## **School of Accounting**

# Operational Auditing within Australian Internal Audit Departments: Developing a Framework

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This thesis is presented for the Degree of

**Doctor of Philosophy** 

of

**Curtin University** 

#### **DECLARATION**

To the best of my knowledge and belief this thesis contains no material previously published by any other person except where due acknowledgment has been made.

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university.

The research presented and reported in this thesis was conducted in accordance with the National Health and Medical Research Council National Statement on Ethical Conduct in Human Research (2007) – updated March 2014. The proposed research study received human research ethics approval from the Curtin University Human Research Ethics Committee (EC00262), Approval Number ACC-08-14.

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#### **ABSTRACT**

This thesis investigates important factors in the effective practice of Operational Audit (OA) in internal audit departments in Australia. In the current competitive market and with economic uncertainty, there is enormous pressure on organisations to improve their performance and utilise their resources effectively. To achieve these goals, management can benefit from OA practice in internal audit departments. However, the literature review shows that Conducting OA is associated with difficulties in practice. This thesis develops a framework of enabling factors for OA practice by adopting a qualitative research method. First, a theoretical framework is developed by reviewing the literature. Then, the framework factors are confirmed or modified based on the result of qualitative interview data. For this purpose, 28 interviews are conducted with experienced practitioners in OA from large Australian organisations in Perth, Sydney, and Melbourne. Findings of this research indicate that the OA framework is complex and multi-dimensional. The framework consists of three constructs: Conceptual, Internal Audit Function, and Organisational. Each construct includes three enabling factors. The findings of this thesis provide significant insights for practitioners, regulators, organisations, and scholars. Consequently, this thesis addresses the gap between theory and practice in the OA context and extends our knowledge of OA practice in internal audit departments.

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## **DEDICATION**

This thesis is dedicated to my parents, Mehdi, Geranaz and Sobhan.

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#### **Abbreviations:**

3Es Efficiency, Effectiveness, and Economy

ANAO Australian National Audit Office ASX Australian Stock Exchange

BA Bachelor

CA Chartered Accountant
CAE Chief Audit Executive

CCSA Certification in Control Self-Assessment

CEO Chief Executive Officer

CFSA Certified Financial Services Auditor

CGAP Certified Government Auditing Professional

CIA Certified Internal Auditor

CLERP 9 Corporate Law Economic Reform Program Act 2004

CMIIA Certified Member of Institute of Internal Auditors, Australia

CPA Certified Public Accountant
CRM Customer Relationship Manager

CRMA Certification in Risk Management Assurance

FCPA Fellow of CPA Australia FIIA Fellow of IIA Australia

GAO Government Accountability Office of USA

IAF Internal Audit Function
IIA Institute of Internal Auditors

INTOSAI International Organisation of Supreme Audit Institutions

IPPF International Professional Practice Framework

ISSA International Standards of Supreme Audit Institutions

MA Master of Arts

MBA Masters of Business Administration

MIIA Membership of the Institute of Internal Auditors

OA Operational Audit PA Performance Audit

### **Chapter One: Introduction**

#### 1.0 Introduction

Investigation of several global corporate scandals in the last 20 years has emphasised the importance of Corporate Governance components such as the Internal Audit Function (IAF)<sup>1</sup>. While traditionally, internal audit was broadly limited to auditing financial controls, in the last decade a significant part of internal audit budgets has been directed to Operational Audit (OA) projects (Flesher and Zarzeski 2002). The increased focus on OA is due to a shift in internal audit objectives towards investigating risk management and governance of organisations (Anderson and Christopher 2010). Furthermore, OA has for some time been considered to be one of the main tools used by management to improve the performance of the organisation (Lapsley and Pong 2000). Despite the significant role of OA in IAF, practitioners still face various problems in conducting OA.

Notwithstanding that the theoretical framework of OA has in the past seemed to provide a sufficient basis for practice, the reality indicates that OA practitioners are faced with many challenges. Arguably, this deficiency is magnified because there is a lack of literature addressing the internal form of OA practised by internal auditors. In fact, the majority of literature is focused on Performance Audit (PA), the external type of OA performed by Auditors General - public sector auditors<sup>2</sup>. Therefore, the scope of this thesis focuses on studying effective factors of OA practice in internal audit departments in commercial entities. For this purpose, this thesis has two elements.

First, this thesis provides a detailed review of the literature on OA which I have conflated and synthesised in order to develop a theoretical framework based on research findings to date. Second, I have used extensive interviews with practitioners to define a practice-informed approach which is then used to refine element one, the initial theoretical framework. This

<sup>&</sup>lt;sup>1</sup> Gramling et al. (2004), Carcello, Hermanson, and Raghunandan (2005), Sarens and Debeelde (2006), Cohen and Sayag (2010), Soh and Martinov-Bennie (2011), Lenz and Hahn (2015)

<sup>&</sup>lt;sup>2</sup> For example; Gendron, Cooper, and Townley (2001) studied the independence of Auditor Generals in practising Performance Audit in Canada. They found that the independence of Auditor Generals was decreased though their power was increased due to New Public Management reforms. English and Skærbæk (2007) studied performance auditing and the modernisation of public sector. They found that the New Public Management has significantly affected the performance audit in the public sector. Also, English (2007) specifically studied performance audit in Australian Public Private Partnerships. She found that performance audits are usually performed in the primary stages of these large and complex contracts. Gronlund, Svardsten, and Ohman (2011) studied the conduct of performance audit in Swedish public sector. They found that Auditor Generals focused more on rules and regulations (compliance audit) rather than 3Es in performance audit projects.

second element results in a final conceptual framework that reflects both the relevant theory and the effective practice of OA in commercial internal audit departments. As such, this thesis will enrich the limited literature about OA practice in internal audit departments informing practice and policy.

This initial chapter includes four sections. Section 1.2 provides a brief background of OA and its relationship to corporate governance. Section 1.3 outlines the difficulties faced by OA practitioners, while Section 1.4 describes the research objectives and research questions. The research contribution in relation to both the theoretical development and practice insights are discussed in Section 1.5. A brief overview of research methodology is presented in Section 1.6. Finally, Section 1.7 presents the structure of the thesis together with concluding remarks.

#### 1.2 Background

In recent years, corporate governance failures have led to a number of large corporate scandals around the world (Psaros 2009, Boyd 2003, Doost and Fishman 2004, Drummond 2002, Leung and Cooper 2003, Rezaee, Olibe, and Minmier 2003, Mardjono 2005). As a result, increased focus has been directed towards corporate governance by regulators internationally (Sarens, Abdolmohammadi, and Lenz 2012, Psaros 2009). The IAF is one of the main control mechanisms of corporate governance that has a considerable role in ensuring the effectiveness of governance in organisations (Sarens, Abdolmohammadi, and Lenz 2012, Reding et al. 2013). Indeed, IAF is one of the only direct mechanisms the board of a company has to independently provide information in relation to risk and governance. As such, the IAF helps to ensure the board is effective in its governance role (Reding et al. 2013, Carcello, Hermanson, and Raghunandan 2005).

In an Australian context, the Corporate Governance Council of the Australian Securities Exchange defined corporate governance as "the framework of rules, relationships, systems and processes within and by which authority is exercised and controlled within the corporation. It encompasses the mechanisms by which companies, and those in control are held to account." (Australian Stock Exchange 2014). In other words, Corporate Governance is a system for directing and controlling a company that affects the achievement of its goals, monitoring and assessing risk and also optimising the performance of the company.

An effective corporate governance structure is one that creates value for stakeholders by providing professional accountability (Rezaee 2009) and optimising the operating performance of organisations (Bauwhede 2009). It is further argued as being especially relevant in the current operating environment where the effective utilisation of resources,

managing risk, controlling costs and improving efficiencies are critical factors for an organisation's competitiveness and productivity (Vilanova, Lozano, and Arenas 2009, Stuebs and Sun 2010, Talebnia and Dehkordi 2012, Sarens, Abdolmohammadi, and Lenz 2012). Baik et al. (2013) also argue that companies that improve their efficiencies have improved profitability.

Good corporate governance ensures the board and management put in place a range of governance control processes intended to enhance the efficiency, effectiveness and economy (3Es) of the operations of their respective organisations. It follows that there would be an element of risk in achieving the 'three E's' if appropriate governance control processes are not instituted via the organisation's governance processes. The concept of the 3Es as applied in the above governance context is defined by the Australian Auditing and Assurance Standard Board as follows:

"Efficiency" means the use of resources such that output is optimised for any given source inputs or input is minimised for any given quantity and quality of output.

"Effectiveness" means the achievement of objectives or other intended effects of activities at a program or entity level.

"Economy" means the acquisition of the appropriate quality and quantity of resources at the appropriate time and the lowest prices. (Auditing and Assurance Standards Board (AUASB) 2008, 15)

An important control mechanism that assists the board and management in ensuring such governance control processes are in place to achieve the organisation's 3Es is the Internal Audit Function (IAF). Together with the board, management, and external auditors, the IAF plays a crucial role in assisting organisations to enhance governance (Gramling et al. 2004, The Institute of Internal Auditors 2004). Further, the IAF function ensures regular feedback on the adequacy of the governance processes of the organisation (Rezaee 2009, Mihret, James, and Mula 2010). The role of internal audit in enhancing governance is encapsulated by its definition:

Internal Auditing is an independent, objective assurance and consulting activity designed to add value and improve an organisation's operations. It helps an organisation accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes (The Institute of Internal Auditors 2013, 2).

While the 'assurance' objective in the definition is traditionally associated with financial and

compliance types of audits, the 'consulting' objective paves the way for also offering a value-added service incorporating a broad scope of activities that includes assisting organisations in the management of risk (McNamee and McNamee 1995). Over time, these 'consultancy' services assist board and Audit Committee oversight functions in relation to financial reports, internal controls, risk assessment and ethical issues (Rezaee 2009).

The concept of a value-added service has been described as focusing on operational and business risks as they underpin the achievement of successful outcomes relating to efficiency and effectiveness in an organisation (Paape, Scheffe, and Snoep 2003, Ernst & Young 2007, Danescu, Oltean, and Sandru 2010, Soh and Martinov-Bennie 2011). This value-added service has been traditionally undertaken through OAs by the IAF and variously described as consulting services, performance audits, management audits, value for money audits and comprehensive audits (Flesher and Zarzeski 2002). OA is argued as achieving a value-added status through the objective of enhancing the 3Es of the operations of an organisation (Griffiths 1999, Marks 2000, Al-Twaijry, Brierley, and Gwilliam 2003). In this respect, it is synonymous with reviewing the 3Es of all or part of the operations of an entity (Fargason et al. 2002). Hence, it is argued that incorporating OA as an internal audit process will more closely align with facilitating its role in enhancing governance (Azad 1994, Daujotait and Mačerinskien 2008, Skærbæk 2009). It has also been argued that OA recommendations have a positive impact on management's operational decisions, thus adding value to the organisation (Burton et al. 2012).

There are a number of definitions which help to further illuminate the OA role and reconcile its intent with that required by the governance concept to operate economically, efficiently and effectively. In all of these definitions, the 'three Es' have been reinforced as the main features associated with OA. The Australian National Audit Office (ANAO) in undertaking OAs (called performance audits in the public sector vernacular) describes them as "an independent, objective and systematic assessment of public sector entities' programs, resources, information systems, performance measures, monitoring systems and legal and policy compliance" (Australian National Audit Office 2008, 5). Furthermore, the ANAO has mentioned four objectives for OA in public organisations as (Australian National Audit Office 2008, 5): "economy (minimising cost); efficiency (maximising the ratio of outputs to inputs); effectiveness (the extent to which intended outcomes were achieved); and legislative and policy compliance."

OA is also variously defined as a technique for evaluating operational performance that focuses on operational risks. The common theme in these definitions of the outcomes of OA is that OA provides management with essential information about achieving the organisation's

goals by reference to how well it utilises its resources (Church and Cooper 1965, Azad 1994, Lapsley and Pong 2000, Flesher and Zarzeski 2002, Ziegenfuss 1998). Therefore, for the purpose of this thesis, OA is defined as the process of evaluating an organisation's performance and providing management with recommendations to improve it. Although in theory the concept of OA seems clear, in practice practitioners are faced with various difficulties. These are discussed in the next section.

#### 1.3 Difficulties of Operational Audit practice

While the above literature on OA provides information that theoretically reconciles the intent and scope of OA with the 3Es concept of good governance, there is also emerging evidence regarding the difficulty of implementing OA in practice. These difficulties can be broadly classified as being attributable to a number of inherent and organisational factors. One inherent factor raised here is that OAs are extremely time-consuming relative to financial audits making them relatively expensive when companies are concerned about the use of resources. Also, because of the relatively long time it takes to complete an OA, information produced may be out of date and hence irrelevant. This negatively affects the effectiveness of OA process (Ernst & Young 2007, Tillema and Bogt 2010).

A further inherent difficulty in implementing OAs relates to the ambiguity and subjectivity associated with the meaning of the 3Es. Ambiguity and subjectivity lead to problems in ascertaining the scope of OAs. In some countries, the concepts of efficiency and effectiveness are commonly understood to relate to operations only, while in other countries they extend to include environmental and equity audits (Yarong and Xin 2011). The characteristics of efficiency and effectiveness, in particular, are not standardised to facilitate OA (Connolly and Hyndman 2004, Lindeberg 2007, English 2007). As a consequence, evaluating effectiveness in OA is difficult and complex (Everett 2003, Arens, Elder, and Beasley 2012). Also arising from this are difficulties associated with reporting outcomes using quantitative or qualitative criteria, or the appropriateness of efficiency measures (Barrett 2011, Pollitt 2003).

A further inherent factor relates to the relationship between internal auditors and management in conducting OAs. It is argued that in conducting such audits, practitioners face pressures from political forces that impinge on their independence and hence the credibility of the OA outcomes (McCrae and Vada 1997). In this respect, Radcliffe (2008, 1999) suggests that operational auditors tend to act conservatively in disclosing deficiencies to the public. Skærbæk (2009) also raised concerns about operational auditors' independence. While Funnel (2011) was discussing that without strong, independent auditors, there will be some degree of uncertainty about their accountability, efficiency and effectiveness recommendations (Funnell

2011). Similarly, Ali et al. (2007) find that political pressures and top management's links with politicians negatively affect the effectiveness of IAFs. Based on their observations, the role of internal auditors is passive when the organisation is under political pressures. In these types of organisations, internal auditors are used as a tool for putting pressure on top management and following politicians' interests.

In relation to organisational factors, an effective OA normally depends on a sound organisational structure where all of the responsibilities and operations are precisely defined (Funnell 2011, Skærbæk 2009, Haidarinejad et al. 2012). Barrett (2011) suggests that if an organisation does not have well-defined goals and objectives, the operational auditors will tend to focus on less important matters instead of high-risk concerns.

Another important—and perhaps obvious—organisational factor identified is management support in accepting and implementing changes recommended as an outcome of an OA. Some research studies have revealed resistance in management's acceptance of OA recommendations (Barrett 2011, Hatherly and Parker 1988). Hence, management support and knowledge of OA has a significant impact on the acceptance of the internal auditors' recommendations (Al-Twaijry, Brierley, and Gwilliam 2003).

A further organisational factor identified relates to a lack of resources in undertaking OAs. An OA program can be lengthy and aims to review the various operational processes to identify recommendations for improvement. To achieve this goal requires professional staff with the appropriate skill sets and a budget to enable the employment of these resources. However, "budget cuts" form one of the main problems faced by internal audit departments (Baker 2009). Recent studies have revealed that most internal audit departments have fewer than six staff (Al-Twaijry, Brierley, and Gwilliam 2003). The limited size of these internal audit departments, the relative size of the organisations they are charged with auditing, and the restricted budgets with which they operate invariably limit the opportunities for, and scope of, OAs.

The planning and implementation of an OA need to be given careful consideration if they are to be perceived as a useful allocation of scarce company resources. Unlike standard compliance and assurance assignments, OAs contain a dynamic element making it difficult to write a standardised audit program on a cyclical or ad hoc basis (Knaap 2011b). In this context, audit contributions are seen to be most effective when systems changes are being planned and during the process of implementation (Paape 2007). Audit specialists need to be available at such times to provide effective input into the process; for example, as members of a project team. As is often the case, audit resources cannot be provided, and projects are undertaken

with whatever staff is available and sometimes with the aid of external consultancy services (Goodwin-Stewart and Kent 2006). An independent follow-up by internal audit as part of an organised OA is difficult to achieve in a timely manner. At best, internal auditors can often only encourage operational staff to undertake their own piecemeal or impromptu systems improvements during normal compliance engagements, when ideas and innovations present themselves to practitioners and make recommendations accordingly. Many improvements in the 'three Es' result from these types of ephemeral interactions between staff, and as byproducts of a routine audit program.

The above inherent and organisational factors suggest considerable uncertainty as to how to develop and implement OA as well as justify its use by IAFs in practice. These uncertainties raise concerns about the effectiveness and credibility of OAs, especially when combined with concerns relating to the quality of reported performance information gathered through the course of OA (Guthrie and Parker 1999, Olson, Guthrie, and Humphrey 1998, Lapsley and Pong 2000, Pollitt 2003, Lee 2008, Walker 1995, Carlin and Guthrie 2001).

It is argued that the reporting of true efficiency and effectiveness is made difficult if mechanisms are not in place to measure these elements (Radcliffe 1998, Pollitt et al. 1999, Morin 2001, Pollitt 2003, English 2007, Barrett 2011). One of the difficulties associated with the development of this thesis is the range of interpretations of what constitutes OA. In practice, the process is known under a variety of names, some of which only partly relate to its overriding intention to serve as a significant management aid (i.e., addressing the 3Es). For example, it is common for internal auditors to recommend or support the improvement of business processes at any level or stage of assurance or consulting activity. In this context, auditors would probably identify with having acted to improve operational performance. These pseudo or incidental audit activities need to be considered when developing an OA conceptual framework.

Finally, there is a theory-practice gap in the application of OA raising uncertainty as to the extent IAFs are using OA effectively as an audit process to meet the goal of enhancing governance. The theory-practice gap is important because theory and evidence should inform standards and training, allowing for more evidence-based practice. There have been limited research studies undertaken to narrow this theory-practice gap. Indeed, researchers have called for more studies to be conducted to bridge this knowledge gap (Lapsley and Pong 2000, Johnsen et al. 2001, Morin 2003, Skærbæk 2009, Justesen and Skærbæk 2010, Funnell and Wade 2012). Al-Twaijry, Brierley, and Gwilliam (2003) emphasise the need for further research expounding the benefits of internal audit, which includes OA. Khalili et al. (2012) also note that the critical factors of OA should take into account governance cultures and hence

present the need to study OA in various country settings, including a model for implementing OA within different jurisdictions. McCrae and Vada (1997) reinforce the need to develop an operational/performance audit framework.

#### 1.4 Research objectives and research questions

These identified factors lead to significant uncertainties as to how to improve the power of OA. Some of the researchers cast doubt on the effectiveness of the OA process in improving management's performance (Morin 2008, Kells 2011). Indeed, Morin (2008) found that although value for money auditors (operational auditors) can detect problems, they can rarely prevent or correct management's affairs. Therefore, there is a great concern about the credibility of OA as an important mechanism of corporate governance (Walker 1995, Guthrie and Parker 1999, Lapsley and Pong 2000, Carlin and Guthrie 2001, Pollitt 2003, Lee 2008). Therefore, there is a significant gap between practising OA and its theoretical objectives (Kells 2011). In this respect, many researchers have emphasised the need to expand research on OA practice to narrow the gap between theory and practice (Lapsley and Pong 2000, Johnsen et al. 2001, Morin 2003, Justesen and Skærbæk 2010, Skærbæk 2009, Funnell and Wade 2012). Furthermore, McCrae and Vada (1997) reinforce the necessity of developing an operational/performance audit framework.

Considering these needs, the objectives of this thesis proposal are:

- To establish a theoretical framework for OA based on research to date, and
- To develop a practice-informed conceptual framework for OA to facilitate its effective practice.

The associated research questions are:

- What is the theoretical framework for OA as represented by current research?
- What constitutes an effective OA framework to facilitate its effective practice in internal audit departments of public organisations and publicly listed entities in Australia?
- What organisational issues appear to be inhibiting and/or encouraging the effective application of operational auditing practices within Australian public listed and public sector organisations?

#### 1.5 Research contribution

Several significant theoretical and practical elements are contributed by this thesis. To begin with, this is the first research that specifically focuses on OA as one of the main functions of internal audit departments. Although recent research (Ernst & Young 2007, Flesher and Zarzeski 2002) indicates that internal audit resources are mainly allocated to OA projects, OA practice in internal audit departments has not been studied before. Therefore, the results of this research contribute to the theory by revealing new information about the OA practice as one of the control mechanisms within the Corporate Governance structure. Furthermore, by focusing on OA, this research outcome contributes to the existing literature in relation to the IAF.

Second, a significant contribution of this research is its development of the first framework of enabling factors focused on the effective practice of OA in internal audit departments. As such, this thesis provides the first review of all relevant research in order to synthesise and develop a theoretical framework of the OA function. Further, the initial framework is modified based on practitioners' views. Hence, this thesis extends the literature by covering the gap between theory and practice.

Third, a further significant contribution of this thesis is the development of a comprehensive practice-informed conceptual framework for OA that could facilitate its adaptation by IAFs in general and Australian companies in particular. Organisations and practitioners can apply this framework to enhance the effectiveness of IAF. Consequently, corporate governance will be improved as the IAF is the main control mechanism of governance. Therefore, this research result will provide empirical evidence aimed at increasing the effectiveness of IAF and governance.

Fourth, the outcome of this research is applicable in setting and modifying internal audit rules and regulations. According to Anderson and Christopher (2010), the concept of OA is not well understood by internal auditors. Considering this fact and the difficulties of practising OA, the outcome of this research can provide insights for regulatory bodies such as the Institute of Internal Auditors to modify the IIA standards. These research findings include practitioners' views about the OA concept, practical difficulties and important factors in the effective practice of OA.

Finally, the framework factors are identified by professional practitioners who have many years' experience in practising OA and internal auditing (a majority of interviewees had more than 15 years' experience in practising OA). They work for large and well known Australian organisations. Also, most of the participants have experience of conducting OA in different

types of organisations (in regards to size, industry, sector, etc.). These characteristics provide a better understanding of IAF and significant factors in OA practice.

#### 1.6 Thesis structure

This thesis consists of six chapters. The remaining chapters are structured as follows. The second chapter provides an outline of the OA literature. This chapter provides detailed information about the concept and history of OA and its role in the corporate governance structures and the IAF. Important elements in the effective practice of OA are recognised through reviewing challenges of practising OA. The chapter concludes with a primary theoretical framework of enabling factors in the effective practice of OA.

The third chapter outlines the research methodology. This chapter starts with a discussion of the qualitative research design of the thesis by reviewing the relevant research paradigm and enquiry strategy. This chapter demonstrates details of the different stages in the conduct of this research including the qualitative research approach, data collection process, data analysis techniques and the reliability, validity and generalisability of findings.

The fourth chapter includes discussions about the underpinning theories of this research. Three theories are used in this thesis to support OA practice in internal audit departments. The concepts of agency theory, institutional theory, and stewardship theory are discussed in detail. After discussing each theory, the practice of OA in internal audit departments is analysed based on the related theory.

The fifth chapter reports the findings of this research. The results of interviews are categorised according to enabling factors of the primary theoretical framework, respectively. Initially, the number of opposing and confirming views are presented. Then, the findings of the research are discussed in detail supported by participants' comments. Subsequently, the modified OA conceptual framework is presented at the end of this chapter.

Finally, the sixth chapter summarises and concludes this research, beginning with a summary of findings. Having discussed the findings, the implications of results are presented for regulators, organisations and practitioners, and scholars. Furthermore, contributions and limitations of this research, and recommendations for future studies are provided in this chapter.

## **Chapter Two: Literature Review**

#### 2.0 Introduction

This chapter presents an in-depth literature review of OA, the outcome of which is used to address the first research objective, the establishment of a theoretical framework based on current research<sup>3</sup>. Initially, the review considers the emergence of OA, its definition, the OA standards and the problems relating to the practice of OA. Using this prior research, a primary theoretical framework describing the enabling factors important in the effective practice of OA is articulated.

Various terms have been used in the literature to describe OA. However, OA and PA (Performance Audit) are the more common terms. The literature indicates that these terms have the same meaning, and they are used interchangeably (Flesher and Zarzeski 2002, Kells and Hodge 2009). Therefore, for the purpose of clarity, OA and PA are used in this chapter to describe OA projects conducted by internal auditors and Auditors General respectively as they have the same meaning (Flesher and Zarzaski 2002).

The structure of this chapter is as follows: Section 2.1 describes the origins and historical development of OA whereas Section 2.2 provides various definitions of OA and presents the definition applied in this thesis. Section 2.3 presents a brief review of available international and domestic OA standards. Section 2.4 discusses the importance of OA in Corporate Governance. The practical challenges of practising OA and important factors in the effective practice of OA are then described in Section 2.5. Finally, concluding comments and the developed theoretical framework from the literature is presented in Section 2.6.

#### 2.1 Origins of Operational Audit

The evolutionary history of OA can be traced over millennia in various parts of the world (Kells and Hodge 2009). It has been identified by historians to have been used in Ancient Greece, China, Persia and Rome (Normanton 1966, Burrowes and Persson 2000, Adams 1986,

<sup>&</sup>lt;sup>3</sup> The theoretical framework developed in this thesis was presented at the Critical Perspectives on Accounting conference in Toronto (Vafaei and Christopher 2014). A copy of paper by Vafaei and Christopher (2014) is provided in Appendix F.

Farazmand 1998). Kells and Hodge (2009) identify its use generally between 3000 BCE and 500 BCE in various civilisations. It is reported that a primitive form of OA involved the checking of state functions (Pollitt et al. 1999, Kells and Hodge 2009). OA was considered so beneficial for governments that its practice has occurred almost continuously in one form or another from the time of its origins (Dewar 1985, Hamburger 1989, Burrowes and Persson 2000, Flesher and Zarzeski 2002).

However, our interest in OA is restricted to modern times and the modern sense of audit. Internal auditors commenced performing OA in the early 1940s (Flesher and Zarzeski 2002). Before the 1940s, the internal auditors' responsibilities were only limited to conducting Financial Audits, but the economic pressure during the Second World War changed the focus and raised the importance of the IAF. During the war, internal auditors conducted a different type of audit to review the non-financial performance of organisations and to assist directors in managing costs and scarce resources. Conducting OA as one of the functions of the internal audit departments was so beneficial for managers that it continued after the Second World War (Flesher and Zarzeski 2002), and in 1948 the term "Operational Audit" was coined to describe this new function of internal auditors.

A review of the evolution of OA in Australia shows that the main objectives of OA have varied across different periods. During the 1970s, Auditors General were performing Project Audits. For instance, Auditors assessed the processes of different projects and suggested recommendations for collecting public money (Hossain 2010, Adams 1986). In Australia, modern OA was introduced in 1979 by the Australian Auditor General when the *Commonwealth Audit Act* was changed to allow the Australian Auditor General to perform Efficiency Audits instead of Project Audits (Flesher and Zarzeski 2002, Adams 1986).

Between 1979 and 1985, the objective of OA was limited to reviewing the efficiency of an organisation's performance (Adams 1986). For example, practitioners audited the characteristics of personnel and their way of thinking to evaluate their efficiency (Hamburger 1989). In 1985, the Australian Audit Office improved the Auditor General's role by considering *effectiveness* as the second aim of efficiency audit projects (Hossain 2010, Adams 1986). Finally, the economy was added to OA objectives in 1987 (Hossain 2010). Therefore, the modern concept of OA, at the time of writing this thesis, has been practised in Australia for the past 30 years.

#### 2.2 The concept of Operational Audit

OA has been variously defined by different organisations and different researchers. However, these definitions reflect a number of common themes. A review of the literature highlights that the majority of these definitions focus on the 3Es. However, Kells and Hodge (2009) proposed a new definition for OA due to the perceived difficulties of applying 3Es in practice.

In 1995, the Australian National Audit Office described OA as an independent, objective and systematic examination of management decisions to assess the 3Es and evaluate the adequacy of internal procedures for promoting the 3Es. This description was then extended to incorporate suggestions for management on how to improve the 3Es aspect of organisational functions (Australian National Audit Office 1995). Similarly, the Auditing and Assurance Standards Board defined Performance Engagements as a process of reviewing 3Es to assess (Auditing and Assurance Standards Board (AUASB) 2008, 13):

- (i) the adequacy of an internal control structure or specific internal controls, in particular, those intended to safeguard assets and to ensure due regard for economy, efficiency or effectiveness;
- (ii) the extent to which resources have been managed economically or efficiently; and
- (iii) the extent to which activities have been effective.

Morgan et al. (2007) and Paape (2007) extended the existing definition of OA by considering it as an assurance activity. Morgan et al. (2007, 313) defined OA as follows:

Performance Audit aims to provide information and assurance about the quality of the management of public resources. It assesses the economy, efficiency, and effectiveness of the management of public sector entities by examining resource use, information systems, delivery of outputs, and outcomes, including performance indicators, monitoring systems, and legal and ethical compliance.

Simultaneously, Paape (2007, 32) explains OA as:

An audit of (parts of) the management control (or internal control) system of an organization to provide additional assurance whether this will enable the organizations to reach its objectives and, if needed, provide advice for improvement.

The International Organisation of Supreme Audit Institution (INTOSAI) presented the latest definition of OA which is very similar to the Australian National Audit Office (ANAO) definition. According to INTOSAI, OA is

an independent and objective examination of government undertakings, systems, programmes or organisations, with regard to one or more of the three aspects of economy, efficiency and effectiveness, aiming to lead to improvements (The International Organisation of Supreme Audit Institutions 2010, 5)

While these definitions expand on existing definitions by incorporating the concept of assurance, the 3Es remain the focus of OA process. The Australian Auditing and Assurance Standards Board defined the 3Es as follows:

"Efficiency" means the use of resources such that output is optimised for any given source inputs or input is minimised for any given quantity and quality of output.

"Effectiveness" means the achievement of objectives or other intended effects of activities in a program or entity level.

"Economy" means the acquisition of the appropriate quality and quantity of resources at the appropriate time and at the lowest prices (Auditing and Assurance Standards Board (AUASB) 2008, 15)

In addition to the 3Es, OA also considers operational risks to provide management with essential information about achieving an organisation's goals and utilising resources (Church and Cooper 1965, Azad 1994, Ziegenfuss 1998, Lapsley and Pong 2000, Flesher and Zarzeski 2002). In particular, if OA is conducted by internal auditors reviewing risks, controls, governance and IT systems of operations are important elements of the OA process (Balkaran 2014). Balkaran (2014, 14), defines the objectives of OA projects in internal audit departments as follows:

OA addresses all elements of operations including risks, governance, controls and information technology systems. It incorporates an evaluation of the acquisition and utilization of resources and efficiency and effectiveness of operations...

Although most of the OA definitions focus on the 3Es, the application of these concepts is considered ambiguous in practice (Chambers and Rand 2010, Kells and Hodge 2009). In response to this perceived ambiguity, Kells and Hodge (2009, 50) propose a new definition for OA that removes the subjectivity associated with the 3Es. They suggest a general OA description based on constant characteristics of OAs. They define five essential elements for OA as below (Table 1):

An activity in which outsiders are authorised to discover, synthesise and publish information that would otherwise be confidential.

Table 1: Framework of definitional elements for OA

Element	Description	Relevance
Independence	The auditor is independent of the auditee. The auditor is an outsider <i>vis a vis</i> the audited organisation.	Auditor's incentives.
Authorisation	The auditor is authorised by an authority higher than the auditee to undertake the audit.	Auditor's incentives. Also, the authoriser may bind itself to not revoke the authorisation.
Discovery	The auditor enters the auditee organisation (physically or virtually) and achieves access to information that would otherwise be private.	Auditor's information sets and authorisation.
Synthesis	The auditor makes findings and reaches conclusions, which may or may not involve analysis.  Some or all of the discovered information is expressed in a new way.	Auditor's authorisation. The scope of the findings and conclusions depends on the scope of authorisation.
Publication	Some or all of the auditor's findings and conclusions are published in some form. The public achieves access to synthesised information that would otherwise be private.	Relevant to the auditee's incentives, public information sets, and the auditor's authorisation.

Source: Kells and Hodge (2009, 49)

Furthermore, Kells (2011) identifies two main objectives of OAs. The first objective is to enhance the performance of the organisation. The second objective is to increase the transparency of an organisation's activities through disclosing deficiencies in the auditee's operations.

For the purposes of this thesis, OA is defined as a process of reviewing the performance of an organisation through focusing on the 3Es. As such, the Australian Auditing and Assurance Standard Board's definition for 3Es is applied in this thesis. This is consistent with the most widely held view of the definition of OAs as identified above. Further, and consistent with Paape (2007), the OA process incorporates outputs which provide recommendations that assist an organisation to improve its performance. The available standards of practising OA are reviewed in the next section.

#### 2.3 The Operational Audit standards

Three sets of standards are available for practising OA. In addition to international standards such as Yellow Book and the International Standards of Supreme Audit Institutions (ISSA 300), the Australian Auditing and Assurance Standards Board has also devoted one part of Standards on Assurance Engagements to OA. These standards are briefly introduced below.

