THE TRAINING OF A FORENSIC ACCOUNTANT IN SOUTH AFRICA

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Words of gratitude:

The words of the legendary South African poet, Koos du Plessis, summarises our existence on planet earth beautifully:

"Wat ek is, is net genade; wat ek het is net geleen"

It was indeed a privilege to perform this study.

Special thanks to the following people:

- My wife Riana;
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ABSTRACT

Although the financial and social implications of the recent major corporate scandals like Enron, Parmalat and Fidentia (Cameron, 2007) were extremely severe and the reputation of the external auditor scarred, one could state that never before was the role of the external auditor so much under the spotlight and the global focus on fraud and corruption so intense. So, for example was the passing of the Sarbanes Oxley Act and SAS 99 in the United States merely as a direct consequence of a post-Enron remedial action (Silverstone and Sheetz, 2004: 11-14).

Not only globally, but also in South Africa, the focus shifted from mere expressions of opinions on financial statements to a greater awareness, detection and control of commercial crime. This is substantiated by what appears to be the large growth in private forensic investigative and accounting groups, increasing governmental investigative units and extensive media coverage of fraud and corruption scandals (i.e. Shaik, Leisurenet and Fidentia).

The objective of this study is to highlight the important role(s) and prominence of South African forensic accountants through a conceptualization and clarification of:

- the term “forensic accountant”,
- the services rendered by forensic accountants and the demand for forensic-related services, and
- the importance of perceived benefits of forensic accounting training.

The main objective of this study is therefore to determine a core curriculum content of topics of knowledge and skills required, which is essential to the training of a forensic accountant in South Africa.

From the literature review and empirical survey, a definition for a forensic accountant is proposed, it was found that the future demand and interest in forensic-related services will increase, that benefits obtained from forensic accounting education were significant and a core curriculum of 46 forensic accounting topics were identified and ranked in terms of importance.

**Keywords:** forensic accounting, forensic education/training, forensic accountant, commercial crime, forensic accountancy.
# TABLE OF CONTENTS

## CHAPTER 1  
PURPOSE, SCOPE AND PROGRESS OF STUDY

1.1 Introduction and background ................................................................. 1  
1.2 Motivation ......................................................................................... 4  
1.3 Problem statement ......................................................................... 7  
1.4 Research objectives ..................................................................... 8  
1.5 Hypothesis ..................................................................................... 9  
1.6 Method of research ...................................................................... 9  
1.6.1 Literature review ..................................................................... 9  
1.6.2 Empirical research ................................................................ 9  
1.7 Progress of study ......................................................................... 11  
1.8 Conclusion ..................................................................................... 12  

## CHAPTER 2  
DEFINING THE SOUTH AFRICAN FORENSIC ACCOUNTANT

2.1 Introduction .................................................................................. 14  
2.2 Conceptualisation ........................................................................ 14  
2.2.1 Clarification of commercial crimes ........................................... 15  
2.2.2 Regulatory bodies ..................................................................... 17  
2.3 Defining a forensic accountant ....................................................... 21  
2.3.1 Terminology ............................................................................ 22  
2.3.2 United States perspective: Fraud examiner .......................... 27  
2.3.3 Canadian perspective: Institute of Forensic Investigative Accountants ......................................................... 28  
2.3.4 Formulating the definition of a South African forensic accountant ......................................................... 29  
2.4 Conclusion ..................................................................................... 31  

## CHAPTER 3  
THE WORKING ENVIRONMENT OF A SOUTH AFRICAN FORENSIC ACCOUNTANT

3.1 Introduction .................................................................................. 34  
3.2 Services rendered by forensic accountants: Service-line offerings within forensic divisions of the traditional “big 4” audit firms ......................................................... 35  
3.3 Services rendered by forensic accountants: Application of knowledge skills and attributes .................................................................................................................... 39  
3.4 The need for forensic accountants .................................................. 44  
3.5 The need for training of the forensic accountant ............................ 46  
3.6 Determining forensic accounting curricula ...................................... 48  
3.7 Conclusion ..................................................................................... 48  

## CHAPTER 4  
DETERMINING THE CORE CURRICULUM CONTENT OF TOPICS FOR THE TRAINING OF A FORENSIC ACCOUNTANT IN SOUTH AFRICA

4.1 Introduction .................................................................................. 51  
4.2 Method of investigation ................................................................ 52  
4.2.1 Developing the contents of the questionnaire ........................... 52
4.2.2 The sample size ................................................................. 53
4.2.3 Analysis of the information ................................................... 56
4.3 Profile of the respondents ....................................................... 57
4.3.1 Sector of employment ......................................................... 57
4.3.2 Position of employment ....................................................... 58
4.3.3 Years experience in forensic investigations .......................... 59
4.3.4 Field of former tertiary education ......................................... 60
4.3.5 Link between position and years of experience in forensic investigations ......................................................... 60
4.4 The need for forensic accounting training ................................ 62
4.4.1 Future demand and interest in areas of forensic-related services ................................................................. 62
4.4.2 Importance of the perceived benefits of forensic accounting education ......................................................... 63
4.5 Importance of forensic accounting curriculum topics ............... 64
4.6 Regulating the forensic investigative environment .................. 68
4.6.1 Importance of regulating the forensic investigative environment ................................................................. 68
4.6.2 Inclusion of internships as part of the educational profile of forensic specialists ................................................................. 69
4.7 Conclusion ............................................................................ 70

CHAPTER 5
CONCLUSIONS AND RECOMMENDATIONS ON THE TRAINING OF A FORENSIC ACCOUNTANT IN SOUTH AFRICA
5.1 Introduction ........................................................................... 72
5.2 Defining a South African forensic accountant .......................... 73
5.3 The services rendered by forensic accountants ...................... 74
5.3.1 Skills and attributes ........................................................... 74
5.3.2 Need for forensic accountants .............................................. 75
5.3.3 Need for the training of forensic accountants ...................... 75
5.3.4 Future demand and interest for forensic-related services ....... 76
5.3.5 Perceived benefits of forensic accounting training ............... 76
5.4 Core curriculum content of topics for the training of a forensic accountant in South Africa ................................................................. 77
5.5 Regulation of the forensic investigative environment .............. 77

ANNEXURE 1
LETTER ACCOMPANYING QUESTIONNAIRE .................................. 79

ANNEXURE 2
QUESTIONNAIRE ........................................................................ 80

BIBLIOGRAPHY ........................................................................... 84
LIST OF DIAGRAMS

Diagram 2.1 : Definition of a South African forensic accountant ........................................... 33
Diagram 4.1 : Sectors of employment .................................................................................. 57
Diagram 4.2 : Position of employment ................................................................................ 58
Diagram 4.3 : Experience in forensic investigations ............................................................ 59
Diagram 4.4 : Formal tertiary education ............................................................................ 60
Diagram 4.5 : Experience (in years) of top management ..................................................... 61
Diagram 4.6 : Profile of respondents with more than ten years forensic investigative experience .......................................................... 61
Diagram 4.7 : Percentage of respondents indicating expected increases in the future demand for forensic related services ....................................................... 62
Diagram 4.8 : Importance of perceived benefits of forensic accounting training for responses of four (80% and higher) to five ........................................ 63
Diagram 4.9 : Comparison of most important topics as per mean, top management and experience of more than ten years ............................................... 65
Diagram 4.10 : Rating the importance of an institute for forensic specialists .................. 68
Diagram 4.11 : Inclusion of compulsory internship ............................................................. 69
LIST OF TABLES

Table 4.1 : Ranking of perceived benefits according to mean ........................................ 64

Table 4.2 : Ranking of forensic accounting topics according to mean ......................... 66
CHAPTER 1
PURPOSE, SCOPE AND PROGRESS OF STUDY

1.1 Introduction and Background

Although the financial and social implications of the recent major corporate scandals like Enron, Parmalat and Fidentia (Cameron, 2007) were extremely severe and the reputation of the external auditor scarred, one could state that never before was the role of the external auditor so much under the spotlight and the global focus on fraud and corruption so intense. So, for example, was the passing of the Sarbanes Oxley Act and SAS 99 in the United States a direct consequence of a post-Enron remedial action (Silverstone and Sheetz, 2004: 11-14).

Observation of the extent of various commercial crime-fighting divisions within the South African state institutions (Directorate of Special Operations (DSO, 2008), Special Investigating Unit (SIU, 2008), Commercial Branch of the South African Police Service (SAPS, 2008b)), forensic investigative units of traditional audit firms (KPMG, 2008), forensic divisions of large legal firms (ENS, 2008), internal forensic units of commercial banks (ABSA, 2008), forensic divisions of large corporations and life insurance companies, to list but a few, are all evidential to the existence of units contributing to the combating of misconduct, irregularities, fraud, corruption and other forms of commercial crime. This chapter will illustrate that the phenomenon of “forensic accountancy” is one which is evident, new and ever-increasing as part of these forensic crime-fighting divisions. It is therefore essential to portray the commercial crime environment which necessitates the use of and need for forensic accountants.

Statistics obtained from the South African Police Service (SAPS, 2006) indicate the reported commercial crime cases for the 2005/2006 period in South Africa as 54 214, constituting a 0.5% increase from the 53 931 reported cases in 2004/2005. The ratio per 100 000 of the population varies between 130.4 in 2001/2002 and 115.6 in 2005/2006. This indicates a fairly constant occurrence of reported commercial crime cases up to 2006. However, more recent statistics (SAPS, 2008) indicate the reported commercial crime cases for 2007/2008 as 65 286 which is 20.42% higher than
2005/2006 and constitutes the highest level since the earliest date of available statistics in 2001.

However, in interpretation of the above, the following should be taken into account in the analysis of commercial crime statistics:

- The definition of “commercial crime” needs to be clarified;
- It is probable that not all instances of “commercial crime” are reportable;
- It is probable that not all instances of commercial crime are detected;
- It is probable that not all instances of commercial crime which have been detected are reported for purposes of criminal prosecution (as civil remedies might have been imposed) for reasons which might include *inter alia* skepticism in the judicial process; negative publicity, fear of counterclaims and costs of proper forensic investigations; and
- The majority of commercial crime including employee fraud might not be detected at all.

One therefore cannot rely on reported SAPS-commercial crime statistics alone when assessing the extent of commercial crime and financial misconduct in South Africa. Therefore, with the difficulty in analysing the proven costs and extent of commercial crime, indicators would have to include reliable surveys from organizations and large corporations. Most of these surveys are based upon perceptions of individuals or information obtained from a sample of participating role players.

According to the Association of Certified Fraud Examiners’ Report to the Nation on Occupational Fraud and Abuse (ACFE, 2006), where a study has been done based on data compiled from 1 134 cases of occupational fraud that were investigated between January 2004 and January 2006, participants in the study estimate that United States organizations lose 5% of their annual revenue to fraud, compared to a 6% estimate in 2004. A figure of 5% would translate to approximately $652 billion in fraud losses in the United States. When this figure of 5% is applied to the South African seasonally adjusted and annualised gross domestic product (GDP) for the first quarter of 2008 (Statistics South Africa, 2008) of R1123 billion it will amount to an estimate of
R56 150 million in losses incurred in South Africa per annum as a result of fraud (fraud in the context of the ACFE's definition). It is interesting to note that when this amount of R56 150 million is divided by the number of reported crime cases for 2007/2008 of 65 286, it amounts to approximately R860 061.89 per case of reported crime. The problematic nature of reported crime statistics have been explained in the previous paragraphs.

According to PWC’s Global Economic Crime Survey (PWC, 2005: 1-30), 45% of companies worldwide have fallen prey to economic crime in the then previous two years, which constituted an 8% increase on their earlier survey. The South African perspective revealed a more threatening situation where 83% of the surveyed companies/organizations reported being subjected to economic crime in the then previous two years.

According to PWC’s more recent Global Economic Crime Survey (PWC, 2007: 1-42), the figure remained fairly constant, stating that 43% of the 5 428 companies in 40 countries reported suffering one or more significant economic crimes during the previous two years. The South African perspective indicated that 72% of companies reported that they had fallen prey to economic crime in the last two years. Although much higher than the global incidence, South Africa experienced a decline in economic crime at a rate higher than that experienced globally. Furthermore, it appears that South Africa’s reaction to the detection of fraud is more severe than the global picture, as 64% of respondents indicated that criminal action had been taken, compared to only 50% globally whilst 51% of respondents indicated that the perpetrator was dismissed, compared to 40% globally. These might be signs that the fight against fraud and corruption might be gaining ground, although 23% of the respondents stated that they believe fraud will increase in the next two years. The latter could also be an explanation of the increase in reported commercial crime cases according to the SAPS.

According to Transparency International’s Corruption Perception Index for 2007 (Transparency International, 2007), South Africa is ranked at number 43 out of 179 countries with a score of 5.1. According to Transparency International the CPI score relates to perceptions of the degree of corruption as seen by business people and
country analysts, and ranges between ten (highly clean) and zero (highly corrupt). It should be noted that only 46 of the 179 countries obtained a score of five and higher. South Africa's score of 5.1 is low and tends to be perceived as corrupt.

The abovementioned statistics and surveys emphasise that the occurrence of fraud and corruption is a constant and possibly increasing factor. Forensic accountants are therefore becoming more and more relevant in the fight against commercial crime.

1.2 Motivation


According to Ramaswamy (2005: 68-70) the need for forensic accounting skills have become crucial in solving manipulations of financial statements, especially in the aftermath of this century's great corporate collapses. Ramaswamy further emphasises that the financial community is finding itself in additional need of forensic accounting skills. This is even more true in the light of the financial communities' compliance with their responsibilities towards reporting to stakeholders, bringing about more need for forensic accounting skills than those offered through previous statutory audits.

