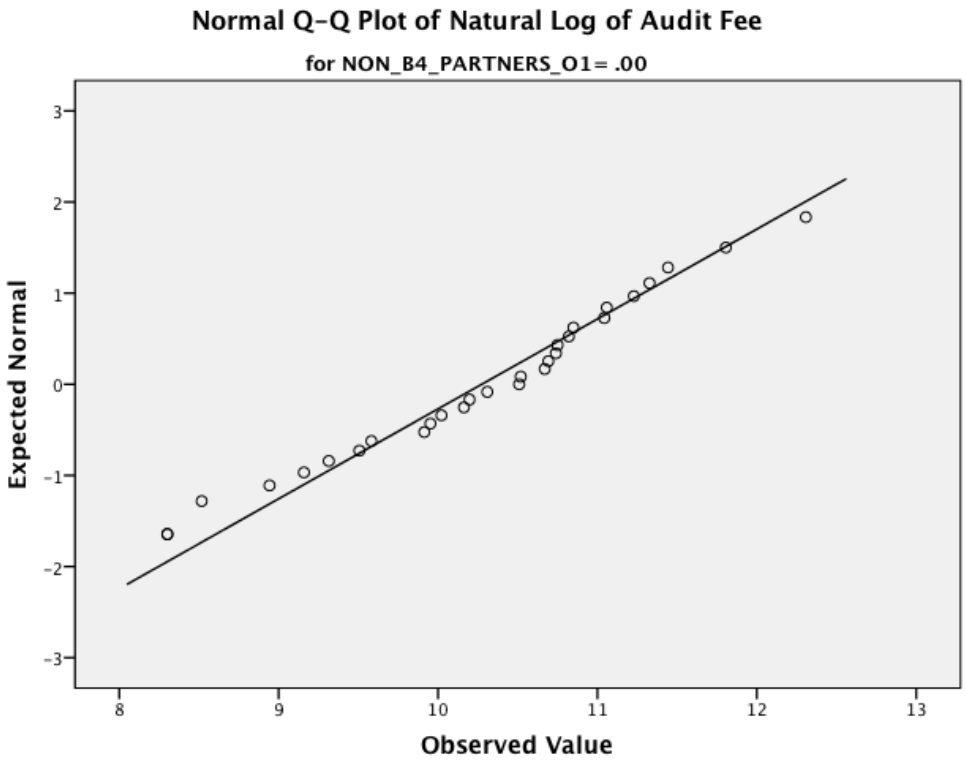

Figure 144: Standard Q-Q plot of NB4OTHERS: Non Non-Big Four Partners Other

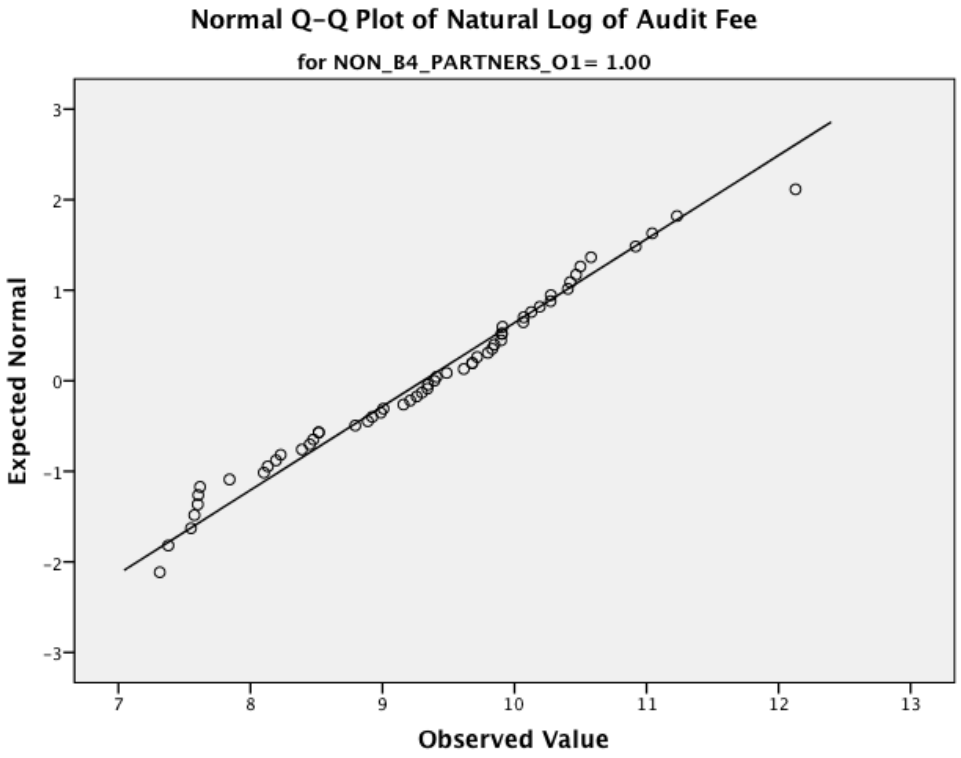

Figure 145: Standard Q-Q plot of NB4OTHERS: Non-Big Four Partners - Other