The first version of OA standards known as the Yellow Book was established by the United States Government Accountability Office in 1972 (Flesher and Zarzeski 2002). This book consists of seven chapters, and the last two chapters include guidelines in relation to OA fieldwork and OA reporting requirements. The latest version of the Yellow Book was published in 2011 (U.S.A Government Accountability Office 2011). Furthermore, the International Standards of the International Organisation of Supreme Audit Institutions (INTOSAI) has published general standards (ISSAI 300) in regards to OA practice in 2013. These guidelines provide insights in relation to the external form of OA practised by Governmental auditors in public organisations.

In Australia, the Australian Auditing and Assurance Standards Board (2008) has issued standards for implementing PA (the external form of OA) on Assurance Engagements ASAE 3500 (Performance Engagements). These standards include guidelines for planning, assessing subject matter, criteria, materiality and reporting in OA projects. A review of these standards indicates that they are not as detailed and prescribed as financial auditing standards.

All of the mentioned standards provide insights about the practice of the external form of OA undertaken by Auditor Generals. Since this thesis aims to review the internal form of OA, performed by internal auditors, these standards have been reviewed to find a standard relevant to the OA practice in internal audit departments. However, there are no such specific standards. The International Professional Practice Framework (IPPF) developed by IIA, the only available standard for internal audit, refers to OA inconspicuously. Although different parts of

this framework include some broad guidance in regards to OA elements, it does not specifically include any standard in regard to OA practice.

According to IPPF internal auditors need to conduct OA to "evaluate and improve organisations" operations", "help an organisation accomplish its objectives" or "evaluate and improve the effectiveness of risk management, control, and governance process". Also according to the other parts of this guidance, the assurance services of internal auditors focus on assessing the efficient and effective use of resources (The Institute of Internal Auditors 2013). Similarly, in different parts of assessing risk management, governance, and control system sections; evaluating efficiency and effectiveness of operations is emphasised in the IPPF (The Institute of Internal Auditors 2013). Despite all of these indications, how OA should be practised in internal audit departments is not addressed in the IPPF.

## 2.4 The importance of Operational Audit in corporate governance and internal audit departments

Managers' abilities in controlling costs, optimising resource utilisation and enhancing efficiency and effectiveness of an organisation's performance play a critical role in the organisations' success (Vilanova, Lozano, and Arenas 2009, Stuebs and Sun 2010, Talebnia and Dehkordi 2012) and profitability (Baik et al. 2013). Also, the emergence of corporate governance regulation increases the responsibilities of managers to direct a company in an efficient, effective and economic way (Rezaee 2009).

The main objectives of a good corporate governance structure in both the public and private sectors are adding value to the organisation, reducing operational, financial and business risks, improving stakeholders' trust in the organisation and preventing unethical, fraudulent and dishonest activities (Armstrong, Jia, and Totikidis 2005, Armstrong 2004). One of the components of corporate governance that assist management to achieve governance goals is the IAF. Internal auditors can add value to the organisation and provide management with essential information about operational risks through conducting OA (Flesher and Zarzeski 2002). The sub-sections that follow present discussions about the corporate governance components, the status of the IAF as one of the control mechanisms of corporate governance, and the role of OA in the IAF.

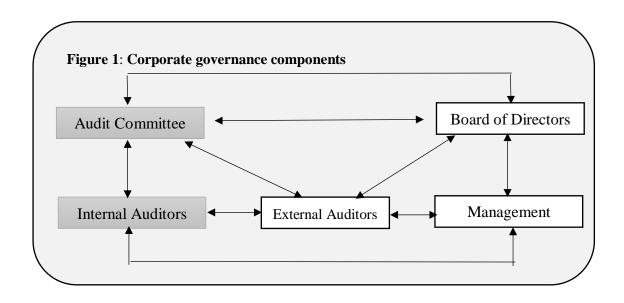
#### **2.4.1** Corporate governance components

Corporate scandals such as Enron, World-Com and the upward trend in restatements of earnings led to the *Sarbanes-Oxley Act* in the USA (2002) and the *CLERP Act* in Australia (2004). These reforms impact the corporate governance culture in organisations by increasing management's responsibilities and confirming their oversight role (Palmrose, Richardson, and Scholz 2004, Agrawal and Chadha 2005).

The Australian Stock Exchange (ASX) Corporate Governance Council (Australian Stock Exchange 2010, 3), defines corporate governance as:

A system for directing and controlling a company that affects the achievement of its goals, monitoring and assessing risk and also optimising the performance of that company.

The goal of corporate governance is creating value for stakeholders, increasing professional accountability and improving control systems to mitigate risks (Rezaee 2009, Australian Stock Exchange 2010, 3). To achieve these goals, corporate governance consists of five components (Figure 1): the Board of Directors, Management, External Auditors, the AC and Internal Auditors (Cohen, Krishnamoorthy, and Wright 2004). As Figure 1 demonstrates, the corporate governance components have to be interrelated to form a successful governance structure (Cohen, Krishnamoorthy, and Wright 2004).



Adapted from: Cohen, Krishnamoorthy, and Wright (2004) and Trotman (2013)

A good governance structure can improve the quality of financial reports, management's monitoring and organisations' performance (Psaros 2009). In particular, the improved ability of management in monitoring increases transparency and accountability in the organisations (Psaros 2009). Also, a well-established corporate governance structure improves the organisations' performance through establishing an ethical environment and safe conditions (Chiang 2005, Bauwhede 2009, Radu 2012, Yusoff and Alhaji 2012). The monitoring mechanisms of corporate governance such as the audit committee and internal audit department play a critical role in achieving the mentioned goals (Psaros 2009). This thesis concentrates on internal audit departments as the monitoring mechanism of corporate governance.

The IAF assists the board, management, and external auditors to ensure the adequacy of governance and control processes and to accomplish their governance tasks (Rezaee 2009, Mihret, James, and Mula 2010, Moeller 2009, Gramling et al. 2004, Radu 2012). Also, IAF increases accountability in the organisation towards enhancing the 3Es of the organisation's performance (Jin'e and Dunjia 1997, Gramling et al. 2004, The Institute of Internal Auditors 2004). As a consequence, corporate governance can improve 3Es through IAF by applying control and monitoring mechanisms which include the conduct of OA. The evolving role of internal audit is discussed in the next sub-section.

#### 2.4.2 Internal audit as a control mechanism of corporate governance

As an important component of corporate governance, the history of internal audit evolution shows that IAF has been transformed over previous decades from a financial systems enforcer to a value-adding function (Rezaee 2009) which helps management accomplish the objectives of their organisations (Rezaee 2009, Flesher and Zarzeski 2002). To ensure they add value, internal auditors conduct OA. The Institute of Internal Auditors (2013, 2) defines the internal audit as:

... an independent, objective assurance and consulting activity designed to add value and improve an organisation's operations. It helps an organisation accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.

According to this definition, IAF involves providing assurance and consulting services through conducting financial, compliance, operational, system security audits and due diligence engagements (The Institute of Internal Auditors 2010). Both assurance and consulting services

aim to add value to the organisation through improving the organisation's performance (Chapman and Anderson 2002, Krogstad, Ridley, and Rittenberg 1999). Internal auditors try to find solutions for the organisation's problems to improve the performance (Radu 2012). Improving the efficiency and effectiveness of an organisation's performance is achieved through practising OA (Ma'ayan and Carmeli 2015). Hence, OA assists internal audit departments to reach their value-adding status discussed in detail in the next sub-section.

#### 2.4.3 Operational Audit as the value-adding objective of internal audit

As mentioned above, internal auditors can achieve their value-adding objective through conducting OA (Flesher and Zarzeski 2002). OA is argued to achieve this goal by reviewing and enhancing the 3Es of the operations of an organisation and also managing operational risks (Flesher and Zarzeski 2002, Griffiths 1999, Marks 2000, Fargason et al. 2002, Al-Twaijry, Brierley, and Gwilliam 2003).

According to The Institute of Internal Auditors (2013, 26),

The internal audit activity adds value to the organization (and its stakeholders) when it provides objective and relevant assurance, and contributes to the effectiveness and efficiency of governance, risk management, and control processes.

Chambers and Rand (2010) elaborate more on this role of internal audit by explaining that internal auditors add value through providing relevant assurance and enhancing "efficiency and effectiveness of governance, risk management, and control processes."

These comments highlight the important role of OA as a value-adding tool of the internal audit profession. Researchers have observed that incorporating OA as an internal audit process facilitates its role in enhancing governance in private and public companies (Azad 1994, Daujotait and Mačerinskien 2008, Skærbæk 2009). Also, Jin'e and Dunjia (1997) expand on this discussion by observing that internal auditors can focus on operational risk and evaluate 3Es by practising OA so that they can suggest solutions to the operational problems of the organisation.

Focusing on operational risk plays a key role in increasing the value and the success of the organisation. Indeed, research shows that there is great emphasis on operational and business risks because they affect the efficiency and effectiveness of an organisation (Paape, Scheffe, and Snoep 2003, Ernst & Young 2007, Danescu, Oltean, and Sandru 2010, Soh and Martinov-Bennie 2011). Consistent with these surveys, PricewaterhouseCoopers (PwC), (2008) revealed

that 80% of the shareholders' value loss was due to strategic, operational and business risks rather than financial risks. Therefore, senior management and audit committee members put pressure on internal audit departments to change their focus to non-financial concerns such as strategic, operational and business risk (PricewaterhouseCoopers 2008).

Hence, the stakeholders' need for non-financial information highlights the importance of OA as an integral component of IAF. In this respect, Tooley, Hooks, and Basnan (2010) examine stakeholders' needs in performance reporting by Malaysian local authorities. Their research shows that stakeholders are strongly interested in non-financial performance and future-oriented information rather than financial statement information (Clark 2003, Tooley, Hooks, and Basnan 2010). Similarly, Khalili et al. (2012) note that stakeholders are more interested in non-financial information to evaluate management's decisions.

Therefore, there is high demand for the practice of OA in internal audit departments. It is anticipated that this trend will increase in the future (Bhana 2015). The IIA survey in 2006 and 2010 about the important activities of internal audit functions shows that OA is the most important internal audit activity in 2010. According to the findings of this thesis, 89% of respondents mention OA as the most important activity of internal audit functions. This result confirms Swinkels' research in 2012 in the Netherlands.

In conclusion, the value-adding objective of internal audit departments can be achieved through practising OA. This function improves organisational performance by focusing the on 3Es, operational risks and by suggesting solutions to operational problems. Also, the internal audit department is beneficial (adds value) for stakeholders if internal auditors practise OA to provide non-financial information. These significant advantages of OA have increased its practice in internal audit departments.

#### 2.5 Challenges of practising Operational Audit and the theoretical framework

This section outlines the difficulties identified in the literature associated with the practice of OA and the resulting impact on the effective practice of OA. The identified difficulties are used to inform the development of a theoretical framework of enabling factors which addresses the first phase of research design and first research question in this thesis: what is the theoretical framework for OA as represented by current research?

The factors identified in the theoretical framework can be characterised as occurring at three levels, these being the conceptual level, the Internal Audit Function (IAF) level and the

organisational level. These three levels are selected by the researcher based on the nature and concept of enabling factors. The conceptual level consists of three enabling factors related to the concept of OA. The IAF level includes two enabling factors which are related to the status and resources of IAF in an organisation. Finally, the third level comprises three factors that are important in relation to the overall performance of organisational to support the effective practice of OA. This section is presented in four sub-sections. Each sub-section provides an overview of the problematic factors identified at different levels of the theoretical framework. At the end of this section, a diagrammatic representation of the theoretical framework is presented.

#### 2.5.1 Conceptual enabling factors

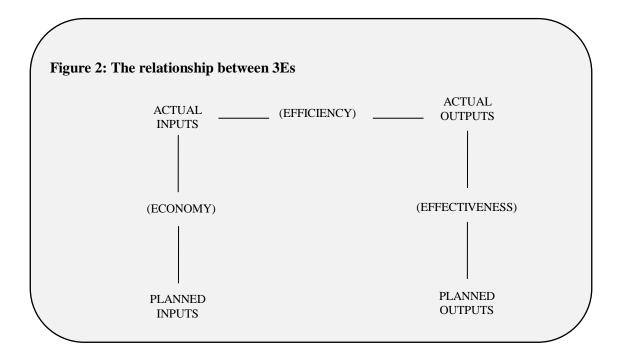
The first level of OA framework is the Conceptual Level. This level consists of three enabling factors. These factors are considered important due to the observed ambiguities of the OA concept, components, and methodology that cause difficulties for auditors. The difficulties and importance of conceptual factors are discussed in detail in the following sub-sections.

#### 2.5.1.1 Need to establish what the 3Es are for an organisation

The extant literature reveals a range of definitions for OA. These were outlined earlier in this chapter (Section 2.2). A distinct theme emerging from these definitions is that OA is primarily concerned with evaluating the 3Es of the operations of an organisation (Chambers and Rand 2010, 15). These could include a specific program, activity, function, department or project. The problem for practitioners, however, is that the concept of 3Es itself is subjective and ambiguous (English 2007, Everett 2003, Gendron, Cooper, and Townley 2007, Gronlund, Svardsten, and Ohman 2011, Kells 2011, Lindeberg 2007). In this respect, researchers have cast doubt about the concepts of efficiency (Lapsley and Pong 2000, Kells and Hodge 2009) and effectiveness (Broadbent and Laughlin 2003, Gendron, Cooper, and Townley 2001, Arens, Elder, and Beasley 2012, Gendron, Cooper, and Townley 2007, Sanger 2008, Gronlund, Svardsten, and Ohman 2011, Muniaín and Sénchez 2005).

This subjectivity and ambiguity have led to difficulties in establishing the inputs and required outputs to be examined in an OA (Barrett 2011, Pollitt 2003, Put 2006, Put and Turksema 2011, Schwartz 1999). Furthermore, it has been observed that the concepts of the 3Es are interlinked with no clear distinction between them. Kells and Hodge (2009) for example argue that the concept of efficiency incorporates aspects of the economy because economy reviews

the ratio of inputs to outputs. In their view, efficiency can also be construed as effectiveness, as aspects of efficiency also inform us of the right level of outputs produced or whether the organisation has achieved the goal of producing an effective output. Chambers and Rand (2010, 16) demonstrate this relationship between the 3Es and the potential ambiguity between them as follows:

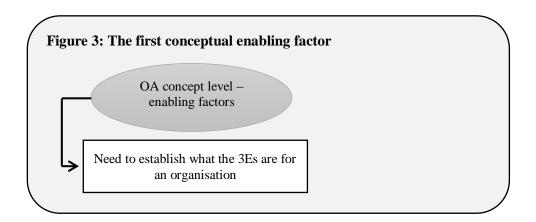


The literature also reveals an uncertainty as to whether other auditable aspects of the operations of activity are part of the 3Es or should be reviewed separately as an extended component of an OA. These aspects include environmental, equity, ethics and transparency issues relating to the governance processes (Chambers and Rand 2010). For example, Yarong and Xin (2011) found that although the 3Es are common elements of OA, in some countries, such as Canada, environmental and equity audits are also reviewed by practitioners.

Due to the above-identified ambiguity relating to the concept of 3Es and hence the resultant difficulty in defining the scope of an OA, it is observed that 3Es are rarely evaluated in OA projects (Jacobs 1998, Guthrie and Parker 1999, English 2007, Gendron, Cooper, and Townley 2007, Gronlund, Svardsten, and Ohman 2011). Researchers reveal that although OA projects are scoped as evaluating the 3Es, in reality, they are involved in reviewing compliance issues and organisational procedures (Pollitt et al. 1999). Kells and Hodge (2009) also believes that the 3Es' ambiguities will result in focusing on less important matters in OA projects.

To overcome these difficulties, some researchers have proposed new paradigms that extend beyond the 3Es. Kells and Hodge (2009) for example, proposed a definition of OA as: "an activity in which an independent party is authorised to discover, synthesise and publish information that would otherwise be confidential." Based on this definition, "discovery", "publication", "independence", "authorisation" and "synthesis" are main elements of OA. They added that all of the five elements of this definition might not be consistent in an OA within the private or public sector.

The above research supports the proposition that auditors have difficulty in determining their audit scope and associated audit output suggesting a need to establish in clear terms what constitutes the 3Es for an organisation. Specifically more needs to be done to establish a clear framework of the expected inputs (economy) to achieve a set of outputs (efficiency) for addressing a set of predetermined objectives (effectiveness) about the audit target. Thus the need for clarity as to what the 3Es are, forms the first component of the theoretical framework under conceptual factors (Figure 3).

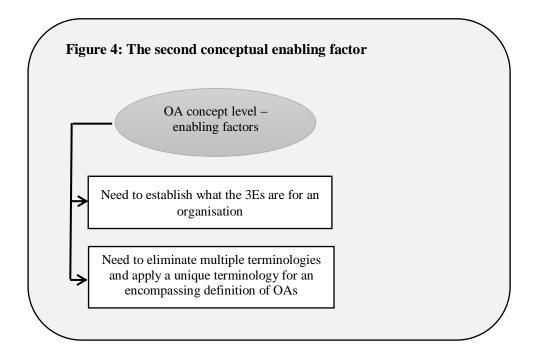


## 2.5.1.2 Need to eliminate multiple terminologies and provide for an encompassing definition of Operational Audits

The review of the extant literature further reveals that the ambiguous concept of OA has led to the use of various terminologies to describe OA. Some of these terminologies include PA, value for money audit, efficiency audit, effectiveness audit, comprehensive audit, quality audit, and project audit (Dahanayake and Jacobs 2008, Flesher and Zarzeski 2002, Funnell 1998, Glynn 1985, Hossain 2010, Parker 1986, Summa 2002). While these different terminologies refer to a common need to review the performance of an organisation through an implied evaluation of the 3Es (Al-Twaijry, Brierley, and Gwilliam 2003, Chambers and Rand 2010, Dahanayake and Jacobs 2008, Flesher and Zarzeski 2002, Glynn 1985, Parker 1986), their mere existence tends to generate different interpretations as to the manner in which OAs are to be conducted and the outcomes expected in the audit process.

According to the literature, the application of different OA terms has been influenced by the country of application and the particular industry/sector of the economy. For instance, the term "value for money" is argued as being used in the public sector (Dahanayake and Jacobs, 2008) and the term "performance audit" has generally been referred to as also being used in the Australian public sector (Hossain 2010, Justesen and Skærbæk 2010, Kells 2010, Pollitt et al. 1999, English 2007, Funnell 2011, Guthrie and Parker 1999, Hatherly and Parker 1988, Radcliffe 2008, 1999). The original term "Operational Audit" from which the other terminologies have evolved has been associated with both the private and public sector in the United States of America (Allegrini et al. 2011, Chambers and Rand 2010, Summa 2002).

It is argued that an important insight arising from the above critical review of the different terminologies is the need for some clarity and standardisation to describe an OA. It is recommended that the term OA is used universally and that its definition is refined to establish clearly the expected inputs (economy) to achieve a set of outputs (efficiency) for addressing a set of predetermined objectives (effectiveness) about a program, function, activity, or department that is being audited. This suggestion forms the basis for inclusion as a second enabling factor to facilitate the effective practice of OA (Figure 4).



#### 2.5.1.3 Need for a clear methodology for conducting Operational Audits

The literature review shows that the identified ambiguities in the concept of the 3Es and different terminology have resulted in difficulties in establishing a suitable methodology for the content of OAs. Those who conduct such audits have developed their own bespoke approach based on their expected outcomes of the audit. However, difficulties in evaluating

the 3Es has led to applying methods that are more appropriate for compliance audits rather than OA (Gronlund, Svardsten, and Ohman 2011, Skærbæk 2009).

Furthermore, the inner process of OA projects is rarely studied due to the confidentiality of OA topics (Funnell 1998, Glynn 1985, Kells and Hodge 2009, Sloan 1996). Hence, the methods applied in OA projects are poorly understood (Kells 2010). Particular aspects of the methodology content that have caused problems include the reliability of evidence and performance measurements. These two factors are discussed below.

Evidence gathering plays a crucial role in the effectiveness of an OA process because it directly affects the credibility of the audit report (Put 2011, Lonsdale 2011). It is argued that auditors who undertake OA are under pressure to identify deficiencies based on valid arguments (Scharaschkin 2011) and that their reports will not have any value if they do not contain any findings of deficiencies without the support of appropriate evidence (Reichborn-Kjennerud and Johnsen 2011).

Researchers have argued that the rigour required in evidence gathering is no less than that required for financial audits (Scharaschkin 2011). However, it has been observed that the nature of operational audits at times precludes the auditor from obtaining reliable and credible evidence. This is because, at times, professional judgement, estimations, forecasts and consulting are involved in the OA process, more so than for financial audits and these particular processes are not always supported by hard evidence (Scharaschkin 2011).

It is observed in the literature that it is difficult for practitioners to gather reliable evidence from two or more resources to provide corroboration (Lapsley and Pong 2000). Furthermore, it seems that practitioners tend to use limited types of evidence (similar to financial audit) which are more acceptable for auditees (Keen 1999). Considering the evolving nature of OA, Lonsdale (2008) argues that the limited nature of applied evidence in OA projects restricts the use of the OA results.

The OA process is also associated with an element of subjectivity (Jin'e and Dunjia 1997), further reflecting on the difficulty of always obtaining the hard evidence achievable for financial audits, which are associated with clear and objective outcomes. These particular OA traits, it is argued, can negatively affect the quality and acceptability of the OA report by auditees (Lonsdale 2008).

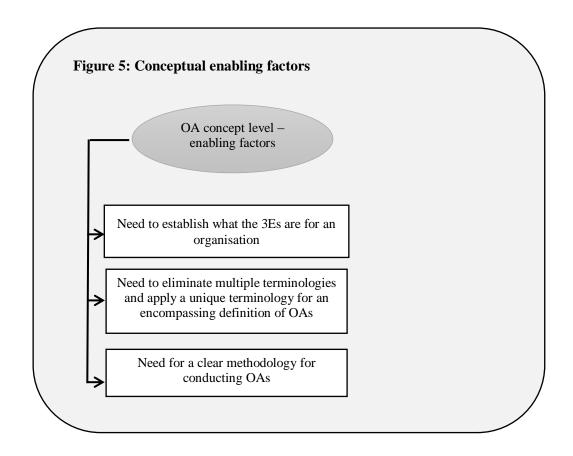
In addition to problems associated with the evidence gathering process, there have also been problems attributed to the use of performance measures as part of the OA process. Many organisations face difficulties in developing and implementing a credible performance

measurement system that involves both quantitative and qualitative measures (Barrett 2011, Pollitt 2003). The subjectivity and ambiguity attached to the performance measurement process inevitably have an impact on the quality of the OA report (Lapsley and Pong 2000).

Although OA subject matter can be challenging and highly variable, the applied criteria are very restrictive. The problem of criteria restricts the amount of evidence gathered in practice (Reichborn-Kjennerud and Johnsen 2011). Hence, practitioners are not able to investigate complicated issues that are not compatible with their traditional framework or criteria (Reichborn-Kjennerud and Johnsen 2011). Having this difficulty in practice directly decreases the quality of OA recommendations and the extent to which they can assist managers (Lillis and Szwejczewski 2012).

Furthermore, auditors who conduct operational/performance audits may avoid making reference to performance measures due to their unreliability (Reichborn-Kjennerud and Johnsen 2011). In these cases, some auditors have shifted their focus towards compliance issues instead of operational issues, thus impacting the aim of operational audits (Gronlund, Svardsten, and Ohman 2011, Skærbæk 2009). Gronlund, Svardsten, and Ohman (2011), for example, found that in Sweden, two thirds of performance audit projects had some degree of compliance review. Skærbæk (2009) found similar results in Denmark. Furthermore, Glynn (1985), in reviewing the value for money audits in six countries (Australia, Canada, UK, New Zealand, USA, and Sweden) found similar results in that there was no consistency in the conduct of performance audits. Johnsen et al. (2001) also found that the purported OAs conducted at local governments in Finland and Norway were, in fact, aspects of management consulting and public accounting. Hamburger (1989) as cited by English (2007) also revealed that Auditors General in conducting OAs adopted different views on how they should apply and evaluate performance criteria.

The above discussion highlights that there is no clear and consistent methodology for conducting OAs. While it stems from the problems associated with the unclear and ambiguous concepts of the 3Es and the terms used to describe OAs, this section also reveals that problems associated with evidence gathering, and unclear performance measures are a contributing factor. This supports the position that a clear methodology that addresses the aim of an OA is developed to facilitate the effective conduct of operational audits.



# 2.5.2 Internal Audit Function Enabling Factors

This section considers the second enabling factor. Internal audits undertaken can be described as occurring across a spectrum that consists of assurance audits (normally financial audits) at one end and consulting audits at the other. OAs are associated with a review of both financial and non-financial matters and hence can include aspects of both financial and non-financial audits that often involve consulting. It is argued that OAs are value-added audits and can enhance the usefulness of internal audit departments (Swinkel 2012). However, the support provided in conducting OAs is paramount. The specific areas of concern identified in research that have led to problems in conducting OAs are the lack of AC support and internal auditors' independence and resourcing. These two aspects are further discussed below.

#### 2.5.2.1 Internal Audit Function to be adequately resourced

An OA has been described as a time-consuming and expensive process requiring significant expertise for its effective conduct. As such, time, budget and skilled staff are important resources required for the effective conduct of OAs. Limited resources have been identified in the literature as a problematic factor in the conduct of OAs. Each of the three key resources—time, skills, and funding are discussed below.

Auditors conducting operational audits are under pressure to complete the process on a timely basis as the audit report, an outcome of the OA process, needs to be acted on promptly for it to be effective. However, generating a credible OA report requires considerable planning and fieldwork that can take a long time (Reeve 1981, Kells 2010). The lengthy process in practice can be a problem when out of date operational reports present outdated or superseded information (Pollitt 2006a, Flesher and Zarzeski 2002). Some researchers have argued that this limitation poses a threat to the effectiveness of the OA process (Ernst & Young 2007, Tillema and Bogt 2010). In this respect Tillema and Bogt (2010) for example, found that politicians tend to lose interest in an audit topic if it takes a long time to publish the resulting report. This problem, it is argued, can also have an impact on the quality of the audit when internal auditors try to reduce the OA time by taking shortcuts in the methodological processes (Pollitt 2006b).

Another important requirement for the effective conduct of OAs is the need for staff with the required levels of skill and experience. In practice, it is observed that the limited budgets of internal audit departments have an impact on the employment of skilled and experienced staff and also the ongoing training requirements for staff (Al-Twaijry, et al. 2003).

The level of skills and experience required corresponds to the nature of operational audits in that those practising OA require a knowledge of operational matters as well as of OA techniques (Lonsdale 2011). Hence, auditors who undertake operational audits can comprise professionals from different backgrounds who have expertise in the operations of the organisation (Balkaran 2014, Chambers and Rand 2010). Such professionals need to be also up-to-date and knowledgeable in their respective industries and be aware of new changes in the dynamic operating environment (Knaap 2011b, The International Organisation of Supreme Audit Institutions 2010). This will reduce the risk of a negative reaction to the report due to the skill and experience levels of the staff conducting the audit (Kells 2010). Furthermore, if the auditors are unfamiliar with the operational environment, there is the risk of generating findings that are incorrect (Kells 2010).

Auditees have also used their perception that the IAF did not have the appropriate expertise in operational matters as a basis for outsourcing audits. For example, Christopher (2012) noted

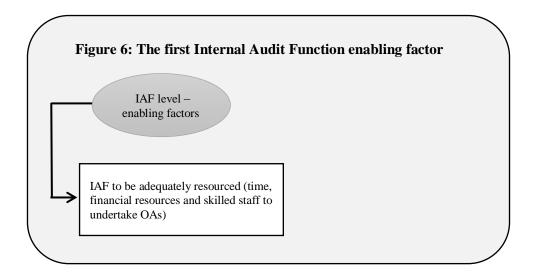
that the vice-chancellor of a university outsourced operational reviews due to the perceived lack of expertise of the IAF in conducting them. To overcome these difficulties with auditees, operational auditors need persuasive capacity and to have strong communication skills (Balkaran 2014).

Given the vast scope of an OA, ongoing training is an essential for IAFs in keeping up to date on operational matters (Lonsdale 2011). This, however, is observed as not always forthcoming in practice. Lapsley and Pong (2000) for example found that a lack of training by value-formoney auditors resulted in deficiencies in the conduct of such audits.

The OA process is lengthy and also requires skilled and experienced staff with the proviso for ongoing training. These requirements, however, are costly, and internal audit functions will be hard-pressed to conduct OAs effectively without adequate financial resources (Barrett 2011, Koontz, O'Donnell, and Weihrich 1976).

In practice, it is noted that internal audit departments compete with other operational functions for limited resources and have been subject to inadequate funding during difficult times (Kells and Hodge 2009). Researchers found that the conduct of OAs is negatively affected by the limited budget of internal audit departments and their low number of staff (Al-Twaijry, Brierley, and Gwilliam 2003, Koontz, O'Donnell, and Weihrich 1976).

Internal auditors experience the above problems (time, expertise and funding constraints) in practice. These difficulties have impacts on the effective conduct of OAs. These factors are used as a basis to identify them as enabling factors for the effective conduct of OAs. This is surmised in Figure 6.



#### 2.5.2.2 Support from the audit committee

Audit committee support is another important element in the effective practice of OA. Prior research reveals that the relationship between the audit committee and the internal audit department has a significant positive impact on the effectiveness of OA (Sarens, Abdolmohammadi, and Lenz 2012).

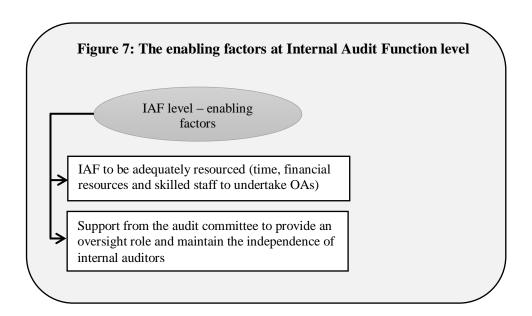
The nature of operational audits is that they aim to critically review the operations of an organisation. This could at times result in auditors identifying poor performance attributable to management or particular employees. These reports as a result of OA outcomes can result in a lack of cooperation from management and employees in the conduct of OAs. To overcome this problem, audit committee support of the internal audit function and the conduct of OAs is paramount. It is argued that an audit committee is supportive of the IAF when it meets certain criteria. One of these is that the IAF must directly report to the audit committee (Gramling et al. 2004). Another is that the IAF must have a close relationship with the AC members (Roussy 2013). A further criterion is that the audit committee members must be independent and experienced (Goodwin-Stewart and Kent 2006). Various research studies undertaken suggest that a well-structured audit committee meeting the above criteria can improve the quality of the IAF and, in particular, the conduct of value-added audits like OAs (Goodwin-Stewart and Yeo 2001, Turley and Zaman 2004). A strong audit committee can assist internal auditors to overcome the negative reactions of management and employees towards the audit. Audit committees can assist by requiring management to cooperate through their role as an independent body responsible for providing oversight of internal audit activities (Roussy 2013).

However, it is observed in practice that audit committees do not always comply with the above criteria. As a consequence, it is also observed that internal auditors may tend to protect their interests by looking after management's interests (Roussy 2013). Further, it is reported that practitioners act conservatively in disclosing deficiencies in practice (Radcliffe 2008, 1999). This is because it is management who ultimately determines their career paths within the organisation and who have control over the internal audit budget (Christopher, Sarens, and Leung 2009). Therefore, it is argued that this lack of independent support from the audit committee and internal auditor response can negatively impact on the credibility of the OA process (Everett 2003).

A further issue that creates an independence problem for internal auditors in conducting OAs is their involvement in consulting during the OA process. It is argued that in providing consulting services to management, there is also a potential threat to auditor independence (Everett 2003, English 2007, Gendron, Cooper, and Townley 2007, 2001). This is because

these services may require a close working relationship with managers (Reichborn-Kjennerud and Johnsen 2011). In some cases, it is also observed that it is management who initiates the operational audits to meet their aims. Such management-initiated audits without audit committee support to maintain impartiality, it is argued, can also impact on the credibility of the internal audit report (Funnell 1998, Lonsdale 2008, McCrae and Vada 1997, Pollitt 2003).

The above suggests that both audit committee support and independence of the internal auditor are crucial factors necessary to facilitate the effective conduct of operational audits. The need for a properly structured and functional audit committee and ongoing independence of the IAF provides the basis to include them as important enabling factors for the effective practice of OAs.



# 2.5.3 Organisational Enabling Factors

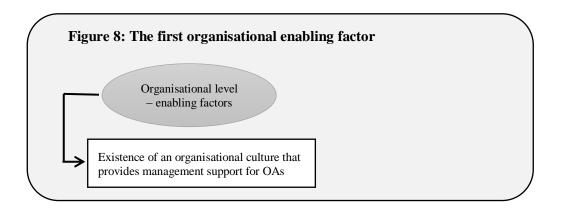
Finally, the third construct of the OA framework consists of enabling factors that are important at the whole-of-organisation level. Clear organisational structure, high interactions with the auditee, supporting organisational culture and appropriate governance are important factors in the effective practice of OA. The lack of these elements in any organisation may cause problems for practitioners in the OA. In the next sub-sections, the difficulties in relation to each enabling factor are reviewed first, followed by a discussion of the importance of each relevant factor.

# 2.5.3.1 Existence of an organisational culture that provides management support for Operational Audits

Management support is an important element in the effectiveness of IAF (Roussy 2013, Cohen and Sayag 2010). According to Cohen, Krishnamoorthy, and Wright (2004), management acceptance of the audit process is critical for the success of the IAF. In particular, the non-mandatory nature of OA and the sensitivity of OA subject matters for auditees, who might not have previous experience with auditors, increase the importance of management's support in the OA process. In practice, however, it is noted that this support is not always forthcoming.