Forensic accounting has always been part of the accounting landscape, but has recently became more prominent due to the corporate financial scandals making news, according to Messmer (2004a: 19). Messmer further states:

"Many accounting firms are adding forensic accounting practices to their operations, and many accountants are seizing the opportunity for a dynamic new career path".

According to Percy (2007: 8), the then Chancellor Gordon Brown has publicly acknowledged the crucial role accountants play in fighting terrorism and that he has
compared forensic accounting with earlier developments such as fingerprinting and DNA analysis indicating that even senior public officials in governments realise the critical role forensic accountants play, being so broadly defined as to include assistance in the global fight against terrorism.

Not only globally, but also in South Africa, the focus has shifted from mere expressions of opinions on financial statements to a greater awareness, detection and control of commercial crime. This is substantiated by what appears to be the large growth in private and public forensic investigative groupings and extensive media coverage of fraud and corruption trials (examples include: Shaik, Fidentia, the government’s weapons deal, Morkel, etc.).

Marx (2005: 12-13) refers to the ethical scandal of Parmalat as it shows that bribery and corruption are becoming an increasing feature of daily life. On the other hand, Du Plessis (2001: 4-6) supplies the following reasons for the demand in forensic accounting services:

- Increases in fraud and corruption and the consequent increase in white-collar crime;
- Increase in globalization and world trade, which leads to complicated company structures and transactions;
- Increase in legislation in order to accommodate trade between countries;
- Increases in democracy and human rights, which cause individuals and companies to revert to litigation to enforce their political and commercial interests; and
- The growth in the use of, and sophistication of technology used in businesses.

Van der Walt (2005: 6-7) discusses the need for and difference between accounting and legal professional staff in forensic practices and further stipulates that the profile of the forensic investigator had increased as a result of the market demanding increased forensic services and service delivery. He further refers to the forensic service industry which he regards as a global growing industry.
According to Grippo and Ibex (2003: 4), the need for forensic accountants is the result of white-collar crime, business disputes and other claims while Keelan (2004: 122) regards the great need for forensic accountants as a result of the fact that business becomes increasingly global and complex, accordingly the number of deals that go wrong, whether through greed, error or just badly drawn-up contracts, will continue to rise.

It therefore appears that the presence of the forensic investigator/accountant in a complex world of fraud, corruption and commercial crime is indispensable. It is therefore not a matter of debating whether there is a demand for forensic accountants globally and in South Africa, as seen in the light of increases in fraud and corruption, but rather a question of how that growing need for forensic accountants and specialised service delivery should be satisfied. As part of satisfying this demand for forensic accountants dictated by the market, universities, organizations and every institution involved in the training and utilization of these professionals, will have to know the outcomes of what a forensic accountant should know pertaining to their training, education, ethical standards and statutory regulation.

Oberholzer (2002: 5-8) is of the opinion that South Africa suffers from a lack of professional standards and regulation in respect of the forensic accounting profession. He states that the discipline of forensic accounting lacks an academic, theoretical basis as well as professional regulation. (Further refer to Carnes and Gierlasinski, 2001: 378 – 382; Grippo and Ibex, 2003: 4-5; Garvey, 2006: 1; Kleyman, 2006: 1-22).

According to Du Plessis (2001: 4-6), the services rendered by a forensic accountant is an area of specialization in a multi-disciplinary profession, which consists of accountants, lawyers and individuals formerly employed by investigating agencies. He also refers to the lack of formal forensic accounting education.

The requirements with which the forensic accountants are faced in a continuously changing business environment necessitates specialisation in various related and non-related areas of expertise. It appears as if this problem is normally circumvented by forensic investigative accounting groups through combining “experts” in investigative methodology, accounting and law respectively into one forensic investigative
accounting group. A situation therefore arises where the individuals within such a forensic investigative accounting group obtain knowledge of the related fields of expertise (the accountant for example acquires legal investigative skills) through experience.

In concluding the motivation for this research, the following aspects are eminent:

- The global economic environment, after the recent corporate scandals and audit failures, requires the skills of forensic accountants to look beyond the mere fair representation of financial statements and into the prevention, detection, control and prosecution of commercial crimes and misconduct. The need for these so-called "bloodhounds" instead of just "watchdogs" in the commercial environment has drastically increased and still appears to increase at an alarming rate; and

- The South African forensic accounting environment, as part of the commercial crime environment, would obviously not be the same as that of the United States or other parts of the world, but the relevance of training a South African forensic accountant and the determination of what constitutes the topics of such training, remain questions to be answered.

1.3 Problem Statement

The South African forensic accountant is expected to operate as a specialist in a multi-disciplinary and increasingly relevant profession and growing commercial crime environment, whilst the following questions remain eminent:

- What is the definition of a South African forensic accountant?
- What services are rendered by a South African forensic accountant?
- What is the demand for forensic-related services?
- What is the importance and perceived benefits of forensic accounting training?
- What would the core curriculum contents of such formal training entail? and
- What is the role of regulation within the forensic investigative environment?
1.4 Research Objectives

In order to address the issues mentioned in the problem statement, the primary objectives of this research will be to:

1) Define the term “South African forensic accountant”.
   This objective will be addressed through the review of literature as contained in chapter two.

2) Determine services rendered by forensic accountants.
   This will include a review of literature and a comparison of the service-line offerings of forensic investigative units as contained in chapters two and three. Secondary objectives will be:
   i. to establish the skills and attributes necessary to render these services (as addressed in chapter three);
   ii. to determine the need for forensic accountants (as addressed in chapter three);
   iii. to determine the need for the training of forensic accountants (as addressed in chapter three);
   iv. to establish the future demand and interest for some of these forensic-related services (as addressed through the empirical survey in chapter four); and
   v. to evaluate the perceived benefits of forensic accounting training (as addressed in chapter four).

3) Determine a core curriculum content of topics of knowledge and skills required which is essential to the education and training of the South African forensic accountant.
   This objective will be addressed through the results of the empirical study as contained in chapter four.

4) Determine the importance of regulating the forensic investigative environment.
   This objective will be addressed through literature review in chapter two and the results of the empirical study as contained in chapter four.

5) Conclude and recommend regarding the training of South African forensic accountants.
   This objective will be addressed in chapter five.
1.5 **Hypothesis**

It is at this stage redundant to point out the critical role of the forensic accountant in a post-Enron and crime-infested commercial environment. As indicated earlier, various factors contributed to this critical role, of which the increase in commercial crime in a modern and complicated business environment is but one of the main reasons. The demand for forensic accountants as part of the global commercial crime-fighting initiative should be one of increasing significance. The question unavoidably arises whether supply will catch up with demand where “demand” necessarily includes forensic accountants adhering to the professional requirements both in terms of service-delivery and training.

A hypothesis can therefore be formulated as follows:

*In order to effectively and efficiently perform professional duties as a South African forensic accountant, such an individual would need to obtain the necessary skills and knowledge through formal training and education in specific relevant areas of significance.*

1.6 **Method of Research**

1.6.1 **Literature Review**

A literature study has been done through review of as much as possible of the available and relevant literature. The literature consists of books, applicable journal and web-based articles, study guides, web-pages of the forensic service-line offerings of KPMG, Ernst and Young (E&Y), Pricewaterhousecoopers (PWC) and Deloitte and Touche (DELOITTE) and informational material pertaining to courses in forensic accountancy or related fields of study offered at academic or other institutions and other publications.

1.6.2 **Empirical Research**

The empirical survey has been done by way of a questionnaire to the major role players across the forensic investigative environment who attended the meeting (Minutes, 2007) at the Johannesburg Country Club on 2 August 2007 (which was
unique and perhaps the first in South Africa) for considering the founding of a regulatory body for the control of forensic service-line offerings. The questionnaire was also provided for completion to the post graduate (first and second year Magister) students in Forensic Accountancy at the Potchefstroom Campus of the North-West University of whom the majority are involved in the forensic investigative environment. A total of 80 completed questionnaires were received. The questionnaire consists of 13 questions (Annexure 2, pages 80 to 83). This empirical survey was based on the work done by Rezaee et al. (2004: 1-44). This study (Rezaee et al.) examines both accounting academics’ and practitioners’ views of:

- demand for and interest in forensic accounting education;
- relevance of forensic accounting education;
- methods of integrating forensic accounting into the accounting curriculum; and
- topical content of forensic accounting education.

The study of Rezaee et al. reviewed a sample of 21 universities that were offering forensic accounting-related courses and consequently identified 49 curriculum content topics that were presented to academics and practitioners to indicate the importance thereof to be included in a forensic accounting course or modules integrated into an auditing course. This study has relied on the principle of presenting curriculum content topics to major role players subsequent to the adaption thereof for the South African scenario.

Similarities between this study and that of Rezaee et al. include the utilisation and adaption of their questionnaire questions, with specific reference to this study’s questions six, eight and nine (Annexure 2, pages 80 to 83). The following dissimilarities are evident:

- Rezaee’s study focuses on academics (of accounting background) and practitioners in the United States, whilst this study’s emphasis was based on the views of major role players in the South African forensic investigative environment,
- Questions six, eight and nine (Annexure 2, pages 80 to 83) of this study have been adapted to address South African specific environmental factors as outlined and explained in the subsequent chapters of this study, and
• This study’s objectives are more narrowly defined than the objectives of Rezaee et al.

The concept questionnaire was presented to the three lecturers of the Programme for Forensic Accountancy at the Potchefstroom campus of the North-West University in order to determine the understandability and relevance of questions. Since questions six, eight and nine were based in principle on the study performed by Rezaee et al., critical adjustments were made in conjunction with the three lecturers in order to adapt the questionnaire to the South African specific environment.

Questions six, eight and nine of the questionnaire (Annexure 2, pages 80 to 83) were adapted to include fields of forensic-related services as determined by the definition of a South African forensic accountant.

Question nine specifically divided the forensic accounting topics under the following headings:

• Accounting/Auditing-related;
• Law-related;
• IT-related;
• Investigation-related; and
• Supportive subjects.

Respondents had the opportunity to list and rate additional topics at the end of question 9 of the questionnaire in order to contribute to completeness. This has been processed by the Department of Statistical Consultation Services of the North-West University.

1.7 Progress of Study

Chapter 1: Purpose, Scope and Progress of Study

A motivation for conducting the research subsequent to explaining the state of commercial crime globally and in South Africa is provided. The research objectives, purpose and the extent, method for research, problem statement, hypothesis and proposed outline of chapters are elaborated upon.

Chapter 2: Defining the South African Forensic Accountant

The South African forensic accountant is defined including the services rendered by the latter.
Chapter 3: The working environment of a South African Forensic Accountant
The services rendered by forensic accountants and the forensic divisions of the traditional audit firms as well as the skills required in rendering these services, are conceptualised. The need for forensic accountants and the relevance of the training are evaluated and considered, whilst, through literature study, the possible curriculum content for educating forensic accountants are determined.

Chapter 4: Determining the core curriculum content of topics for the training of a forensic accountant in South Africa
The method for conducting empirical research is discussed and responses as a result of the questionnaire are included. The latter is discussed as follows:

• Introduction: The purpose of the question is mentioned
• Result: The result of the response to the question is graphically presented
• Inference: An inference is deduced from the responses obtained from each question, without making a final conclusion. The latter will be dealt with in chapter five.

Chapter 5: Conclusions and Recommendations
Conclusions are made based on the objectives as outlined in chapter one. Recommendations are made regarding possible areas of further research and based on the conclusions reached.

1.8 Conclusion
This chapter outlines the current perceptions and views on commercial crime, including fraud and corruption with specific reference to the South African scenario. The foundation of the problem is that in the light of increases in commercial crime and corporate failures and considering the failures of the audit profession in recent years, a new breed of financial investigators known as forensic accountants have surfaced. The training of South African forensic accountants is still in its infancy and the hypothesis of the need for training and education in order to perform his/her duties as forensic accountant is explained. The objectives are therefore outlined in conjunction with the method of research, which is based on a literature review as well as empirical testing via means of a questionnaire. In the last instance the outline of the five chapters is discussed. The structure of this research makes provision for the literature study in chapters two and three, whilst the empirical study is dealt with in chapter four.
This study will make the following contributions to the expansion of knowledge:

- A curriculum content for educating a South African forensic accountant will be established and tested in terms of relevance. This should be useful for academics and entities involved in the employment and training of forensic accountants.

- The study will expand on the services rendered by forensic accountants, provide a definition of a forensic accountant as well as explaining the need for forensic accountants, thus enabling future forensic accountants to obtain an understanding of the forensic investigative environment and considering a possible career as future forensic accountant.

- Current forensic accountants will be able to use this study as basis for further progress in the field of self-regulation and establishing an institute for forensic professionals, due to the results obtained from the empirical research as well as definitions identified through this study.
CHAPTER 2: DEFINING THE SOUTH AFRICAN FORENSIC ACCOUNTANT

2.1 Introduction
This chapter will attempt to define the term “South African Forensic Accountant” as outlined in research objective 1, paragraph 1.4 on page 8 and to describe regulation initiatives as outlined in research objective 4, paragraph 1.4 on page 8. The forensic accounting profession might be considered relatively young and each country in the world will affix its own requirements in terms of defining the forensic accountant. The United States-based ACFE, for instance, seems to prefer the tapered term “fraud examiner” (ACFE, 2006), whilst numerous other perhaps more relevant and accurate descriptions are evident as outlined in this chapter. To define the environment in which the forensic accountant operates will contribute to the formulation of a definition. Defining the environment will undoubtedly include the clarification of concepts such as “fraud”, “theft”, “corruption”, “commercial crime”, “economic crime” and “white-collar crime”. This chapter will additionally describe the role of proposed professional regulating bodies and similar initiatives in South Africa insofar as defining the South African forensic accountant is concerned. Once the role and definition of a forensic accountant has been established, one would be able to outline the training requirements of such a professional, which will be elaborated on in chapter 3 of this study. This chapter will conclude with a formulated definition of a South African forensic accountant.