Various studies show that auditees are reluctant to be receptive to changes as a result of operational reviews, and they are also reluctant to reveal too much information (Funnell and Wade 2012, Lapsley and Pong 2000, Pentland 1993, Power 2003, Skærbæk 2009). This is observed even though the operational process is designed to enhance the performance of the organisation (Funnell and Wade 2012, Kells 2011, Morin 2003, Weets 2011). This lack of support, it is argued, threatens the effectiveness of the OA process (Funnell and Wade 2012, Reichborn-Kjennerud and Johnsen 2011). Loocke and Put (2011) similarly observed that a requirement for effective performance audits is the need for cooperation between auditors and auditees. Morin (2004), in a research study on Quebec governmental organisations, also found that auditors' good relationships with managers had a positive impact on the acceptance of their recommendations.

It was also observed that a possible reason for the lack of management support is a lack of knowledge of the benefits of OA (Haidarinejad et al. 2012). Furthermore, this research shows that management's knowledge of OA methods is weak. This fact restricts the applicable methods and consequently the quality of the OA outcome because internal auditors have to apply methods which are familiar for management (Lillis and Szwejczewski 2012). Hence, the first enabling factor at the organisational level is the existence of an organisational culture that provides management support for OAs.

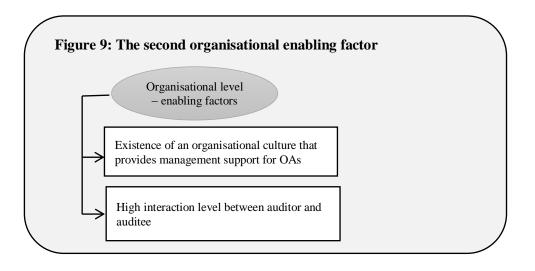


# 2.5.3.2 High interaction level between auditor and auditee

The effectiveness of the OA process depends on the implementation of OA recommendations. It is posited that a positive interaction between auditors and auditees can facilitate the acceptance of OA recommendations (Loocke and Put 2011, Morin 2001, Weets 2011). In a similar vein, (DeVries 2000) also highlighted the importance of good social interactions between auditees and auditors in the OA process to facilitate its effectiveness.

In practice, however, studies refer to considerable conflicts between auditors and auditees (Funnell and Wade 2012, Reichborn-Kjennerud and Johnsen 2011, Weets 2011). One of the attributed reasons is a possible bad experience of a prior OA (Etverk 2002). Another reason is the possible negative consequences on management as a result of the report (Morin 2003). These negative consequences have resulted in management not accepting the recommendations in good faith (Funnell and Wade 2012, Kells 2010). Furthermore, recent research shows that there is a positive relationship between the existence of a good relationship with auditees and the efficiency and effectiveness of the audited department (Ma'ayan and Carmeli 2015).

A further reason concerns the practical application of some of the recommendations. Morin (2008) for example finds performance audit recommendations to be very theoretical and that there are problems in applying them in practice. In some instances current management practices are insufficiently recognised. These problems align with earlier identified problems related to the required skill and experience level of internal auditors. Kells (2011) believed that performance auditors have limited management experience, and this is reflected in the lack of practical applicability of some of the recommendations (DeVries 2000, Put 2011). Therefore, the second enabling factor of the organisational level is a high interaction level between auditor and auditee (Figure 9).



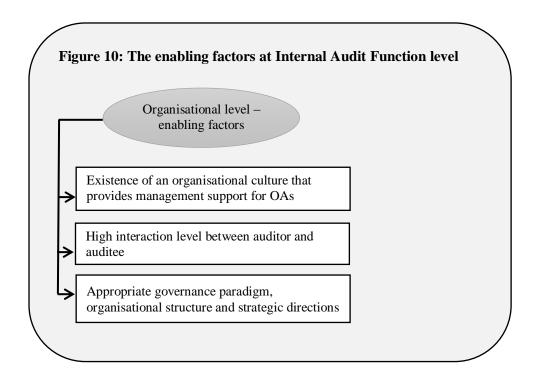
# 2.5.3.3 Appropriate governance paradigm, organisational structure, and strategic directions

Vagueness in organisational structure, governance processes and organisational culture are also problems faced by internal auditors in conducting operational audits. An important element of the OA is reporting on these matters, but they become redundant if these matters are part of the accepted management culture.

The planning of the OA process and the evaluation of the 3Es of an organisation's operations relies on clear organisational objectives (Chambers and Rand 2010, Everett 2003). A successful OA process is facilitated when the responsibilities of key players and operations of the organisation are clearly outlined (Everett 2003, Knaap 2011a). This is because the norms and criteria of OAs are defined based on the strategic and operational objectives of an organisation (Knaap 2011b) and that these clear objectives provide the basis for determining a clear relationship between the structure, processes, and outcomes of an organisation (Everett 2003). In this respect, (Knaap 2011b) emphasised the need for a clear organisational structure, cost awareness and adequate governance emphasis as obligatory elements in conducting operational audits. Furthermore, Alzeban (2015) finds that a professional corporate culture has a positive impact on the quality of the IAF.

From an operational perspective, Johnsen et al. (2001) argue that an element of uncertainty and ambiguity leads to difficulties in conducting an OA. In fact, it has been argued that ambiguity in goals and objectives and outcomes of an organisation can lead internal auditors toward focusing on less important matters instead of high-risk obstacles (Barrett 2011). It is observed that this problem intensifies when organisations have vague goals, undiscoverable intervention effects and undetectable outcomes (Everett 2003). Chambers and Rand (2010, 12) also noted that operational auditors should be aware of management objectives to design the audit plan and set the audit objectives.

The above problematic factors associated with organisational structure and culture have an impact on the effective practice of OAs. They are identified as enabling factors for the effective conduct of OAs.



# 2.6 Concluding remarks

This thesis focuses on the modern concept of OA that emerged after the Second World War (Lonsdale 2000, Flesher and Zarzeski 2002). The OA concept and standards are defined by many researchers and organisations. Studying the available OA definitions indicates that the majority of these concepts focus on the 3Es as the main objectives of OA process. In addition to the concept of OA, the practical standards of OA are defined by organisations such as INTOSAI and the Government Accountability Office in the USA. It is noticeable that all of these standards are general, and they are far removed from structured financial auditing standards. Although the existing theoretical background might seem sufficient, in reality practitioners are faced with various difficulties in practising OA.

The problematic factors are broadly classified into three levels, these being the conceptual, IAF and organisational levels. Problems at the conceptual level include issues about the scope, terminology, and methodology of OAs. This is attributable to the unclear and ambiguous nature of the 3Es, the different terminologies for OA and the lack of a clear methodology to undertake the OA audit. Problems at the IAF level are attributable to the lack of audit committee support and limited resources to conduct OAs. Problems at the organisational level include the lack of management support, difficulties in acceptance of OA recommendations, and unclear organisational structure and culture.

The above-mentioned problematic factors are summarised in Table 2. Having considered these problems and their importance in the effective conduct of an OA, these factors are used to develop a set of enabling factors for the effective conduct of OAs, presented as the theoretical framework for OA in Figure 11. Having reviewed the literature, the research methodology is discussed in detail in the next chapter (Chapter Three). The next chapter provides discussions about the design of this research including the research paradigm, method of enquiry, and the research approach. Furthermore, the practical steps for conducting this research such as sampling selection method, participants, conducting interviews and analysing data are explained in the next chapter.

Table 2: Problematic issues and enabling factors

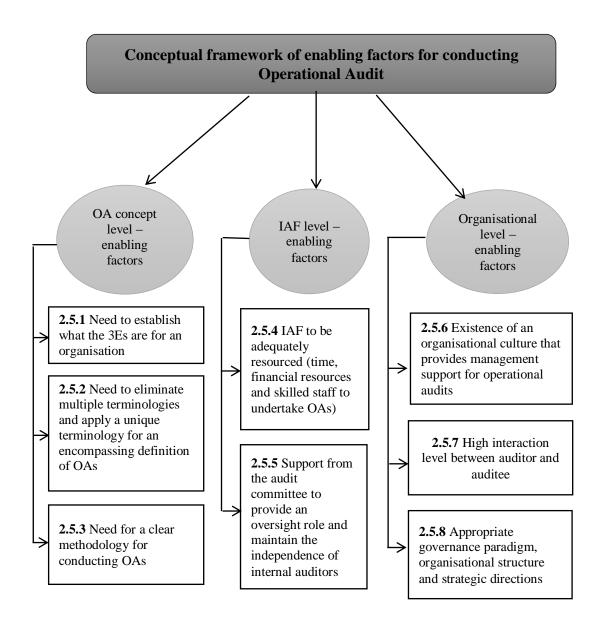
Framework	Problem	atic issues	Enabling factors	Solution	
Levels					
Conceptual	Unclear concept of 3Es	<ul> <li>Unstandardised and ambiguous nature of the 3Es</li> <li>Uncertainties about the auditable aspects/scope of operational audits</li> </ul>	•Need to establish what the 3Es are for an organisation	•Establishing the 3Es of the performance of an organisation	
	Multiple terminologies for OAs	<ul> <li>Confusion about the correct scope for OAs.</li> </ul>	•Need to eliminate multiple terminologies and provide for a single encompassing definition of OA	•Applying one OA term	
	Unclear methodology	<ul> <li>No clear process for conducting OA</li> <li>Difficulty in gathering evidence to support OAs and subjective/unreliable performance measures.</li> </ul>	Need for a clear methodology for conducting OAs	Developing a clear OA methodology including clear evidence and performance measures to facilitate effective conduct of OAs	

Framework	Probler			issues	Enabling factors	Solution	
Levels							
IAF	The lack of audit committee support		<ul> <li>No clear support for the independent conduct of OAs. Impacts on the credibility of OAs.</li> <li>Internal Auditors conducting OAs resort to depending on management that impacts on independence and credibility of internal auditors.</li> </ul>		•Support from the audit committee to provide an oversight role and maintain the independence of internal auditors	• An effective audit committee that meets the criteria of independence, IAF reporting directly to the Audit Committee, and Audit Committee members having close interactions with the internal auditors.	
	Limited resources	Time-consuming process  The lack of skilled staff  The lack of financial resources	•	Out of date and irrelevant report A lengthy process can have negative acceptance levels of OA findings The vast domain and dynamic audit environment require internal auditors with the appropriate skills and experience to conduct OAs. Has an impact on staffing numbers and training for staff.	•IAF to be adequately resourced (time, financial resources and skilled staff to undertake OAs)		

Framework	Problem	atic issues	<b>Enabling factors</b>	Solution	
Levels					
Organisational	The lack of management support	<ul> <li>The auditee's resistance to change</li> <li>Limited knowledge of management of OA benefits</li> <li>The lack of auditors' independence due to the close relationship between auditors and auditees</li> </ul>	Need for an organisational culture that provides management support for operational audits	Try to increase the management knowledge of OA process and outcome  Maintain internal auditor independence while having a good relationship with management	
	Difficulties in acceptance of OA recommendations	<ul> <li>Conflict of interest between auditors and auditees negatively affect acceptance of OA recommendations</li> <li>Technical problems of suggestions: Being too theoretical, lack of management knowledge of auditors and not providing findings that can be practically implemented.</li> </ul>	<ul> <li>Need for a high level of interaction between auditor and auditee</li> <li>Need for reviewing feasibility of recommendations before issuing the report</li> <li>Need for increasing managerial knowledge of operational auditors</li> <li>Need for mentioning the performance difficulties causes in the audit report</li> </ul>	<ul> <li>Try to create a management culture that accepts the usefulness of OAs.</li> <li>Improve interactions between auditee and auditor.</li> <li>Need for a follow up of recommendations to ensure they are implemented</li> </ul>	

Framework	Problem	atic issues	Enabling factors	Solution
Framework Levels Organisational	Unclear organisational structure, governance process and organisation culture	<ul> <li>Unclear goals and objectives of organisations</li> <li>Undeveloped organisational culture that limits the IAF to compliance or financial audits</li> </ul>	Need for a clear and an appropriate governance paradigm, organisational structure and strategic directions	<ul> <li>Developing a well-defined organisational structure based on effective governance.</li> <li>Changing the culture of an organisation to recognise the internal</li> </ul>
		<ul> <li>Organisations' culture (general resistant to change)</li> </ul>		audit function and the conduct of OAs

Figure 11: The conceptual framework of enabling factors for practising Operational Audit<sup>4</sup>



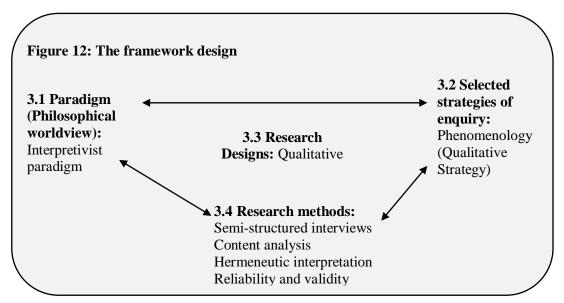
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<sup>&</sup>lt;sup>4</sup> The theoretical framework is published as a paper in the proceedings of the Critical Perspectives on Accounting Conference in Toronto, Canada (Vafaei and Christopher 2014).

# **Chapter Three: Research Methodology**

#### 3.0 Introduction

This chapter outlines the methodology adopted to conduct this research. Considering the exploratory nature of this thesis, a qualitative research design has been selected to investigate the research questions. This chapter starts with discussions about the researcher's worldview in Section 3.1. The subsequent sections provide details about the applied enquiry strategy (Section 3.2), research design (Section 3.3), and research methods (Section 3.2). The data collection process is outlined in Section 3.5. The methods of analysing the data are discussed in Section 3.6. The reliability, validity, and generalisability of these research findings are extrapolated in Section 3.7. Finally, a brief summary of this chapter is presented in Section 3.8. A general perspective on adopted research methods is presented in Figure 12.



Adopted from Creswell (2009)

### 3.1 Research paradigm

A research paradigm is a set of fundamental assumptions that shapes the research design, methods of data collection, and the interpretation and presentation of the final research findings. The paradigm assists researchers to realise the research process through disciplined investigation (Guba 1990, Jennings 2001). According to Creswell (2003), the existing research paradigms are constructivism, pragmatic, positivism and participatory. These paradigms can be broadly classified into two main categories as interpretivist and positivist (Onwuegbuzie and Leech 2005).

While the positivist view is often applied to conduct quantitative research, the interpretivist paradigm or constructivist paradigm (Creswell 2007) is usually applied in qualitative research (Mustamil 2010, Hossain 2012). The interpretivist paradigm includes phenomenology, hermeneutics and symbolic interactionism (Patton 2002). According to Lincoln and Guba (1985), interpretivist studies are involved in understanding the individual perceptions of the world. Therefore, the nature of social constructs can be refined through the interaction between researchers and research objects. It is suggested that in this type of paradigm, the researchers are allowed to change questions as they become familiar with the research content (Hossain 2012, Krauss 2005).

In interpretive studies, content is an important factor. Parker (2008) mentions this characteristic as one of the main advantages of applying the interpretivist paradigm in accounting studies. He notes that interpretive research enables the researchers to study unknown problems and issues in context. Therefore, interpretivist researchers who are involved in close and holistic views of the research subject can study the routine process and activities in their natural conditions (Ferreira and Merchant 1992). Hence, this paradigm narrows the gap between practice and theory (Hopwood 1983, Lehman 2010).

The interpretivist paradigm is applied to achieve the objectives of this thesis. As indicated in Chapter One, the key aim of this thesis is to establish a conceptual framework for the effective practice of OA. This framework will be developed initially by taking the theoretical framework created in Chapter Two and refining it to develop a conceptual framework based on real world views of OA practitioners. To achieve this goal, the interpretive research paradigm will be applied. It is worth mentioning that all of the previous studies in this area have focused on the practice of OA by Auditors-General (public sector), and there was no particular research about the framework of practising OA in internal audit departments. Hence, the interpretive paradigm enables the researcher to capture an in-depth and holistic understanding of OA as

one of the functions of internal audit departments. The next section discusses the research enquiry of this thesis.

#### 3.2 The enquiry strategy

Hermeneutic phenomenology is applied as the enquiry strategy of this thesis. According to Creswell (2007), "A phenomenological study describes the meaning for several individuals of their lived experiences of a concept or a phenomenon. Phenomenologists focus on describing what all participants have in common as they experience a phenomenon". With this type of strategy, the researcher first chooses an object or phenomenon as the focus of the study. Then relevant data is collected from participants who have experience of that specific phenomenon. Finally, the researcher describes "what" and "how" participants experience the object (Creswell 2007, Manen 1990, 163, Moustakas 1994).

There are two types of phenomenology; hermeneutic phenomenology and psychological phenomenology (Creswell 2007). The difference between these two types is in the interpretation. In psychological phenomenology, the researcher only focuses on describing the object without interpreting data. In contrast, hermeneutic phenomenology consists of an interpretive process in which the researcher focuses on describing the lived experience of participants by considering the relationship between different parts of the text and the whole. Hermeneutic phenomenology enables the researcher to understand the phenomenon in the immediate experience (Chabrak 2005). Therefore, applying hermeneutic phenomenology provides an opportunity to identify important factors of effective OA practice, based on the real experience of Chief Audit Executives (CAEs). This method allows the researcher to interpret the appropriate meaning of the text. The application of this method is discussed in more detail in Section 3.6.3.

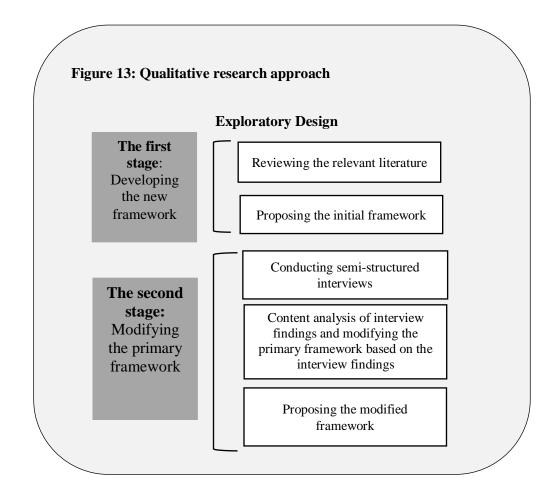
#### 3.3 Research design: qualitative approach

A qualitative research method is applied in this study to gain an in-depth understanding of important factors in the effective practice of OA. According to Creswell (2009), the research design or plan is comprised of worldview, enquiry strategy and research methods. The components of these three factors (interpretivist paradigm, hermeneutic phenomenology, and semi-structured interviews) in this thesis support a qualitative approach.

Qualitative research involves studying the research subject in its natural situation to interpret the phenomena (Lichtman, 2014). It involves studying "humans and their interactions" (Creswell 2007, Lichtman 2014) and those research questions that cannot be studied by numerical data (Lichtman 2014). An important feature of qualitative research is that individuals will be studied in their natural settings and reality (Lichtman 2014, Denzin and Lincoln 2011). For example; a group of businessmen will be studied in their business office. Adopting qualitative methods enables the researcher to review the subject "in depth and detail" (Patton 2002).

The nature of this thesis is exploratory and interpretive due to the lack of research on OA practice. The exploratory design of this thesis consists of two different stages (Figure 13): In the first stage, the theoretical framework—a major contribution of this thesis and developed in Chapter Two—has been facilitated by reviewing the literature in regards to the practice of OA and the problems faced by practitioners in conducting OAs. This process supported the identification of key enabling factors identified in prior research but not previously considered as an overall framework. The literature review primarily focused on papers from A and A\* journals. Considering the fact that the OA practice in internal audit departments is under researched, the literature review was extended to all journals of ABCD listing to develop necessary enabling factors. Furthermore, since the OA effectiveness framework is supposed to be practice-informed, practitioner journals are also included in the literature review.

In the second step, the conceptual framework will be modified based on the experience of auditors who practice OA in their organisations. The exploratory design of this thesis consists of two different stages (Figure 13): First, a framework of enabling factors for the effective practice of OA in internal audit departments has been developed, as presented in the previous chapter. Second, this initial theoretical framework will be refined through conducting semi-structured interviews with Chief Audit Executives of Australian internal audit departments and presented as a conceptual framework.



#### 3.4 Research method: semi-structured interviews

A semi-structured interview method has been selected to gather data in this thesis. This data collection method is largely applied in social science in qualitative studies (Hossain 2012). The main advantage of this method is producing rich and detailed data (King 1994, Saunders, Lewis, and Thornhill 2009). This approach allows the interviewer to give feedback to interviewees and ask for elaboration on their answers during the interview session (Zikmund 1999).

An interview guide is applied in this type of interview to increase consistency during interviews and ensure coverage of all different aspects of the research (Beasley et al. 2009, Patton 2002, Trotman 2013). According to Lillis (1999), using an interview guide (questions) will decrease the researcher's bias. Furthermore, it will ensure the completeness of the interview questions (Lillis 1999).

In this thesis, semi-structured interviews are used as the research method to confirm or modify the theoretical framework. This method enables the researcher to inquire about participants' views about enabling factors identified in the theoretical framework and elaboration on their views. The structure of questions for each enabling factor constitute one general question about the impact of the enabling factors and more specific questions to clarify interviewee's responses. To maintain the consistency of this thesis, an interview guide consisting of 39 questions is used (Appendix C). The interview guide is designed based on the theoretical framework developed in Chapter Two. Furthermore, the interview questionnaire is reviewed by one academic from the internal audit field in order to ensure the validity of questions. Also, the clarity and appropriateness of interview questions are constantly reviewed during interviews. Interviewees were each asked to identify ambiguities or omissions relating to the selection of interview questions. None did so, thus further confirming the validity of the interview design.

#### 3.5 Data collection process

#### 3.5.1 Sampling techniques

Purposive-expert sampling and snowball sampling procedures are used in this research to collect data. Miles and Huberman (1994) identified sixteen different sampling techniques for qualitative studies. Considering the research objectives of this thesis, purposive and snowball sampling are appropriate qualitative techniques (Trochim 2008, Trotter 2012, Zikmund 1999) for this work. While the expert sampling method is used as the primary way of gathering data, the snowball sampling technique is applied to increase the number of participants who have enough experience in practising OA.

Expert sampling is used to select people with expertise in a specific area to elicit their views on the studied subject (Trochim 2008, Trotter 2012). Therefore, to gain internal auditors' views about practising OA, the expert sampling method was used to select CAEs or internal audit managers who have experience in practising OA. Applying this sampling method resulted in selecting 28 interviewees.

In addition, the snowball sampling method was used to increase the number of interviewees. According to Zikmund (1999), applying snowball sampling is beneficial when the sample population is unique. Hence, the initial interviewees were asked to recommend other CAEs who had experience in practising OA and might be interested in participating in the study (Trochim 2008, Trotter 2012, Zikmund 1999). Six interviewees were identified through this sampling technique. The number of interviewees (sample size) is reviewed in detail in the next sub-section.

#### 3.5.2 Sample size

The sample size for this thesis is 28 interviewees. Usually, the sample size of qualitative studies is very small (Creswell 2007, Hossain 2012, Malhotra et al. 2004) and it is identified based on the saturation condition. However, Creswell (2007) noted that the sample size of 5 to 25 participants is appropriate for phenomenology studies.

The 'data saturation condition' determines the number of interviewees. Lincoln and Guba (1985, 202) define the saturation limit as follows:

The point of redundancy... In purposeful sampling the size of the sample is determined by informational considerations. If the purpose is to maximize information, the sampling is terminated when no new information is forthcoming from new sample units; thus redundancy is the primary criterion.

Francis et al. (2010) also define saturation data as "... no new themes, findings, concepts or problems [being] evident in the data." Recent research revealed that the number at which the saturation limit is expected to be achieved is 12 (Francis et al. 2010, Guest, Bunce, and Johnson 2006). Guest, Bunce, and Johnson (2006) find that the first 12 of 60 interviews revealed 97 percent of important facts. Hence, the saturation limit is likely to be achieved after 12 interviews.

In this research, 28 experts in practising OA in internal audit departments have been chosen from three Australian states to gather data. Thirteen interviews have been conducted in the public sector (public organisations) and fifteen interviews in the private sector (listed companies). The researcher believes that the saturation limit has been met as no new theme or related information was discovered in the last seven interviews.

#### 3.5.3 Conduct of interviews

As mentioned in the previous section, 28 face-to-face interviews were conducted between July and November 2014 in Perth, Sydney, and Melbourne. Initially, the Institute of Internal Auditors (IIA) of Australia sent an interview invitation letter to all Chief Audit Executive (CAE) members. Consequently, 18 volunteers (CAEs) were found in Perth, Sydney, and Melbourne. Furthermore, 10 more interviewees were recommended by the initial respondents in Perth and Sydney. Hence, 28 interviews were conducted in total. To increase the consistency of the interviews, all of the interviews were conducted by the single researcher (Hossain 2012). Each interview session lasted from one to two hours and took place at the CAE's office or a

convenient place for them near their office. In two of the interview sessions, the CAE was accompanied by the senior internal audit manager, resulting in more detailed views about enabling factors of the framework.

Since audio recording increases the accuracy and completeness of the data (Creswell 2007, Patton 2002, Trotman 2013); all of the interviews were recorded by two separate devices, with the interviewee's permission. Not only does recording enhance research validity (Trotman 2013, Minichiello, Aroni, and Hays 2008), it can also be referred to for more clarification (Silverman 2006, Trotman 2013).

Interviews were started by two general questions about the CAE's background and followed by an explanation of the definition of OA by the interviewer. Then, interviewees were asked about different enabling factors in the theoretical framework. Finally, the interview sessions were completed by showing the theoretical framework to interviewees and asking their opinions about any other factors that they might consider as relevant but not covered by the interview questions or their responses. This ending was offered by the interviewer as a clear closing gesture (Eriksson and Kovalainen 2008, Patton 2002, Trotman 2013).

Furthermore, the interview recordings were transcribed by an independent professional transcriber. Independent interview transcription is recommended by different researchers (Lichtman 2014), as it has a great impact on "data analysis and interpretation" (Hossain 2012). Therefore, interviews were transcribed and checked by a professional transcriber in this thesis. The accuracy and completeness of the transcriptions were re-checked by the researcher.

#### 3.5.4 Participants' profile

The demographic characteristics of interviewees in this thesis are described in terms of type of organisation, current position, work experience in relation to internal and operational audit, education, gender, and number of OA projects per year. A comparison of major interviewee characteristics is presented below in Table 3.

The majority of interviewees were male (90%), and the average respondents' work experience was 20 years. Most of the interviewees had many years' experience in the internal audit profession and operational audit practice. In the private sector the average of OA projects per year in internal audit departments was 20, in the public sector, this number was 13. The education level of interviewees reveals that almost all of the interviewees have a relevant academic and/or professional background.

 Table 3: Demographic characteristics of interviewees

Interviewees	Type of	Current	Work	Education & Professional	Gender	Number of OA
	organisation	position	experience in relation to OA	Qualification		projects in a year
CAE 1	Public	Chief Audit Executive	20	CMIIA, CIA CGAP, CCSA, CRM	Male	1 or 2
CAE 2	Public	Chief Audit Executive	28	BA in Accounting, CPA, CIA	Male	15
CAE 3	Private	Internal audit manager	20	BA in Business (Hons), Marketing, Management, Accounting	Female	10 to 12
CAE 4	Public	Chief Audit Executive	27	MBA, BA in Accounting	Male	13 out of 18
CAE 5	Public	Chief Audit Executive	30	CIA, CGAP	Male	15

Interviewees	Type of organisation	Current position	Work experience in	Education & Professional Qualification	Gender	Number of OA projects in a year
	organisation	position	relation to OA	Quantication		projects in a year
CAE 6	Public	Chief Audit Executive	12	Postgrad in Management, Member of IIA	Male	10-12
CAE 7	Public	Chief Audit Executive	22	MA in Finance	Female	10
CAE 8	Public	Chief Audit Executive	9	BA in Accounting	Male	3-4
CAE 9	Private	Chief Audit Executive	25	BA in Economics, CA	Male	40
CAE 10	Private	Chief Audit Executive	20	MBA, CIA, CFSA, CRMA, CPA	Male	10
CAE 11	Private	Chief Audit Executive	20	MA in Risk Management, MA in Retail Management	Male	50-60

Interviewees	Type of organisation	Current position	Work experience in relation to OA	Education & Professional Qualification	Gender	Number of OA projects in a year
CAE 12	Private	Chief Audit Executive	25	CRMA, CA	Male	64
CAE 13	Private	Chief Audit Executive	15	BA in Accounting, CIA, CA	Male	15
CAE 14	Private	Chief Audit Executive	17	BA in Commerce, CA, MA in Finance	Male	12
CAE 15-1	Private	Chief Audit Executive	5	BA in Accounting, CPA	Female	24
CAE 15-2	Private	Internal audit manager	20	BA in Accounting	Male	24
CAE 16	Private	Chief Audit Executive	-	Director of Finance department	Male	60

Interviewees	Type of organisation	Current position	Work experience in relation to OA	Education & Professional Qualification	Gender	Number of OA projects in a year
CAE 17	Private	Chief Audit Executive	25	BA in Accounting	Male	18
CAE 18	Private	Chief Audit Executive	20	BA in Accounting	Female	6
CAE 19	Private	Chief Audit Executive	30	Postgrad certificate in Internal Audit	Male	30-40
CAE 20	Private	Internal audit manager	15	BA	Male	12-15
CAE 21	Public	Chief Audit Executive	23	BA in Economics, Accounting, Law, FCPA FIIA	Male	30
CAE 22	Public	Internal audit manager	20	BA in Accounting	Male	1

Interviewees	Type of organisation	Current position	Work experience in	Education & Professional Qualification	Gender	Number of OA projects in a year
	. g.,		relation to OA			r
CAE 23	Public	Senior internal audit and risk advisor	15	BA in Commerce	Male	15
CAE 24	Private	Chief Audit Executive	25	BA in Accounting	Male	10 to 20
CAE 25	Public	Chief Audit Executive	18	BA in Economics CIA MA in Accounting	Male	2
CAE 26	Private	Chief Audit Executive	26	MA in Accounting	Male	22
CAE 27	Public	Assistant Director audit	18	MA in Accounting	Male	30

Interviewees	Type of	Current	Work	<b>Education &amp; Professional</b>	Gender	Number of OA
	organisation	position	experience in	Qualification		projects in a year
			relation to OA			
CAE 27_2	Public	Internal audit	17	Professor of Accounting	Male	30
		manager		CPA		
CAE 28	Public	Chief Audit	21	MBA	Male	32
		Executive				

#### 3.6 Data analysis techniques

Analysing qualitative data does not follow a fixed formula (Yin 2003, 127). However, two broad patterns have been defined for this purpose (Berg and Lune 2012). Each of these patterns has three different categories. The first pattern is defined by Miles and Huberman (1994) and the second pattern is introduced by Hsieh and Shannon (2005). Although these approaches are different, their categories sometimes overlap (Berg and Lune 2012).

Miles and Huberman (1994) define three approaches for the analysis of qualitative data. These approaches are interpretive approaches, social anthropological approaches, and collaborative social research approaches (Berg and Lune 2012). In interpretive approaches, researchers can analyse interview data in relation to "social actions" and "human activity". This method allows the researcher to discover "the practical understandings of meanings and actions" and it is suitable for phenomenological studies (Berg and Lune 2012, 351). In contrast, social anthropological approaches are appropriate for anthropological or behavioural studies. In these studies, the researcher spends considerable time with the target community or individuals to understand the participants' interpretation of their social world. With this method, data is gathered from various sources such as interviews, observation, diaries and photographs. Finally, the last qualitative method is the collaborative social research approach. This method is suitable for action research. In this type of study, the researcher works collaboratively with subjects (participants) to gather information about understanding a situation and solving a problem (Berg and Lune 2012).

The content analysis technique is another method of qualitative data analysis that is suitable for analysing the interview data in exploratory studies (Berg and Lune 2012, Hossain 2012, Sarantakos 1998). Hsieh and Shannon (2005) have defined the qualitative content analysis in three different groups: conventional, directed, and summative. The main difference between these groups is the level of inductive reasoning behind them (Berg and Lune 2012). While the conventional and summative content analysis apply an inductive approach to extract codes from the text, deductive reasoning is used in direct content analysis.

Since content analysis approaches are more structured than the first analysis pattern, the direct content analysis technique is applied in this thesis. The details of this technique are discussed in the following sub-sections.

### 3.6.1 Content Analysis Method

Content analysis is the most obvious technique for analysing interview data. This technique allows researchers to study social communication in a written format such as transcription or written documents (Berg and Lune 2012). Different types of content analysis and the appropriate methods are briefly defined below.

Content analysis has three types: direct, conventional, and summative. According to Hsieh and Shannon (2005), in inductive content analysis (conventional and summative content analysis), the initial coding is derived from the raw data. In contrast, direct content analysis uses an initial framework or existing theory adopted to develop the primary coding (Hsieh and Shannon 2005, Lichtman 2014). Therefore, the direct approach is more structured than other types of content analysis (Potter and Donnerstein 1999, Hsieh and Shannon 2005).

In other words, the difference between inductive and deductive approaches is in the application of theoretical framework or theory. If the existing literature or theories are adopted to study a subject, a deductive analysis approach is applicable (Saunders, Lewis, and Thornhill 2009). In this type of study, the descriptive framework will be used to begin and guide the data analysis. This method assists the researcher in linking existing knowledge with research findings (Saunders, Lewis, and Thornhill 2009).

Considering the exploratory nature of this thesis, content analysis is suitable for analysing the interview data (Berg and Lune 2012, Hossain 2012, Sarantakos 1998). Furthermore, the direct approach has been chosen from the three different types of content analysis due to the deductive structure of this thesis. Hence, the theoretical framework developed from the literature is used to discover initial codes.

An important factor in content analysis is the researcher's decision about "what to count" or the "meaning unit" (Berg and Lune 2012). Seven different elements can be counted in the text; words or terms, themes, characters, paragraphs, items, concepts and semantics or a combination of these elements (Berg and Lune 2012, Merton 1968). According to Berg and Lune (2012), the most useful unit to count is the theme. A theme is a simple sentence or a number of words with a subject. Themes are counted as units in this thesis. Having discussed the meaning unit, the next section describes the coding process.

#### **3.6.2 Coding**

Coding is an essential part of the data analysis process in qualitative research. Codes are defined as the units of data analysis (Miles and Huberman 1994, 56). They symbolically summarise and classify the qualitative data (Beasley et al. 2009, Saldaña 2012). In this thesis, initial codes will be identified based on the enabling factors of the theoretical framework. These codes will be divided into relevant subcategories to identify more precise explanations of constructs (Trotman 2013).

Nvivo software was used to code and categorise data in this research. The main advantages of using this software are to reduce researcher bias (Abernethy et al. 2005, Trotman 2013) and increase the validity of the research (Trotman 2013, Westermann, Bedard, and Earley 2014). However, it should be mentioned that this software was only used for classifying data, and not in analysing the data. Therefore, at the outset, transcripts were read to gain an overall understanding of the material. Subsequently, they were categorised and coded using Nvivo software. To understand the deep meaning of the text, a hermeneutic theory of interpretation was employed. This is discussed in the next sub-section.

#### 3.6.3 Critical hermeneutic interpretation method

The hermeneutic theory is the textual analysis method that interprets the real meaning of the text through different levels of understanding and interpretation (Ricoeur and Thompson 1981, Ricoeur 1976). The hermeneutic method considers the text as a "part of greater whole which the researcher needs to explore and work with" (Robinson and Kerr 2015). This approach goes beyond the surface of content and discovers the deep meaning of the text (Geanellos 2000).

Ricoeur (1974) refutes the idea that only the author knows the meaning of the text. He objectifies the text through distanciation removing the authorial intention from the text. Ricoeur and Thompson (1981) believe that distanciation causes the text to disassociate from its author (speaker or interviewee) for four reasons. First, when the spoken words are transcribed into written words, the meaning of the text becomes more important than the words. Second, the written words are open to interpretations regardless of the interviewee's intentions. Third, the words will be free from their original context when they are transcribed, and they might be read in different cultural, political and historical contexts. Lastly, the written words are not involved in face-to-face conversation, unlike spoken words (Ricoeur 1973). Therefore, the researcher will focus on the appropriate meaning of the text instead of the unique intention of the interviewees (Geanellos 2000).

To discover the appropriate meaning of the text, researchers need to go through a process from interpretation to understanding. Initially, a shallow meaning of the text is interpreted from the text. Then the researcher develops a deeper aspect of content by recognising the relationships between different parts of the text and the whole (Geanellos 2000, Ricoeur 1974). All aspects of text such as "critiques of authenticity", "possible bias", and "the ideological elements" are analysed in this method (Prasad and Mir 2002, Alvesson and Sköldberg 2000). Therefore, the interpretation is not only limited to expressed ideas, but it also includes unexpressed ideas (Geanellos 2000, Forester 1980). For this purpose, researchers go through the hermeneutic circle involved in moving back and forth between different parts of the text and the whole (Prasad and Mir 2002).

In this thesis, the hermeneutic method is applied to interpret the real meaning of the text. To achieve this goal, first a naïve understanding of the interview transcripts is gained through reading the whole interview. Then, the transcripts are coded using the content analysis method. Finally, the appropriate meaning of the text is interpreted by considering the relationship between different parts of the text and the whole interview transcript. This approach allows the researcher to discover the unknown and hidden meaning of the text and analyse the authenticity and bias of interviewees' comments.

# 3.7 Reliability, validity, and generalisability

This section presents a detailed description of reliability and validity issues of qualitative research and the methods applied for addressing them in this thesis. The generalisability of qualitative data is also discussed in the last sub-section.

#### 3.7.1 Reliability

Qualitative research reliability requires that a consistent research approach is applied to the study (Gibbs 2008). To assess the reliability of qualitative research, Yin (2003) recommends the documentation of research procedures and using a detailed protocol. Furthermore, Gibbs (2008) suggests the following reliability procedures:

- Checking the accuracy of interview transcriptions
- Checking the constancy of code meanings by writing memos and comparing data with the codes
- Sharing the analysis with other coders regularly

- Cross-checking the developed codes with other researchers

In addition to Gibbs, other researchers highlight the importance of coding reliability due to the subjectivity of coding process (Malina and Selto 2001). For example, Creswell (2009) suggests that the codes should be cross-checked by another coder (other than the researcher) to increase the reliability of qualitative data analysis. For this purpose, one or two coders who are independent of the research need to code the data. Then the consistency of coding will be calculated based on the below formula (Miles and Huberman 1994). According to Miles and Huberman (1994), the coding reliability should be at least 80% for a good qualitative study.

If coders apply the same code for the same part of the text, then agreement occurs. On the other hand, disagreement means that the coders don't code or apply a same code to the same section. It is advised that minor differences in code boundaries shouldn't be considered as disagreement (Malina and Selto 2001).

A sample of interviewees was selected to check the inter-coder reliability. According to Lombard, Snyder-Duch, and Bracken (2010); re-coding 10% of content is sufficient for checking the reliability of codes. Hence, three interviews (10% of total interviews) were chosen randomly for the inter-coder process. An independent research assistant coded the selected interviews. Comparing the assistant's codes with the main researcher's codes shows that the coding reliability is 95%. This ratio indicates a high level of reliability according to Miles and Huberman (1994). Furthermore, the following points have been considered to increase the reliability of this thesis:

- An interview protocol (guide) was used to maintain the research approach consistently throughout the interviews.
- The professional transcriber and the researcher have checked the accuracy of interview transcripts by comparing the audio file with the written text.
- The interview transcriptions have been coded by constantly looking at the research objectives and the coding descriptions. Also, a memo is written for the coded interviews

- The consistency and accuracy of code assignment were randomly reviewed by an expert with significant experience in the area of study
- The codes and interpretations have been discussed and revised by the author and expert advisors.

## 3.7.2 Validity

Another important issue in regards to the credibility of qualitative studies is validity. Three approaches have been used to increase the validity of this thesis. The definition of validity in qualitative studies and the methods applied to ensure the validity of data in this thesis is described in below.

In qualitative research, validity refers to the accuracy of findings (Creswell 2009, Creswell and Miller 2000). According to Creswell (2009), the nine common methods of validating qualitative data from the perspectives of the researcher, reader and participant are triangulation, member checking, rich and thick description, clarifying the researcher's bias, presenting negative information, peer debriefing and external audits. Creswell and Miller (2000) classify these methods into three groups based on the applied research paradigm (Table 4).

Table 4: Validity procedures within qualitative lens and paradigm assumptions

	Postpositivist	Constructivist	Critical Paradigm
Paradigm	Paradigm	Paradigm	
Assumption			
lens			
Lens of the researcher	Triangulation	Disconfirming	Researcher
		evidence	reflexivity
Lens of study participants	Member	Prolonged	Collaboration
	checking	engagement field	
Lens of reviewers, readers	The audit trail	Thick, rich	Peer debriefing
		description	

Source: Creswell and Miller (2000)

Considering the nature of this thesis and the research paradigm, three approaches; disconfirming evidence, thick and rich description, and peer debriefing have been chosen to

address the validity issue. It is noticeable that the prolonged engagement field is not used in this thesis though it is one of the validity methods from the participants' view. Since the research method of this study involves semi-structured interviews and because the information in internal audit departments is confidential within organisations, it is not possible for the researcher to stay at the research site for a long time. Hence, this method is not applicable for this thesis.

Disconfirming evidence (presenting negative views) means that researchers need to search and present the ideas that are against the common theme to increase the credibility of qualitative analysis (Creswell 2009, Creswell and Miller 2000). In this thesis, the disconfirming views are briefly reported in the analysis chapter.

The thick and rich description refers to the fact that the researcher has to provide detailed descriptions and evidence for the discovered themes to enrich the result (Creswell 2009). For this purpose, a sample of participants' quotations should be presented by the researcher to support the discovered themes. Furthermore, the researcher should try to discuss different themes in detail to enrich the analysis (Creswell 2009). Consequently, discovered themes are discussed in detail in this thesis. The themes are also supported by a sample of interviewees' comments to enhance the richness of findings.

Finally, the peer debriefing method was used to enhance the accuracy of data analysis. Creswell and Miller (2000) define peer debriefing as a "review of the data and research process by someone who is familiar with the research or the phenomenon being explored". The research assumptions and interpretation should be critically reviewed by a peer reviewer who adds credibility to the research. In this thesis, the data analysis and interpretation were discussed in an expert panel consisting of supervisors and the student. Coding and interpretations were also discussed in detail by this panel. As a result, some of the coding definitions or interpretations were changed. Furthermore, a peer reviewer, familiar with the research area and questions, reviewed the coding randomly to ensure accuracy.

# 3.7.3 Generalisability

Generalisability is a controversial concept in qualitative research. According to Morse (1999), the generalisability of qualitative and quantitative research is different. In quantitative studies, the similarity of demographic variables of sample to the whole population supports the generalisability. In qualitative studies, it was believed that the result of qualitative studies has limited generalisability to the whole population (Delmar 2010, Greene and Caracelli 1997,

Guba and Lincoln 1982, 1981, Stake 1978). However, this general belief is challenged by Parker and Northcott (2016). They believe that the result of qualitative studies can be generalised through two approaches.

Traditionally, it was believed that the qualitative findings could not be extrapolated. The small sample size and specific methods of selecting the sample (such as purposeful sampling), are two main issues against generalising qualitative findings (Greene and Caracelli 1997, Morse 1999). Guba and Lincoln (1982) also discuss that generalisation is not possible in qualitative studies as the studied phenomenon is highly embedded in the context and time. Therefore, new concepts were introduced instead of generalisation.

Researchers suggest the application of other concepts such as "naturalistic generalisation" (Stake 1978), "fittingness" (Guba and Lincoln 1982) and "comparability" (Schofield 2002). In naturalistic generalisation, researchers believe that the result of qualitative studies can be generalised to similar situations (Morse 1999, Yin 2003, Stake 1978). In contrast, fittingness means that that the result of qualitative data can be generalised by considering the similarities and differences between the studied case and other cases (Guba and Lincoln 1982). Therefore, the research conditions should be disclosed in detail to enable the comparison (Guba and Lincoln 1982, Schofield 2002). Finally, comparability methods are introduced by Schofield (2002). She believes that the findings of qualitative studies can be applied to predict or compare the possible outcome or conditions of similar cases. She suggests three groups to increase the predictability power of findings based on the research objectives; "to what is," "to what may be" and "to what could be."

Parker and Northcott (2016) refute the general belief about the limitations of generalisation in qualitative research. They argue that generalisation in quantitative studies has faced similar criticism since statistical generalisation is also restricted to specific times and places. Furthermore, it is posited that there are differences associated with statistical significance, research result generalisability and the importance of result (Fendler 2006, Parker and Northcott 2016). It is suggested that statistical significance is not capable of thorough realisation (Parker and Northcott 2016, Sandelowski 2004, Polit and Beck 2010). Therefore, researchers are encouraged to embrace the concept of *oomph* instead of *significance* (Parker and Northcott 2016, Ziliak and McCloskey 2008). *Oomph* measures "the practical differences something makes" and the generalisation of research findings depends on the persuasiveness of *oomph* in other scientists' minds (Ziliak and McCloskey 2008, 6).

Parker and Northcott (2016) introduce two modes of generalisation in accounting research; "theoretical generalisation" and "naturalistic generalisation". Both modes are involved in

understanding and disclosing social processes or concepts. However, naturalistic generalisation is more democratic. Theoretical generalisation is suitable for theory building research, and it results in general rules. In contrast, with naturalistic generalisation, the reader decides about the generalisability of findings. This decision will be made based on the similarities and differences between the studied case and the readers' experience and conditions (Parker and Northcott 2016). Therefore, *oomph* is "the direct arbiter" in naturalistic generalisation (Parker and Northcott 2016).

Naturalistic generalisation is applied to generalise research results in this thesis. The main objective of this thesis is to develop a conceptual framework of enabling factors for the effective practice of OA. In other words, this thesis defines important factors that are key to success in the OA process. Generalising the findings is in control of the readers, and it depends on their experience and the conditions of their organisation.

# 3.8 Summary

A qualitative research approach is adopted to develop a framework of effective practice of OA in internal audit departments. The qualitative approach enables the researcher to gain an indepth understanding of the research topic, especially when the primary theory or framework does not have literature support. The paradigm of this research is interpretivist. This worldview allows the researcher to gather in-depth information about the research objects by studying them in context. Also, the research enquiry of this thesis is phenomenology because this thesis places emphasis on describing important factors in the effective practice of the OA phenomenon from the view of practitioners.

To gather data, semi-structured interviews were conducted. The interview guide was developed based on the theoretical framework developed from the literature. Furthermore, participants were chosen through snowball and purposive sampling methods. Finally, the deductive content analysis method and hermeneutic theory were used to analyse the gathered data. A summary of research design and applied methodology in this thesis is described in Appendix E. The next chapter (Chapter Four) includes discussions about the theories underpinning the effective practice of OA. The theories adopted in this thesis are discussed, along with how these theories support OA practice.

# **Chapter Four: Theoretical Framework**

#### 4.0 Introduction

This chapter includes discussions of the theories which support an effective OA framework. This thesis proposes a new theoretical framework for the effective practice of OA (Figure 14). The relevant theories considered in this thesis are agency theory, institutional theory and stewardship theory.

The structure of this chapter is as follows. The first section reviews agency theory including its definition and the relationship between the agent and principal (4.1). Agency problems, agency costs and the relationship between OA and agency theory are discussed in detail in the subsequent sub-sections. Similarly, the second section (4.2) discusses institutional theory. The application of this theory in OA practice is discussed in sub-section 4.2.1. The stewardship theory is reviewed in the third section (4.3). The relationship between stewardship theory and OA is presented in sub-section 4.3.1. Finally, a summary of this chapter is presented in Section 4.4.

### 4.1 Agency theory

Agency theory describes the relationship between the agent and principal. This theory has two themes; classical and inter-corporate. While the classical theme relates to the relationship and conflict of interest between shareholders and managers (Fama and Jensen 1983, Fama 1980, Jensen and Meckling 1976), the inter-corporate theme focuses on agency problems inside an organisation between the board and top management or management and their subordinates (Puyvelde et al. 2012, Caers et al. 2006). According to this theory, agents might pursue their own interests which may not align with principals' interests. To decrease these problems, this theory suggests different mechanisms (Eisenhardt 1989, Davis, Shoorman, and Donaldson 1991).

The classical (traditional) theme of agency theory emerged with the separation of management and ownership of modern organisations. Berle and Means (1932) find that a conflict of interest exists between shareholders and management when ownership is dispersed amongst shareholders. Identifying this conflict, agency theory is first developed in a theoretical format by Jensen and Meckling (1976). They describe the firm as a "nexus of contracts" and define the agency relationship as

A contract under which one or more persons (the principals) engage another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent. (Jensen and Meckling 1976, 308)

The majority of research in this area focuses on shareholders as the principal and management as the agent. However, other principal-agent relationships also exist inside an organisation.

In addition to the traditional view about the agent-principal relationship, two sets of interactions can be considered inside the organisation. A contract exists between the board (the principal) and the top management (the agent) to run the organisation on their behalf. Similarly, there is a contract between management (the principal) and subordinates (the agent) to perform different tasks (Caers et al. 2006). Hence, the agency-principal relationship also constitutes an internal relationship between different actors of the management team.

Agency problems arise as a result of agent-principal relationships. These problems are caused when agents act with self-interest without considering the principals' interests. In the traditional theme of agency theory, agency problems represent the divergence of management objectives and stakeholder goals (Fama and Jensen 1983, Fama 1980, Jensen and Meckling 1976). However, a second kind of agency problems arise if senior management follow their own interests instead of the board's objectives (Caers et al. 2006). Similarly, a conflict of interest emerges between the managers' subordinates (agents) and top management. In the following sub-sections, three different types of agency problem, agency costs and the relationship between OA and agency theory are discussed.

## 4.1.1 Agency problems

Agency theory deals with problems between the principal and agent (Fama and Jensen 1983, Jensen and Meckling 1976). Agency problems arise when the principal and agent have different interests and asymmetric information (Adams 1994). In this case, the agent might follow his/her own best interest instead of the principal's goals. This situation leads to moral hazards and adverse selection problems (agency problems) in practice (Belkaoui 2004).

The moral hazard problem occurs when agents try to maximize their wealth in such a way that they act against principals' interests (Jensen and Meckling 1976). This problem can be managed through monitoring the agent's activities (Watts and Zimmerman 1986). The adverse selection problem occurs when the principal has more knowledge about the subject matter than

the agent. Hence, the agent might make a wrong decision due to information asymmetry. These two problems can be managed through monitoring.

To reduce agency problems in an organisation, Eisenhardt (1988) suggests two options as follows:

- 1- The principal should monitor the agent's behaviour by investing the information
- 2- The principal should have a contract with the agent based on the result of agent's behaviour.

Choosing these options depends on the costs of monitoring mechanisms or transferring risks (Eisenhardt 1988). The monitoring mechanism, which is an agency cost, is one of the important ways of managing agency problems in the organisation. The agency costs are described in detail in the following sub-section.

# 4.1.2 Agency costs

The principal has to bear the agency costs of realigning the agent's interests with their own interests (i.e., decreasing agency problems). Monitoring and controlling management activities are examples of agency costs (Christopher 2010). These activities are the main focuses of this thesis. Jensen and Meckling (1976) note that "Agency costs arise in any situation involving a co-operative effort by two or more people." They classify these costs into three groups as follows:

- The monitoring costs by the principals
- The bonding costs by the agent
- The residual loss

The first type of agency cost is the monitoring expense. To manage agency problems and reduce the conflict of interest, the principal sets appropriate goals for the agent and also bears the monitoring costs. These expenses include costs of measuring, observing and controlling the agent's behaviour. In fact, the principal sets monitoring mechanisms to prevent management from deviating from the stakeholders' interests (Cadbury 1992). These expenses include external audit costs and internal control procedures such as OA.

The second agency cost is the bonding expense. This type of costs occurs when the agent designs controlling mechanisms such as IAF to ensure the principal that they won't act against the principal's interest. Wallace (1980) reveals that the principal's monitoring expenses have

negative impact on the agent's salary. As a result, the agent tends to incur bonding costs such as internal auditing to reduce the monitoring costs and their adverse effect on his or her salary (Adams 1994). Finally, the last type of agency cost is residual cost. The principal may lose some welfare due to divergence between the agent's decisions and a decision that maximises the principal's interests (Adams 1994).

Both monitoring costs and bonding expenses are relevant to this thesis. In fact, the board or top management (as the principal) monitor and control employees' (the agent's) behaviours and actions through the IAF and OA projects. The OA ensures the board or top management that the employees are acting toward achieving the organisation's objectives. Furthermore, the board or management (as the agent) may try to assure the principals that they will not deviate from the shareholders' interest through having IAF and conducting OA. Therefore, the OA costs can be considered as bonding and monitoring costs that reduce agency problems in the organisations. The relationship between agency theory and OA is further discussed in the next sub-section.

## 4.1.3 Agency theory and Operational Audit

Considering the above discussions, OA represents a control mechanism that may reduce agency problems in an organisation. In fact, the existence of agency problems between the agent and principal emphasises the need for an effective OA function in an organisation. Hence, developing a framework for the effective practice of OA is strongly supported by agency theory for the reasons that follow.

The first reason relates to the classical theme of agency theory. Since there is a conflict of interest between the shareholders (the principal) and management (the agent), the management may consider bonding costs to assure shareholders that management act in the best interests of owners. In this respect, Sherer and Kent (1983) argue that managers stand bonding costs such as internal auditing to increase accountability and satisfy shareholders. However, these costs can be reduced through cost-saving activities of internal audits such as OA (Adams 1994). In other words, management (agents) consider IAF and OA projects as a controlling mechanism to assure principals that they won't deviate from the organisation's goals. Hence, an effective OA function will decrease agency problems through aligning the interests of the agent and principal (Aoki 2001).

The second reason relates to the inter-corporate aspect of agency theory. There is an agent-principal relationship between the board (principal) and the management team (agent), and the management (principal) and their subordinates (agents). The information asymmetry and

conflict of interest exist between the agents and principals. There is a risk that agents might act in their own interests instead of those of the organisation. Hence, the board/management (the principal) may consider some assurance services such as OA within the IAF to monitor employees' actions. An effective OA project can assist top management to gain knowledge about their agent's activities so that it reduces the information asymmetry between the top management and their subordinates.

In conclusion, agency problems exist between shareholders and management, the board and management team, the managers and their subordinates, etc. Consequently, principals need strong control mechanisms to ensure that agents do not deviate from appointed goals. OA is one of the control systems that reduces information asymmetry and conflicts of interest between principals and agents. Therefore, an effective practice of OA reduces agency problems in an organisation.

## 4.2 Institutional theory

The third theory adopted in this thesis is institutional theory. Organisations are becoming more homogenous (Powell and DiMaggio 1983). This fact is addressed in institutional theory. According to this theory, organisations are surrounded by environmental pressures which sometimes lead them towards special adjustments (Powell and DiMaggio 1983). Three forms of institutional theory are discussed in detail below.

Institutional theorists have identified two main forms of isomorphism; competitive and institutional. Competitive isomorphism assumes a system of competitive markets with strong measures, and it is used for explaining the development of organisations' bureaucracies and their response to innovation (Powell and DiMaggio 1983). Institutional isomorphism also describes three sorts of different changing isomorphism for organisations as coercive, mimetic and normative isomorphisms (Powell and DiMaggio 1983).

The first institutional isomorphism is a coercive isomorphism. It is a result of formal or informal pressures from other organisations based on their functional environment and cultural or societal expectations. These pressures or forces can be political and legal influences such as new pollution regulations. Meyer and Rowan (1977) argue that the organisation's functions expand to the social life area and they try to homogenous with other similar organisations.

The second category is mimetic isomorphism. This is a standard organisational response to uncertainty. Ambiguity or uncertainty form another important factor that makes organisations

imitate other organisations' frameworks. Sometimes the modelled organisation may not be aware of the copied model or its advantages, but this is an instant solution for uncertain circumstances. Organisations tend particularly to imitate the model of successful organisations (Powell and DiMaggio 1983).

The third category is normative isomorphism, which is associated with professionalisation. This type of isomorphism describes the struggle of an organisation's managers and professional staff to define the methods and conditions of their work so that they may change the organisation's model. The two main sources of normative isomorphism in organisations are the growth of professional networks and formal education. These sources disseminate information among specialised staff and convey a better model of implementing the organisational functions from successful firms to other companies (Powell and DiMaggio 1983). However, consistent with Perrow (1976); Powell and DiMaggio (1983) argue that a regular monitoring system is necessary to optimise the organisation model. Otherwise, modifying the organisation's model is impossible, due to the difficulty of controlling complex organisations.

Furthermore, Oliver (1991) expands on organisational behaviour in response to environmental pressures. She believes that an organisation might reject social norms or even try to manipulate public opinion. As a result, she defines five types of strategic responses: acquiescence, compromise, avoidance, defiance, and manipulation.

Researchers believe that adopting institutional isomorphism increases the probability of organisations' survival in the market (Zucker 1987, Powell and DiMaggio 1983). Organisations have to be responsive to external demands and expectations (Oliver 1991, Meyer and Rowan 1977, Pfeffer and Salancik 1978, Rowan 1982, Covaleski and Dirsmith 1988). Covaleski and Dirsmith (1988) mention that "the general theme of the institutional perspective is that an organisation's survival requires it to conform to social norms of acceptable behaviour."

Furthermore, most of the institutional theorists declare that forces from interest groups and public opinion are another important basis for organisational changes in addition to state and professional pressures (Scott 1987, Meyer and Rowan 1977, Powell and DiMaggio 1983, Meyer and Scott 1983, Zucker 1987). Based on institutional theory, organisations conform to beliefs or practices that are generally accepted as natural or obvious ways for conducting an organisation's activities (DiMaggio 1988, Berger and Luckmann 1967, Zucker 1987, 1977).

In addition to organisational survival, compliance with institutional norms and requirements has other advantages for organisations such as increasing stability, legitimacy, social support,

access to resources, invulnerability to questioning, internal and external commitment and acceptability within the profession (DiMaggio 1988, Powell and DiMaggio 1983, Meyer, Scott, and Deal 1983, Meyer and Scott 1983, Meyer and Rowan 1977, Zucker 1988, Oliver 1991). The next sub-section reviews the necessity of having effective OA practice according to institutional theory.

# 4.2.1 Institutional theory and Operational Audit

The OA effective framework is supported by normative and mimetic isomorphisms of institutional theory. Contemporary corporate scandals put social pressures on organisations (Christopher, Sarens, and Leung 2009) to manage their risks and ensure the 3Es of organisational performance. Although it is not mandatory to conduct OA in Australia, management needs to respond to public opinion regarding necessary control and compliance requirements such as OA (according to normative isomorphism). Moreover, organisations may conduct OA projects to follow the example of successful companies. Hence, developing an OA framework is necessary due to organisations' needs to perform OA.

# 4.3 Stewardship theory

Stewardship theory has a different position compared to agency theory (Psaros 2009, Puyvelde et al. 2012). According to stewardship theory, individuals are driven by non-economic motivations to act in a way aligned with the principals' best interests. These motivations are derived from social and psychological factors of human behaviours (Psaros 2009, Davis, Shoorman, and Donaldson 1991, Deci 1972, Sundaramurthy and Lewis 2003).

Researchers argue that individuals have positive psychological incentives to add value to the organisation and improve its performance (Davis, Shoorman, and Donaldson 1991, Beasley et al. 2009). In this respect, McGregor (1960), Hertzberg, Mausner, and Snyderman (1959) suggest that acceptance and personal growth are important and rewarding for individuals. Hence, employees try to take responsibility, exercise authority, perform outstanding duties, and gain achievements to be recognised by their peers and bosses. This will increase individuals' self-esteem which is favourable for them (Davis, Shoorman, and Donaldson 1991, Psaros 2009). Furthermore, by following the organisation's objectives, stewards can achieve their personal needs and earn money (Davis, Shoorman, and Donaldson 1991). Therefore,

social and psychological aspects suggest coordination between stewards' and principals' interests that motivate the stewardship theory (Davis, Shoorman, and Donaldson 1991, Psaros 2009).

Stewardship theory presumes agents as stewards who put higher value in organisations' goals and principals' interest than their individual interests. Therefore, stewards act in the best interest of principals even when the stewards' interests are not aligned with the principals' interests (Davis, Shoorman, and Donaldson 1991). Furthermore, stewards try to improve the performance of the organisation since there is a direct relationship between principals' satisfaction and the organisation's performance (Davis, Shoorman, and Donaldson 1991). Therefore, management (the steward) has positive incentives to perform a good job and improve the organisation's performance (Psaros 2009). In this respect, OA can assist management to improve the performance of the organisation.

# 4.3.1 Stewardship theory and Operational Audit

The stewardship theory supports the OA framework. According to stewardship theory, management has positive incentives towards achieving principals' goals and improving the performance of the organisation. Since OA recommendations can assist management to improve the performance of the organisation, management (as the steward) may request internal audit departments to perform OA and provide them with suggestions to improve their performance in line with the shareholders' (the principal's) interests. Furthermore, management can prove their positive attitudes to principals through an effective OA project. Thus, based on stewardship theory, management can benefit from an effective OA framework to enhance the organisation's performance. Stewardship theory thus lends additional support for the framework of effective practice of OA in internal audit departments.

# 4.4 Conclusion

In summary, this thesis adopts three theoretical fundamentals: agency theory, institutional theory, and stewardship theory. The OA framework is principally supported by agency theory. This theory considers each organisation as a "nexus of contract" which is a collection of different agent-principal relationships/contracts such as the management-subordinates contract. OA assists top management in monitoring agents' activities. Hence, conducting OA reduces the agency problems and costs between managers and their subordinates.

According to institutional theory, organisations are under pressure to follow the structure of successful companies and meet public expectations. By performing OA projects, organisations can show the public that they are making an effort towards improving 3Es. Finally, stewardship theory presumes positive incentives for management (agent/steward) to improve the performance of the organisation. Hence, an effective OA project becomes desirable since the result of the OA process can assist management in meeting its stewardship responsibilities.

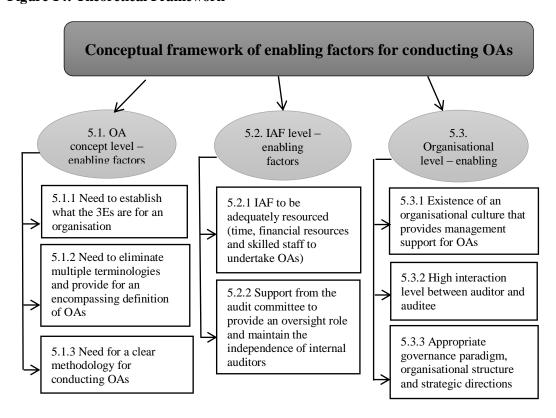
Having reviewed the theoretical fundamentals, the research findings are discussed in detail in the next chapter (Chapter Five). The next chapter presents the demographic data, a sample of interviewee comments and the refined framework based on the result of interviews.

# **Chapter Five: Data Analysis**

## 5.0 Introduction

This chapter addresses the second research question, that is, how best to refine the theoretical framework based on the result of 28 interviews with CAEs in Australian internal audit departments to develop a conceptual framework of enabling factors for conducting OAs. The structure of this discussion aligns with the different enabling factors outlined in the theoretical framework developed in Chapter Two and represented below in Figure 14. The OA conceptual factors are discussed in Section 5.1, followed by the IAF enabling factors in Section 5.2 and the organisational enabling factors in Section 5.3. Within each of the sections, the demographic data are presented, followed by interviewee opinions in relation to each enabling factor. In each case, this prompts an examination of whether or not those factors are confirmed or require modification based on respondents' views. Finally, the proposed conceptual framework for OA effectiveness is presented in Section 5.4.

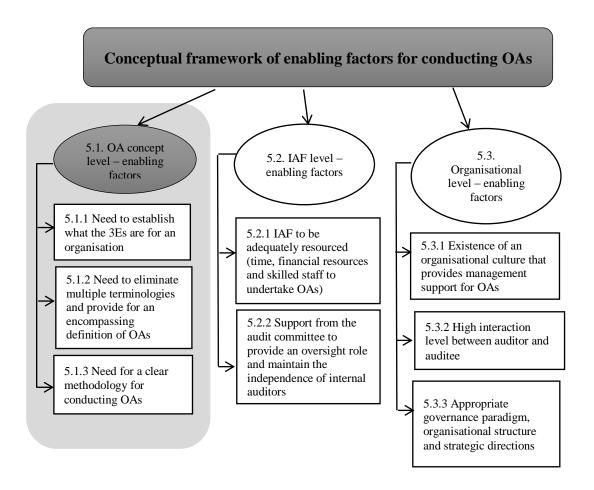
Figure 14: Theoretical Framework



# 5.1 Operational Audit concept level

The first element of OA effective framework identified in Figure 15 relates to conceptual factors. This construct consists of theoretical factors that have, in the literature, been identified as important in practising OA. The three OA concept level enabling factors will be reviewed in this section. First, the need to establish a precise definition for the 3Es in an organisation is reviewed in Section 5.1.1. The second sub-section considers respondents' views relating to the ambiguity of applying multiple terminologies in defining OA and the need for application of a unique terminology. Finally, the last sub-section presents respondents' views about the potential unclear methodology of OA and its impact on the effectiveness of OA.

Figure 15: Theoretical framework - Concept level



# 5.1.1 Concepts of efficiency, effectiveness and economy (the 3Es)

The interview results show that most of the respondents find the concept of 3Es ambiguous and subjective. Further, they believe there is a need to consider new objectives to define the OA concept (Table 5) more accurately. Respondents mentioned different problems in applying the notions of 3Es in practice. These problems result in changing the OA goals from 3Es to other factors, such as risk. The respondents' overall position is summarised in Table 5.

Table 5: Respondents' views about the "Need to establish what the 3Es are for an organisation."

Construct	Findings	Interviewees who	
		confirm the findings	
		Number	Percentage
Need to establish	The concept of 3Es is unclear and	18	64%
what the 3Es are for	ambiguous		
an organisation	CAEs suggest different criteria	20	72%
	instead of 3Es as the objectives of		
	OA		

The majority of the interviewees find the concept of 3Es to be both ambiguous and subjective. This subjectivity is caused by a lack of clarity in defining the 3Es. Respondents noted that the concept of 3Es are not precisely defined so that they cause confusion in practice. Furthermore, practitioners are struggling to differentiate between the 3Es in practice. Respondents' comments suggest that significant uncertainties exist around the definition and application of 3Es. The following sample comments demonstrate CAE concerns in relation to the subjectivity and ambiguity of the 3Es:

CAE8: "They [3Es] necessarily are ambiguous because they are - the terms themselves are not defined as you would find in financial statements audits, for instance, where you have a very specific criteria that you are to use. When you talk about terms like effectiveness and efficiency, generally - obviously they're going to be opinion based."