2.2 Conceptualisation
A literature overview pertaining to the topic of the South African forensic accountant is faced with major obstacles in itself, due to the fact that the “profession” of forensic accountancy is in many ways regarded as “new”, “specialised” and consequently maybe not be as well defined and described by authoritative sources as the case of for instance the external auditor would be. It might appear as if the specialist field of forensic accountants in South Africa strongly emerged when the big audit firms commenced with their forensic practices in the early 1990’s (Van der Walt, 2005: 6), notwithstanding the fact that the commercial branches of the South African Police Services have been in operation long before that. It is also common knowledge that crime in a commercial environment, including fraud and deception, has been part of
the human nature since the earliest recordings, including the Bible's version of Eve's fraudulent deception of Adam with the delicious fruit of knowledge. To persist in a debate as to the age of the forensic accounting profession is beyond this research.

In order to avoid uncertainty certain types of related commercial crimes should be briefly defined.

### 2.2.1 Clarification of commercial crimes

According to PWC's Global Economic Crime Survey (2005: 1-30), certain "fraud" terms are defined within the domain of "economic crime". So for example "economic crime" or "fraud" would be defined as generic terms used in their survey to denote wrongful or criminal activities to or in a organisation, intended to result in the gain of money or benefits for the perpetrator. This very broad generic definition reflects three aspects, namely within or to organisations, the benefit of money and being part of criminal activity. The study provides further definitions for:

- **Asset misappropriation**, including embezzlement as the theft of company assets;
- **Financial misrepresentation** where the company's accounts are altered or presented in such a way that they do not reflect the true value or financial activities of the company;
- **Corruption and bribery, including racketeering and extortion** as the unlawful use of an official position to gain an advantage in contravention of duty; and
- **Money laundering** as actions intended to legitimise the proceeds of crime by disguising their true origins.

The abovementioned global and generic definitions as per PWC's global survey, do not provide a substitute for specific definitions contained within specific South African legislation and common law. So for example is money laundering dealt with under the Financial Intelligence Centre Act, 2001 (Act No 38 of 2001) (FICA) and Prevention of Organised Crime Act, 1998 (Act No 38 of 2001) (POCA), whilst corruption is dealt with under the Prevention and Combating of Corrupt Activities Act, 2004 (Act No 12 of 2004) (PRECCA).
Wille et al. (2007: 219) explains the term "white-collar crime" as crimes including embezzlement, fraud, or stealing office equipment, committed by business or professional people while working at their occupations. The writers imply an element of literacy and education and refer to the Worldcom billion dollar accounting scandal in this regard. The authors further explain that perpetrators of financial crime are renowned in the latest commercial, legislative and law enforcement developments and that the most popular vehicle used by perpetrators is the corporation (2007: 211). The forensic accountant will therefore work within an environment of professional, educated transgressors which necessitates specific skills and knowledge to counter the masterminds behind the crimes.

Snyman’s (2002: 520) definition of fraud is stated as the unlawful and intentional making of a misrepresentation which causes actual prejudice or which is potentially prejudicial to another. This definition is also echoed by Burchell and Milton (2006: 833). Snyman (2002: 520) lists the four elements of fraud as:

1. misrepresentation;
2. prejudice or potential prejudice;
3. unlawfulness; and
4. intention.

The role of a forensic accountant in the detection, prevention and investigation of fraud will be elaborated on later. At this stage it is sufficient to state that fraud within a financial and accounting environment will constitute the focal point of the forensic accountant.

Snyman (2002: 469) defines theft as the unlawful and intentional appropriation of property, provided that the intention is to permanently deprive the person entitled to the possession of the property. This definition is virtually echoed by Burchell and Milton (2006: 782). Snyman (2002: 532) defines other types of theft, for instance theft by false pretences as a person unlawfully and intentionally obtaining property belonging to another with the consent of the person from whom he/she obtains it, such consent being given as a result of a misrepresentation by the person appropriating the asset. Again, the applicability of financial, accounting-related aspects of the crime(s) will fall within the ambit of the forensic accountant as not all forms of theft will require the proficiency of a forensic accountant.
One role of the South African forensic accountant will prove to be the involvement in the investigation of *inter alia* the abovementioned commercial crimes. The purpose of the Commercial Branch of the South African Police Service (SAPS: 2008b) is to investigate and prevent commercial crime as contained in the mandate (terms of reference), which refers to 52 South African acts as well as certain common law offences like theft, fraud, fraud-related crimes and kite-flying. These acts entail a comprehensive picture of legislation relevant to the investigation of commercial crimes in terms of this legislation.

This study will indicate that the South African forensic accountant will endeavor to operate within the South African legislative environment in so far as commercial crimes, misconduct and the investigation thereof are concerned. This study will, however, indicate that the role of a forensic accountant extends beyond the normal parameters of criminal investigations, but includes involvement in civil actions or disputes, disciplinary proceedings within organisations, which will not necessarily involve criminal offences, various actions pertaining to the prevention of commercial crime and misconduct and aspects pertaining to quantification of losses, expert witnessing, etc. Chapter three of this study will elaborate on these aspects insofar as the service-line offerings of the forensic units of the traditionally big four audit firms are concerned.

### 2.2.2 Regulatory bodies

Jackson and Stent (2008: 1/10) describe the requirements and attributes of a group to be considered as having professional standing as follows:

- the offering of highly specialised skills;
- evaluation of the professional services rendered cannot be performed by public, which necessitates certain regulatory mechanisms; and
- members of the profession will display ethical and intellectual commitment besides the yearning for financial reward.

The question unavoidably arises whether sufficient merit exists to classify the forensic accountant as part of a profession. When one considers the three requirements outlined above, the answer to each one of the requirements would appear to be positive. Therefore, the role of a governing professional body for South African forensic...
accountants would be considered imperative insofar as the establishment of professional standards and codes of conduct are concerned. The South African forensic environment is, except maybe for the local chapter of the ACFE, unregulated and therefore weakly defined.

A recent initiative on 2 August 2007 for the regulation of the forensic profession where a meeting of major South African forensic role players took place, constitutes a significant step towards self-regulation within the forensic industry. Approximately sixty people attended the meeting at the Johannesburg Country Club, with very senior representation from inter alia the following major role players:

- Forensic divisions of the big four audit firms;
- Prominent medium-sized forensic firms;
- Prominent academics in the field of forensic accounting education;
- Life insurance industry;
- Major banks;
- Forensic divisions of prominent legal firms;
- Special Investigating Unit;
- Auditor General;
- South African Revenue Services (SARS);
- National Prosecuting Authority (NPA);
- Sasol; and
- Prominent individuals like Advocate Jan Henning, formerly from the NPA.

The meeting elected a steering committee (SC) of nine representatives to attend to the matters of the "profession". The SC conducted its first meeting on 21 August 2007 to establish its objectives, including establishing consensus on the definition of the "profession" they are representing and initial guidelines as to the minimum admission requirements for membership to a newly formed South African institute. Aspects emerging from this meeting were that investigations in a commercial environment could form a basis of commonality, although services rendered by for example big forensic practices would not only include investigations but various other components.
It further became clear that the term “forensic accountant” pertains to a specific group within the South African commercial investigative environment, concluding that the “forensic accountant” might be admitted to the newly formed institute but not necessarily imply that a member of the newly formed institute can be regarded as a forensic accountant. The issue as to the training of individuals in the field of commercial crime investigations with specific regard to the establishment of uniform standards, and the overriding goal that qualifications should be recognized across the industry, were discussed.

Until such time as when the South African forensic investigative environment is clearly defined through an institute or governing body of some sort, universities and other institutions will continue to offer uncoordinated training and education. Furthermore, the private sector in South Africa is rendering various growing commercial crime-fighting services and initiatives which include the forensic divisions of traditional audit and legal firms and internal forensic divisions of large corporations. The individuals involved in these divisions, including forensic accountants, might receive internal training, but without an institute it will remain an uncoordinated industry leaving the academic supply of uniformly trained individuals behind in an ever-changing and expanding environment.

The South African Institute of Chartered Accountants (SAICA) established themselves in determining the minimum training requirements for chartered accountants, thus providing clear and concise directives to accredited academic institutions and establishing, on a national basis, a foundation and career path to becoming a chartered accountant. SAICA’s role is in fact so extensive that, in terms of the Auditing Profession Act, 2005 (Act 26 of 2005), SAICA is currently the only accredited provider to the Independent Regulatory Board for Auditors (IRBA).

Once the forensic investigative environment is truly defined and administered by a representative body, government can be approached to determine the need for drafting national legislation. The next meeting of the SC was held on 18 October 2007, after which a draft document has been prepared requesting approval from major role players.
As a starting point the members of the SC were requested to conduct a survey in certain designated areas linked to the forensic accounting or investigative industry in order to:

- compile a profile of potential members of such an institute; and
- determine the specific needs in said areas that may be addressed by regulation of the industry.

The Steering Committee subsequently discussed and proposed the following general guidelines and principles (Minutes; 2007):

- The following is required from the proposed entity:
  i) Education and training;
  ii) A South African body, established to fit the forensic environment’s needs, with a South African code of conduct, standards and resources; and
  iii) Resources to discipline members and enforce minimum standards.
- Forensic professionals should act pro-actively to regulate themselves as the market may at a certain stage lose confidence in the profession if they do not step in.
- The aim should be to create a recognised professional status or qualification.
- Forensic professionals are committed to create a “South African owned umbrella”.
- Industry recognition and substantial buy-in from the industry is important.
- The Institute would as such also be of an advantage to small and medium-sized firms as membership of the Institute could give confidence to the market and could contribute significantly in leveling the playing field.
- The Institute should focus on training and the upkeep of a certain level of professionalism in the industry according to an industry-specific code of conduct.

The Steering Committee subsequently discussed and proposed the following guidelines insofar as membership is concerned (Minutes; 2007):

- Membership should be more inclusive than exclusive, without compromising on standards of professionalism and quality;
• Membership should be open to individuals as well as corporate membership in order to enforce discipline, either through the employer or the institute;

• Different levels or a graded system of membership should be followed in order to be as inclusive as possible whilst promoting a culture of continuous learning and the acknowledgement of academic qualifications and practical experience;

• As a starting point the concept of a “grandfather clause” would be considered;

• As progress is made the membership requirements should be enhanced in order to promote the professional standards of the members of the Institute;

• It was acknowledged that the “profession” in practice has room for different fields of specialisation that needs to be recognized, for example in the fields of auditing, law, investigations and information technology;

• The efforts made on a broad range of issues by the South African chapter of the ACFE is recognised. The efforts in regulating the industry should include the members of the local chapter of the ACFE in an attempt to marry the best of both worlds; and

• The SC’s proposed name for the Institute was: Institute of Forensic Professionals

It should once again be stressed that this study focuses on the training of South African forensic accountants, thus recognizing the fact that forensic accountants exist as part of various other disciplines within the South African commercial investigative environment. The role players in the market are currently engaged in a process of establishing the Institute of Forensic Professionals, which in itself will set the minimum educational and training requirements deemed necessary for admission. The route of the forensic accountant as part of the newly formed Institute is uncertain, but the training and education of forensic accountants remain inevitably connected to the establishment of an Institute of Forensic Professionals.

2.3 Defining a Forensic Accountant

Great uncertainty as to what a forensic accountant actually is and what they do may exist. Various terms are often used to describe the individual responsible for performing commercial crime investigations pertaining to a financial nature. These terms may include fraud examiner, fraud auditor, forensic auditor, fraud accountant,
financial crime investigator, etc. Public perception as to the work performed by a forensic accountant could have been influenced in the recent conviction of businessman Shabir Shaik, where Professor Johan van der Walt of KPMG was tasked with performing the investigation into the affairs and subsequently testifying in “The State versus Schabir Shaik & 11 Others” (Case No CC27/04). In his judgment, the honorable Justice Squires stated the following regarding Van der Walt’s testimony:

“Van der Walt was plainly an impartial witness who simply described chapter and verse, in extraordinary detail, the evidence that he culled from the mass of documents given to him to investigate. In the one or two respects that he expressed an opinion, there was nothing amiss about so doing, but we have not relied on any of those.”

“The State versus Schabir Shaik & 11 Others” (Case No CC27/04)

Van der Walt acted as an expert witness in his capacity as forensic accountant. According to the honorable judge, it is obvious that Van der Walt collected, culled, investigated and presented his findings and rendered his opinion in one or two aspects, herewith providing to a large extent some definition for the work performed by a forensic accountant.

2.3.1 Terminology

In defining the term “South African Forensic Accountant”, one has to take cognisance of various aspects including definitions of the following:

- Forensic

The Concise Oxford Dictionary (1996: 530) describes “forensic” as: “1 of or used in connection with courts of law, esp. in relation to crime detection (forensic evidence) 2 of or employing forensic science.” The word “forensic” also refer to the Latin word “forum”, implying presentation to a forum. The performance of an investigation and subsequent presentation of findings in a forum, which could include anything from a court of law, disciplinary committee, etc., appears to be distinguished as part of the definition. A more recent version of the Concise Oxford Dictionary (2002: 555) reiterates scientific methods as pertaining to the investigation of crime when “forensic” is described as: “1 relating to or denoting the application of scientific methods and techniques to the investigation of crime 2 of or relating to courts of law.”
Longman (1991: 403) refers to forensic as related to or used in the law and tracking of criminals.