CAE 27: "They [refers to 3Es] are a bit broad and ambiguous and the extent to which they can be applied either partially or in its entirety depends on the

context and objectives of the audit and the function or the system or the process being reviewed."

CAE 7: "There is ambiguity between 3Es. People can get those mixed up very quickly. They can look at efficiencies by seeing that it is a - focusing primarily on the economics so focusing on budgetary process as opposed to looking at other ways of doing things smarter."

CAE26: "...most will struggle to differentiate a very clear distinction between the efficiency and effectiveness..."

CAE16: "I don't think there's a bright line between the 3Es."

Furthermore, it seems that 3Es are not the primary focus of CAEs in practice despite being the main objectives of OA in theory. This was confirmed by most of the interviewees who state that they focus on risk and organisational objectives rather than the 3Es. Respondents provided two key reasons for this. First, they believe that risk is more comprehensive than that allowed by the 3Es. Second, considering their limited resources, focusing on risk would be more productive for internal audit departments. This position is clearly demonstrated by the following comments:

CAE 22: "It's no point looking at just the 3Es and I mean the reality is that when you're out there in the workforce, it's all great having these 3Es but the reality is you've only got, like I said, a certain amount of audit resources. So you have to look at it - at the risk as well so when you're choosing your OAs that needs to be in conjunction with risk, definitely."

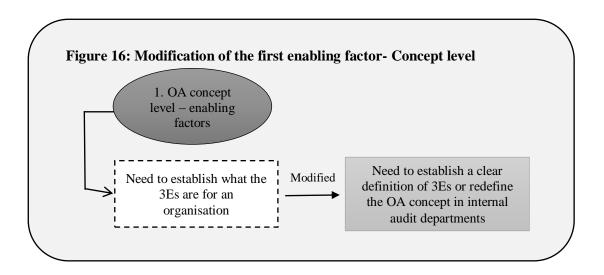
CAE 17: "...So to me everything has got a benchmark back to firstly the strategy, but secondly to our risk management framework and underpinning that as I mentioned before is the risk appetite of the board."

CAE 9: "...for us, we use risk and control assessment process to look at the objective, the risks of that objective and the way that the business controls those risks and achieves the objective."

CAE 21: "I've used a risk-based approach rather than the 3Es. I think it's much better and it's broader too than just looking at [3Es]. I think effectiveness is reasonable, and I think that's sort of related to risk because if you're effective in achieving your objectives, then it means that you're

managing your risk. But the economy and the efficiency, the other 2 Es, I think it's better to focus on risk rather than just looking at those."

In summary, the interview results suggest support for the fact that the concept of the 3Es lack clarity and are ambiguous. Hence, CAEs are struggling to focus on 3Es in practice even though the literature and theory suggest the 3Es should be the focus of OAs. The existing uncertainties restrict the 3Es application in practice and lead to a deviation from the original objective of OA (3Es). The respondents' views clearly confirm that there is either a need for a clear definition of 3Es or that consideration should be given to a new concept of OA based on practical objectives. Thus the first enabling factor is modified as follows:



# 5.1.2 Multiple terminologies

The second element of conceptual factors within the theoretical framework is the need to eliminate multiple terminologies and provide for an encompassing definition of OA. The interview results show that numerous terms are being used to describe OA in practice. Also, respondents confirm that much ambiguity arises from the application of different terms in practice. According to the interviewees, the ambiguity of applying various terms is an additional burden for the OA practitioner. Therefore, they support the fact that there is a need to eliminate different terms and apply a unique term to describe OA (Table 6). Various terms and associated ambiguities identified by the interviewees are discussed below.

Table 6: Respondents' views about' the "Need to eliminate multiple terminologies"

Construct	Findings	Interviewees who confirm	
		the finding	
		Number	Percentage
Need to eliminate	Various terms add to the confusion	18	64%
multiple	as to what actually constitutes OA		
terminologies and	in terms of inputs to the process and		
provide an	outputs in terms of expected		
encompassing	deliverables/reports		
definition of OAs			
	Various terms should be eliminated,	20	72%
	and only one term be used in future.		

Respondents identified more than twelve different terms<sup>5</sup> to describe OA in internal audit departments. Interviewees mentioned that sometimes they use different terms simultaneously to describe OA. However, OA and Internal Audit are the two of the most common phrases in internal audit departments. These terms are applied interchangeably in practice. A sample of relevant comments is provided below:

CAE11: "So we will call OAs end-to-end, we will call them combined reviews, we will call them all sorts of things as well, so I agree, there is no standard definition, and there should be, for better clarity."

CAE4: "We'll tend to use the word OAing. I'm going to say it's just a different name for different folks. We started out as being value for money auditors in the OAG stuff in there. Yeah. I've heard performance audit and stuff like that. I think we should actually stay focused. It's operations."

CAE1: "...I use the terms interchangeably."

According to the interviewees, the application of various terms is a deliberate part of the marketing strategy adopted by internal audit departments. Practitioners try to choose a term

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<sup>&</sup>lt;sup>5</sup> The applied terms for describing OA in internal audit departments are: Value for Money Audit (1 Respondent), OA (9), PA (4), Outcome based audit (1), Internal audit (7), Process Audit (1), End to end audit (1), Risked based audit (1), Active audit (1), Assurance activities (2), Efficiency audit (1), Continuous improvement project (1)

that is more acceptable to management. Hence, management's preference is the key selection criterion for the terminology adopted by internal auditors. In this respect, interviewees mention that:

CAE 2: "There was a dissection, where the internal audit profession - we weren't sure about what's operation, performance auditing and as I said value for money audit. I think the value for money auditing came in where we could do it as a selling point to management "we will give you something, value for money" and it was a generic thing that - through organisations through all the senior management executives "we want value for money". We adopted that because it was the easiest selling point. We may say OA. It doesn't cling to dollars and cents into their brain..."

CAE 1: "... I guess it's - maybe it's part of how you're marketing the internal audit function. So you've got to be sensitive to management's expectations."

CAE26: "management quite often will not want to use that terminology because they'd prefer to use the terminology of continuous improvement rather than an audit.... In terms of terminology, I should also state we don't use audit."

The majority of CAEs confirm that applying various terminologies causes ambiguities for practitioners and stakeholders. The interviewees' comments show that there is great uncertainty about the difference between various terms, especially between OA and PA, which causes confusion. Also, the application of various terms can influence the effectiveness of OAs. Practitioners might limit the scope of an OA if they use the term "review" to describe OA (CAE27-2).

CAE2: "There was a dissection where we [refers to internal auditors] weren't sure about what's operation, performance auditing and as I said value for money audit."

CAE7: "I find that the only problem that we get is between the terms OA and performance audit. Performance audit seems to be a term that's very popular in the public sector that actually means OA but for some reason, they're still calling it performance audit. So yes, there is definitely confusion in regard to them because they're quite, quite different focuses and yet the public sector seems to call them performance auditing which is all encompassing."

CAE 27-2: "...often people do reviews without calling them OAs. So OA is not often done in its entirety."

Applying different terms causes confusion amongst stakeholders, too. Stakeholders can be confused about the process and the outcome of OA projects when various terms are being used for the same concept (OA). In respondents' views, this confusion is an additional burden for practitioners that adds unnecessary discussion. Some of the practitioners try to avoid using any specific word, to reduce problems in practice. A sample of interviewee comments is as follows:

CAE 27: "I think it [applying various terms] does [confuse] especially to the stakeholders to understand what the process is."

CAE16: "we don't differentiate between governance, OA or whatever. We just say we're doing assurance activities over these particular areas and these controls, and we won't differentiate between the two. I think if we tried to differentiate, we would confuse our stakeholders being the audit committee and I think we would also confuse the asset in which we're auditing."

CAE 13: "I don't use it [any specific term]. That's just because we have enough trouble trying to explain what our role is anyway and that's a bigger problem in the industry..."

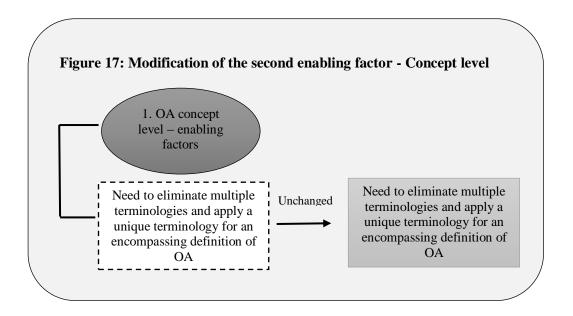
To solve the terminology problem, most of the interviewees support the position that choosing and applying a unique term will facilitate OA practice. This solution will reduce confusion within the profession and organisations so that it will eliminate unnecessary discussions in practice. Therefore, practitioners can concentrate on more significant matters in OAs. A sample of this view is as follows:

CAE3: "It [refers to applying a unique term] would remove confusion, it would remove unnecessary discussion and allow auditors to focus on what is really important, and that is actually performing audits. So if we could stop worrying about what they're called and just get on with doing effective auditing then, I think that would be useful."

CAE 11: "I think it would be great to have some standard terminology. We don't even get it right in-house so to get it right as an industry or as a function would be great..."

CAE22: ".. you should be able to have one terminology for OAs to keep that consistent."

In summary, the interview results indicate that various terminologies are being used interchangeably in practice. This fact causes confusions for stakeholders and practitioners relating to the expected process and desired outcomes. Furthermore, the OA might inappropriately reduce the scope of the audit when practitioners apply the "review" term to describe OA. Therefore, the interview data supports the second enabling factor of the conceptual level within the theoretical framework (Figure 17).



# 5.1.3 Operational Audit methodology

The third element of conceptual factors of the theoretical framework is the need for a clear methodology for conducting OAs. To review this factor, three sets of questions were asked of the interviewees. First, respondents were asked about the clarity of OA methodology in general. After this they were asked about difficulties in gathering reliable evidence and ambiguity of criteria, in order to review OA methodology in detail.

The interview data reveals a dichotomy in interviewee responses. Some 50% of interviewees support the view that the OA methodology is ambiguous. Further questions around the evidence (61%) and criteria (53%) reveal that respondents are struggling to find suitable criteria and reliable evidence (Table 7). In the sub-sections below, the first section deals with respondents' views about OA methodology in general, and then moves to a more detailed discussion of CAEs' evidence and criteria..

Table 7: Respondents' views about the "Need for a clear methodology for conducting OAs."

Construct	Findings	Interviewees who confirm the findings	
		Number	Percentage
Need for a clear methodology for	The OA methodology is ambiguous	14	50%
conducting OAs	OA criteria (measurements) are not clear	15	53%
	Gathering reliable evidence is difficult	17	61%

Although almost all of the interviewees confirmed that OA methodology is unstandardised, only half of them believed that this leads to ambiguities. According to the respondents, OA projects are so distinctive in nature (for example; industry and business) that it is hard to define a standard approach for them (e.g. CAE19 & CAE15). Hence, almost all of the respondents noted that they have developed their own approach based on the general, existing standards for practising OA (e.g. CAE27). Even those interviewees who did not consider OA methodology to be ambiguous commented that they are practising OA based on their own developed approach (e.g. CAE6 & CAE13). Examples of these views are as follows:

CAE21: "I think with compliance auditing, that's pretty well-established, what you do, how you do it and so forth but with OA, there's a lot of subjectivity, value judgements in there, so there's no clear cut method."

CAE5: "There are methodologies around, but there isn't one that stands up and says "this is the standard approach, this is how you would do it."

CAE19: "Well OAs are fairly unique by nature on what you're looking for. It's not like looking at accounts payable where it's fairly prescriptive. With these things, you have to sit down and think it through. You can't pick up a book and say yeah, we do this, this, this and this. You have to think no, understand the process that you have to map that out before you actually start."

CAE15: "Given it's actually by its nature specific to the business, I would regard it as quite hard to put a methodology around it."

CAE 27: "There's no standards available, so we've developed our own."

CAE6: "there is a clear methodology for OA. It's more involved, it's not offthe-shelf. You need to individually customise for each audit. It's not something you can just pull off a checklist, and that's it for that audit in my opinion. There's far more research; there's far more consultation goes into doing OA properly but there is a methodology you still follow."

CAE13: "There is a methodology around how you do an internal audit which is inherent. So you've got the IPPF framework, and this generally does have a framework on the standards or whatever. So technically it's a framework, it's not a high-level thing there. So from my own personal experience if you build your approach around that I don't see the value in creating something different."

In summary, the ambiguity of OA methodology is considered to be a key issue for many of the interviewees. All of the respondents confirmed the unstandardised nature of OA methodology. Respondents noted that the OA methodology is subjective and that they have to develop their own approach. However, some of the respondents still did not believe in the ambiguities of OA methodology. To review the OA methodology in more detail, interviewees were asked about two important parts of OA method: criteria and evidence. Interviewee responses around these elements are presented below.

### 5.1.3.1 Reliable evidence

The majority of interviewees confirmed that gathering proper and sufficient evidence in OA practice is challenging (Table 7). Interviewees mention three main problems associated with the data gathering process; the high costs of gathering appropriate data, undeveloped audit trails, and the unfamiliarity of auditees with the characteristics of audit evidence. The following comments confirm these practical difficulties.

CAE1: "That's right. It's difficult, and it's expensive to collect a complete set of evidence to support your findings."

CAE 14: "Collecting evidence is certainly intensive - resource intensive if you really want to prove your point."

CAE 11: "a lot of the problem with evidence is that the auditee doesn't really understand what constitutes evidence. So it's not satisfactory to say "yes, I did that check" or " yes, I always do that." We actually need to see documentary evidence of that. So it's really behoves the auditor to be able to explain what it is they're looking for and what's an acceptable form of documentation or proof or whatever."

CAE 13: "I agree, especially in systems that aren't smart, and normally the audit trail is not developed, it is difficult to find perfect evidence. In these systems they may have undertaken the control, they may have performed that, but they just don't have evidence of it."

In addition to all of the mentioned problems, the auditor-auditee relationship is another important factor in the data collection process. Auditor-auditee conflicts are identified as a source of data gathering problems. Most of the respondents highlight the importance of auditor-auditee relationship in the effective practice of OA. All of the interviewees emphasise that having a good relationship with an auditee, or having a strong and supported position in the organisation, facilitate gathering evidence in the OA process. Interviewees further explain that having a trusted relationship with an auditee and a mandated audit charter decreases negative reactions of auditees to the data gathering process. The comments below demonstrate respondent views about the difficulty of gathering evidence in the OA process:

CAE 8: "In OA you're reliant – much more reliant on the auditee than you are in other audits. So, being successful in gathering evidence comes down to being able to be open and constructive with the auditee that you're

working with because a lot of the – you can't actually go in and run your independent reports so like you do in the finance system, for instance."

CAE 25: "Certainly the better the relationship, the easier the process is. If the auditee trusts you, they're more likely to be more open with you. That doesn't mean, certainly in my experience, that people hide things from you, but they maybe aren't as active in helping you."

CAE7: "I've not come across that especially here, but I have worked very hard to establish a good relationship with our auditees that doesn't impact on the independence of the assumption or the findings that we will have. So we've called it out when it's been wrong, and we've stood our ground when it's been wrong..."

CAE4: "Well, I've never had any difficulty because you have a - should have a well-written audit charter. That's what your leadership team is about."

CAE10: "For an auditor - of course, it depends on who you get the data from. If you get the data from, let's say, whoever, the auditee or it could be IT, right? Of course, it's very useful that whoever is giving you that data has either confidence in you and/or doing the right thing by you. So, therefore, back to your proposition I guess, of course, I think that could happen in any organisation where, let's say, an auditee doesn't trust the auditor, or maybe it's not the auditor's fault, but the auditee inherently is just overly concerned or nervous or have done the wrong thing."

CAE3: "We have very little. We have a very clear charter, and it is generally understood across the organisation."

Furthermore, the majority of interviewees support the fact that auditees' negative perceptions of OA have an adverse impact on gathering evidence. Respondents mention two main reasons for such perceptions. First, auditees might be afraid of possible negative consequences arising from the OA outcome. Second, interviewees believe that it is human nature to dislike questions and hide possible deficiencies. In respondents' views, auditees always try to paint a rosy picture of their activities, so finding reliable evidence is challenging for auditors. The following comments demonstrate this problem:

CAE1: "It is challenging for relationships and for auditees because if an audit does identify a number of issues and somebody's area of responsibility, then there could be serious consequences for them."

CAE19: "People will say - they'll paint themselves in the best light possible. The challenge is working out what the facts are and what are the true - what's the data that's real. So you get a range of experiences from this is all the things that are broken, and this is the help I need to misleading - saying that it's all fine, and it's not but it's about the experience of the auditor and understanding that situation and dealing with it as well as the process."

CAE17: "Let's face it, human nature is that people don't generally like to be questioned. People don't like being audited because they know that if there's a problem we're going to - hopefully we'll find it. But again it comes down to the culture of the organisation. Some people would just tell you straight up before you even started they'll tell you where their problems are, and they've already done half the audit for you and you've just left their office. Whereas other people don't, they'll wait and see what you come up with and then you've got others who will wait or even tell their staff not to help or whatever, direct everything to me."

The above discussion confirms that CAEs are faced with difficulties in gathering reliable evidence in the OA process. The expensive process of gathering appropriate evidence, the lack of an audit trail, and the negative reaction of auditees are mentioned as the main challenges of the OA data collection process. Interviewees emphasise that building a good relationship with the auditee and having strong support in the organisation facilitates the data collection process.

# **5.1.3.2** Criteria

Interviewees indicate that finding suitable criteria is another ambiguity concern within OA methodology. More than half of the interviewees believe that the OA criteria are unstandardised, subjective and unclear (Table 7). Practitioners are faced with difficulties in findings the right criteria for evaluating 3Es. However, some respondents believe that defining standard criteria is impractical, since OA projects are unique in nature. The comments below are a sample of CAE views about unstandardised OA criteria:

CAE2: "It's difficult to put a degree of standard on it (criteria). We just took it as what we think is probably an appropriate standard. It's a judgement decision that we have to make."

CAE25: "It's the nature of that OA. I'd be curious to see whether anyone can come up with more standardised and reliable performance measures but I think in the end it's the nature of that type of work. It's always going to be subjective. It's always going to be unstandardised."

CAEs face challenges in defining proper measurements. In this respect, interviewees commented that existing criteria for evaluating 3Es are more theoretical than practical. In reality, practitioners are often faced with various ambiguities in identifying appropriate criteria to evaluate 3Es. According to respondents, not only are auditors sometimes unclear about the proper criteria, but the auditee may not have clear measurements in place. The comments below represent typical CAE views:

CAE 26: "It's very difficult. I think, again, it is more the theoretical application than I think a true practical application."

CAE 24: "...it's sometimes harder to measure what is effective, so that's the challenge when you do the OAs that you're talking about. ... It's how do you define what is effective, so that's just subjective at times. So do you define effective within your organisation or do you compare to other organisations or do you use global benchmarking and then how reliable is that benchmarking? How similar are those organisations to yours?"

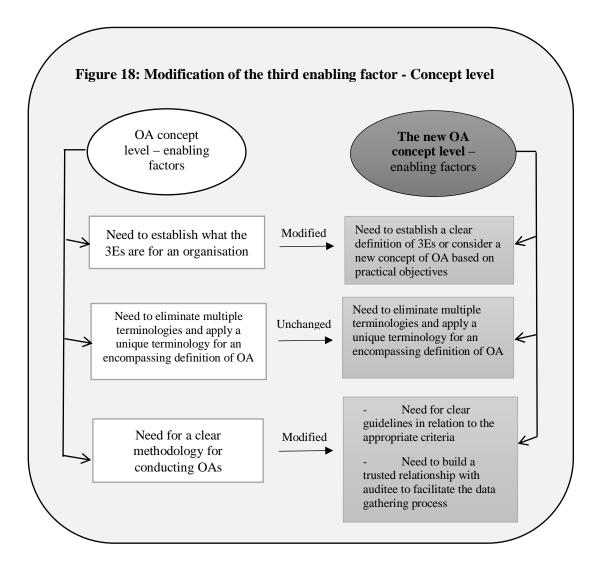
CAE 9: "It's very hard because, as I said before, often the business isn't clear. What's the efficiency measure, what's the effectiveness measure, where's the data that you can make the assessments around those terms? They're more indicators of performance, not necessarily aligned specifically with the objective."

Although it was expected that auditors limit the scope of their audit due to a lack of proper criteria, interviewees did not support this supposition. The majority of interviewees commented that if they could not find appropriate and reliable measurements, they would report it. Some examples are given here:

CAE 21: "No. I haven't. If the performance measures were inadequate or unreliable, then you would raise that as an issue."

These research findings support the position that OA criteria are unstandardised. Interviewees believe that defining proper criteria is very subjective and ambiguous for both practitioners and organisations. However, they believe that it is difficult to define standardised measurements due to the uniqueness of OA subjects.

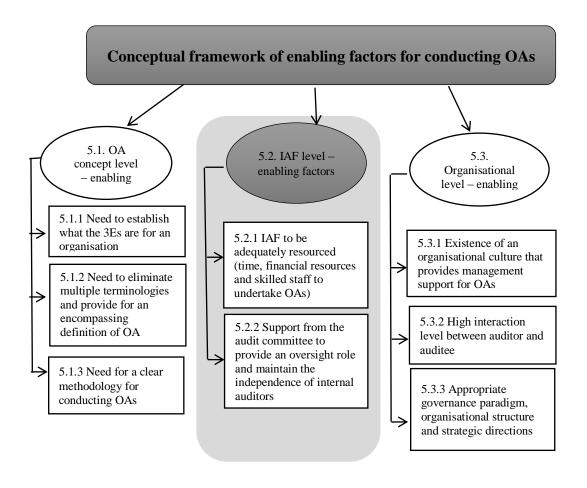
In conclusion, although interviewees in some instances mention that OA methodology is not necessarily ambiguous, further questions about finding reliable evidence and criteria highlight the difficulties encountered in practice. It is noticeable that all of the interviewees have developed their approach based on the characteristics of their organisation and existing guidelines (such as the International Professional Practices Framework). Interviewees further disclose that defining proper measurements is very subjective and problematic in practice. Also, gathering sufficient and appropriate evidence is difficult. Therefore, a clear guideline in regard to appropriate criteria and evidence can facilitate the effective practice of OA. Therefore, the initial enabling factors of the framework can be modified as follows:



### 5.2 Internal Audit Function level

The second level factors of the theoretical framework identified in Figure 19 are those relating to the Internal Audit Function. This part of the construct consists of two enabling factors. In the first section (5.2.1), respondents' views about required resources for practising OA and associated relevant practical problems are reviewed. The second section (5.2.2) presents the research findings in regard to the impact of audit committee support in the effective practice of OA.

Figure 19: Theoretical Framework - IAF level



# 5.2.1 Resourcing

The interview results indicate that the OA effectiveness is highly dependent on the adequacy of resources in internal audit departments. The majority of interviewees support the fact that OA is a long process and requires professional staff (Table 8) to be completed efficiently and on time. Hence, the budget of an internal audit department plays a key role in OA practice. In the following sub-sections, interviewee responses about the role of time, budget and professional staff are reviewed, respectively.

Table 8: Respondents' views about the "IAF to be adequately resourced."

Construct	Findings	Interviewees who	
		confirm the findings	
		Number	Percentage
IAF to be	The time factor impacted on the conduct of	25	89%
adequately	OAs		
resourced	The limitation on the budget (financial	16	57%
	resources) is a factor in not conducting		
	OAs or limiting the number of OAs		
	OA has a vast domain and challenging	26	93%
	environment that needs professional staff		
	with expertise in operational matters.		

# 5.2.1.1 Time

Almost all of the interviewees expressed their concern about the lengthy process of OA. CAEs mentioned that it takes a long time to finish the OA process and submit the OA report to the audit committee. According to the interviewees, sometimes this process might last for 12 months. Hence, by the time a report giving OA findings and recommendations is issued, organisational priorities may have shifted. It is also noticeable that the lengthy OA process is very expensive. Therefore, CAEs require sufficient budget and staff to conduct OA effectively. The comments below support the above observations.

CAE1: "I think a long time to complete audits is definitely an issue, but the audit needs to be relevant at the time that you issue the report."

CAE2: "The OAs are the biggest impact in an organisation, but they are time-consuming. They do take time, and you've got to recognise that.

CAE10: "The duration, obviously, it could impact if an audit life cycle is taking too long. By the time you finish the thing, and then people already move on, and it's so historical, of course, it affects the effectiveness. So time factor, of course, is always - should be like a concern area for the head of audit. How to make the team more efficient."

CAE16: "Time and cost is all relative. It clearly takes time and it clearly costs money to do the work, both in terms of the resources I need to expend in my team to execute the work..."

CAE11: "This is absolutely a problem. Time factors can be an issue and it plays against us sometimes because by the time the audit committee cycle comes around and the time you've gone through doing the fieldwork, writing the reports, escalating the reports, getting it onto the audit committee agenda and escalating it, there can be six or 12 months between some of them. They can be quite big timeframes and whatever was urgent when we did the work, by the time you're sitting and talking to the audit committee, it's lost a bit of its urgency and momentum. So yes, it's a problem, not sure how we fix it yet but it does certainly impact."

CAE3: "My experience has been that it's very difficult to perform these audits if you only have junior staff. So I only have senior staff. It is still very time-consuming to perform this work."

Interviewees mention two main reasons for the lengthy OA process. The first reason is a lack of clarity in OA methodology, as identified previously. Interviewees reveal that OA is more time-consuming than other types of audit with a standardised approach such as financial and compliance audits. Internal auditors have to spend time identifying the appropriate measurements and evidence. Hence, the planning stage of OA is very time-consuming. The following comments form a sample relevant to this argument:

CAE23: "In the conduct of OA, the time factor is very critical. When you spoke about the quantitative and qualitative measurements, we can't get much of quantitative information because of the time factor and the audit tends to focus too high level because we don't have time. So an audit could do better, but it's time and resources. Absolutely you curtail our auditor scope significantly."

CAE27: "It certainly occupies a fair amount of time especially in research and developing the scopes and test programs because you're constantly having to liaise with management to make sure that you've hit it on the head - so hit it on the mark sort of thing and then the development of the test programs can be fairly time-consuming."

CAE24: "I agree with that. That can be an issue because if you look at when you do an OA compared to say a compliance audit the compliance audit is much easier in defining what you're measuring against, and you know where to go to get the information. So if you're doing an accounts payable audit you know where to go to get the invoices, and you know where to go to get a contract and all those things, so the information is more readily available. For performance audits, there's a bit more time in planning, a lot more time in interviewing..."

In addition to planning, issuing the report is also a time-consuming aspect of the OA process. CAEs revealed that issuing the report takes more time than conducting the OA. Further, they noted that poor or slow management reaction to OA recommendations is the main reason for delays in issuing the OA report. Management might have other priorities, or they might disagree with OA findings and recommendations. Both of these situations result in delays in issuing OA reports, sometimes for months. Hence, when the OA report is issued, the findings are out of date. Evidence of this is found here:

CAE1: "In a small audit department, it [refers to the time problem] is an issue because it does take time. Some audits you can finalise quite quickly because people are supportive of a process, but others they want to argue everything, and there's always something - I don't like this, I don't like that, and that can take - and the reporting end of the audit can probably be bigger than the actual audit itself. So definitely a huge potential for that. ... So we may have found something that is an issue. By the time we issue the report they've actually fixed it up."

CAE5: "That's true, yeah. It seems that the reporting part of - like three parts of an audit. You've got planning, fieldwork, reporting. The reporting really often takes a lot longer than the rest of it and what you'll often find is that the internal auditor will blame the management for not providing responses to recommendations in a timely way."

CAE23: "We have sometimes management takes a few months to respond to the - we complete the audit, we issue to the management, they have to give the management response. If they take five or six months to respond then, the relevance may be questioned if there are any significant changes in the last five or six months."

In summary, the findings of this research show that OA is a lengthy one. According to the interviewees, two stages are time-consuming in the OA process: planning and reporting. The planning stage is a long process because of uncertainties in OA methodology specifically in finding appropriate criteria and evidence. Also, reporting the OA findings and suggestions might take a long time due to management disagreement with report recommendations or delays in responding to the OA report. Hence, auditors are faced with the risk of presenting an out-of-date report. CAEs highlighted that they need sufficient budget and professional staff to address difficulties in managing time.

#### **5.2.1.1** Financial resources

Having enough resources is critical to the effective practice of OA. The interview results show that budget is the main factor in defining the number of and extent of OA projects. Most interviewees mentioned that the lack of budget directly affects the effectiveness of OA. However, they note that they try to manage the budget limitation by focusing on risk areas. Interviewees believed that the budget limitation would not be problematic as long as they could cover high-risk areas. However, the interviewees' responses indicate that sometimes all of the risks are not covered due to the lack of budget. In this respect, interviewees comment that:

CAE4: "It probably limits how much we can - yes, in a macro sense. In the sense that you'd like to do more. You could probably do more but, at the end of the day, we've got to satisfy self. Have we addressed the key risks to the organisation and, to date, that hasn't been the case."

CAE7: "It does limit the number of OAs as I indicated before but the selection of audits that we're going to do is risk-based, and I'd like to think that we get to a point where what isn't audited is of the low to moderate risk."

CAE23: "Budget limits in the way we want to do audits and the number of audits we want to do but that makes us more - think differently and approach the thing based on priorities, etc."

CAE10: "There is always more I would like to achieve, right? However, the mindset is about prioritisation..."

CAE14: "It's a decision of what you can cover versus within the budget you have..."

CAE27: "We've always put together a program of audits that we wish to contract out based on the risk profile and over the last few years we've only received a very small portion of what we've actually asked for until this year..."

These comments show that the lack of budget affects the scope of the OA and therefore the OA plan and outcomes. In this regards, CAE24's elaboration clearly identifies the adverse impact of budget limitation on the audit plan. He/she reveals that although the internal audit plan and therefore scope should be designed based on identified risks, in practice the budget is the main driver of OA scope. Considering the budget limitation of internal audit departments and the compulsory practice of OA, there is a tendency to focus on the financial or compliance audit rather than OA.

CAE24: "even though the standards say base your plan on risk, in effect what happens is they base it on we've got this much we can spend, do an audit based on that. So that's what it gets down to. So if you want to put some performance audits in then, you may have to cut back on the other areas of the plan that you might have wanted to do or feel that you need to do. The thing with OAs is that there's not generally a regulatory impact so if you don't do it quite as efficient or effective as you could. There's not a stick but if you don't do your accounts payable or do certain regulatory things properly you could get fined, or there could be legal action. So generally what people do is let's stick to those ones, make sure we do those well and the other ones when we've got the time we'll do those. So that's the challenge."

In conclusion, the interviews demonstrate that a lack of financial resources restricts the number of and scope of OA projects. Although interviewees note that they can eliminate the negative impact of an insufficient budget by focusing on major risks, we need to consider that in practice the scope of OA projects depends on the budget. Hence, having sufficient financial resources plays a key role in conducting OA and in its effectiveness.

### 5.2.1.2 Skilled staff

Almost all of the interviewees emphasised the critical role of professional staff in the effective practice of OA. To overcome the difficulties of conducting OA with limited budgets in a reasonable time frame, OA needs proficient staff. Respondents noted a wide range of different skills for practitioners (Appendix D). In CAEs' views, the most necessary skills for operational auditors are business knowledge and soft skills.

It is critical for an internal audit department to have senior professional staff. Considering the limited resources available to internal audit departments, the time-consuming and complex process of OA, professional staff have a key role in the effectiveness and success of OA projects. Furthermore, having professional staff increases the credibility of internal audit departments in auditees' eyes. The comments below are a representative sample of these views:

CAE4: "Good auditors in there will be able to overcome lots of situations but sometimes where technical things in there, go and get the professional staff or the professional advice."

CAE25: "It's fundamentally important to have professional staff, expertise in operational matters with the ability to think. So I think it's not that you need to have expertise in the specific matter that you're looking at but you need to have a certain level of acumen, ability to understand the process and how it works, and you need to be able to think."

CAE12: "I think the complexity and the change in environments will require auditors to be relevant and up to speed and keeping track of it all."

CAE19: "You've got to have expertise and knowledge otherwise you have no credibility. You must have credibility to be able to do this. The subject matter area, you need to have a high degree of knowledge, and that's why I have people that have actually done this sort of work before."

CAE3: "My experience has been that it's very difficult to perform these audits if you only have junior staff. So I only have senior staff. It is still very time-consuming to perform this work."

CAEs mentioned various technical and soft skills necessary for operational auditors. Amongst all of these skills, the majority of interviewees emphasised that having business knowledge and communication skills were the most important skills for practising OA. According to the

interviewees, OA practitioners need to know the business and industry. Also, OA staff should have questioning and critical thinking skills, and interpersonal skills to overcome various difficulties in practising OA. Below is a sample of interviewee comments about the important skills of auditors. A list of all necessary skills for operational auditors identified by interviewees is summarised in Appendix D.

CAE 6: "I think it's really important to have business acumen. That's really, incredibly important. More important than most people even would realise. You need to have knowledge of the industry and you either have that knowledge, or you go out and get that knowledge when you enter into an engagement. Communication skills, interpersonal skills, really, really important. Much more important in OA than other types of auditing. You need analytical skills."

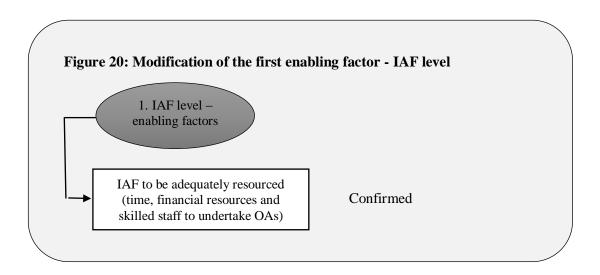
CAE21: "Auditors now need more soft skills, conflict resolution skills. They need to be able to express themselves more clearly so in terms of report writing. So you write it in the client's language, business language, risk language rather than in professional jargon. So I think the world has changed, and I suppose the demand - and you need people with good intellect or creative thinking skills. ...They've got some common sense. Practical and they've got good soft skills, conflict resolution, questioning. They've got a questioning mind."

CAE23: "Extraordinary understanding of the business is important, and the key skills are thinking on your feet, ability to analyse, think out of the box and even if you don't understand - you're not experienced in a given business."

CAE 25: "It's fundamentally important to have professional staff, expertise in operational matters with the ability to think. So I think it's not that you need to have expertise in the specific matter that you're looking at but you need to have a certain level of acumen, ability to understand the process and how it works, and you need to be able to think.

In conclusion, the results of interviews related to the first enabling factor of the IAF level confirm the theoretical framework. Interviewees confirm that OA is a time-consuming process that requires sufficient budget to be performed effectively. Furthermore, considering different difficulties of practising OA and the limited budget of internal audit departments, having professional staff plays a critical role in the efficiency of the OA process. Therefore,

interviewees support the first enabling factor within the second construct of the theoretical framework.



# 5.2.2 Audit committee support

The second enabling factor of the IAF is audit committee support. All of the interviewees strongly supported the significant role of audit committee support in the effective practice of OA (Table 9). Internal auditors need audit committee approval to conduct OA. Also, audit committee support increases the internal auditors' authority in practising OA. The below comments show that audit committee support is necessary for initiating the OA process.

Table 9: Respondents' views about the necessity of AC support in the effective practice of OA

Construct	Findings	Interviewees who	
		confirm the findings	
		Number	Percentage
Audit	Audit committee support is essential in	28	100%
committee	increasing the authority of internal audit		
support	departments and reducing tensions		
	between internal auditors and managers.		

CAE1: "If I wanted to do an OA, then I would put that up as part of a plan and if it gets approved by council - supported by the audit committee and approved by council then it gets done."

CAE5: "It's up to the audit committee then to say what it is that they should be auditing. I mean they'll come with a premise, but it might be that the internal audit function just does compliance and financial audit..."

Additionally, the audit committee has a key role in enhancing the mandate of OA and reducing tensions between the internal auditors and management. In fact, the support of the audit committee increases internal audit department authority in practising OA. Moreover, the audit committee is mentioned as a "referee" in intense situations when an issue is raised between the auditor and management. Hence, audit committee support is critical to the effectiveness of OAs. These views can be seen in the following comments:

CAE12: "I think audit committee supports is critical at the mandate perspective in terms of the purpose of audit, their authority, making sure the resources are adequate, making sure they're focusing on the key areas of risk and concern for the organisation."

CAE8: "A lot of times the audit committee is seen as a referee. We will particularly in times when there's been conflict so if there's conflict between the business area and the auditors, they're, generally, both invited to the audit committee meeting to express their views and that group will then make a determination which one they - which version that they would refer."

CAE27: "You always got to have a strong audit committee to support your work program. ... their support [refer to AC support] is paramount to our - and if we have any issues or that we need to discuss then the committee is the best forum to undertake that."

In summary, all of the interviewees confirm that audit committee support is an essential element in the effective practice of OA. Audit committee support can increase auditors' independence and authority in the organisation. Also, the internal audit department needs audit committee support in critical situations when disagreements or conflicts emerge between the internal auditor and management. In addition to audit committee support, interviewees highlight the significant role of top management support as another important factor in OA practice. This factor is discussed in the following sub-section.

### **5.2.3** Top management support

Top management support is also critical to the effective practice of OA. Similar to audit committee support, top management support increases the authority of internal audit departments. In respondents' views, top management support has a positive impact on the culture of the organisation. Furthermore, respondents reveal that the executive managers' support is more realistic than that of the board, because the board usually have other priorities. Hence, management support is another critical factor in the effective practice of OA.

CAE3: "...it's also true to say that it will be - effectiveness of the OA will also be strongly influenced by senior management support."

CAE5: "You're still going to need the management support or the audit committee support to have the right culture of the organisation so that people respond properly to what you say as an auditor."

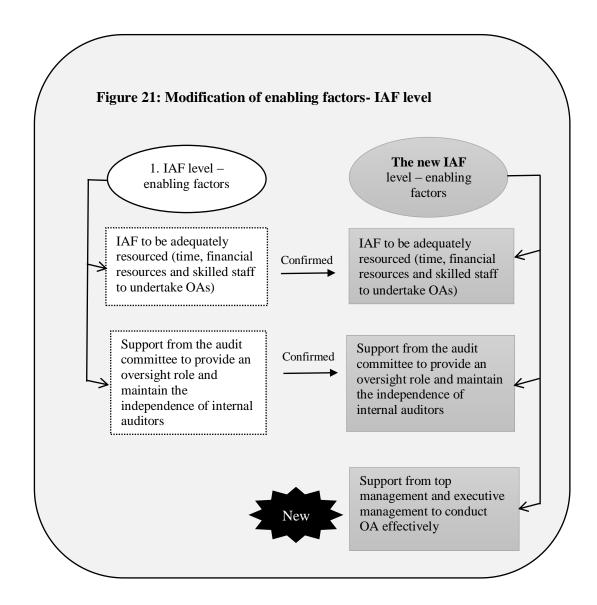
CAE28: "Well the support as I said earlier from management and the audit committee is crucial. It's crucial. Well, that's the mandate you get from them. If the organisation know that the outcome of the OAs are taken seriously by executives and the audit and compliance committee, then the work we do makes a difference to the recommendations you actually try to agree with the auditee, have a bite and try to make some changes. It gives you the mandate. It gives you everything."

CAE6: "Also I think senior management at the highest levels need to support it as well. So if there are some things that come up against management, then that needs to be supported by the CEO as well as the audit committee."

CAE19: "You've got to have the support of executive management and the board. You can't have an each-way bet and especially if you think the board are going to really come to your aid and rescue, it's just not going to happen because invariably there are various agendas, and you're fairly low down on the agenda. Let's be realistic."

In conclusion, interview results strongly support the necessity of AC support for the effective practice of OA. Further, interviewees mention that management support is essential for OA as the other source of power. Respondents were of the view that management support is more

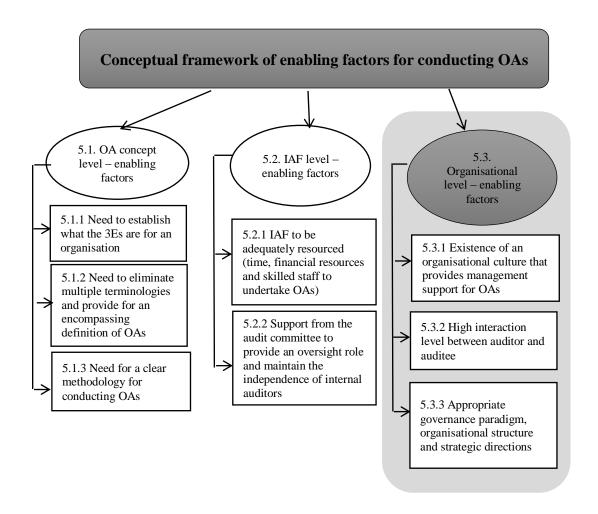
realistic in practice than board support. Therefore, the theoretical framework can be modified as follows:



### 5.3 Organisational level

The third element of the OA effective framework consists of organisational factors important for the effective practice of OA. Three enabling factors are reviewed in this section. The existence of an organisational culture that provides management support for OA is reviewed in Section 5.3.1. The impact of a high interaction level between auditors and auditees is reviewed in Section 5.3.2. Finally, the last section includes interviewee comments pertaining to the appropriate governance paradigm, organisational structure and strategic directions in the effective practice of OAs (Miles and Huberman 1994).

Figure 22: Theoretical framework - Organisational level



### 5.3.1 Organisational culture

The interview analysis indicates that management support is essential in the effective practice of OA. Three important factors in management support are explored in the interview questions presented in Table 10. According to the interviewees, having a good relationship with management, a high level of management knowledge about the OA benefits and the quality of audit recommendations have a direct positive impact on management support. These findings are reviewed in more detail in the below sub-sections.

Table 10: Respondents' views about the necessity of management support in the effective practice of OA

Construct	Findings	Interviewees who	
		confirm the findings	
		Number	Percentage
Need for adequate	Having a trusted and respectful	28	100%
management	relationship enhances the effectiveness		
support	of OA process		
	Managers with higher knowledge of OA	19	68%
	benefits have better acceptance of OA		
	recommendations		
	The good quality of OA	25	89%
	recommendations has direct impact on		
	the effectiveness of OA process		

# **5.3.1.1** Relationship with management

All of the interviewees confirm that a good relationship between management and internal auditors has positive impacts on the OA process. They define "a good relationship" as a "trusted and respectful relationship". The acceptance and implementation of OA recommendations increase if management trusts and respects the internal auditors. The comments below clearly show this:

CAE20: "It's interesting to define a good relationship with management. You can have a very effective working relationship based on respect. That for me is a good relationship with management."

CAE12: "It's got to be a trusted and respected relationship where auditee and auditor or management and auditor respect the observations and recommendations from the audit itself, and if that's in place then it actually becomes valuable and beneficial, but as long as there is some independent objectivity in the process too."

CAE21: "I think if you market yourself or create a perception that you're positive and constructive and you build up trust then I think that gets clients onside, and they're more willing to accept what you do. But if auditors have a very confrontational attitude or a negative or a destructive approach then it makes it very hard for - to get acceptance with clients."

CAE25: "You need to be trusted. If you're trusted, there's a better chance that your suggestions will be considered because management understands you're acting in the interest of the organisation. So I think to be trusted is really important."

Furthermore, a good relationship between internal auditors and managers that results in a request for an OA from management seems very beneficial in practice. Interviewees note that if management has a good relationship with auditors, they will often request internal auditors to audit a section to solve their problems. The comments below highlight that if management trust their internal auditors, not only do they accept the OA recommendations better, but also they may ask for OAs to address their problems.

CAE6: "It's very important to have the respect of management and staff, and they have respect for you, and they have respect for your decisions, and what it is that you come up with so they'll listen. I have regular meetings with all the executive, and they will, on a regular basis, ring me up and say "can you come down so we can have a chat" and bounce things off me. So that works really well, and they appreciate the work that we do."

CAE13: "having a good relationship in that matter as in they understand what you're doing and they use you, and then they ring you up all the time and that of course it does. It gets easier to agree on findings. There's more of a trust. So if they've got a good relationship with you and they trust your professional diligence, sometimes they won't even question it."

In summary, the interview results indicate that having a trusted relationship with management increases the success of OAs. Management acceptance of OA suggestions would be greater when internal auditors are trusted and respected.

### 5.3.1.2 Quality of audit recommendations

Another important fact in management support is the quality of OA recommendations. According to the interviewees, management considers the applicability and feasibility of OA suggestions before implementing them. Hence, the quality of OA recommendations directly affects management support of OA suggestions. CAE4 and CAE5's comments provide examples of this view:

CAE4: "I think what they [refers to management] are going to look at is, is this [refers to OA recommendations] doable, is it reasonable and is it going to actually help us."

CAE5: "Generally, it's the quality of your work that'll demonstrate whether you're accepted or whether people can see the benefits."

According to the interviewees, almost all of the respondents have received some complaints about the practicability of OA recommendations. These complaints are about the high cost and inappropriate timing for implementing OA suggestions, undermining the credibility of auditors, compliance issues and adding extra workload for auditees. A sample of relevant comments is presented here:

CAE9: "Focused on the wrong things, can't implement, not enough budget, not a priority at the moment, those sorts of things."

CAE11: "If we'd had complaints it's been about that's fine, that's a great control, but we don't have money to go and do that. So it's usually the resource question again."

CAE13: "That comes down to more around the compliance requirement stuff. I think that's the thing and what it does show is they don't actually understand what it costs to be compliant. I think that's where we've had troubles."

CAE14: "With the recommendations, I have got specific feedback, some saying you haven't understood the context so the recommendation you're making does not actually sit well because if we do this, it'll be either not effective or less effective and there's an alternative way which is better."

To sum up, the result of this research indicates that good quality OA recommendations can enhance management support of OA. Therefore, the quality of OA suggestions is an important element in decreasing management's resistance and increasing the effectiveness of OA.

### 5.3.1.3 Management knowledge

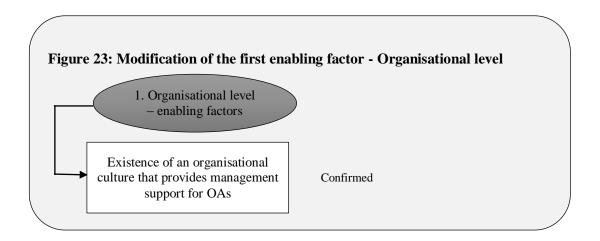
The majority of interviewees confirm that management knowledge of OA advantages facilitates OA practice. In respondents' view, the higher management's understanding of OA advantages is, the better they will accept the OA process and recommendations. Management's knowledge of an organisation's operational risks can also increase acceptance of the OA process and suggestions. This view can be seen in the following sample comments:

CAE21: "Yeah. Very clear nexus. If they understand it, then they're probably more willing to accept the findings. That also - that assumes that the findings are supported by evidence, the best quality evidence possible as well."

CAE22: "Yeah. It would. There would be some degree in that there, definitely. Like I said, if they accept OA and that, they're more likely to go the value in these recommendations."

CAE11: "Yeah. Absolutely. So if you can paint a very clear picture about what that benefit is and sometimes that benefit is the avoidance of a disbenefit, reputational damage, food poisoning, somebody hurt so sometimes you have to sell it in that negative way, but if they absolutely get that yes, they will accept that."

Therefore, the interview results are consistent with the theoretical framework factor. Interviewees believe that the management's knowledge of OA benefits and operational risks has a direct positive impact on management support.



#### 5.3.2 Interactions between auditors and auditees

The second enabling factor of the organisational level is a high level of interaction between auditors and auditees. Almost all of the interviewees confirm the fact that good interaction between auditors and auditees can enhance the acceptance of OA recommendations (Table 11). In CAEs' views, if auditors communicate well with auditees and build a trusted relationship through constant engagement, the negative reactions of auditees will be reduced. Hence, management will accept OA recommendations more easily as they can understand the benefits of OAs. A sample of interviewee comments related to the importance of good interaction between auditors and auditees is included here:

CAE7: "If the auditor and the auditee have got a good relationship, they can work together on a solution, so you've got to be part of the whole picture. You can't just come in and say "this is wrong" and walk away. We always engage and work together to come up with a recommendation that is acceptable to the auditee and so they will implement it because they're part of the story."

CAE10: "If the auditor is still able - even a good friend with somebody or have a good relationship before, the auditor, of course, the prerequisite is still you maintain the same level of quality and if people are more comfortable with you and they are more cooperating, of course, that's a good thing."

CAE24: "If you get on well and people trust you they'll generally do their best to achieve it [refers to OA recommendations] because they can see the benefits."

Table 11: Respondents' views about the high interaction level between auditors and auditees

Construct	Findings	Interviewees who	
		confirm the findings	
		Number	Percentage
High interaction	Having a trusted and respectful	26	93%
level between	relationship enhances the effectiveness		
auditors and	of OA process		
auditees			

According to the interviewees, a high level of interaction between auditors and auditees is contingent upon being approachable and trustworthy. To achieve this goal, auditors should have constant and regular meetings with auditees so that they can build a trust-based relationship. Furthermore, CAEs strongly believe that auditors have to share audit findings and recommendations with the auditee before the audit report to avoid any surprises. Discussing audit findings with the auditee during the audit process improves the auditee's knowledge about the audit process and assures them of the good intentions of auditors, enhancing the level of trust in the organisation. The below comments highlight the importance of having good communication skills in public organisations.

CAE25: "How you manage the people side of the audit is always important. So you keep people involved, you make sure there's no surprises, all that sort of stuff. As I've said a few times already, you need to be trusted internally, and you need to be trusted that you have good intentions, and your aim is always generally what is best for the organisation and that you have some acumen. You have good acumen. You know what you're talking about. So trust is critical. So I think those are the two things, but there's a limit on how far you should go to reduce negative reactions. You shouldn't go too far to reduce - sometimes you have to accept as an auditor that there's going to be negative reaction, there's going to be conflict. You shouldn't run away from it."

CAE27: "I suppose part of the audit process is to have regular communication with the auditee. Not just get in there, do the job, at the end of the audit process and say well, this is what we found, and then they go

'Oh', and then they read it, and they think 'Hmm'. I think it's that constant and regular communication with the auditee at each point, maybe a daily or weekly meeting with the auditee to say well, this is the issue that we're uncovering and just to keep them aware and half the time if you keep them aware, they'll say no, we're not doing it that way, and they'll go off and find the actual solution to the issue, and they can assist in the audit process. But I think communication is the most important aspect."

CAE6: "Communication is the key and communicating all the way through the process so there's no surprises at the - when it gets to the report, so someone doesn't open a report and go 'what's that all about?' because you've already explained it, you've already gone through it, you've already worked through it with them so that they know what it is that's coming and, more importantly, they know why that you're doing that. So yeah, communication and that relationship building is really important."

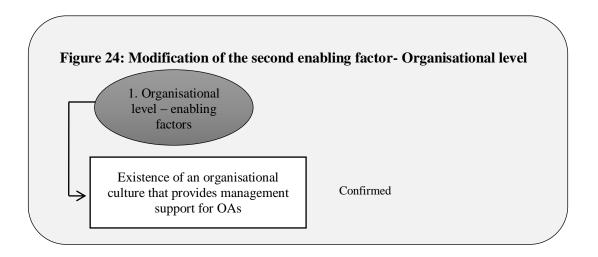
CAE2: "I think good communication skills and interpersonal skills are very critical. You have to be approachable. You have to be understanding."

CAE8: "Again, by being approachable and being able to manage people and to talk to people and to engage with people in the business. It's very important you build that level of trust with the organisation and with the people you're working with to achieve these things. Also making sure that whenever you do findings or recommendations that you've done your research, and you have - you can back up what you're saying they have to be evidence based. There's nothing more damaging for an auditor to be proven to be wrong when they've been arguing - when there's been an argument."

CAE19: "It's all to do with engagement. That you've got to engage with the auditee, you've got to have empathy with the auditee, you've got to display a degree of knowledge about what you're looking at to the auditee to gain their confidence and also where you have a subject matter expert as part of your team that also helps in trying to - establishing the credibility."

In summary, auditors can reduce the auditee's push-back through good communication skills. In fact, if auditees trust the auditor and believe in the auditor's incentives, resistance to the OA process and recommendations will be decreased. To gain the auditee's trust, auditors must avoid surprising auditees with unexpected audit findings. Hence, they have to negotiate and

communicate constantly with the auditee to increase their awareness of audit process and findings. These findings are consistent with the theoretical framework (Figure 24).



# 5.3.3 Organisational structure and governance paradigm

Almost all of the interviewees confirm that an appropriate governance paradigm and organisational structure have significant impacts on the effective practice of OA (Table 12). The organisation's structure has significant impacts on the OA process. In addition, organisational culture highly affects the acceptance of OA process and recommendations. These elements are discussed in detail in the following sub-sections.

Table 12: Respondents' views about `the governance paradigm, organisational structure, and strategic directions

Construct	Findings	Interviewees who confirm the findings	
		Number	Percenta ge
Appropriate governance paradigm, organisational structure, and	A clear organisational structure with defined management responsibilities and objectives are important criteria for effective practice of OA	27	96%
strategic directions	A professional corporate culture facilitates the effective conduct of OA and the acceptance of its findings.	28	100%

### 5.3.3.1 Organisational structure

Almost all of the interviewees mention organisational structure as a critical element in the effective practice of OA. In CAEs' views, having a defined and clear organisational structure is an essential part of governance that facilitates OA practice. This factor assists auditors in identifying the responsible parties and performance measurements. Otherwise, auditors will be faced with a "passing bucket" situation where no one in the organisation accepts their responsibilities. Hence, a clear organisational structure increases accountability within organisations, and it is the key reference point in the OA process. The comments below are examples of this view:

CAE1: "We quite often identify issues, and we don't know who's responsible for them. So the business continuity planning is a good one that's been identified in a couple of audits where we think the business unit should have a business continuity plan but they say, well, we've got to wait until the organisation develops the business continuity."

CAE5: "Yeah. You're exactly right because that will have key measurement criteria in it and part of - and you might not use that as the only criteria, but that's excellent because you can give an opinion against how the organisation is progressing."

CAE7: "Absolutely. I think part of the - when you're doing your risk base; you're risk assessing which areas you're going to go into. I mean you've got to consider things such as the structure of the business, the size of the business unit you're looking at, the fundamental activities within the business unit so that governance needs to be clear."

CAE12: "Yeah I think it's critical. I think if you don't have a clear definition and assigned accountabilities through the governance framework of the company and through the delegations and other activities then it's very difficult to undertake the auditing itself because you need some key reference points. Otherwise, you won't be able to firstly determine primary accountability from which then you don't know what's the company's desired risk appetite and tolerances around these issues and then also the performance and the management reporting aspects etc. and the monitoring processes. So it is key to have that clearly defined from an enterprise perspective."

Therefore, a clear organisational structure plays a critical role in effective OA practice. The organisational structure assists operational auditors in identifying the responsible parties and suitable performance criteria. Hence, a clear organisational structure can increase the effectiveness of the OA process.

### 5.3.3.2 Corporate culture

All of the interviewees emphasised the critical role of corporate culture in the effective practice of OA. Since the culture of an organisation depends on top management's behaviour, a supportive top management can enhance acceptance of the OA process and improve auditees' attitudes. In other words, when top management spread their support for OA in the organisation, auditees will accept the OA process and criticisms easily. A good corporate culture includes accountability, continuous improvement, cooperation, and transparency. In this culture, the OA process is encouraged, and the auditee cooperates with the auditor willingly. The below comments are a sample of this view.

CAE1: "If accountability is accepted and enforced through the organisation, then the audits will be a lot easier for us. That must vary from organisation to organisation. It probably also varies between Local Governments."

CAE6: "I think it[refers to auditor- auditee relationship] depends on the culture of the organisation. If staff think that you're going out to get them, of course, they're going to try to paint a good picture and, maybe, even a misleading picture."

CAE21: "If you work in an organisation that is focusing on continuous improvement, for example, and they're trying to continually improve to get better, just not to stagnate, that makes it a lot easier for these types of reviews to be done. But if you have an organisation that's not like that then it makes it - it's a harder environment to do these types of reviews."

CAE23: "It's cooperation, we need the cooperation, transparency, and support of them and they would find auditors are there to help them, not to find fault."

CAE28: "If the organisation has this mindset to improve themselves, better themselves, happy to take on positive kind of criticism if you can call it and happy to improve then that's the right environment for audit."

CAE24: "A very good culture of taking constructive criticism well and acting on it, whereas other organisations we work in - they see it as a threat because they might have a director-general or manager who works on fear. So it depends. Yeah, the culture of the organisation is very important."

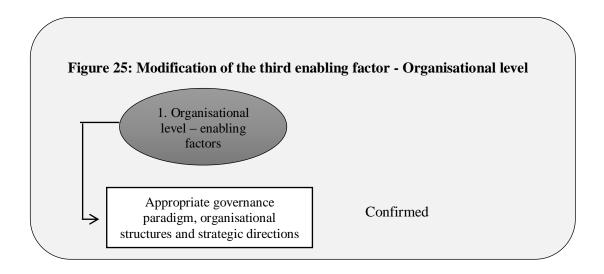
Furthermore, interviewees note that an important factor in identifying the culture of the organisation is "Tone at the Top". Management attitudes in regard to OA have a direct impact on the culture of the organisation and on auditees' behaviour. Hence, a supportive management increases the effectiveness of OA.

CAE4: "it is [refers to the importance of culture] and should define it but that's tone of the leadership and tone at the top function."

CAE7: "If you've got an executive and a senior management team and that culture that - we're there to help, add value. Easily facilitates the outcomes."

CAE22: "It [refers to the culture] comes from the top as it comes down and filter down so, I definitely do believe in that. That you've got to have, that [refers to tone at the top and management support]. It just makes it a lot easier for us to actually go in."

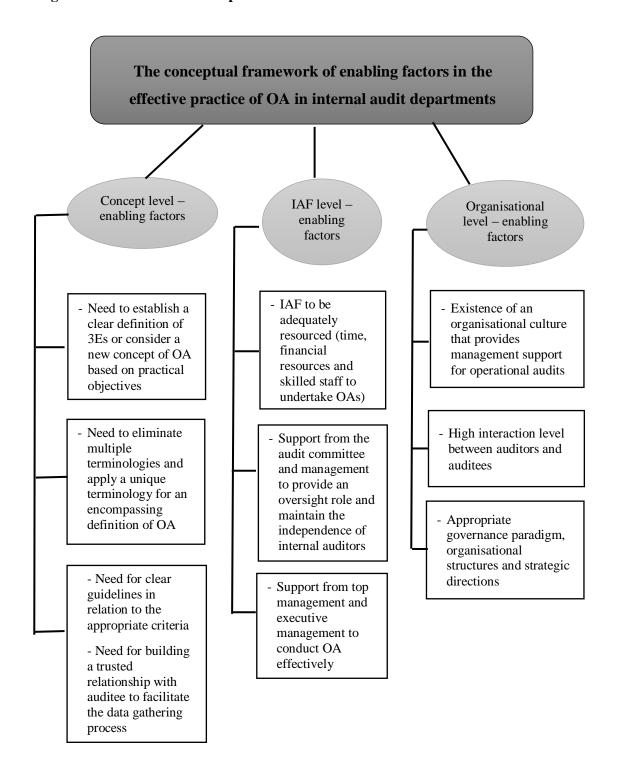
In summary, the interview findings are consistent with the theoretical framework. All of the respondents supported the significance of corporate culture in the effective practice of OA. If top management supports the OA process and increases accountability in the organisation, conducting OA is better facilitated. Hence, these findings support the importance of appropriate governance paradigm and organisational structure (Figure 25).



# **5.4 Summary**

In conclusion, the theoretical framework developed from the literature should be refined using findings from these interviews. The interviewees' responses support the majority of enabling factors. However, the first and third enabling factors of conceptual factors can be modified. Furthermore, a third enabling factor discovered from the interview data can be added to the IAF level. The new framework of effective practice of OA is presented in Figure 26. The next chapter concludes this thesis. A summary of interview findings, contributions, implications, limitations of the thesis and recommendations for future research studies are presented therein.

Figure 26: The modified conceptual framework



# **Chapter Six: Discussion and conclusion**

#### 6.0 Introduction

The thesis aims to identify and confirm enabling factors in the effective practice of OA in internal audit departments in Australia. Qualitative research methods were applied to gather and analyse collected data. To identify enabling factors, three research questions have been addressed in this thesis:

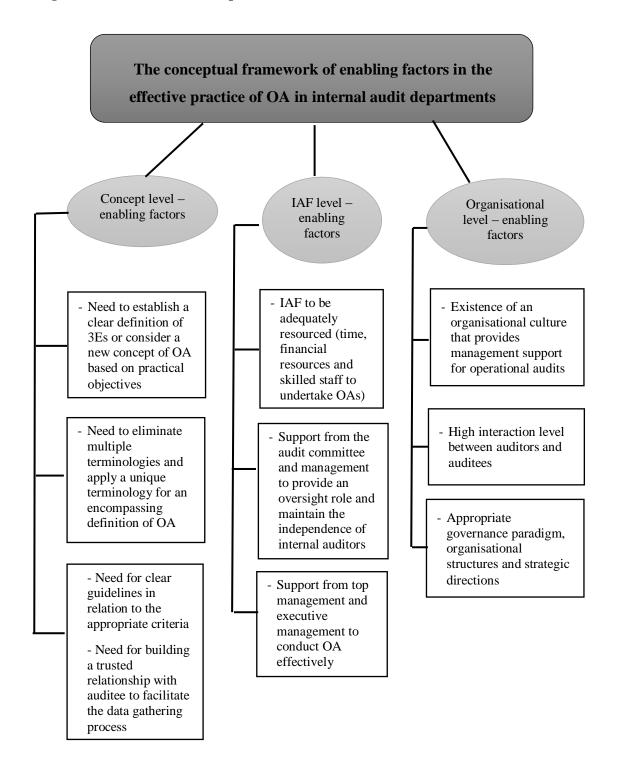
- 1. What is the theoretical framework for OA as represented by current research?
- 2. What constitutes an effective OA framework to facilitate its effective practice in internal audit departments of public organisations and publicly listed entities in Australia?
- 3. What organisational issues appear to be inhibiting and/or encouraging the effective application of operational auditing practices within Australian public listed and public sector organisations?

This chapter summarises the key findings of this thesis. Section 6.1 presents a brief summary of findings in this thesis. The contributions to research and practice are discussed in Section 6.2. Section 6.3 addresses the limitations of this thesis and suggestions for future studies are provided in Section 6.4. Section 6.5 concludes the thesis.

### 6.1 Discussion

In this research, responses from 28 CAEs were used to adapt a theoretical framework for the effective practice of OA (extracted from the literature) in order to develop a refined conceptual OA framework presented in Figure 27 below.

Figure 27: The modified conceptual framework



Developed from the literature, this thesis is structured around three core enabling factors namely, conceptual factors, IAF factors, and organisational factors. In some instances, the responses from the interviews have confirmed the theoretical framework and in other instances the feedback supported refinement of the theoretical model, as demonstrated in Table 13.

Table 13: Summary of interview results

Framework	Enabling factors	Result
Levels		
Conceptual	Need to establish what the 3Es are for an organisation	Modified
	Need to eliminate multiple terminologies and provide for a single encompassing definition of OA	Supported
	Need for a clear methodology for conducting OAs	Modified
IAF	Support from the audit committee to provide an oversight role and maintain the independence of internal auditors	
	IAF to be adequately resourced (time, financial resources and skilled staff to undertake OAs)	Supported
Organisational	Existence of an organisational culture that provides management support for operational audits	Supported
	High level of interaction between auditor and auditee	Supported
	Need for a clear and an appropriate governance paradigm, organisational structure and strategic directions	Supported

# **6.1.1 Conceptual factors**

A review of the literature identified the ambiguous and subjective nature of the concept of 3Es as set out in the theoretical framework. This is borne out by the interviewees, who identified the primary focus of CAEs in OA projects as risk and organisational objectives. These results indicate that there is a need to define the OA concept in the internal audit context.

The responses from interviews agree that there is significant uncertainty in terms of establishing what the 3Es are for an organisation. However the main concerns arise because of a lack of clear definition of 3Es or a need to redefine the OA concept within internal audit departments. The theoretical model has been updated to reflect this at the concept level. More specifically interviewees believe that 3Es are an outdated concept and risk is a comprehensive alternative for them. Hence, this research finding reveals that risk is the main objective of OA projects in the internal audit departments studied.

The second conceptual enabling factor within the conceptual framework relates to the multiple terminologies used to describe OA. Interviewees mention 12 different and sometimes interchangeable terms to describe OA. The result of this thesis shows that the application of various terms causes confusion for stakeholders and practitioners, because the difference between these terms is not clear. This ambiguity adds another difficulty to OA practice. To prevent this problem, some of the respondents mention that they avoid using any specific term for OA. Furthermore, choosing an appropriate term affects OA results. Respondents believe that choosing the review term for OA limits the scope and result of OAs. The results of the interview confirm the theoretical framework, noting that there is a need to eliminate multiple terminologies and apply a unique term for an encompassing definition of OA.

The third conceptual enabling factor calls for a clear methodology for conducting OA. The literature review indicates that unlike Financial Audit, OA does not have a standardised methodology. Existing guidelines such as those of the USA Government Accountability Office are very broad, and far from the available standards for Financial Audit. Prior research findings suggest, as indicated in the theoretical model, that practitioners have difficulties in finding suitable criteria and evidence in the OA process. Thus in developing the theoretical framework, it is posited that clearer methodology will reduce these concerns and increase OA effectiveness. There was less clarity on this subject from CAEs.

Almost half of interviewees indicated that they do not have problems with OA methodology. However, they went on to explain that OA methodology is very subjective, and they have to develop their own approaches in order to conduct OA. Respondents noted that the lack of a standardised approach and criteria is the reason that the OA process is time-consuming, and the OA reports are sometimes out of date. In addition, interviewees' responses in relation to finding criteria and evidence in the OA process indicate that they are problematic in practice. In answering questions relating to this factor, another distinct theme emerged. Interviewees are very clear that it is vitally important to nurture a trusting relationship between auditor and auditee to support the evidence gathering process.

Therefore, interviewee responses about proper criteria and evidence demonstrate significant uncertainties and difficulties in practice, despite not initially identifying problems with methodology. Respondents believe that OA projects are unique, and it is not possible to develop a standardised approach. However, it seems that developing clear guidelines for OA methodology will reduce the extent of practical problems.

#### **6.1.2 Internal Audit Function Factors**

The second level of the OA framework, developed from the literature, is the IAF level, and it consists of two enabling factors. Interviewees, on the whole, support these factors. They believe that OA is a long and complicated process that requires professional staff and adequate resources for its performance. Also, audit committee support is critical to the effective practice of OA. Moreover, the respondents' answers reveal a third factor: the important role of top management support for the effective practice of OA.