"Forensics" might also refer to public speaking being "the process of speaking to a group of people in a structured, deliberate manner intended to inform, influence, or entertain the listeners." (Wikipedia, 2008) The aspect of presenting findings becomes clear in this instance.

Du Plessis (2001: 4-6) supplies the following definition of forensic and investigative accounting:

"It is the application of financial skills and investigative mentality to unresolved issues, conducted within the rules of evidence. As a discipline it encompasses financial expertise, fraud knowledge and a strong knowledge and understanding of business reality and the working of the legal system."

Therefore, it can be derived from the above that the word "forensic" pertains to the presentation of findings to a court or forum, subsequent to an investigation where scientific methods had been utilised. When Du Plessis (2001: 4-6) defines "forensic and investigative accounting", the financial nature (financial skills and understanding of business reality) and legal aspects (the working of the legal system and rules of evidence) of forensic investigations in a commercial environment are emphasised.

- Accounting


According to Van Vuuren et al. (2005: 3) accounting is defined as a service activity of which its function is to provide quantitative information, which is primarily financial in nature, about economic entities. It further states that the information is used in making economic decisions and that there is of course a need for standardized financial reporting framework. Encompassed in the document adopted by the IASB, referred to as "Framework for the preparation and presentation of financial statements", the users and basic principles for the preparation of financial statements are clearly defined.
Accounting is therefore the language in which business transactions are communicated, with its end result the presentation of these transactions in financial statements. The focus of "forensic accounting" pertains to findings obtained in a commercial and economic environment where the "language" of transactions and economic realities comprise an in-depth knowledge into accounting.

The identification of fraudulent financial reporting, is but one specific aspect where forensic accounting skills will play an in-depth part and it might be at exactly this point where the duties of an external auditor and those of a forensic accountant may overlap.

- **External auditor and ISA 240 R**

As outlined earlier, the term "forensic auditor" is also referred to in describing a forensic accountant. In South Africa, the use of the word external auditor (also known as the registered auditor) is regulated by the Auditing Profession Act 2005 (Act 26 of 2005), and more specifically in section 41 where a person who is not registered under this act is prohibited from being called a registered auditor. Furthermore, the main duty of an external auditor is emphasised in section 44 of the act as being the expression of an opinion of whether the financial statements fairly present in all material respects, the financial position of the entity and the results of its operations and cash flow in all material respects in accordance with the basis of an accounting and financial reporting framework.

The registered auditor's duty is therefore an expression of an opinion on the financial statements of an entity, subsequent to the performance of an audit.

ISA 240 R describes the registered auditor's responsibility to consider fraud in an audit of financial statements and it is perhaps here where the roles of forensic accountants and those of registered auditors are contrasted. Paragraph 21 of the statement states that the registered auditor should obtain reasonable assurance that the financial statements are free from material misstatement caused by fraud or error and that the auditor is not supposed to obtain absolute assurance as a result of the inherent limitations of internal control, the use of testing, the use of judgment, and the fact that
audit evidence is persuasive rather than conclusive. Paragraph 67 of the statement explains a further distinction between a forensic expert and that of the registered auditor by stating: “For example, the auditor may respond to identified risks of material misstatement due to fraud by assigning additional individuals with specialised skill and knowledge, such as forensic and IT experts...”

Golden et al. (2006: 243–248) explains when and why to call in forensic accounting investigators. It motivates these scenarios by elaborating on the definition of auditors to explain that:

- Auditors are not forensic accounting investigators, based on curriculum contents of training as well as requirements for legal and investigative knowledge;
- Auditors are not authenticators as they possess little to no knowledge of altered or forged documents;
- Auditors have limited exposure to fraud and their focus is not that of fraud investigation and the conduct of thorough interviewing; and
- Historically, audits may have been predictable.

According to Golden et al. (2006: 20–46), the main differences between a forensic accounting investigation and a statutory audit are outlined in terms of the objective, purpose, value, sources of evidence and sufficiency of evidence:

- The forensic accounting investigation should determine the likelihood and/or magnitude of fraud occurring, whilst the objective of a statutory audit is to form an opinion on the overall financial statements;
- The sufficiency of evidence for the audit is reasonable assurance whilst the forensic accounting investigation establish facts to support or refute suspicions or accusations;
- The purpose of an audit stems from the third-party users of financial statements, whilst the purpose of an investigation stems from sufficient predication that fraud has or may have occurred;
- The value of an audit is that it adds credibility to reported financial information, whilst a forensic accounting investigation resolves suspicions and accusations and determine the facts; and
The evidence acquired by auditors is obtained by means of inquiry, observation, examination and reperformance to support financial statement assertions, whilst the forensic accountant review detailed financial and non-financial data, perform interviews and conduct searches.

The analogy of a patrolman who has to maintain law and order in a neighbourhood versus that of a detective focusing on a specific crime scene is used to describe the difference between an auditor (the patrolman) and the forensic accounting investigator (the detective). The patrolman might respond to a specific incident if it is detected or noticed, for example violence at a house. Should the patrolman stumble onto a murder scene however, the detective will continue with the investigation of the murder. It further re-emphasises the basic shortcomings of an audit in the identification and detection of commercial crime and fraud.

Cascario and Van Esch (2004: 275-285) refers to the term forensic auditing as: "the methodology for resolving fraud allegations from inception to disposition, with sufficient proof to prove or disprove allegations of fraud". It further states that a predication for fraud forms the basis for the investigation, with goals of the forensic auditor being defined as the obtaining of a legal confession and proving all the elements constituting fraud. This might appear to be too narrowly defined, as the term forensic auditing ignores the distinct differences between auditing and conducting a forensic accounting investigation. To audit in a forensic manner is undefined except for the guidance in terms of perhaps ISA 240 R. Again the role of the forensic accountant and that of the external auditor should not be confused. It should be noted that Cascario and Van Esch’s main focus is on internal auditing. Golden et al. (2006: 161–181) describes the role of internal audit as the second line of defense against the occurrence of fraud in an organisation, subsequent to the fact that prime responsibility for prevention and detection of fraud rests with management. Internal auditors can therefore be the first to discover instances of fraud and because internal audit knows the company the best, they are likely to be part of the investigation through the contribution of team members. The responsibility for the investigation however rests with the forensic accounting investigators. It is in the light of the above that Cascario and Van Esch might therefore use the term “fraud auditor”, which appears rather to be linked to the role of internal audit in establishing a suspicion of fraud.
It is evident from the above that the role and function of the external auditor compared to that of the forensic accountant appears to be two separate areas of specialization, although both areas concern itself with financial statements and accounting records.

2.3.2 United States perspective: Fraud Examiner

Snyman’s (2002: 520) definition of fraud is stated as the unlawful and intentional making of a misrepresentation which causes actual prejudice or which is potentially prejudicial to another. The US-based Association of Certified Fraud Examiners’ (ACFE) focus pertains more to the investigation of what they refer to as “fraud”. They define fraud examination as: “a methodology for resolving fraud allegations from inception to disposition. It includes obtaining evidence and taking statements, writing reports, testifying to findings and assisting in the detection and prevention of fraud”.

As outlined earlier, in so far as the investigation of commercial crimes are concerned, fraud as used in the United States context, might appear to be too general and unspecific insofar as specific commercial crimes in a South African legal context are concerned.

Albrecht (2006: 17-19) refers to “fraud-fighting professionals” and writes that careers in forensic work can be broadly classified in terms of the specific employer as follows:

- Work for government employers can be related to criminal investigations, FBI inspectors and law enforcement officials;
- Work for audit, forensic accounting, litigation support and law firms which can be related to the conduct of investigations supporting firms in litigations, performing bankruptcy-related work, serving as expert witnesses and consulting in fraud prevention and detection; and
- Work for corporations which include the prevention, detection and investigation of fraud within a company, including internal auditors and in-house legal counsels.

It might appear as if the term “fraud-fighting professional” excludes the description of the work performed by these professionals, as outlined by Albrecht.

Crumbley and Apostolou (2005: 39-43) explains the need to obtain the help of forensic accountants when fraud is suspected, as the roles of the auditor and that of the forensic accountant differs. According to them, auditors determine compliance with
auditing standards and consider the possibility of fraud, whilst the forensic accountants have a “single-minded” focus on the detection and deterrence of fraud which involves an exhaustive, detailed effort to “penetrate concealment tactics”. They also highlight certain techniques enabling forensic experts to determine the incidence of fraud, including public document reviews, interviews, laboratory analysis of electronic evidence, undercover operations and analysis of financial transactions. They conclude that forensic accounting specialists are going to be in continued demand to “supplement the efforts of auditors”.

Ferraro (2006: xxix) refers to himself as a “corporate investigator” with his primary focus in the investigation of employee dishonesty, substance abuse and criminal activity in the workplace. Ferraro (2006: 13) refers to six methods of investigation for those who conduct workplace investigations. One of these methods is referred to as “forensic analysis”, which according to Ferraro (2006: 16-17) includes all manners of investigation that employ science or scientific method. He includes in this category bodily fluid analysis, chemical and substance analysis, fingerprint examination and comparison, computer forensics, various deception detection methods, and forensic document examination. The latter corresponds with what has been defined as “forensic”, but appears to be far from the definition of forensic accountant. It is apparent that forensic accounting includes investigation techniques, but it is unlikely that forensic analysis, as part of investigations, would be regarded as forensic accounting.

Although the scope of the “forensic accountant” would definitely include reference to the examination, detection and prevention of fraud, various other aspects should be considered as outlined later in this study. Some United States perspectives encapsulate the true essence of forensic accounting, but to over emphasize the applicability of “fraud” as generic description over-simplify the applicability of a forensic accountant.

2.3.3 Canadian perspective: Institute of Forensic Investigative Accountants
The Canadian Institute of Chartered Accountants (CICA) offers separate exams to Canadian Chartered Accountants to qualify as Investigative Forensic Accountants (IFA), thereby recognising the additional requirements necessary for Chartered
Accountants to become Forensic Accountants. During November 2006 the CICA released a document captioned “Standard Practices for Investigative and Forensic Accounting Engagements” with its effective date being 1 March 2007 where investigative forensic accounting engagements (IFA engagements) are defined as those engagements that require the application of accounting skills, investigative skills and an investigative mindset to be utilised in disputes or where there are risks, concerns or allegations of fraud or illegal or unethical conduct. The CICA therefore provides full recognition for forensic accountants and through official standards highlights and defines the role and function of forensic accountants (CICA, 2008).

2.3.4 Formulating the definition of a South African Forensic Accountant
Van Rooyen (2004: 1-5) divides the South African investigative environment into the following spheres:
- Police investigators;
- Statutory investigative bodies like the SIU, DSO, commissions of inquiries, etc;
- Private investigators with their own businesses;
- Departmental investigators in government departments like Home Affairs, Education, etc;
- Corporate investigators in private companies like Eskom, mining industry and banks; and
- Forensic investigations of independent private companies like KPMG.
Van Rooyen continues to provide a definition for “forensic investigation” as usually being associated with the investigation of computer related crimes which also include corruption, fraud, embezzlement and other white collar crimes, whilst “forensic” is explained as pertaining to law, juristic or court as well as including the function of examination or analysing. The use of computers as commonality is however not substantiated.

Van Rooyen (2004: 7) provides a definition for “forensic auditor” as a person who examines financial documents as well as the compliance of policies and procedures with the goal of detecting and investigating of crime and/or company losses. Again perhaps the role of internal auditor and forensic accountant is confused. Furthermore, a financial document is ill-defined in this instance. One cannot regard the financial
environment in which a forensic accountant operates as only pertaining to financial documents.

Brennan and Hennessy (2001: 5-22) defines the forensic accountant with specific relevance to the following aspects:

- The integration of accounting, auditing and investigative ability and their application to litigation;
- The application of financial expertise to financial investigation;
- The application of financial expertise to legal problems, disputes, and conflict resolution;
- Describing expert specialist accounting work performed for court or other legal sensitive purpose;
- Performing an orderly analysis, investigation, inquiry, test, inspection or any combination of these on financial information in order to assess the merits of a situation and form an expert opinion;
- Forensic accountants look behind, rather than merely at the numbers; and
- Forensic accountants perform their work with a view on its potential use in a legal-related environment.

Wille et al. (2007: 220) states that investigative accounting is also referred to as forensic accounting which attempts to unravel the circumstances of a crime through the review of physical evidence, which constitute the numbers in the case of accounting. The writers further state that forensic accountants search for clues and a "fingerprint" left through inter alia document trails. The investigative aspect of a forensic accountant is accentuated in this instance.

In conclusion, the following main areas of expertise are derived as being required in order to enable South African forensic accountants to perform their duties:

- Accounting, business and auditing knowledge, as it is financial records that will be examined within a commercial environment;
- Investigative skills, including the performance of successful interviews and people skills (including certain psychological aspects and knowledge of criminal behaviour);
• Legal knowledge in both criminal and civil aspects, as findings of the forensic accountant should support subsequent legal proceedings;
• Application of information technology and data analysis; and
• The ability to provide expert testimony.

2.4 Conclusion

This chapter provides an overview of the work performed by a forensic accountant and attempts to provide a definition of a South African forensic accountant through clarification of the terminology often associated with describing the work performed by forensic accountants as well as the commercial investigative environment.

The investigative nature of the forensic accountant should be based on financial information in a commercial environment, as the performance of mere investigations might rather justify descriptions such as corporate investigator or fraud examiner.

The role of the forensic accountant and that of internal and external auditors might also seem to overlap at certain stages, mainly due to the mutual involvement in instances of fraud and financial irregularities within the same commercial environment. The term “forensic auditing” might therefore create confusion. Internal and external auditors are however clearly defined in themselves with distinct definitions and duties. This is evident from the fact that internal and external auditors have their own regulating bodies and standards setting out the scope and purpose of their work. The Canadian Institute of Chartered Accountants however regards the accounting and auditing aspects of the forensic accountant as imperative, by offering separate exams to Canadian chartered accountants to qualify as Investigative Forensic Accountants (IFA).

The important role of the forensic accountant’s involvement in legal and quasi-legal matters should not be underestimated. This will include aspects of litigation support to expert witnessing.
It can therefore be concluded from this chapter that a South African forensic accountant is a person possessing sufficient legal, accounting, auditing, investigative skills to:

- perform investigations in a commercial environment;
- investigate the occurrence of fraud, commercial crime, procurement fraud, misconduct and other types of commercial crime and misconduct;
- be involved in fraud, commercial crime or misconduct prevention;
- perform agreed-upon procedures;
- provide litigation support;
- act as expert witness;
- apply psychological and criminological aspects pertaining to human behaviour insofar as the establishment of facts and looking “behind” the numbers are concerned; and
- provide accounting and auditing skills to specific business scenarios.

Diagram 2.1 on page 33 summarises the definition of a South African forensic accountant, referred to above.
The formulated definition of a South African forensic accountant can therefore be illustrated in a Venn-diagram within a commercial environment as follows:

**Diagram 2.1: Definition of a South African forensic accountant**

![Diagram showing the overlapping of three main disciplines: Accounting, Investigations, and Legal and Quasi-legal. Each discipline has a separate circle, and the overlapping areas represent the knowledge and skills of a forensic accountant.](source)

(Source: Own Research)

The overlapping of the three main disciplines of accounting and auditing, investigations and the legal environment is clearly illustrated. It is further evident that the forensic accountant’s main area of focus relates to accounting/auditing knowledge and application, supported by legal and investigative skills. The entire diagram will of course be situated in a commercial environment.
CHAPTER 3: THE WORKING ENVIRONMENT OF A SOUTH AFRICAN FORENSIC ACCOUNTANT

3.1 Introduction

This chapter expands on the definition of a forensic accountant insofar as the working environment of a South African forensic accountant is concerned. In chapter two, the term "South African forensic accountant" has been defined and explained (refer to paragraph 2.4, pages 31 to 33). This chapter will attempt to describe the working environment of forensic accountants. The working environment will dictate the services rendered, whilst service delivery will of course depend on the specific demand by the forensic investigative market.

This chapter will firstly aim to clarify the services rendered by South African forensic accountants, primarily insofar as the forensic services rendered by the forensic divisions of the traditional "big four" auditing firms (consisting of KPMG, E&Y, Deloitte and PWC) are concerned. The latter will be performed in order to achieve primary research objective 2, paragraph 1.4 on page 8.

Subsequent to determining the services rendered, this chapter will address secondary aspects of research objective 2, paragraph 1.4 on page 8. These secondary research objectives will include the establishment of the skills and attributes essential for the rendering of forensic services (research objective 2(i)), determining the need for forensic accountants (research objective 2(ii)), and determining the need for the training of forensic accountants (research objective 2(iii)).

The perceived logic of this chapter aims to firstly address what a forensic accountant does insofar as service-delivery is concerned, after which a closer observation regarding the skills and attributes needed to perform theses services follows. A need for forensic accountants should translate into a need for forensic accounting training, leaving the last remaining aspect to be determined being the detail of a core curriculum content required to educate and train the South African forensic accountant (research objective 3, paragraph 1.4 on page 8), which will be addressed in chapter four.
3.2 Services rendered by forensic accountants: Service-line offerings within forensic divisions of the traditional “big four” audit firms

The traditional “big four” audit firms, all facilitate the rendering of forensic services within specific dedicated divisions within these firms. A comparison and analysis of these services (as outlined and explained according to the different web-pages of the firms), provide some understanding as to the services rendered by, inter alia, South African forensic accountants.

KPMG’s forensic division is stated to be “in the business of dealing with issues where facts, people and organisations do not agree, or where financial or other business related behavior may not comply with expectations.” It is apparent that the aim of the forensic division is to provide services concerning discrepancies in a business environment (KPMG, 2008). KPMG divides their forensic services into ten service-line offerings, consisting of:

- Anti-money laundering, where services pertaining to the development of policy and programmes including investigative support in respect of money laundering matters are rendered. Although money laundering is governed by specific legislation (POCA and FICA), the complexity of this legislation as applicable to evaluating the flow of funds within a business environment may require the services of a forensic accountant;

- Corporate intelligence, where services regarding the clarification of the identity of entities and individuals are established, including lifestyle audits. The forensic accountant should contribute in this regard through assistance during lifestyle audits, although corporate intelligence should form part of the background to any investigation;

- Dispute advisory, where services regarding the prevention and resolving of commercial disputes are rendered. These services of KPMG include alternate dispute resolution to determine an accounting-related dispute, litigation support services where accounting advice pertaining to claims for resultant losses are offered and expert witnessing services. The role of a forensic accountant in this regard is undeniable;
• Ethics and integrity services where clients are assisted in designing, implementing and maintaining ethics management frameworks consisting of various tools for monitoring and engaging in the latter;

• Forensic technology services which operates within the computer forensics and electronic discovery disciplines to form part of fraud investigation and fraud risk management. This aspect is in itself an area of specialisation, although normal IT skills form part of the skills requirements of a forensic accountant;

• Fraud and misconduct investigations services where clients are assisted by determining the facts, gathering the evidence and allowing clients to take informed decisions in circumstances where fraud and misconduct are suspected. The website states: "success is achieved by combining investigative skills, forensic accounting, interviewing, report writing and IT skills to control and manage a wide range of investigations". It appears as if these skills are all linked to a forensic accountant as will be pointed out later in this study;

• Fraud risk management, where company-specific anti-fraud controls are designed to prevent, detect and respond to fraud and misconduct. The forensic accountant should have a thorough understanding of internal controls and the fraud and misconduct risks prevalent within an organisation;

• Fraud hotline, to facilitate whistle-blowing;

• Intellectual property and corporate governance where services in detecting, investigating and preventing theft and criminal use of intellectual property are rendered; and

• Sustainability services, to assist clients in adhering to specific disclosure requirements.

PWC refers to the term "Crisis Management" for the rendering of the following categories of services (PWC, 2008):

• Accounting litigation support; where it is stated that "forensic services specialists work with clients throughout the dispute resolution process to determine quantum or to present accounting evidence in legal proceedings."

• Forensic investigations where it is stated that the fraud and economic crime investigation services include accounting irregularities, anti-money laundering
services, intellectual property investigations, regulatory breaches and background research of people and entities;

• Forensic technology solutions; and

• Fraud prevention consulting which services including fraud risk assessments, fraud prevention controls, whistle-blowing strategies and policies, fraud response plans, fraud detection reviews, and forensic investigation training to in-house forensic units.

E&Y houses a “Fraud Investigation & Dispute Services” practice encompassing the following service offerings (E&Y, 2008):

• Forensic investigations, where it is stated that: “investigation professionals are experienced in criminal investigations, disciplinary procedures, forensic accounting, financial regulation, evidence discovery and fraud risk management”;

• Legal technology services, where legal technology experts are involved in the discovery and presentation of electronic evidence;

• Dispute services, where corporations and their legal teams are given assistance to “manage and resolve complex financial disputes”. This includes aspects like expert witnessing;

• Fraud prevention, where clients are given assistance to achieve the optimal degree of “fraud resistance”;

• Forensic data analytics, where patterns, time frames, anomalies and problems are identified through analysis of digital data by computer; and

• Forensic business intelligence for legally obtaining background information across a broad spectrum of sources.

Deloittes refers to their division as “Forensic & Dispute Services” which renders the following services (Deloitte, 2008):

• Analytic and forensic technology for the capturing of digital evidence and the analysis of transactions;

• Business intelligence services for the retrieval and analysis of background information;
• The use of “Dtect”, being a tool used to assist clients in the identification and isolation of suspicious financial transactions;

• Fraud awareness training;

• Fraud investigation and anti-corruption, where it is stated that they provide: “a comprehensive set of skills for the investigation of commercial crime, from the identification of the crime and collection of evidence to advising on recovery strategies and the preparation of case dockets for submission to the authorities.”

• Fraud risk consulting;

• Litigation support and financial dispute resolution where they “provide financial, business and accounting expertise to parties involved in disputes”;

• Money laundering control.

An analysis of the forensic service offerings of PWC, KPMG, Deloitte and E&Y all reveal, within the ambit of various groupings and linguistic differences, the same forensic service-deliveries. It appears that the word “fraud” might be applied out of context as if to include all forms of commercial crime, as is the case in United States literature, whilst it is apparent from earlier definitions of commercial crime (refer to paragraph 2.2.1 on page 15 to 17) that the narrow definition of fraud constitutes something more specific. The information on the websites do not indicate specifically what the profile(s) of the individuals who perform these services should look like, (which was not the purpose of this analysis), but do clearly indicate services which are rendered within the aptitude of a forensic accountant. These primary services, as outlined above, appear to include:

• Assistance in financial disputes;

• Litigation support and expert witnessing pertaining to financial aspects;

• Criminal and misconduct investigations of a financial nature; and

• Commercial crime prevention and management of the associated risks.

It is possible to further deduce from these service offerings that the forensic accountant may be involved to a lesser extent in the rendering of services within these divisions which include for example:
• Dealing with specific legal and regulating requirements insofar as financial aspects are concerned, for example money laundering investigations;
• Obtaining background information; and
• Involvement in certain computer-related procedures and analysis.

3.3 Services rendered by forensic accountants: Application of knowledge skills and attributes
Brooks and Labelle (2006: 287-306) offers insights into the type of services expected of and delivered by forensic accountants and explores the knowledge, skills and attributes required by Canadian forensic accountants. The study refers to the knowledge, skills and attributes of investigative forensic accountants. The knowledge aspects form the basis and are stated as:

• Governance and ethics;
• Investigative techniques and fraud schemes;
• Economic loss quantification and business valuation;
• Accounting, systems, audit, and taxation; and
• Law, legal process, and rules of evidence.

These aspects correspond with the broad definition of a forensic accountant insofar as the main disciplines of accounting, auditing, legal and investigative elements are concerned (Refer to Diagram 2.1 on page 33). Knowledge of governance and ethics might remain a difficult aspect. The question can be asked as to how you acquire knowledge on being ethical. Numerous social and cultural differences exist for both forensic accountants themselves as well as the environment in which they operate. It is also not stated to what extent and level knowledge should be obtained. It can be argued that you would be able to obtain experts in each of the abovementioned aspects of knowledge. The overriding factor however, would be the fact that the main area of specialisation of forensic accountants is accounting, with knowledge of the other aspects as supplementary.

Brooks and Labelle (2006: 287-306) states the skills as written and verbal communication and the attributes of the forensic accountant, as:

• Investigative mentality;
• Critical scepticism; and
An understanding of psychology and motivation.

Findings, evidence and results of procedures will be the product delivered by the forensic accountant in terms of his written and verbal communication skills, either via his written report or when acting as an expert witness in legal proceedings.

Macgregor and Hobbs (1998: 5-6) recognise the accountant’s role regarding testifying as expert witnesses in criminal and civil proceedings, especially where the litigation evolves around monetary aspects. They further stipulate that accountants can contribute significantly to the trial preparation process insofar as cross-examination strategies, assistance with pleadings and discovery and provision of general commercial knowledge to any business situation are concerned. Further involvement of the expert accountant according to Macgregor and Hobbs (1998: 30-31), pertain to the accountant almost becoming part of the legal team, specifically insofar as the following aspects are concerned:

- Carrying out an investigation which gives rise to the litigation;
- Assisting with drafting pleas;
- Commenting on the merits of a case;
- Assisting with the interviewing of witnesses;
- Attending at settlement negotiations; and
- Helping counsel with cross-examination.

Brooks and Labelle (2007: 287-306) divide the services rendered by investigative forensic accountants as being:

- Assessing financial issues for litigation purposes;
- Financial investigations and fraud detection;
- Fraud risk management;
- Investigating compliance with legislation and external regulations; and
- Investigating insurance claims.

The study continues to state that on the basis of services offered, a forensic accountant may be expected to take on the roles of:

- An investigator of financial matters and systems;
- An investigator with an understanding of the types of information that would assist in establishing a person’s motivation, intent, and bias;
• An analyst of facts, probabilities and circumstances;
• A judgement maker with regard to strategic choices;
• A report writer;
• An expert adviser; and
• An expert witness in legal proceedings.

According to Downes (2005: 48-49), forensic accounting involves more than mere number-crunching but includes aspects of psychology and good people skills, whilst relying on a sixth sense that something might be wrong. Ultimately, the forensic accountant has to link the accounting records with the people involved. Interviews will therefore not only centre on the suspect, but good people skills are essential in obtaining background information from non-suspects. Downes further reiterates the importance of knowledge pertaining to both civil and criminal law as well as the ability to present expert evidence in court.

Grippo and Ibex (2003: 4-5) divide forensic accounting into two areas of specialization, namely litigation support where the forensic accountant becomes part of the legal team and investigation or fraud accounting which is often associated with criminal matters. Grippo and Ibex summarizes the skills required for effective forensic accounting as follows:

• Education and training;
• Advanced and continued education in appropriate disciplines, such as business appraisal;
• Diversified accounting and auditing experience – public and private;
• Communication skills – oral and written;
• Practical business experience;
• Diversified forensic auditing experience;
• Ability to work in a team environment; and
• People skills and flexibility.