The first IAF enabling factor is "IAF to be adequately resourced". Interviewee answers agree with this enabling factor. It is evident in the literature, as mentioned in the second chapter, that OA is a long process that may lead to out-of-date reports. Interviewees concur with this fact, and they disclose that the risk of issuing an out-of-date report is high. According to interviewees, the planning and reporting phase of an OA report takes a long time to be completed. Finding proper criteria and evidence, the planning phase, management delay in responding to OA findings, and the time taken during the reporting phase, are the main reasons for the lengthy OA process. Management delay in responding to OA findings may also indicate agency problems in organisations. According to agency theory, management (as the agent) may follow their own interests and hide deficiencies from principals (more senior managers), to secure their position. Hence, they may not respond to the OA draft report in a timely manner, or they may challenge the findings, causing delays in issuing the OA report so that they can buy some time and rectify problems.

Furthermore, respondents support that OA is an expensive process and requires adequate budget and professional staff. The results show that both the number and scope of OA projects are affected by budgetary considerations. It is noticeable from the results that internal auditors plan audits based on budgets. Also, interviewees support the assertion that professional staff play a critical role in the success of OA. Since internal audit budgets are limited and OA has various problems in practice, only professional staff can deal with the problems and finish the audit on time. In this respect, respondents mention a number of different technical and soft skills required for operational auditors (Appendix D). Therefore, thesis findings support the principle that internal audit departments require adequate resources to conduct OA effectively.

These thesis findings also highlight the importance of audit committee support, both to provide an oversight role and maintain the independence of internal auditors. All of the interviewees emphasised that audit committee support increases their authority in the organisation. The audit committee can reduce tension between internal auditors and managers should disagreements arise in relation to items in an OA report. Furthermore, the audit committee supports and approves the internal audit plan. Hence, audit committee support is essential for performing OA as a part of the internal audit plan. This finding strongly supports the critical role of audit committee support in the effective practice of OA.

An extra enabling factor was developed from interviewees' responses. The majority of interviewees believe that in addition to audit committee support, they need top management support to conduct OA. Respondents' views identified that top management support is effective and practical. Top management support gives internal auditors a clear mandate to conduct OA, and it has a direct impact on the culture of the organisation. The findings of this thesis show that having adequate resources, audit committee support and top management support are critical to the effective practice of OA.

### **6.1.3** Organisational factors

The third level of the theoretical framework, developed from the literature, consists of organisational enabling factors. Interviewee responses are consistent with the organisational enabling factors. First, the existence of an organisational culture that provides management support for operational audits is supported by all of the respondents. Interviewees consider that management knowledge of OA benefits and belief in the high quality of OA suggestions have a key role in improving corporate culture and managers' behaviour.

The interview results also infer that high interaction levels between auditors and auditees are critical in the effective practice of OA. Respondents believe that the acceptance of OA suggestions by management is increased if internal auditors constantly try to engage auditees in the OA process. Auditee engagement in the OA process improves the quality of OA recommendations. Respondents emphasise that internal auditors have to avoid any surprises in OA reports, in order to gain auditees' and managers' trust.

Interviewees also confirm the last enabling factor of the theoretical framework. These research findings indicate that a clear organisational structure has assisted practitioners to identify responsible parties and proper performance measurements. Furthermore, an appropriate governance paradigm facilitates OA practice. All of the interviewees recognise the importance of "Tone at the Top" to the acceptance of the OA process and recommendations. If

management encourages accountability and improvement strategy in the organisation, internal auditors experience fewer negative reactions.

## **6.2 Implications**

The results of this thesis identify important elements in the successful practice of OA. Findings provide implications for regulators, organisations, practitioners, and researchers. These implications are discussed in the following sub-section.

### **6.2.1 Implications for regulators**

The findings of this thesis provide insights for regulators to improve the effectiveness of OA practice in internal audit departments. It is suggested that regulators consider a new OA definition, a unique OA term, guidelines for OA methodology and rules for supporting OA practice in internal audit departments.

The results of this thesis indicate that the current OA concept is not widely applied by practitioners. Although the majority of available OA definitions emphasise evaluating the 3Es as the main objective of OA, in practice interviewees were following different goals. The findings in this thesis indicate that the boundaries between the 3Es are not clear, and that the concept of 3Es is outdated as far as practitioners are concerned. The majority of interviewees note that they focus on risks and objectives of the organisation instead of the 3Es. Therefore, the findings in this thesis suggest that regulators need to consider a new OA definition for use by internal audit departments.

Another suggestion for regulators is to consider agreeing a unique term for OA practice in internal audit departments. The findings of this thesis indicate that the application of various terminologies for describing OA causes ambiguities for practitioners and stakeholders. These ambiguities cause unnecessary discussions in practice because internal auditors have to explain the difference between various terms to stakeholders. It is observed that some practitioners try to avoid using any specific term in order to decrease OA difficulties. Interviewees also confirm that the elimination of various terminologies and a unique definition would help address difficulties in practising OA. Therefore, it is recommended that regulators consider a unique term for OA practice in the internal audit context, and eliminate multiple terminologies.

Moreover, there is a need for clear guidelines in relation to suitable criteria and evidence in the internal practice of OA (by internal auditors). OA methodology is very subjective, and practitioners develop their own approach for each OA project. The research findings indicate that practitioners spend considerable time defining suitable and appropriate evidence and criteria for each OA project. The effectiveness of the OA process is affected since it takes a long time to complete projects. Hence, it is suggested that regulators develop more guidelines in regard to appropriate evidence and available criteria and benchmarks in different industries to facilitate OA practice. Clear guidelines will improve the comparability and consistency of practising OA in different industries.

Finally, regulators need to consider rules and regulations to improve the status and power of internal audit departments in organisations. Findings show that practising OA in the internal audit context can aggravate sensitivities in organisations, necessitating significant support to be effective. OA is an expensive process that requires adequate resources. Therefore, external supports such as mandatory OA practice, a strong audit charter or any other rules and regulations that empower the internal audit status in organisations will improve the effectiveness of OAs.

### 6.2.2 Implications for organisations and practitioners

The results of this research provide important insights for organisations and practitioners in relation to the effective practice of OA. The organisational culture and the status of internal audit departments within an organisation play a significant role in the success of OAs. Furthermore, practitioners need to consider that having a trust-based relationship with auditees and management, and constantly engaging auditees in the OA process, are critical points in the effective practice of OA.

Organisations can facilitate the effective practice of OA by improving the status of internal audit departments in the organisation and considering a strong audit charter, adequate resources, and clear organisational structure. The results of this research show that auditees play a prominent role in the effectiveness of OA. Auditee resistance in accepting the OA process, findings or suggestions reduces OA effectiveness dramatically. In this situation, finding sufficient appropriate audit evidence is very difficult for practitioners, and the quality of OA findings and recommendations can be negatively affected. Therefore, organisations need to have a strong audit charter and a supportive culture to improve the effectiveness of OA practice.

Moreover, OA is an expensive audit that requires sufficient budget and professional staff to be effective. Having qualified staff directly affects the reliability of internal audit departments in Australia. Organisations have to consider sufficient resources for internal audit departments to practice OA. Also, a clear organisational structure assists internal auditors in finding the responsible person and following their recommendations.

Finally, the findings in this thesis indicate that management and auditee trust in internal auditors plays a critical role in the effectiveness of the OA process. If auditees trust the internal auditor and respect the OA process, they will welcome OA findings and suggestions. In this situation, auditees may improve the quality of OA recommendations by providing auditors with adequate and relevant information. Therefore, these findings suggest that internal auditors should build a trusted relationship with management and auditees to practice OA effectively. For this purpose, practitioners need to constantly engage auditees in the OA process and avoid any surprises regarding OA findings.

### **6.2.3 Implications for scholars**

The results of this research have significant implications for scholars. This thesis has addressed the gap between theory and practice. Four general implications for scholars are elaborated in the following paragraphs, and should be considered for future studies in internal audit and OA contexts.

Findings have revealed that the concept of OA in internal audit departments should be modified. In theory, the 3Es are central to the OA concept, even though in practice, internal auditors focus more on risk and organisational objectives. These findings indicate that internal auditors believe that risk is more comprehensive and relevant than the 3Es. Therefore, scholars need to consider risk and organisational goals as appropriate objectives of the OA process in future studies. Researchers can also consider differences in objectives between the internal and external forms of OA.

Findings of this research also suggest that internal audit departments need top management support in addition to AC support. The internal audit department must be strongly supported by the Chief Executive Officer (CEO) and management team to be effective in practising OA. Interviewees believe that top management support is even more important than AC support because top management has more practical power in the organisation. Furthermore, organisational culture is dictated by top management. Hence, conducting OA in internal audit departments is almost impossible without management support and a supportive corporate culture. This result implies that scholars need to recognise the key role of management support and corporate culture in the effectiveness of internal OA practice in future studies.

Furthermore, the thesis findings indicate that OA practice in internal audit departments is complex and has a multi-level framework. The developed framework in this thesis can be used by scholars as the basis for reviewing the effectiveness of internal audit departments or internal OA practice. Scholars can use this framework and study the differences between external and internal forms of OA.

Qualitative methods were used in this research to develop an OA conceptual framework. Scholars can also use this framework and study the extent of its application by adopting quantitative methods, such as questionnaires. Finally, this research is constructed in Australia, so has implications for scholars relating to social, organisational and cultural factors important in the effective practice of OA in Australia. Scholars can use the conceptual framework and study internal OA practice in other nations with different economic and social conditions.

#### 6.3 Research contribution

The findings of this thesis make significant contributions to theory and practice. These contributions are discussed in the following sub-sections.

### **6.3.1 Theoretical contribution**

This thesis has five theoretical contributions. First, an OA framework has been developed for the first time in this thesis, at both theoretical and conceptual levels. This framework can be used as a basis for future studies. This is the major contribution of this thesis, as a framework did not exist prior to this research. The framework consists of three groups of enabling factors which are important in the effective practice of OA in internal audit departments.

Second, this thesis expands the literature of OA practice in public listed companies. The majority of existing literature relates to OA as practised by Auditor Generals in governmental institutions and there was a lack of research into OA practice in public listed companies. Hence, this research adds a new dimension and private sector perspective to OA research.

Third, this research extends the literature around the concept of OA. The findings of this thesis indicate that the current concepts of OA and 3Es are not applied in practice due to their perceived ambiguity. Findings suggest risk and organisational goals as the new objectives of the OA concept in internal audit departments. Further, the result of this research indicates that the effective OA practice means providing relevant and on-time OA report including high-quality recommendations.

Fourth, this thesis expands the existing literature relating to IAF. Although OA is widely practised by internal auditors, no research has specifically focused on OA practice in internal audit departments. The findings provide a comprehensive understanding of difficulties and requirements for the effective practice of OA in internal audit departments. Practitioners are experiencing problems in managing time, expenses, finding appropriate criteria and evidence. However, a clear organisational structure, a supportive corporate culture, an appropriate

governance paradigm, a supportive AC and sufficiency of resources can facilitate the effective practice of OA.

Fifth, the findings add to our understanding of the auditor-auditee relationship in OA practice. The results show that auditors have to interact more with auditees in this type of audit. OA requires more reliance on auditees in comparison with other types of audit. Hence, a trust-based relationship between the auditor and management/auditee plays a critical role in the success of OA.

#### **6.3.2 Practical contribution**

This thesis has some practical issues for consideration by organisations, practitioners and regulatory bodies such as the IIA. Organisations and regulatory bodies can apply the organisational construct of the developed conceptual model to facilitate a more effective practice of OA in internal audit departments. The identified organisational factors will assist internal audit departments to add value and thus improve their status in the organisation. Hence, the IAF and governance will be improved through applying this model in practice.

Furthermore, this research identifies major ambiguities in the practice of OA. The regulatory bodies such as the IIA can consider identified uncertainties in order to improve existing standards. The findings indicate that the OA concept, methodology, and terminology are three fundamental difficulties faced by practitioners that need to be addressed in standards. This research provides some suggestions for improving standards such as defining the OA concept in the internal audit context by considering new objectives, and by choosing a unique term for OA.

Finally, practitioners can apply the framework to enhance the effectiveness of the OA process. The findings of this research include a number of concrete insights for practitioners to improve their performance. For example, the findings shows how internal auditors can improve OA practice by building a trusted relationship with auditees, thus improving the quality of audit reports.

### 6.4 Limitations of this thesis and suggestions for future studies

A number of limitations exist. The first restriction is the small sample size. Considering the exploratory nature and qualitative research approach of this thesis, semi-structured interviews were used to gather data. In total, 28 interviews were conducted. Although this sample size might be adequate in qualitative studies, it is small compared to experimental and archival research.

Generalisability is the second limitation of this research. The data is gathered from large organisations in Australia. Considering the differences of internal audit departments with different size, regulatory contexts (Arena and Azzone 2009) and culture (Sarens, Abdolmohammadi, and Lenz 2012), it is not possible to generalise the findings to the whole population. Nonetheless, the enabling factors of effective practice of OA, identified in this research, can be considered as a basis for future studies.

The research scope is another limitation of this thesis. The research objectives of this thesis do not include differences between the public and private sectors in practising OA. Since regulatory and cultural differences can affect the IAF (Arena and Azzone 2009), it is recommended that this aspect be examined in future studies.

Finally, this research is based only on the perceptions of the users (CAEs) and not other stakeholders such as management, boards and audit committees. It is envisaged that this limitation could be used as a basis to provide avenues for further research to validate the findings with the other respective stakeholders of internal audit.

### 6.5 Summary of this thesis

This thesis has contributed to the existing literature by developing a practice-informed conceptual framework for the effective practice of OA in internal audit departments in Australia. The theoretical framework was developed by reviewing the literature. This framework consists of three constructs: conceptual, IAF and organisational factors. The initial framework was refined through 28 semi-structured interviews with CAEs who have experience in practising OA. At the conceptual level, research findings indicate that there is a need for new definition and unique terminology for OA. Also, OA methodology needs to be more clearly defined to solve practitioners' problems in finding evidence and criteria. The second construct comprises IAF factors. OA is a time consuming and expensive process that requires sufficient budget and professional staff to be effective. Also, OA requires audit committee and management support to overcome possible tensions and reduce negative reactions of auditees. Finally, the third construct includes important organisational factors. The research findings show that a clear organisational structure, an appropriate corporate culture and governance paradigm can improve OA effectiveness. Furthermore, a trust-based and respectful relationship between auditors and auditees not only improves the quality of OA reports, but reduces the level of auditee negative perceptions. Therefore, building a trusted relationship increases the effectiveness of OA.

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#### **Appendix A: Information sheet**



#### **Curtin Business School**

Operational auditing: Developing and refining a framework of enabling factors for its effective application

#### INFORMATION SHEET

Dear interview participants:

This thesis is part of a PhD study whose aim is to develop a framework of enabling factors to facilitate the effective practice of Operational Audit. In this respect, you are invited to assist with confirming/refining the constructs of the developed framework. The interview session may require approximately one hour. A set of semi-structured interview questions together with a copy of the developed model is attached herewith to assist you in this regard (Appendix 1 & 2).

This thesis study will not pose a risk to the interviewee. The interviewee's confidentiality will always be respected. The outcome of this thesis will be published in form of a thesis and academic papers. The interviewees will not be identified in the respective publications. The researcher of this study and her supervisors are the only people who have access to the interviews' information.

Please be advised that participating in this interview is completely voluntary and you can withdraw at any time without any prejudice or negative consequences. Please sign the attached consent form which provides your permission to conduct, record and transcribe the interview.

This thesis is approved by the Curtin University Human Research Ethics Committee (approval number: **ACC-08-14**). Please contact the researcher or any of the supervisors if you have any

concern or query about this study. In case you may have any concerns or complaints about the ethical issues of this thesis, please contact Human Research Ethics Committee (phone: 9266 2784 or hrec@curtin.edu.au or in writing C/- Office of Research and Development, Curtin University of Technology, GPO Box U1987, Perth WA 6845).

#### **Appendix B: Consent Form**



#### **The Curtin Business School**

Operational auditing: Developing and refining a framework of enabling factors for its effective application

#### **CONSENT FORM**

This thesis is conducted by Elnaz Vafaei, PhD Candidate, School of Accounting, Curtin University; Email: <a href="mailto:Elnaz.vafaei@postgrad.curtin.edu.au">Elnaz.vafaei@postgrad.curtin.edu.au</a>; (Ph: \_\_\_\_\_\_)

By signing this form, you indicate that:

- You have been informed of the purpose and demands of this study as mentioned in the information sheet.
- You have been given an opportunity to ask questions arising from the information sheet and these questions have been answered properly.
- You can withdraw at any time without prejudice and your responses won't be used in any published material.
- You agree that the interviews are to be recorded and the information will be used in data analysing. In addition, you are aware that all of your information is treated confidentially.
- Any information which might potentially identify me will not be used in published material.
- You agree to participate in this study.

Name:	
Signature:	
Date:	

**Appendix C: Interview Questionnaire** 

INTERVIEW QUESTIONNAIR	Е		
Name of organisation:			
Interviewee (Title and Name):			
Date and time of interview:			
Professional characteristics of	1- How many years have you been in your current		
the interviewee	position?		
2- Briefly describe your experience in either manag			
	or conducting operational audits?		
	For the purposes of this study, we define operational		
	auditing as: "providing information and assurance about		
	the quality of the management of the organisation. It		
assesses the economy, efficiency, and effective			
	the management of the organisation by examining		
	resource use, information systems, delivery of outputs,		
	and outcomes, including performance indicators		
	monitoring systems, and legal and ethical compliance.		
	Finally, suggesting ways management practices might be		
	improved (This definition is derived from definitions		
	provided by Morgan et al. (2007), Australian National		
	Audit Office (1995), The International Organisation of		
	Supreme Audit Institutions (2010))."		

<b>Enabling Factors</b>	Questions		
Need for a clear concept of	1. The majority of definitions of operational auditing		
operational auditing	refer to the need to ensure the function, department,		
	or activity being examined is managed in an		
	economical, efficient and effective manner.		
	However, internal auditors conducting such audits		
	have complained about the unclear and ambiguous		

concept of the 3Es as impacting on the effective conduct of operational audits. To what extent do you agree with these views? 2. How many operational audits in line with the definition of operational audit have you conducted on a yearly basis? Please provide examples of these. 3. If you feel that evaluating against the 3Es is not the main objectives of operational auditing, please provide vour views what other on objectives/criteria should operational auditing be concerned with. One of the problems attributable to the conduct of Need for one clear terminology for the process. operational auditing is the numerous other terminologies associated with it. These include: management audit, comprehensive audit, value for money audit, effectiveness audit, performance audit, etc. 1. What term do you use in your department to describe operational audits? 2. In your opinion do these various terms add to the confusion as to what actually constitutes operational auditing in terms of inputs to the process and outputs in terms of expected deliverables/reports? 3. In view of the confusion caused by these various terms, do you agree that they should be eliminated and that only one term – 'operational auditing' be used in future? Need for a Research studies indicate that due to the problem of no clear clear concept and confusing terminologies

methodology	No clear	operational auditing, there is no clear methodology		
to conduct	methodology	established.		
operational				
auditing		1- What are your views with regards the observation		
		that there is no clear methodology for operational		
		auditing?		
	NY 1' 1 1			
	No reliable	Evidence gathering in operational auditing requires the		
	evidence	same amount of rigour as financial audits.		
		1. However, one of the problems of operational		
		auditing (due to its subjectivity, requirement of		
		auditor judgement and consulting undertaken as		
		part of the process) is the difficulty to gather		
		reliable evidence? What is your opinion on this		
		matter?		
		2. What are your views on the difficulty of		
		gathering evidence due to auditee/auditor		
		conflict in operational auditing?		
		3. What are your views on the difficulty of		
		gathering evidence due to the auditee's negative		
		perception of the findings or intentions of the		
		audit process?		
		4. Have you ever faced a situation that an important		
		problem of organisation performance was not		
		reported due to lack of supportive evidence?		
		5. It is often reported that auditees in operational		
		auditing try to mislead operational auditors in		
		order to paint a positive picture of the operations.		
		What is your opinion about this matter?		
	Need for a	1 Another problem of energtional auditing is the		
		1. Another problem of operational auditing is the		
	standardized	subjective, unreliable and unstandardized		
	and clear	performance measures. What is your view on this		
	performance	problematic factor in reporting on the 3Es?		

	magazzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzz	2. In your experience of confinition and the
	measurement	2. In your experience of conducting operational
	system	audits, have you excluded an important issue
		from the operational audit report due to the
		presence of unreliable performance measures?
	adequate audit	1. What are your views on the need for audit
committee sup	port	committee support for the effective conduct of operational auditing?
		2. It is observed from the literature that audit
		committees do not have enough power to support
		the IAF. What are your views on this matter?
		3. What is the level of internal auditor independence
		from management in your organisation? Please
		elaborate on your response.
		4. Do you think providing the undertaking of
		consulting as part of the operational audit process
		affects the independence of internal auditors?
		5. To what extent does management within your
		organisation support and facilitate the practice
		operational auditing?
Need for adequ	iate resources	It is often argued that an operational audit is a time
		consuming process as it needs to review a range of
		operational controls.
		operational controls.
		1. What are your views on this and has the time
		·
		factor impacted on the conduct of operational
		audits within your organisation?
		2. What are your views that the time factor can
		sometimes lead to out of date reports and hence
		impact on the effectiveness of the operational
		audit report?
		3. To overcome the above suggested problems,
		there is a need for adequate professional staff
		undertaking such audits. In your department, are
		you satisfied with your professional staff
		resources to conduct operational audits?
		1

- 4. OA has a vast domain and challenging environment which needs professional staff with expertise in operational matters. What is your opinion about this matter?
- 5. In your opinion, what are the skills and experience required for conducting operational audits?
- 6. Given your budget for conducting audits, what are your priorities in terms of financial audits compared to operational audits?
- 7. Has the limitation on the budget (financial resources) been a factor in not conducting operational audits or limiting the number of operational audits?

Need for adequate management support

- 1. It is argued that if internal auditors have a good relationship with management, this factor can positively affect the implementation of OA suggestions. What is your view about this matter?
- 2. Have you ever been faced with a situation where management has resisted the conduct of operational audits? If so, what are your views for the negative reaction?
- 3. In your opinion, what is the level of management knowledge about the benefits of operational auditing?
- 4. In your opinion does the level of management knowledge/appreciation of an operational audit have an impact on the acceptance and implementation of operational audit recommendations?
- 5. Has management ever complained on the quality and practicability of application of some of the operational audit recommendations?

	6. What are the specific complaints generally about (e.g. quality of staff, time factor, findings too theoretical, etc.)? Please elaborate.
Need for good interactions between auditors and auditee	<ol> <li>Have you ever been faced with negative reactions of auditees in accepting audit recommendation? What in your view is the reason for these negative reactions?</li> <li>How in your view can internal auditors reduce these negative reactions? ?</li> <li>Good interactions between auditor and auditee can enhance the acceptance of operational audit recommendations by management. What are your views on this statement?</li> </ol>
Clear organisational structure, governance process and organisation culture	<ul> <li>1- A clear organisational structure with defined management objectives and responsibilities of corporate positions are stipulated as important criteria for the effective practice of operational auditing. What are your views on this matter?</li> <li>2- A professional corporate culture will facilitate the effective conduct of operational auditing and the acceptance of its findings by management? What are your views on this statement?</li> </ul>

## **Appendix D:** The necessary skills for operational auditors

Skills	CAEs who mentioned the skills	
Knowledge of business and organisation	1,7,6,23, 24,25, 9,11, 12,13,14, 18, 19, 26,	
Management knowledge	1,24,	
Ability of gathering information (communication skills)	2, 4,6, 7, 8, 21,22, 24,27, 9,11, 13, 12, 18	
Innovative mindset	2,5, 21,23	
Auditing and technical skills	2, 24,28 ,3, 15, 20,	
analytical	5, 6,23, 27,	
Industry knowledge	6	
Critical thinking	6,13	
Problem solving skills	6, 9,	
Business engineering	6	
Negotiation skills	6,12	
Specific skills for specific engagements (IT)	6, 9,	
Time management	7	
Relationship skills	8,6,	
Networking skills	8	
Conflict resolution skills	21	
Questioning mind	21,13, 15, 17	
Marketing skills	21	
Reporting skills	22, 27, 12	

Skills	CAEs who mentioned the skills	
Ability of analysing soft skills	27	
Common sense	28	
Strategy thinking	9, 14, 18,	
Willing to learn and research	28, 15	
Interview skills	13	
Ability of making judgment	18, 11,12,	

## **Appendix E: Summary of research methodology**

Paradigm	Interpretivist	
Enquiry	Phenomenology	
Design	Qualitative	
Data gathering method	Semi-structured interviews (face to face)	
Sampling methods	Purposive- expert sampling and snowball sampling	
Sample size and place	28 participants; Sydney, Melbourne and Perth	
Analysis methods	Deductive content anlaysis	
	Hermeneutic interpretation	
Reliability	Using interview protocol; cross-checking the accuracy of	
	coding; Re-coding the data by a second independent coder;	
	Using a professional transcriber.	
Validating	Disconfirming evidence	
	Thick and rich description	
	Peer debriefing	
Generalisation	Naturalistic generalisation	

Appendix F	: A copy of paper b	y Vafaei and Chri	stopher (2014)

# Operational auditing: Recognition of the flaws of this internal audit process and overcoming them through a new conceptual framework

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Operational auditing: Recognition of the flaws of this internal audit process and

overcoming them through a new conceptual framework

**Abstract** 

The current literature on operational auditing (OA) reveals considerable

uncertainty as to its effectiveness due to a theory-practice gap. This study draws on

international research into the practice of operational auditing and applies an agency

and institutional theory perspective in the critical analysis of the published literature

to generate new insights as to what are the problematic factors causing the theory-

practice gap. The findings identify a range of problematic factors occurring at the OA

concept, Internal Audit Function (IAF) and organizational levels which impacts on the

effective application of the process. These new insights are used as a basis to develop

a new conceptual model of enabling factors to address the problems and facilitate the

effective practice of OAs. These findings contribute to ongoing literature on

operational auditing and have practical implications for the improvement of existing

standards or best practice guidelines for the conduct of operational auditing. The paper

also provides avenues for further research to confirm the findings.

**Keywords:** Operational auditing; internal auditing; governance; accountability

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#### 1. Introduction

In recent years, following a number of large corporate scandals, there has been an increase in the level of accountability and responsibility expected of board members and management for the corporate governance of their organizations (Rezaee, 2009). Corporate governance in this context has been broadly described as a system for directing and controlling a company that affects the achievement of its goals, monitoring and assessing risk and also optimizing the performance of that company (ASX, 2010; OECD, 2004). The "system" in this context refers to a number of governance control processes to be developed and implemented by management to ensure that their organization is managed efficiently, effectively and economically. The outcome of this process has been argued as creating value for stakeholders (ASX, 2010; Rezaee, 2009).

The concept of efficiency, effectiveness and economy (the 3Es) has assumed greater prominence as a result of the global financial crisis. It is built on the premise that an organization's competitiveness and productivity depend on the manager's ability to control costs, optimize resource utilization and enhance the efficiency and effectiveness of organization's performance (Stuebs & Sun, 2010; Talebnia & Dehkordi, 2012; Vilanova et al., 2009). Other studies have confirmed that by improving a company's efficiency and effectiveness, profitability would increase (Baik et al., 2013) or associated with improvements in the economic performance of companies including aspects relative to creating an ethical and safe working environment (Bauwhede, 2009; Chiang, 2005; Radu, 2012; Yusoff & Alhaji, 2012).

While the concept of the 3Es has been particularly relevant to the private sector, a similar emphasis has been placed in the public sector more recently, the aim of which has been to increase the accountability of management and the quality of services provided to the wider stakeholder base. This has been largely influenced by the introduction of the concept of new public management (NPM) to the public sector in the 1980s (Hood, 1995).

With ongoing pressure on the board and management of both the private and public sectors to ensure effective governance in the above context, there is a

corresponding increase in pressure to develop monitoring functions to assist the board with an assurance that governance control processes have been developed and implemented in an effective manner (Mihret et al., 2010; Rezaee, 2009). One of these monitoring functions is the Internal Audit Function (IAF) (Adams, 1994), which plays an important role in assisting the board and management to achieve their governance responsibilities and accountabilities by enhancing the 3Es of their organization's operations (Gramling et al., 2004; IIA, 2004; Jin'e & Dunjia, 1997; Radu, 2012; Swinkels, 2012). This expanded role of the IAF in providing assurance of governance processes is reflected in the revised definition of internal audit by the Institute of Internal Auditors (IIA, 2004):

Internal audit is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.

Through the above definitions, IAFs have experienced a shift from the traditional focus on only providing assurance audits to also providing value-added audits via a consultancy role to address the 3Es (Breedveld-Krans, 1991; Kent, 1948). This focus has particularly gained prominence after the recent corporate scandals, with the internal audit profession and governance policy makers actively promoting the audit committee and internal auditors as necessary control components for assisting management in their wider governance accountabilities.

An important audit process used by internal auditors to provide the value-added focus through a consulting role is that of "operational audits" (Al-Twaijry et al., 2003; Chapman and Anderson, 2002; Fargason et al., 2002; Flesher & Zarzeski, 2002; Krogstad et al., 1999). The outcome of an operational audit (OA) in this regard is to assist management in improving its operations and in doing so address the 3E criteria. Cadmus (1964) appropriately defines operational auditing as a systematic process of evaluating the 3Es of an organization's operations.

While there is ample literature on the theoretical role of OAs in enhancing the 3Es of an organization, there has been a growing amount of studies that reveals considerable problems associated with various aspects of the practice of OAs.

However, these studies focus only on specific aspects of the process (e.g. English, 2007; Funnell, 1998; Guthrie & Parker, 1999; Lonsdale, 2008; Pollitt, 2006; Roussy, 2013; Skærbæk, 2009) rather than examining the whole process from an operational perspective. These ad-hoc problems suggest considerable uncertainty as to its status as an effective audit process. There is a lack of research that specifically identifies the range of problems that impact on the effective practice of OA operationally from a holistic perspective. This paper aims to bridge this knowledge gap by firstly critically reviewing the extant literature to identify new insights as to what the range of problems is from an operational perspective and secondly developing a conceptual framework of enabling factors to address the problems. The consequent research questions are: What are the issues causing the theory-practice gap from an operational perspective? and: What are the enabling factors necessary to facilitate the holistic application of OAs?

The study applies an agency and institutional theory lens to a variety of international research into operational auditing and suggested ad-hoc problems associated with its practice. The sources utilized include a range of published research (primarily from the last twenty years) that has variously employed quantitative, qualitative, case studies and historical methods. The critical analysis follows a structured pattern of identifying new insights/themes emerging from the literature that provide evidence of problems associated with undertaking the process from an operational perspective. This involves an examination of the theory-practice gap in the following areas: the concept of OA that provides a framework for examining the scope identification, planning and conduct of the fieldwork; structural and functional arrangements for facilitating the undertaking of the audit at the IAF level; and management support and acceptance of the audit findings by the auditee at the The use of emerging themes from scholarly publications as a organizational level. valuable addition to the growth of published research is a research methodology that is being used by a growing number of researchers (Berry et al., 2009).

It is envisaged that the findings of this study will be useful to governance policy makers and the profession (i.e. the IIA) in clearly establishing or refining a standard or best practice guideline in this area for the benefit of internal auditors.

The rest of the paper is arranged as follows. First a brief background on the concept of operational auditing is provided. Next, the theoretical framework that

informs the study is discussed, followed by a critical review of the published literature on the problems facing the effective application of OAs. The review is then used as a basis for developing a conceptual model of enabling factors. The paper ends with a discussion of the findings and a conclusion.

#### 2. The concept of operational auditing

Operational auditing has been broadly described as constituting a review of the operational spectrum of an organization, with the sole purpose of providing management with a status of the 3Es of the organization's operations (Cadmus, 1964). More recently, it has also been described as providing management with essential information about the utilization of resources and operational risk management to ensure that the operations are conducted efficiently, effectively and economically (Azad, 1994; Church & Cooper, 1965; Flesher & Zarzeski, 2002; Lapsley & Pong, 2000). The scope appears wide, and historically the literature reveals that aspects of this broad concept of operational auditing was first observed in China about 3,000 years ago (Adams, 1986). It was subsequently developed in other regions such as Rome (Burrowes & Persson, 2000, p. 85), Greece (Normanton, 1966) and Persia (Farazmand, 1998; Kells & Hodge, 2009).

In Australia, the concept of the OA in the above context was first observed in 1974 and commonly referred to as a "value-for-money" audit (Flesher & Zarzeski, 2002). In the public sector, the Australian National Audit Office (1995, p. 35) referred to it as a "performance audit" (PA), which was defined as:

an independent, objective and systematic examination of the management of an organization, program or function for the purpose of forming an opinion on: whether the organization, program or function is being managed in an economical, efficient and effective manner; the adequacy of internal procedures for promoting and monitoring economy, efficiency, effectiveness; and suggesting ways management practices might be improved.

Other definitions of PAs also encapsulate the importance of assessing the 3Es of organizations. Morgan et al. (2007), for example, defined a PA as providing:

information and assurance about the quality of the management of public resources. It assesses the economy, efficiency, and effectiveness of the management of public sector entities by examining resource use, information systems, delivery of outputs, and outcomes, including performance indicators, monitoring systems, and legal and ethical compliance.