It is evident that Grippo and Ibex regard certain skills of forensic accountants as knowledge and certain knowledge as skills. In this way, for example, education should not be a skill in itself, but rather a means towards obtaining a skill as outlined later in this chapter.
Houck et al. (2006: 68-70) developed a model curriculum and proposed career path for fraud and forensic accounting, recognizing that forensic accounting is the intersection between accounting, investigation and the law. This study proposes basic entry requirements comprising of:

- Criminology and detail of the regulatory and professional environment;
- Fraud prevention, deterrence and detection in specific areas; and
- Forensic and litigation advisory services.

A subsequent career path is then proposed which may include professional service firms, corporate positions, regulatory agencies and government, law enforcement and legal services. The study stresses the fact that forensic accountants obtain the knowledge, skills and abilities necessary to enter the profession. It reiterates the importance of career paths forming part of obtaining the required skills and abilities, subsequent to formal education as proposed in a model curriculum. The study therefore classifies the main areas of a proposed curriculum whilst reiterating the need for practical experience.

According to Messmer (2004a: 19-20), successful forensic accountants must have analytical abilities, strong written and verbal communication skills, a creative mindset and business acumen. He further states that technical skills pertaining to information systems and financial applications to obtain and examine data are essential. According to Messmer, forensic accounting skills can be applied to the following projects:

- Fraud investigation and prevention;
- Business transaction analysis;
- Litigation support; and
- Government investigations.

Van der Walt (2005: 6-7) provides a view of the South African investigative environment when he compares the skills of both legal and forensic accounting specialists within a national forensic practice. He explains that forensic services comprise a much more comprehensive outline than mere investigations of fraud. Examples mentioned include:

- loss of profit determinations;
- claim verifications;
- determination of quantum of damages;
- asset tracing, freezing and forfeiture;
- corporate intelligence;
- intellectual property violations;
- fraud hotlines;
- fraud risk management;
- fraud policies and response plans; and
- the measurement of ethical climate.

He concludes that both the legal and accounting specialist forming part of multi-disciplinary team are important and that the scope of the assignment will determine their application. This does of course not justify the argument that a forensic accountant does not need to be familiar with legal aspects, although the legal specialist will ultimately have to determine the legal course of the assignment, as will the forensic accountant with the financial matters.

According to Powell (2006: 23-24), it is completely clear that effective forensic teams require a combination of lawyers, accountants, information technology experts and investigators, but that the debate, according to Powell, is not about who is better at forensic work, but rather whether the forensic unit should be situated as part of a traditional law or audit firm. He further motivates in favour of the situation where a "forensic unit" forms part of a traditional law firm. Powell might be describing the current South African situation, accepting the fact that forensic investigations will be conducted as part of a team of traditional disciplines, i.e. auditors or accountants, investigators and lawyers, which indeed might be the case in certain instances.

Literature however indicates clearly the differences between normal accountants, external auditors and internal auditors and forensic accountants. So for example, state Pope and Ong (2007: 64-66) on the strategies for forming an effective forensic accounting team, that an auditing background may serve as basis but is not in itself a replacement for a forensic accountant as additional skills might be needed. Nevertheless, the formation of a "forensic team" is reliant on various factors which are further explained by Pope and Ong.
It can therefore be concluded that the following main areas of expertise will be required by forensic accountants to perform their duties:

- Accounting, business and auditing knowledge, as it is financial records that will be examined;
- Investigative skills, including the performance of successful interviews and people skills (including certain psychological aspects and knowledge of criminal behaviour);
- Legal knowledge in both criminal and civil aspects, as findings of the forensic accountant should support subsequent legal proceedings;
- Application of information technology and data analysis, and
- The ability to provide expert testimony.

3.4 The need for forensic accountants

The presence of the forensic accountant in a complex world of fraud and corruption is indispensable. Brennan and Hennessy (2001: 22) support this point of view in the following way:

"As the scale, volume and complexity of litigation continue to increase, the opportunities for forensic accountants to provide value-added services to litigators, and for the resolution of disputes to benefit from their involvement, continue to multiply."

Recent articles spelling out the need for forensic accountants and indicating the growth in the forensic accounting profession include *inter alia* the following:

- Cawfield (2007: 22-30) refers to the magic six designations attributable to Canadian chartered accountants, of which the CA.IFA (Investigative Forensic Accountant) is one providing an advantage and entry into the forensic accounting market;
- Gold (2007: 36-37) describes the rising demand for litigation support services under the umbrella of forensic accounting;
- Gold (2007: 39-42) describes forensic accounting as "sexy" and constituting a "booming" business, stating that 78% of those in *Accounting Today's* 2007 top 100 firms roster reported an increase in forensic services;
Stimpson (2007: 18-24) describes the role and function of forensic accounting as “exponential”, where the growth in the forensic investigative environment is confirmed with leaders in the market; and

Percy (2007: 28-29) labels forensic accountants as the James Bonds of the financial world in so far as the fight against terrorism is concerned, where forensic accountants can be used to follow the trail of funds. Percy further states that in 2006, the specialist forensic accountancy firm RGL attracted 450 applicants for just two places on its graduate training scheme.

The aim of this section is not to provide a complete list of sources identifying the need for forensic accountants. It is however important to note the following:

- The field of forensic accounting is rapidly growing; and
- The term forensic accountant as “separate” profession has been established.

Perhaps the need for forensic accountants is better summarised by Smieliauskas (2006: 239), which states:

“It is time perhaps to reconsider viewing forensic accounting as a mere speciality niche in the profession. Perhaps forensic accounting principles should even be at the heart of both accounting and auditing standards in order to meet the rapidly changing expectations of society in the post-Enron environment.”

The South African scenario pertaining to the need for forensic accountants and investigators is described by Honey (2008) where he reports on statements made by Willie Hofmeyer, head of the SIU, that South Africa needs 5 000 anticorruption operatives, a calculation he bases on the size of Hong Kong’s anticorruption unit, where about 800 members of staff serve a population of just 4 million. The SIU is projected to have 1000 members of staff by 2010, compared to the current 500 and the 70 members of staff of five years ago. He further states that government has fewer than 1 000 investigators dedicated to fighting corruption, which includes the SIU, the commercial crimes division of the police, SARS and the National Prosecuting Authority (NPA).
South Africa is therefore no exception, as the country appears to be in dire need of trained forensic accountants and investigators.

### 3.5 The need for training of the forensic accountant

In order to obtain the necessary knowledge, skills and abilities to deliver services, the forensic accountant needs education (Brooks and Labelle, 2006: 288).

Garvey (2006: 1) states that as a result of the public outcry over the corporate accounting scandals of the last few years, educators only recently began to answer these calls for universities to develop forensic accounting courses, although most accounting students still graduate with little or no training in fraud investigation.

Carnes and Gierlasinski (2001: 378-382) conclude that the demand for forensic accounting training exceeds the supply. They further state that although auditors have been made responsible for increased attention to fraud risk factors the time may have finally come for the supply of forensic accounting skills to begin catching up to the increasing demand.

Golden et al. (2006: 538-546) discusses the future of forensic accountants and recognises inter alia the following:

- Forensic accounting is a new and growing discipline, both globally and in the United States;
- Future forensic accountants need to receive formal education; and
- Investments by firms with forensic accounting investigation capabilities should be made with regards to the growing educational requirements in the field of forensic accounting.

According to Honey (2007), both the South African Police Service and the DSO are plagued by skills shortages and their best-trained forensic investigators are attracted by the forensic divisions of the big auditing firms.

Rezaee et al. (2004: 1-44) gathered the opinions of academics and practitioners regarding the importance, relevance and delivery of forensic accounting education and
concluded that the future demand for forensic accounting education is expected to increase with more universities planning to provide forensic accounting education. The three areas where demand and interest in forensic accounting services were determined were litigation support, expert witnessing and fraud examination. The most important perceived benefits of forensic accounting education were identified by Rezaee et al. as:

- Strengthening the credibility of financial reporting;
- Promoting responsible corporate governance;
- Increasing the demand for individuals possessing forensic accounting education and skills;
- Preparing students to engage in fraud examination;
- Making students more desirable in the marketplace; and
- Satisfying society’s demand for forensic accounting education and practice.

According to Grippo and Ibex (2008: 129-135) the issue of whether forensic accounting should be a required course for major accounting degrees is debated and the authors draw the conclusion that forensic accounting is the fastest growing aspect in the accounting profession. The writers further elaborate on the definition of and need for forensic accountants as well as the work performed by forensic accountants. They eventually conclude that forensic accounting in itself should carry the same weight as other accounting-related subjects such as auditing, due to the fact that the unique skills and attributes required of the forensic accountant justify such measures.

Rezaee et al. (2004: 1-44) draw a significant distinction between the training of forensic accountants and forensic accounting training. The latter may comprise the inclusion of certain distinct forensic accounting courses as part of the curriculum of other courses. The survey was also conducted amongst practitioners and academics which posed different responses from the two groups.

As indicated above, the need for the training of forensic accountants or as an alternative, forensic accounting training as part of an accounting course is imperative and relevant, due to the specific skills requirements of forensic accountants.
3.6 Determining forensic accounting curricula

Rezaee et al. (2004: 1-44) identified and surveyed 49 suggested forensic accounting curriculum topics and concluded that the majority were regarded as being important and that the 49 topics can form part of existing qualifications and should not necessarily be regarded as the essence of what forensic accountants’ skills should comprise of. One should also take into account that the research pertains to the United States, whilst the South African scenario, with its unique investigative and legal environment might pose different requirements.

Based on the work performed by Rezaee et al., and through a review of literature as well as consultations held with major role players, including the lecturers in the Programme for Forensic Accountancy at the Potchefstroom Campus of the North-West University, 46 forensic accounting curriculum topics have been identified to be empirically evaluated in terms of importance. These topics have been divided into four categories, being information technology, law, accounting and auditing and investigation related.

One can therefore determine the training requirements of forensic accountants by examining the detail of courses currently offered by South African training institutions, which range from various post-graduate diplomas and certificates to B Comm and M Comm in forensic accountancy degrees. The determining factor would however be the market’s perception and experience as to what is required from a South African forensic accountant.

3.7 Conclusion

The preliminary aspects of research pertaining to the working environment of the South African forensic accountant clearly illustrate certain prominent characteristics, including the following:

- The services rendered by the forensic divisions of the traditional “big four” audit firms indicate a need for forensic accountants in performing or assisting in the majority of these services rendered to clients;
- In training South African forensic accountants, emphasis needs to be placed on what the cornerstones of the skills requirements of the South African forensic accountant are and whether proposed courses and degrees meet these needs.
The core curriculum content of topics identified as possibly relevant to the training of South African forensic accountants should be examined by major forensic role players in order to provide meaningful feedback regarding the training requirements of South African forensic accountants;

- The need for individuals possessing forensic accounting-related skills was to a great extent brought about by recent corporate failures as well as extensive requirements both in terms of auditing standards and new legislation. The need for the use of forensic accountants is already illustrated by the international growth in forensic investigative practices;

- The distinction between the training of forensic accountants and forensic accounting training as part of other curricula is vital. This study suggests training of professionals referred to as “forensic accountants”. It was therefore necessary to provide a definition of a “forensic accountant” as a person possessing sufficient legal, accounting, auditing, investigative and interviewing skills to perform investigations in a commercial environment, provide litigation support, act as expert witness and provide accounting and auditing skills to specific business scenarios. The fact that the South African forensic environment is still largely unregulated contributes to the uncertainty as to who can call himself a “forensic accountant”, as currently professionals have to rely on accreditation offered by existing professions, which in itself do not cater for the South African forensic accountant;

- The training of forensic accountants appears to be a matter of supply catching up with demand. Various South African tertiary institutions are currently offering qualifications relating to what appears to be commercial crime investigations, and at this stage nothing regulates these institutions doing this. The question might however be asked as to who or what are they training and where does it end? The Potchefstroom campus of the North-west University is currently the only South African University to offer theoretical training of forensic accountants in the form of a traditional degree, but no formal practical experience as part of a recognised training programme exists, as is normally dictated by professional bodies, like for example the IFA programme of the CICA. These questions remain to be answered as to whether the South African forensic accountant will at some stage be affiliated to SAICA or as the current initiative suggests that the forensic profession at large needs to be standardised,
possibly with career paths for both the legal, accounting, investigative and perhaps information technology forensic specialists;

- The establishment of an institute for the South African commercial investigative environment together with career paths for inter alia future "forensic accountants" will to a large extent determine the training requirements of South African forensic accountants; and

- "Forensic accountants" are currently out there in the market and are performing their duties according to market requirements. They should be properly trained through a combination of academic qualifications, practical experience and possibly minimum requirements for admission to a professional regulating body.
CHAPTER 4
DETERMINING THE CORE CURRICULUM CONTENT OF TOPICS FOR THE TRAINING OF A FORENSIC ACCOUNTANT IN SOUTH AFRICA

4.1 Introduction

The bulk of empirical evidence accumulated for purposes of this study is presented in this chapter, in order to investigate:

- Research objective 2(iv) in paragraph 1.4 on page 8 in establishing the future demand and interest for certain forensic-related services,
- Research objective 2(v) in paragraph 1.4 on page 8 in evaluating the perceived benefits of forensic accounting training,
- Research objective 3 in paragraph 1.4 on page 8 in determining a core curriculum content of topics of knowledge and skills required which is essential to the education and training of the South African forensic accountant, and
- Research objective 4 in paragraph 1.4 on page 8 in determining the importance of regulating the forensic investigative environment.

As it is important to relate the background of the respondents to the training requirements of a forensic accountant, this chapter provides a profile of the respondents as part of the empirical survey conducted.

The empirical survey was to a reasonable extent, based on the work done by Rezaee et al (2004: 1-44), as referred to in paragraph 1.6.2 on pages 9 to 11 of this study. The study of Rezaee et al. reviewed a sample of 21 universities that were offering forensic accounting related courses at that stage in the United States and consequently identified 49 curriculum content topics presented to academics and practitioners to indicate the importance thereof to be included in a forensic accounting course or modules integrated into an auditing course. Express permission to utilise the work of Rezaee et al. has been obtained on 25 January 2007 via e-mail. Chapter three concluded and made reference to the identification of 46 forensic accounting curriculum topics based on the study of Rezaee et al., which have been identified to be empirically evaluated in terms of perceived importance (paragraph 3.6 on page 48).
4.2 Method of investigation

4.2.1 Developing the contents of the questionnaire

The questionnaire has been developed based upon the profile of forensic accountants and their main areas of specialisation and work relevance as determined and defined as part of the preceding literature study.

The questionnaire (attached as Annexure 2 on pages 80 to 83) has been divided into the following four distinct sections:

- Determining the profile of the respondents, with specific reference to the sector of employment (Question one), position of employment (Question two), number of years experience in the field of forensic investigations (Question three), and fields in which the respondents have received formal tertiary education (Questions four and five);
- Determining the need for forensic accounting education, with specific reference to the respondents' perception of whether the future demand and interest in the areas of forensic-related services will decrease, remain the same, unsure or increase (Questions six and seven), as well as establishing whether the respondents evaluate the perceived benefits of forensic accounting training as least important to most important (Question eight);
- Establishing the importance of pre-determined forensic accounting curriculum topics (Question nine); and
- Determining the need for regulating the forensic investigative environment, with specific reference to the formation of an institute for forensic specialists (Question ten) and the inclusion of internships as part of the educational profile of forensic specialists (Questions eleven and twelve). This question has been included based on the findings of the literature review as summarised in paragraph 3.7 on pages 48 to 50 that an institute or governing body relevant to forensic accountants dictate the training requirements of forensic accountants.

Forensic accounting-related services (as contemplated in Question six of Annexure 2 on pages 80 to 83), were identified from the literature review (refer to paragraph 3.2 on page 35 to 39) as follows:

- Commercial crime investigations (excluding procurement fraud);
• Fraud prevention;
• Dispute resolutions;
• Litigation support;
• Procurement fraud; and
• Other areas.

The benefits of forensic accounting training (as contemplated in Question eight of Annexure 2 on pages 80 to 83), were identified from the literature review (refer to paragraph 3.5 on pages 46 to 47) as:

• Satisfying society’s demand for forensic accounting education and training;
• Strengthening the credibility of financial reporting;
• Promoting responsible corporate governance;
• Making students more desirable in the market place;
• Preparing students to be competent as forensic accounting investigators; and
• Preparing students to engage in forensic related services.

The predetermined forensic accounting curriculum topics (as contemplated in Question nine of Annexure 2 on pages 80 to 83) were divided into the following five distinct sections:

• Accounting/ Auditing related;
• Law related;
• IT related;
• Investigation related; and
• Supportive subjects.

4.2.2 The sample size

The questionnaire has been presented on two occasions for completion.

The first instance was on 2 August 2007 at the meeting of major role players held at the Johannesburg Country Club (refer to paragraph 2.2.2 on pages 17 to 21). The meeting has been attended by major role players across the forensic investigative environment (including the forensic divisions of the “big four” audit firms, the Auditor General, the SIU, SARS, major banks, Sasol,
National Prosecuting Authority etc. The focus of the meeting was to consider the need for self-regulation via the formation of an institute for forensic professionals. The programme for forensic accountancy at the Potchefstroom campus of the North-West University conveyed the meeting and provided a brief presentation on the definition of a forensic accountant, the identified fields of curriculum development and the need for self-regulation or association. The questionnaire was presented for completion on a voluntary basis on 2 August 2007. It was subsequently not possible to determine how many questionnaires were not completed on this first instance.

The questionnaire has been presented during a second occasion on 18 August 2007 to students attending class for the M. Comm. in Forensic Accountancy at the Potchefstroom campus of the North-West University. These students formed part of a group of selected individuals with either an honours degree in accounting or an LLB, of whom the majority were involved in the forensic investigative environment as part of various organisations, firms and government. The group consisted of approximately eighty students enrolled for the M. Comm. in forensic accountancy programme: forty of these students were busy with their first year and forty with their second year. The questionnaires have been presented for completion on a voluntary basis. It was subsequently not possible to determine how many questionnaires were not completed on this second instance.

A total of eighty responses in terms of completed questionnaires have been received for both instances as outlined infra. The following factors should be considered in evaluating the appropriateness and sufficiency of the sample size:

- Although the South African forensic investigative environment consists in broad terms of investigators, information technology specialists, legal specialists and accounting specialists, the aim of this study pertains to forensic accountants as merely one of the specialised fields, thereby limiting the number of respondents with knowledge pertaining to forensic accounting;
• Responses were obtained from major role players during a meeting unique in nature and perhaps a first in South Africa and from individuals participating in the highest post graduate qualification in forensic accountancy currently offered in South Africa, which in itself constitutes a significant sample. The emphasis of this study being responses from the market directly;

• Despite the presence on 2 August 2007 of pioneers in the field of forensic investigation education and responsible for the forensic programmes currently offered at their universities, Professors Dawie de Villiers (University of Johannesburg) and Danie du Plessis (University of Pretoria), responses from academics as a group might be considered limited. The study was rather focused on obtaining responses from the market as directive for the academics, than academics directing the market;

• Another option for obtaining possibly meaningful responses could have been to include a survey of members of SAICA, currently involved in forensic accounting, for their role as the only current institute providing, in the absence to anything else, credibility to South African forensic accountants; and

• The South African chapter of the Certified Fraud Examiners (CFE), currently provides the only significant forum for fraud investigators in the broader sense. Their membership insofar as forensic accountants or accounting background is concerned, might have provided a further basis for obtaining meaningful responses.

Although other options for obtaining meaningful responses were indeed considered, the current sample of highly educated major role players in the field of forensic accounting is considered sufficient for the purposes of this study. Furthermore, the empirical survey provides further detail on the profile of the respondents in terms of questions one to five of Annexure 2 on pages 80 to 83.
4.2.3 Analysis of the information

The eighty responses were analysed by the Statistical Consultations Department of the North-West University. The answer to each of the questions in the questionnaire is discussed in the following format:

- Introduction: The purpose of the question is discussed.
- Result: The answers of all the respondents are discussed and graphically analysed where applicable.
- Inference: An inference is made from the result, without reaching a conclusion (conclusions and recommendations will be made in chapter five).

The profile of the respondents was additionally determined in order to evaluate the responses to questions six, eight, and nine of the questionnaire insofar as:

- The position of employment (as determined in question two of the questionnaire) comprising of top management, middle management and staff. The responses obtained from top management were considered separately; and
- The years experience in the field of forensic investigations (as determined in question three of the questionnaire) being divided into less than five years, between five and ten and more than ten years experience. The responses obtained from respondents with more than ten years experience were considered separately.
4.3 Profile of the respondents

As it is important to take into consideration the background and positions of the respondents because it may have an impact on the core curriculum content of topics of knowledge and skills required, it will first be analysed in this paragraph. The profile of the respondents has been determined in Questions one to five of the questionnaire (refer to Annexure 2 on pages 80 to 83).

4.3.1 Sector of employment

Introduction

The purpose of this question (refer to Question 1 in Annexure 2) was to determine the sector of employment of the respondents. Other sectors of employment were indicated as academia, internal departmental investigation unit, private sector, or other areas indicated by the respondents.

Result

Diagram 4.1: Sectors of employment

![Sector of Employment Diagram](image)

Inference

After an analysis of the “other” sector, it becomes apparent that the majority of respondents are employed in the private sector.
4.3.2 Position of employment

Introduction
The purpose of this question (refer to Question two in Annexure 2 on pages 80 to 83) was to determine the position of employment of the respondents.

Result
Diagram 4.2: Position of employment

Inference
The majority of respondents \((34 + 23 = 57\%)\) consisted of top and middle management, indicating that senior respondents participated in the study. Respondents comprising as part of the normal staff component were only 18\% of the total respondents.
4.3.3 Years experience in forensic investigations

Introduction
The purpose of this question (refer to Question three in Annexure 2 on page 80 to 83) was to determine the years of experience in the field of forensic investigations.

Result
Diagram 4.3: Experience in forensic investigations

Inference
The majority of respondents (53%) had more than two years forensic investigative experience, with a significant 19% having more than ten years experience. However, 62% (47% + 15%) of respondents has less than five years experience in forensic investigations.
4.3.4 Field of former tertiary education

Introduction
The purpose of these questions (refer to Questions four and five in Annexure 2 on pages 80 to 83) was to determine the field of former tertiary education of the respondents.

Result
Only 67 respondents indicated their field of former tertiary education and training.

Diagram 4.4: Formal tertiary education

![Diagram showing the distribution of fields of education]

Inference
The most significant three areas of education comprised of accounting, legal and investigative training. The majority of respondents (46%) have received formal tertiary accounting education.

4.3.5 Link between position and years of experience in forensic investigations

Introduction
Diagram 4.5 below indicates the level of years experience in forensic investigations for top management, whilst diagram 4.6 on page 61 indicates the profile of respondents with more than ten years experience in forensic investigations. The responses of top management and those respondents with more than ten years experience should be considered as significant responses.
Result

Diagram 4.5: Experience (in years) of top management

![Diagram 4.5](image)

Diagram 4.6: Profile of respondents with more than ten years forensic investigative experience

![Diagram 4.6](image)

Inference

It is evident from the above that 60% of top management has more than five years forensic investigative experience (diagram 4.5), whilst 53% of respondents with more than ten years experience are employed as part of top management (diagram 4.6).
4.4 The need for forensic accounting training

4.4.1 Future demand and interest in areas of forensic-related services

Introduction

The determination of the need for forensic accounting education, with specific reference to the respondents' perception of whether the future demand and interest in the areas of forensic-related services will decrease, remain the same, increase or whether the respondents are unsure, where forensic-related services (as contemplated in Question six of Annexure 2 on pages 80 to 83), were identified as: Commercial crime investigations (excluding procurement fraud), Fraud prevention, Dispute resolutions, Litigation support, Procurement fraud, and Other areas. (Refer to secondary research objective 2(iv) in paragraph 1.4 on page 8).

Result

Diagram 4.7: Percentage of respondents indicating expected increases in the future demand for forensic related services

<table>
<thead>
<tr>
<th>Service</th>
<th>All respondents</th>
<th>Top Management</th>
<th>&gt; 10 years experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investigations</td>
<td>90%</td>
<td>95%</td>
<td>85%</td>
</tr>
<tr>
<td>Fraud prevention</td>
<td>85%</td>
<td>90%</td>
<td>80%</td>
</tr>
<tr>
<td>Dispute resolutions</td>
<td>60%</td>
<td>65%</td>
<td>55%</td>
</tr>
<tr>
<td>Litigation support</td>
<td>70%</td>
<td>75%</td>
<td>65%</td>
</tr>
<tr>
<td>Procurement fraud</td>
<td>75%</td>
<td>80%</td>
<td>70%</td>
</tr>
</tbody>
</table>

Inference

The majority of respondents (more than 70% for all three groups of respondents and more than 80% for top management) expected the demand and interest in forensic-related services to increase, except for dispute resolution services where just more than 50% of the respondents indicated the demand for dispute resolution services to increase. It is interesting to note from the question that only 36.25% of all the respondents indicated the demand for dispute resolution services to remain the same.
4.4.2 Importance of the perceived benefits of forensic accounting education

Introduction

The purpose of this question (refer to Question eight in Annexure 2 on pages 80 to 83) was to determine the importance of the perceived benefits of forensic accounting training (refer to secondary research objective 2(v) in paragraph 1.4 on page 8). Respondents were required to indicate the importance of the perceived benefits on a scale of one to five, where one indicated least important and five indicated the most important.

The perceived benefits of forensic accounting training were satisfying society’s demand for forensic accounting education and training, strengthening the credibility of financial reporting, promoting responsible corporate governance, making students more desirable in the market place, preparing students to be competent as forensic accounting investigators, and preparing students to engage in forensic related services.

Result

Diagram 4.8: Importance of perceived benefits of forensic accounting training for responses of four (80% and higher) to five
The results as shown in diagram 4.8 on page 63 can further be analysed according to mean response in table 4.1 below.

**Table 4.1: Ranking of perceived benefits according to mean**

<table>
<thead>
<tr>
<th>Perceived benefit</th>
<th>%</th>
<th>N</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students competent as forensic accounting investigators</td>
<td>86%</td>
<td>77</td>
<td>4.29</td>
<td>0.84</td>
</tr>
<tr>
<td>Promote responsible corporate governance</td>
<td>85%</td>
<td>78</td>
<td>4.23</td>
<td>0.84</td>
</tr>
<tr>
<td>Students to engage in commercial crime investigations</td>
<td>84%</td>
<td>79</td>
<td>4.18</td>
<td>0.83</td>
</tr>
<tr>
<td>Students to engage in detection of procurement fraud</td>
<td>83%</td>
<td>73</td>
<td>4.15</td>
<td>0.76</td>
</tr>
<tr>
<td>Students to engage in fraud prevention</td>
<td>83%</td>
<td>79</td>
<td>4.14</td>
<td>0.81</td>
</tr>
<tr>
<td>Students to engage in factual findings</td>
<td>82%</td>
<td>79</td>
<td>4.10</td>
<td>0.81</td>
</tr>
<tr>
<td>Strengthen credibility of financial reporting</td>
<td>81%</td>
<td>79</td>
<td>4.05</td>
<td>0.95</td>
</tr>
<tr>
<td>Students to engage in litigation support</td>
<td>78%</td>
<td>79</td>
<td>3.91</td>
<td>0.91</td>
</tr>
<tr>
<td>Satisfies society demand</td>
<td>75%</td>
<td>78</td>
<td>3.77</td>
<td>0.98</td>
</tr>
<tr>
<td>Students to engage dispute resolutions</td>
<td>75%</td>
<td>77</td>
<td>3.73</td>
<td>0.94</td>
</tr>
<tr>
<td>Make students more desirable in market</td>
<td>73%</td>
<td>79</td>
<td>3.63</td>
<td>1.06</td>
</tr>
</tbody>
</table>

**Inference**

Except for the last four, the majority of respondents indicated a response of four (80%) and higher regarding the perceived benefits of forensic accounting training whilst the top three were to enable students to be competent as forensic accounting investigators, the promotion of responsible corporate governance and for students to engage in commercial crime investigations.