The International Organisation of Supreme Audit Institutions (INTOSAI) described a PA as "the independent examination of the efficiency and effectiveness of government organizations, operations, or policies, with due regard to economy and with the aim of leading to improvements." INTOSAI (2010)

Over the years, the term operational auditing has also been variously described through other terms such as comprehensive auditing, management auditing, and valuefor-money auditing (Flesher & Zarzeski, 2002). The term OA has generally been associated as being practiced in the private sector (Chambers & Rand, 2010; Summa, 2002), while the other terms and specifically PA has been associated as being practiced in the public sector (English, 2007; Funnell & Wade, 2012; Gronlund et al., 2011; Pollitt, 2003; Radcliffe, 1999, 2008). These terms are used interchangeably with the term OA in the rest of this paper to reflect their use in various publications. They essentially all refer to the concept of operational auditing and are therefore also used to determine the various themes that define the problematic factors associated with it. In addition, the terms performance auditors, operational auditors or effectiveness auditors, which are also used interchangeably in this paper to reflect their use in the extant literature, essentially refer to internal auditors who are assigned these specialized audits. The possible perception of different focuses arising from these different terms and confusion they are causing in addressing the aim of operational auditing is acknowledged by a number of studies and recognized in this paper. This problem is discussed separately under the critical review of the extant literature as one of the many problematic factors that needs to be addressed.

#### 3. Theoretical framework of this study

The concept of operational auditing as described in this paper is informed by agency theory and institutional theory. According to agency theory, managers may act in their self-interest at the expense of the interest of shareholders or other stakeholders. The divergence of management and stakeholders goals (Fama, 1980; Fama & Jensen, 1983) has been described as the main problem of the agency theory (Jensen & Meckling, 1976). The information asymmetry problem, where agents tend to have more information than principals, may also contribute to this divergence of interest.

Agency theory further suggests that the different interests may be reduced through a number of control mechanisms, such as external and internal audits. Adams (1994) argues that an internal audit bonds the contractual relationship between principals and agents and assists the principals in overcoming the asymmetry problem. This is achieved by internal auditors providing independent information on the activities of the organization to independent board members through the audit committee, a sub-committee of the board (Anderson et al., 1994; Goodwin-Stewart & Kent, 2006). The wider objective of an internal audit in aligning the interests of the agents with those of the principals is to monitor the activities of the organization and ensure it is managed efficiently and effectively in line with the goals of the principals.

In order to monitor the activities, the current definition of internal auditing refers to two streams of internal audit objectives: the assurance and consulting. Internal auditors provide assurance on the organization's performance and help it to achieve its financial, operational, compliance and strategic objectives (IIA, 2010). They also provide consulting services to management that include assessing the 3Es of operations (Al-Twaijry et al., 2003; Kapoor & Brozzetti, 2012; Page & Spira, 2004; Rezaee, 2009). To this end, OAs have been traditionally used as an internal audit process to provide management with an assurance of the 3Es of the organization's operations (Flesher & Zarzeski, 2002). In the agency theory context, operational auditing undertaken to ensure the 3Es are adhered to is hence a process used by the IAF to align the interests of management with those of the stakeholders.

While most organizations are informed by the above underpinning theoretical framework of governance and internal audit in establishing their IAFs and using the OA as a tool, the absence of any mandatory guidelines for their implementation in Australia does not guarantee their effective application by all organizations. In these cases, the development and implementation of IAFs by organizations are informed by institutional theory. The rationale behind this theoretical argument is that an organization is influenced by the pressures and constraints of its environment (Oliver, 1991). This includes formal corporate governance guidelines and public opinion on good corporate governance (Meyer & Rowan, 1977; Powell and DiMaggio, 1983; Zucker, 1987). In addition, organizations are influenced by a need to conform to institutional beliefs or practices when they are the only conceivable tools to conduct an organizational activity (Zucker, 1987). In essence, they obtain stability and

legitimacy by imitating organizational structures, activities and processes in response to stated pressures, the expectations of professions (Powell & DiMaggio, 1983; Zucker, 1977) and a need to conform to social norms of acceptable behavior (Covaleski & Dirsmith, 1988).

Institutional theoretical assertions are used in the above context to argue that organizations in the absence of mandatory guidelines for the implementation of IAFs comply with best practice guidelines relative to the corporate governance processes within which they operate. These include the use of internal audit processes such as OAs to evaluate the 3Es of an organization's operations (Al-Twaijry et al., 2003; Coenen et al., 2011).

This study is informed by the above two theories that are drawn upon in critically analyzing the literature on the factors impeding the practice of OAs and in developing a framework of enabling factors to facilitate the effective practice of OAs.

## 4. Literature review: themes that define the problematic factors associated with OAs

The insights into the problematic factors emerging from the literature are described under three themes. They are critically analyzed and discussed in detail in this section. The first relates to problems associated with the concept of OAs (suggesting that the scope of the audit is considerably subjective with no specific outcomes); the second relates to problems at the IAF level (delivery of service); and the third relates to problems occurring at the organizational level (conditions facilitating the delivery and acceptance of service).

#### 4.1. Theme 1: OA concept

#### 4.1.1. Varying definitions of efficiency, effectiveness and economy

The various definitions and objectives of OAs point to its main outcome of providing feedback on the 3Es of an organization's operations. There are many definitions of the 3Es that explore their very subjective and extensive scope. The Australian Auditing and Assurance Standard Board (2008, p. 15) defines them as follows:

"Efficiency" means the use of resources such that output is optimized for any given source inputs, or input is minimized for any given quantity and quality of output.

"Effectiveness" means the achievement of objectives or other intended effects of activities at a program or entity level.

"Economy" means the acquisition of the appropriate quality and quantity of resources at the appropriate time and at the lowest prices.

The above definitions reflect the relationship between inputs (economy) to achieve a set of outputs (efficiency) for the purposes of addressing a set of predetermined objectives (effectiveness). Hence, the 3Es cannot be used in isolation from one another as they are interlinked. The 3Es, however, are not very clear in distinguishing their different deliverables from an operational context (Everett, 2003; Kells & Hodge, 2009). The extant literature points to internal auditors facing problems in evaluating these elements in practice largely due to their ambiguous meanings and characteristics (Chambers & Rand, 2010; English, 2007; Gendron et al., 2007; Gronlund et al., 2011; Guthrie & Parker, 1999; Jacobs, 1998). Internal auditors have, as a consequence, faced difficulties in establishing credible versions of what constitutes the 3Es through clear measurable outcomes that can be applied uniformly (Connolly & Hyndman, 2004; English, 2007; Lindeberg, 2007).

Some studies have revealed that performance auditors have only focused on economy and efficiency, as auditing for effectiveness is too challenging (e.g. Arens et al., 2005; Broadbent & Laughlin, 2003; De Muniaín, 2005; Gronlund et al., 2011). Others have used arbitrary "best practice" criteria promulgated by themselves (Gendron et al., 2001). It has also been argued that the purpose of OAs can also sometimes take on a different focus under this scenario (Kells & Hodge, 2009), thus further distorting their original intentions. These different focuses could include a review of compliance and an organization's procedures (Flesher & Zarzeski, 2002; Pollitt & Mul, 1999), accountability and public interest issues (Glynn, 1985), probity issues (Australian Auditing and Assurance Standards Board, 2008; p.16), and equity and ethics issues (Chambers & Rand, 2010).

The above critical reflection from the literature on the problems associated with the 3Es suggest that for OAs to be effective in practice, more needs to be done by internal auditors to clearly establish what constitutes the 3Es of their organization prior to conducting an OA. This argument is also supported by the theoretical proposition that each organization is impacted by their own unique wider influencing forces that shape the governance paradigm associated with that organization and hence the 3Es' controls/boundaries expected thereon (Christopher, 2010). The onus, therefore, is on the internal auditors of each organization to evaluate these controls/boundaries based on the unique wider influencing forces impacting on the governance paradigm of the organization.

It is argued that this new practical insight associated with the conduct of operational auditing provides the basis for defining the first enabling factor for the effective application of an OA as the need for internal auditors to clearly establish the 3Es of an organization prior to conducting an audit. In this regard, it is argued that more research needs to be done towards developing a framework on which the internal auditors of an organization could use to identify and establish the inputs (economy) to achieve a set of outputs (efficiency) for the purposes of addressing a set of predetermined objectives (effectiveness).

#### 4.1.2. Different terminologies for describing OAs

The critical review of the literature further reveals that the problem with the interpretations and outcomes of the 3Es is compounded by the different terminologies used to describe OAs. These terminologies include PAs, consulting services, management audits, value-for-money audits, quality audits, comprehensive audits, efficiency audits, effectiveness audits and project audits (Dahanayake & Jacobs, 2008; Flesher & Zarzeski, 2002; Funnell, 1998; Glynn, 1985; Hossain, 2010; Parker, 1986; Summa, 2002). While all of these different terminologies tend to point toward audits that aim to enhance the 3Es of an organization (Al-Twaijry et al., 2003; Chambers & Rand, 2010; Dahanayake & Jacobs, 2008; Flesher & Zarzeski, 2002; Glynn, 1985; Parker, 1986), have provided different emphases resulting in different expected outcomes in practice. These different emphases add to the confusion for internal auditors in establishing what actually constitutes the expected inputs in undertaking the OA process and outcomes in terms of the deliverables expected.

The published literature points toward both industry and country as influences on the use of terminologies and expected outcomes of such audits. For example, Dahanayake and Jacobs (2008) argue that the term "value-for-money audits" is mostly used in the government sector. In Australia, the use of the term PA is popular in the public sector (English, 2007; Funnell, 2011; Guthrie & Parker, 1999; Hatherly & Parker, 1988; Hossain, 2010; Justesen & Skærbæk, 2010; Kells, 2010; Pollitt & Summa, 1999; Radcliffe, 1999, 2008). The term "operational audits" tends to be popular in the private sector and especially used in the United States (US)(Allegrini et al., 2011; Chambers & Rand, 2010; Summa, 2002).

Problems associated with the different terminologies, mixed usage internationally, and compounded with the vague definitions of the 3Es have been observed in various research studies (e.g. Guthrie & Parker, 1999; Keen, 1999; Lindeberg, 2007).

It is argued that an important insight arising from the problems identified is the need for some clarity and standardization in the OA terminology to facilitate its effective practice. It is recommended that only one term, "operational auditing," be used, and consequently a refined definition in terms of inputs, outcomes expected and alignment with the strategic objectives that reconciles with the concept of the 3Es should be established. This would help remove the current confusion caused by the multiple terminologies used to describe a process that has a common aim. This argument provides the basis for using this new practical insight as a basis for establishing it as the second enabling factor to facilitate the effective application of OAs.

#### 4.1.3. Lack of clear methodology for evaluating the 3Es

Another insight arising from the review of the literature is that the high degree of ambiguity associated with the 3Es, multiple terminologies associated with the process and hence confusion as to the expected outcomes has resulted in there being no clear methodology or criteria for the conduct of OAs. This problem is reflected in the numerous methodologies/criteria introduced, each addressing their own interpretation of the 3Es, what constitutes an OA and the consequent deliverables. These insights are derived from the following analysis of the published literature.

A number of researchers have argued that the existing criteria are ambiguous, limited and unreliable. Jin'e and Dunjia (1997), for example, believed that the criteria for conducting OAs are full of ambiguity because they are subjective and depend on

the auditor's judgment. Arising from this subjectivity is also the challenge of finding a balance between qualitative and quantitative criteria for evaluating outcomes (Barrett, 2011, Pollitt, 2003).

Others such as Reichborn-Kjennerud and Johnsen (2011) found the application of limited criteria a restriction in conducting OAs. They argued that using limited criteria for evaluation of an organization's performance affected the scope of audit questions and evidence to be collected. It is further argued that performance auditors need to use evidence and audit methods for collecting them that are familiar and acceptable for auditees (Keen, 1999). In this regard, the acceptable standard of evidence has been equated to that required for financial audits (Lonsdale, 2008). It is consequently argued that this has been a difficulty for OAs due to the nature of the audit process. The limited nature of collecting evidence for performance/OAs has consequently also restricted the results/quality of PAs (Lonsdale, 2008). In a similar vein, Lapsley and Pong (2000) argued that value for money auditors generally do not provide an accurate explanation of different events as they require evidence from several sources.

Various other researchers specifically refer to the problem associated with conducting OAs as being due to the unreliability of performance indicators. Lapsley and Pong (2000), for example, assert that the lack of reliable performance indicators reduces the quality of the outcomes of PAs. Others state that reporting against the 3Es will be difficult without having suitable performance measures in place (Barrett, 2011; English, 2007; Morin, 2001; Pollitt, 2003; Pollitt et al., 1999; Radcliffe, 1998). With this limitation, these researchers have observed that performance auditors tend to focus on checking rules and regulations instead of reviewing the 3Es in their entirety. Gronlund et al. (2011), for example, observed that two-thirds of PA projects in Sweden had some degree of compliance audits. Their results were consistent with Skærbæk's(2009) results in studies conducted in Denmark. In addition, Glynn (1985) in reviewing value-for-money audits in six countries—Australia, Canada, the UK, New Zealand, the US and Sweden—similarly showed that by the early 1980s there was no standard approach covering all the aspects of value-for-money audits. Johnsen et al. (2001), in examining PAs in local governments of Finland and Norway, found that they were similar to management consulting and public accounting, respectively.

Hamburger (1989), as cited in English (2007), also refers to Auditor Generals adopting strikingly different interpretations of what PAs are and how they should be conducted.

Others in a similar vein argue that the methodology is difficult to determine because the concept of PA is not well understood due to the limited studies about the internal process of performance auditors (Funnell, 1998; Glynn, 1985; Kells & Hodge, 2009; Sloan, 1996). It was further suggested that without a clear understanding of the nature of PAs or OAs, its value would not be clear for the auditees (Kells, 2010). In 2009, Kells and Hodge summarized the different opinions about a PA as cited by various researchers as follows: "distinctive to state audit" (Pollitt & Summa, 1999); "new public management technique" (Everett, 2003); "not a type of audit but evaluation" (Barzelay, 1997); "like management consulting" (Arens et al., 2005); "sound financial management" (ECA, 2009); "what auditors or audit institutions do" (Shand & Anand, 1996); and not concerned with policy or political discussions (McGee, 2002). The different interpretations suggest different outcomes and methodologies to achieve those outcomes.

The above analysis of the published literature reveals the need for a clear methodology that is reconciled with the concept of the 3Es and the revised definition of OA. It is argued that this practical insight is an important factor that needs to be addressed for OAs to be conducted effectively. This new practical insight provides the basis to include it a as the third enabling factor required to facilitate the effective practice of OAs.

#### 4.2 Theme 2: internal audit function level

The IAF essentially provides services that range from compliance and financial audits to consulting types of audits. Under the consulting arm are the OAs, which focus on achieving strategic objectives, managing risk and strengthening corporate governance (Gramling et al., 2004). The credibility of the IAF, especially in providing the consultancy type of audits has, however, been questioned. A critical review of the published literature reveals two related areas that contribute toward this lack of credibility. They relate to the lack of oversight support from the audit committee and the lack of independence of the internal auditors. These are further discussed herewith.

4.2.1. Lack of support from audit committee to provide an oversight role and maintain independence

An important element that contributes to the effectiveness of the IAF and hence the audits it undertakes is the professional oversight support provided by the AC. This is only forthcoming if the IAF reports directly to the AC (Gramling et al., 2004) and if the AC members are independent, appropriately qualified, and experienced (Goodwin-Stewart & Kent, 2006). It was also noted that AC members with such characteristics would invariably have a high level of interaction with the internal auditors, which is important for providing the independence and support required of internal auditors in dealing with management (Raghunandan et al., 2001). The above qualities characterize an effective AC and strengthen the credibility of the IAF in raising matters that affect management (Goodwin & Yeo, 2001; Turley & Zaman, 2004). It follows that it is through this support that OAs, whose main customer is management, can be performed effectively.

The literature, however, reveals that in general, this scenario does not always exist in practice. This is mainly due to the lack of standardized legislation and mandatory guidelines across the world to facilitate compliance with the above best practices for the AC. As a consequence, there are circumstances where ACs do not exert their oversight role over management effectively. Roussy (2013) notes that internal auditors under such circumstances consider any dependency on such audit committees a threat and consequently view management as their authority and influence over their survival. Consistent with this finding is that of another study that refers to internal auditors experiencing more threats when they reported fraud risk to the AC in comparison to when they reported them to management (Norman et al., 2010). It is argued that in the absence of an effective AC, internal auditors have to rely on management support to conduct OAs. This lack of independence invariably questions the credibility of the OA reports (Roussy, 2013).

Notwithstanding the problems that could occur for OAs due to a poor AC-IAF relationship, many studies have argued that a consultancy approach inevitably requires internal auditors to form close relationships with line management and senior management (Reichborn-Kjennerud & Johnsen, 2011). They have raised concerns about the performance auditor's independence, arguing that auditors cannot be independent in an organization where they also act as consultants to management (English, 2007; Everett, 2003; Gendron et al., 2001, 2007; Skærbæk, 2009). It has been

argued that this practice that threatens the auditors' independence may also deflect the directions of the audit from its main purpose.

Others argue that the internal political pressures on internal auditors who are not independent may have a negative impact on the independence and quality of the audit process and outcomes (Funnell, 1998, Lonsdale, 2008, McCrae & Vada, 1997; Pollitt, 2003; Skærbæk, 2009). Gendron et al. (2007), for example, found that although state auditors tended to show that they were not involved in policy-making, they were active in detailing it. Similarly, Radcliffe (1999, 2008) argued that performance auditors tend to act conservatively in disclosing deficiencies of public sector organizations. Others such as Roussy (2013) showed that internal auditors who provide PA services tend to protect the management's interests because of their control over the internal audit budget and staff appointments.

Collectively the above arguments demonstrate that without strong and independent auditors (facilitated by an effective AC), there will be some degree of doubt about the credibility, accountability, efficiency and effectiveness recommendations of internal auditors (Everett, 2003).

The above analysis of the published literature reveals that in practice there is a need for an effective AC to facilitate the provision of OAs in the Audit Charter and the Audit Plan and this should be a prerequisite for conducting OAs. The argument for this new practical insight arising from the literature provides the basis for establishing it as another enabling factor for the effective practice of operational auditing.

# 4.2.2. Resources of the IAF (time, financial resources and skills)

Another problematic factor in conducting OAs identified through the critical analysis of the literature relates to practical issues in the conduct of OAs by internal auditors. These relate to the extensive time periods for its conduct, financial resources and the specialized skills required of internal auditors. These issues are further discussed herewith.

# 4.2.2.1. Time

Various studies have argued that the time required for conducting OAs is problematic (Flesher & Zarzeski, 2002; Pollitt, 2006). OAs have been argued as being a very time consuming process because the nature of the audit require a long process of planning and fieldwork before credible reports can be generated (Kells, 2010;

Reeve, 1981). It has also been argued that the lengthy process of such audits may invariably question the usefulness of the audit process, especially when it leads to out-of-date information and irrelevant reporting (Ernst &Young, 2007; Tillema & Ter Bogt, 2010). It was also observed that the long-term period for conducting, reviewing and publishing PA reports could result in reducing the political interests associated with such a topic (Tillema & Ter Bogt, 2010).

#### 4.2.2.2. Financial resources

Other than the timing period, it has been argued through various studies that the conduct of OAs require sufficient financial resources (Barrett, 2011; Flesher & Zarzeski, 2002). In practice, due to the lack of standardized guidelines as to the structural and functional arrangements to be adhered to in setting up an IAF, most IAFs are subject to their organization's personal decision on this matter. This is often influenced by the budgetary constraints facing an organization. Being not directly involved in operations, the IAF is quite frequently the first to bear the brunt of budgetary constraints and hence forced to operate with limited resources (Kells & Hodge, 2009). This limitation has been argued as resulting in some IAFs not conducting OAs (Al-Twaijry et al., 2003).

#### 4.2.2.3. Skilled staff

The literature reveals that another major contribution to the costliness of OAs is the cost of specialized staff required for conducting OAs. The professionalism of staff (qualified and experienced) has been argued by researchers as a key prerequisite for conducting OAs. Barrett (2011), for example, highlights the significance of such resources for conducting PAs. Lapsley and Pong (2000) revealed that a lack of training by value-for-money auditors could cause deficiencies in the process of understanding the performance of public organizations and that appropriate knowledge and skills were required of internal audit staff to conduct such audits effectively. It has been argued that such skills were especially required given that organizations covered a vast domain that includes knowledge in areas of finance, law, politics or social science (Lonsdale, 2011). Chambers and Rand's (2010) findings also emphasized the need for internal auditors with different backgrounds to conduct PAs, while Christopher's (2012a, 2012b) study of a specific industry in Australia (the higher education sector)

found that management used the internal auditors' lack of professionalism as an excuse to discourage OAs to be conducted by them.

The above practical problems associated with timing, financial resources and the skillset of staff reveal that from a practical point of view these issues have not been addressed adequately in the setting up arrangements for an IAF. In particular, guidance on the issues of adequate timing, financial resources and skill set of staff to conduct OAs have not been standardized as a practical requirement in the set-up of an IAF. As a consequence, IAFs tend to face shortcomings in these areas which have an impact on the effective practice of OAs. This new practical insight arising from the review of the literature suggest more needs to be done in terms of standardization of the structural and functional arrangements of IAFs to facilitate the effective conduct of OAs. This is especially in the area of ensuring there is some alignment between the scope of work via OAs, the skills required of internal auditors conducting such audits and the financial resources to support them. These problematic issues have been used as a basis to include them as important enabling factors to be addressed prior to conducting an OA.

# 4.3 Theme 3: organizational level

# 4.3.1 Absence of management support

The literature review reveals that at the organizational level, the effective implementation of OAs is dependent on the general acceptance of the benefits of such audits by management. Many studies have shown that it is a problem in practice. An important element of the problem is the dependence on management to have an appreciation of the OA process and the benefits it brings to the organization (Al-Twaijry et al., 2003; Khalili et al., 2012). This culture is, however, not consistent across organizations. Lillis and Szwejczewski (2012), for example, found through a case study of six companies in the UK that management's knowledge of audit methods was very weak. In a similar vein, Haidarinejad et al. (2012) revealed that management's lack of knowledge about OAs and their benefits invariably restricted the conduct of OAs within an organization. They found that top managers of public organizations rarely knew the basic elements of OAs, and an increase in their knowledge would contribute to the practice of OAs and an appreciation of its benefits.

Roussy (2013) further emphasized that management support was particularly important as the intrusive nature of OAs into management staff performance could raise some level of resistance to such audits from line managers. An important element of management support toward effective OAs relates to the positive interaction between auditor and auditee (DeVries, 2000; Loocke & Put, 2011; Morin, 2001; Weets, 2011). Many researchers go on to argue that this does not always occur in practice. Weets' (2011) empirical research findings, for example, revealed a great conflict between performance auditors and auditees. Funnell and Wade (2012) similarly showed that auditors and auditees had contradictory perceptions of PAs. These studies show that although internal auditors operate on the positive impacts of PAs and their value-added role, most auditees have negative views of PAs. One of these reasons is the possible negative impact PAs may have on the auditee (Morin, 2003). It is argued that due to this perception, auditees usually try to protect themselves by resisting changes that have an impact on them. This invariably restricts the effectiveness of Pas (Funnell & Wade, 2012; Kells, 2011).

Regarding these negative interactions, Loocke and Put (2011) believe that performance auditors and auditees have to act like partners to enhance the impact of PAs. This view is supported by Morin (2004), whose research on Quebec governmental organizations showed that the auditors' good relationships with managers had a positive impact on the acceptance of their recommendations.

# 4.3.2. Acceptance of OA recommendations

Another associated problem with management support and interaction of auditees with the auditors relates to the acceptance of audit recommendations by the auditees. The literature reveals that the most important part of an OA is its outcomes, which can enhance the governance of an organization. However, the outcome of an OA is only beneficial if it is positively accepted by management, who act on it. Barrett (2011) and Hatherly and Parker (1988) refer to considerable resistance to OA recommendations by management. The resistance has been attributed to two reasons. Firstly, the recommendations of some OAs were argued as being too theoretical, making them difficult to implement. Secondly, the recommendations were argued as not complying with new management practices, alluding to the lack of management skills of internal auditors. Kells (2011), in this regard, also supports the view that performance auditors have limited experience in management.

Loocke and Put (2011) emphasized that the "evaluation culture" of an organization had an impact on management's acceptance of OA recommendations. They noted that if management is open to advice, they accept a PA's recommendations easily. Weets' (2011) case study of three successful PA projects found that openness and commitment of auditees to the PA process and its recommendations was a common characteristic that contributed to its success.

# 4.3.3. Culture of ambiguous governance paradigms, organizational structures and strategic directions

It has also been argued that the presence of ambiguous governance paradigms, organizational structures and strategic directions could have a negative impact on management's acceptance of OAs. This occurs especially if the presence of such a scenario is embedded in the organizational culture, resulting in a lack of commitment by management in making changes for good governance. Everett (2003), for example, found that most of the public sector organizations did not have well-defined objectives, identifiable outputs or clear intervention effects. He noted that the ambiguity in these areas caused difficulties for performance auditors in seeking change through their recommendations. Similarly, Kells (2011) observed that unclear agency goals prevented performance auditors from examining policy requirements, thus limiting their scrutiny to less important issues. In this regard, Johnsen et al. (2001) were of the opinion that the process of goal setting in local government was an essential element of the PA process without which the monitoring of the performance of activities would not be possible. Van der Knaap (2011) emphasized a clear organizational structure, cost awareness culture and adequate governance guidelines as obligatory elements in conducting PAs. Barrett (2011) also observed that if an organization did not have a culture of developing goals and objectives, the performance auditors would tend to focus on less important matters, while Chambers and Rand (2010, p. 12) noted that internal auditors should be aware of management objectives in order to be able to design their audit plan and set their audit objectives.

The problems identified in 4.3.1 to 4.3.3 collectively provide new insights on problems that can exist at the organizational level and impact on the effective conduct of an OA. They generally relate to the poor relational interdependencies between auditor and auditee at the organizational level. Due to a lack of standardization in the accountabilities of management in the use of internal audit and operational audits in

particular, various levels of problems associated with management support have arisen. These new practical insights suggests that more needs to be done from an organizational perspective to obtain management support for OAs. This forms the basis for including the problems identified in items 4.3.1 to 4.3.3 as enabling factors that needs to be addressed for OAs to be conducted effectively.

#### 5. Discussion and conclusion

This paper sought to address a major concern arising from the extant literature of a theory-practice gap in the application of operational auditing, an internal auditing process. To this end, the paper first critically reviewed the extant literature to identify factors contributing to the gap and then used these new insights to develop a conceptual model of enabling factors to facilitate the effective practice of operational auditing.

The context for the practice of operational auditing as traced through the extant literature and confirmed through various definitions of OAs is the 3Es, that is, operational auditing is specifically concerned with providing the board and management with an independent view as to the status of whether the operations of the organization are being managed efficiently, effectively and economically. The critical review of the extant literature revealed new practical insights into the theory-practice gap. They have been analyzed as being attributable to a number of problems occurring through three themes at various levels of the OA process.

The first theme relates to the concept of OAs. Here, the paper provided a detailed account of how the ambiguous meanings and characteristics of the 3Es are causing problems for internal auditors in evaluating them. Studies reveal that as a consequence of these problems, some OAs tend to focus only on a part of the wider picture or have taken on a different focus altogether. The problem is also highlighted by the fact that organizations are impacted by their own set of wider influencing forces that shape their governance paradigm and consequently the boundaries of the 3Es subject to be audited. These different governance paradigms suggest that there are different levels of 3Es for each organization and an additional onus on internal auditors to determine this prior to conducting an audit. Compounding this is the use of different terminologies to describe an OA. These different terminologies have created some confusion as to the expected input and deliverables for the OA process. Following on from these problems is confusion over the criteria or methodology for conducting OAs.

Due to confusion over the inputs and deliverables, there is a variety of criteria in place—some derived through in-house internal auditors and others set by external bodies. These different sets of criteria have led to multiple methodologies. It is argued that a clear improvement for the conduct of effective OAs is that the concept of OA needs to be more clearly defined, with clear input processes developed as criteria to achieve a clear set of outcomes that address the 3Es.

The second theme relates to the practical problems facing internal auditors in their performance and delivery of OAs. A critical review of the extant literature revealed the difficulties some IAFs face in lieu of a lack of support from the audit committee, causing problems in facilitating the conduct of OAs via an audit charter or including OAs in the audit plan. In addition, the review identifies related problems associated with poor audit committee oversight needed for internal auditors to maintain independence when conducting OAs. This is especially relevant when studies also show that the conduct of OAs require a consultancy approach that involves active collaboration and consultation with management. These problems collectively raise concerns with the credibility, accountability, efficiency and effectiveness recommendations of internal auditors. Other practical problems under this theme that contribute to the conduct of OAs and the eventual credibility of the findings relate to the extensive timing required for such audits, the specialized skills required of internal auditors and the consequent financial resources required to undertake such audits. The practical insight arising from these observations is that IAFs operate with no clear guideline to assist them in incorporating these requirements in the structural and functional set ups of IAFs to facilitate the conduct of OAs.

The third theme relates to problems at the organizational level that have an impact on both the effective conduct and deliverables expected of OAs. Under this theme, the paper identifies the absence of management support as an important criterion for the success of conducting OAs. This is particularly required due to the high level of information and/or confidentiality or sensitivity attached to them. It is also required due to the intrusive nature of OAs that can sometimes impact on the employment status of staff members. In some cases the negative connotations associated with certain staff members may attract possible resistance to such audits, and in these cases management support to undertake them is paramount. The analysis of this theme also highlights the weak auditee-auditor interactions in organizations and

the consequent non acceptance of recommendations due to a lack of management support in organizations that have a weak "evaluation culture." Contributing to this weak "evaluation culture" are organizations that have a culture of ambiguous governance paradigms, organizational structures and strategic directions. It was noted that such a culture was a hindrance to the effective practice of OAs as it is difficult to initiate change through OA recommendations in such a culture. The practical insight from these observations is that more needs to be done by way of ensuring there are standardized guidelines for effective auditor-auditee relationship and management support for the conduct of OAs.

The problems identified through the three themes reflect on new insights on problems hindering the effective practice of OAs that need to be addressed. These problematic factors occur from the initiation stage through to the operational stage of the audit process and ends with issues occurring at the output/deliverable stage of the process. These problematic factors described under three themes have been used as a basis to develop a conceptual model of enabling factors to facilitate the effective practice of OAs. The developed model is reflected in Figure 1.

The existence of the problematic factors and consequent need for a set of enabling factors as reflected in the conceptual model suggest that agency oriented controls that underpin the 3Es of an organization's operations have not always been monitored adequately by the IAF. The ineffectiveness of the IAF in this regard suggest that there are loopholes in the governance framework that require internal auditors to ensure that controls put in place to align management's interests with those of the stakeholders are effective. These weaknesses on the part of the IAF can contribute to corporate scandals. The Enron case provides a good example of the validity of the agency theory concept and the effective monitoring role of the IAF through both its assurance and consulting roles. In the Enron case it was noted that ineffective monitoring of controls had allowed self-interested managers to strip the wealth of the company's shareholders, leaving them with little or nothing of their investments (Clarke, 2005). This characteristic of the outcome of a lack of monitoring is common in all corporate scandals. It is argued that many of the corporate scandals could have been prevented through the conduct of effective OAs. Such audits would promptly highlight problems occurring at the effectiveness, efficiency and economy level of the operations of an organization for prompt corrective action by the Audit Committee.

Underpinning the problematic factors as identified through the three themes is a wider problem associated with the practice of OAs. It stems from the fact that internal auditing is generally not a mandatory role that is supported by legislation. Internal auditors are also not mandatorily required to be members of the IIA and hence guided by the profession's professional standards and/or best practice guidelines. Rather, the IAF establishment in organizations has generally been influenced by best practice corporate governance legislation and/or guidelines. Its level of implementation is drawn from institutional theory characteristics that provide for organizations to set up IAFs due to political and conformance pressures from its environment such as governance guidelines and public opinion on good governance (Meyer & Rowan, 1977; Oliver, 1991; Powell & DiMaggio, 1983; Zucker, 1977). Such pressures are common in developed countries where there is considerable pressure on good corporate governance. These pressures can include the provision for the establishment of IAFs and of audit committees to provide an oversight role through a direct reporting line from the head of the IAF.

This wider problem suggests that not all IAFs experience the same level of tensions in conducting OAs. It is argued that organizations lie along a spectrum, with those in countries that have strong governance guidelines and mandatory requirements for audit committees and/or internal auditors reflecting a better management culture for the practice of operational auditing. Irrespective of this comfort, the present scenario as reflected through the critical analysis of the published literature reveals that the flexibility afforded to the structural and functional arrangements of IAF and their relationships with the audit committee and management do not adequately address all the problematic factors; hence their continued existence.

To conclude, this paper has identified new practical insights from a critical review of the published literature into problems associated with conducting OAs effectively. To address the theory practice gap arising from these problems, the paper has developed a conceptual framework of enabling factors to facilitate the effective practice of operational auditing. Being a first attempt in developing a model for the effective conduct of OAs, it is acknowledged that further research needs to be done to confirm and/or refine the constructs of the model. This paper aims to stimulate debates and further research towards narrowing the current theory-practice gap in the effective conduct of OAs.

The findings of this study has potential policy implications for the profession (the IIA) and/or governance policy makers to address each of the enabling factors and develop a new or refined standard for the effective conduct of OAs. A lobby toward mandatory establishments of IAFs in organizations in line with the conceptual framework for operational auditing and membership of the IIA will particularly assist in achieving consistency and quality in the conduct of OAs, enhance the credibility of internal auditors and narrow the theory practice gap in the conduct of OAs.

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Figure 1: Conceptual model of enabling factors for conducting operational audits.