**4.5 Importance of forensic accounting curriculum topics**

**Introduction**

The purpose of this question (refer to Question nine in Annexure 2 on pages 80 to 83) was to determine the most relevant forensic accounting topics. (Refer to primary research objective 3 in paragraph 1.4 on page 8). Respondents were required to indicate the importance of the topics on a scale of one to five, where one indicated least important and five indicated the most important.
Result

Diagram 4.9: Comparison of most important topics as per mean, top management and experience of more than ten years

Diagram 4.9 graphically illustrates the most important topics as perceived by top management respondents and respondents with experience in excess of ten years as compared to the mean response. Table 2 on page 66 below, ranks the forensic accounting topics according to the mean response of all respondents.
Table 4.2: Ranking of forensic accounting topics according to mean

<table>
<thead>
<tr>
<th>Quest.</th>
<th>Topic</th>
<th>N</th>
<th>Mean</th>
<th>Std %</th>
<th>S.Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q9y</td>
<td>Financial statement misrepresentations</td>
<td>80</td>
<td>4.59</td>
<td>92%</td>
<td>0.63</td>
</tr>
<tr>
<td>Q9ag</td>
<td>Report writing</td>
<td>79</td>
<td>4.49</td>
<td>90%</td>
<td>0.70</td>
</tr>
<tr>
<td>Q9x</td>
<td>Types of fraud</td>
<td>80</td>
<td>4.49</td>
<td>90%</td>
<td>0.71</td>
</tr>
<tr>
<td>Q9ae</td>
<td>Specific investigation techniques</td>
<td>80</td>
<td>4.43</td>
<td>89%</td>
<td>0.67</td>
</tr>
<tr>
<td>Q9ac</td>
<td>Crime scenes, search and seizures</td>
<td>79</td>
<td>4.34</td>
<td>87%</td>
<td>0.70</td>
</tr>
<tr>
<td>Q9ah</td>
<td>Expert witnessing</td>
<td>79</td>
<td>4.33</td>
<td>87%</td>
<td>0.76</td>
</tr>
<tr>
<td>Q9aj</td>
<td>Fraud prevention techniques</td>
<td>79</td>
<td>4.33</td>
<td>87%</td>
<td>0.80</td>
</tr>
<tr>
<td>Q9f</td>
<td>Companies Law</td>
<td>80</td>
<td>4.33</td>
<td>87%</td>
<td>0.71</td>
</tr>
<tr>
<td>Q9j</td>
<td>Law of Evidence</td>
<td>80</td>
<td>4.30</td>
<td>86%</td>
<td>0.85</td>
</tr>
<tr>
<td>Q9ak</td>
<td>Identification of red flags</td>
<td>79</td>
<td>4.29</td>
<td>86%</td>
<td>0.70</td>
</tr>
<tr>
<td>Q9ai</td>
<td>Investigation planning</td>
<td>79</td>
<td>4.28</td>
<td>86%</td>
<td>0.78</td>
</tr>
<tr>
<td>Q9g</td>
<td>Criminal Law</td>
<td>80</td>
<td>4.28</td>
<td>86%</td>
<td>0.81</td>
</tr>
<tr>
<td>Q9q</td>
<td>Specific legislation</td>
<td>80</td>
<td>4.28</td>
<td>86%</td>
<td>0.84</td>
</tr>
<tr>
<td>Q9t</td>
<td>Functions of forensic accountant</td>
<td>79</td>
<td>4.24</td>
<td>85%</td>
<td>0.80</td>
</tr>
<tr>
<td>Q9ap</td>
<td>Ethics and corporate governance</td>
<td>79</td>
<td>4.24</td>
<td>85%</td>
<td>0.80</td>
</tr>
<tr>
<td>Q9v</td>
<td>Performing interviews</td>
<td>80</td>
<td>4.24</td>
<td>85%</td>
<td>0.83</td>
</tr>
<tr>
<td>Q9ab</td>
<td>Investigation techniques: Statements</td>
<td>80</td>
<td>4.18</td>
<td>84%</td>
<td>0.78</td>
</tr>
<tr>
<td>Q9h</td>
<td>Aspects of South African Law of Criminal Procedure</td>
<td></td>
<td>4.16</td>
<td>83%</td>
<td>0.91</td>
</tr>
<tr>
<td>Q9ad</td>
<td>Investigation techniques: Questioned documents</td>
<td>80</td>
<td>4.16</td>
<td>83%</td>
<td>0.83</td>
</tr>
<tr>
<td>Q9i</td>
<td>Aspects of South African Law of Civil Procedure</td>
<td></td>
<td>4.05</td>
<td>81%</td>
<td>0.81</td>
</tr>
<tr>
<td>Q9aa</td>
<td>Investigation resources</td>
<td>80</td>
<td>4.03</td>
<td>81%</td>
<td>0.84</td>
</tr>
<tr>
<td>Q9af</td>
<td>Engagement acceptance and risk control</td>
<td>80</td>
<td>4.01</td>
<td>80%</td>
<td>0.88</td>
</tr>
<tr>
<td>Q9s</td>
<td>Computer literacy and specific investigative applications</td>
<td></td>
<td>3.99</td>
<td>80%</td>
<td>0.88</td>
</tr>
<tr>
<td>Q9b</td>
<td>Internal control systems and related standard controls</td>
<td></td>
<td>3.96</td>
<td>79%</td>
<td>0.79</td>
</tr>
<tr>
<td>Q9n</td>
<td>Selected aspects of South African Constitutional Law</td>
<td></td>
<td>3.96</td>
<td>79%</td>
<td>0.93</td>
</tr>
<tr>
<td>Q9u</td>
<td>Role players in the forensic investigative environment</td>
<td></td>
<td>3.96</td>
<td>79%</td>
<td>0.94</td>
</tr>
<tr>
<td>Q9r</td>
<td>Specific legislation: Bank Act, Control regulations, etc</td>
<td></td>
<td>3.87</td>
<td>77%</td>
<td>0.91</td>
</tr>
<tr>
<td>Q9c</td>
<td>Auditing techniques: International Standards on Auditing</td>
<td></td>
<td>3.84</td>
<td>77%</td>
<td>0.90</td>
</tr>
<tr>
<td>Q9z</td>
<td>Investigation techniques: Docket administration</td>
<td>80</td>
<td>3.81</td>
<td>76%</td>
<td>1.06</td>
</tr>
<tr>
<td>Q9k</td>
<td>Selected aspects of South African Labour Law</td>
<td>80</td>
<td>3.76</td>
<td>75%</td>
<td>0.92</td>
</tr>
<tr>
<td>Q9w</td>
<td>Principles of valuation techniques</td>
<td>80</td>
<td>3.76</td>
<td>75%</td>
<td>0.93</td>
</tr>
<tr>
<td>Q9d</td>
<td>Auditor reports</td>
<td>79</td>
<td>3.76</td>
<td>75%</td>
<td>0.94</td>
</tr>
<tr>
<td>Q9as</td>
<td>Psychological aspects of human behaviour</td>
<td>78</td>
<td>3.76</td>
<td>75%</td>
<td>0.98</td>
</tr>
<tr>
<td>Q9a</td>
<td>Preparation of financial statements: (IAS) and IFRS</td>
<td></td>
<td>3.75</td>
<td>75%</td>
<td>1.09</td>
</tr>
<tr>
<td>Q9l</td>
<td>Selected aspects of South African Law of Contracts</td>
<td></td>
<td>3.71</td>
<td>74%</td>
<td>0.93</td>
</tr>
<tr>
<td>Q9m</td>
<td>Selected aspects of South African Law of Delicts</td>
<td></td>
<td>3.71</td>
<td>74%</td>
<td>0.96</td>
</tr>
<tr>
<td>Q9aj</td>
<td>Arbitration and alternative dispute resolution</td>
<td>79</td>
<td>3.67</td>
<td>73%</td>
<td>0.94</td>
</tr>
<tr>
<td>Q9ao</td>
<td>Informants and covert operations</td>
<td>79</td>
<td>3.56</td>
<td>71%</td>
<td>0.98</td>
</tr>
<tr>
<td>Q9e</td>
<td>South African Tax Law</td>
<td>79</td>
<td>3.53</td>
<td>71%</td>
<td>1.01</td>
</tr>
<tr>
<td>Q9an</td>
<td>Entrapments</td>
<td>79</td>
<td>3.52</td>
<td>70%</td>
<td>0.89</td>
</tr>
<tr>
<td>Q9ar</td>
<td>Criminology and reasons for crime causation</td>
<td>79</td>
<td>3.49</td>
<td>70%</td>
<td>1.05</td>
</tr>
<tr>
<td>Q9o</td>
<td>Selected aspects of South African Insolvency Law</td>
<td></td>
<td>3.48</td>
<td>70%</td>
<td>1.01</td>
</tr>
<tr>
<td>Q9am</td>
<td>Employment screening</td>
<td>78</td>
<td>3.40</td>
<td>68%</td>
<td>0.94</td>
</tr>
<tr>
<td>Q9at</td>
<td>Economics</td>
<td>75</td>
<td>3.23</td>
<td>65%</td>
<td>0.97</td>
</tr>
<tr>
<td>Q9aq</td>
<td>Mathematics and statistics</td>
<td>79</td>
<td>3.18</td>
<td>64%</td>
<td>1.01</td>
</tr>
<tr>
<td>Q9p</td>
<td>Law and procedures pertaining to matrimonial disputes</td>
<td></td>
<td>2.79</td>
<td>56%</td>
<td>1.10</td>
</tr>
</tbody>
</table>
Inferences
The 46 topics, excluding question 9au where six respondents indicated an additional topic, ranged between a minimum mean of 2.79 (56%) and a maximum mean of 4.59 (92%), indicating that the entire range of forensic accounting topics were considered more important than not, as illustrated in table 4.2 on page 66 above.

The following 16 topics achieved a mean response of 4.24 (85%) and higher, as illustrated in table 2 infra:

1. Financial statement misrepresentations
2. Report writing
3. Types of fraud
4. Specific investigation techniques
5. Investigation techniques: crime scenes, search and seizures
6. Fraud prevention techniques
7. Expert witnessing
8. Companies law
9. Law of evidence
10. Identification of red flags
11. Project and investigation planning
12. Specific legislation: PFMA, MFMA, Auditing Profession Act, Public Audit Act, etc
13. Criminal law
14. Ethics and corporate governance
15. Functions of forensic accountant
16. Performing interviews

Top management considered report-writing and specific investigation techniques as most important, whilst investigators with more than ten years experience considered fraud prevention, companies law and the identification of red flags as most important (Refer to Diagram 4.9 on page 65). It appears as if management is more concerned with how to do the job (investigate and report), whilst experienced investigators are more concerned with preventing fraud and commercial crime.
4.6 Regulating the forensic investigative environment

4.6.1 Importance of regulating the forensic investigative environment

Introduction
The purpose of this question (refer to Question ten in Annexure 2 on pages 80 to 83) was to determine the need for regulating the forensic investigative environment, in order to substantiate further research in establishing a governing body for forensic specialists (Refer to primary research objective 4 in paragraph 1.4 on page 8). This question has been included based on the findings of the literature review as summarised in paragraph 3.7 on pages 48 to 50, which motivates for an institute or governing body relevant to forensic accountants.

Result
Diagram 4.10: Rating the importance of an institute for forensic specialists

Inference
98.75% of the respondents regarded the regulation of the forensic investigative environment with specific reference to the formation of an institute for forensic specialists as imperative to highly imperative. An overwhelming 73.75% of respondents regarded it as highly imperative.
4.6.2 Inclusion of internships as part of the educational profile of forensic specialists

Introduction

The purpose of this question (refer to Question eleven in Annexure 2 on pages 80 to 83) was to determine whether compulsory articles or internship should be included as part of the educational profile of forensic specialists. This question has been included based on the findings of the literature review as summarised in paragraph 3.7 on pages 48 to 50 that the an institute or governing body relevant to forensic accountants regulate the training requirements of forensic accountants with implied internship forming part of such training requirements.

Result

Diagram 4.11: Inclusion of compulsory internship

Inference

The majority of respondents (81.25%) indicated that compulsory articles should be part of the educational profile of forensic specialists. This further indicates the need for practical experience subsequent to theoretical training.
4.7 Conclusion

This chapter outlines the process and results of the empirical research conducted in determining the core curriculum content for the training of a South African forensic accountant. This chapter elaborates on how the questionnaire (refer to Annexure 2 on pages 80 to 83) has been prepared and subsequently presented on two occasions to eighty respondents involved in and connected to the forensic investigative environment. The chapter is therefore based on the results of this questionnaire utilised during the empirical research in order to address some of the research objectives outlined in paragraph 4.1 on page 51.

The inferences drawn from the answers to the questionnaire can be summarised as follows:

- The majority of respondents are employed in the private sector (diagram 4.1, page 57).
- The majority of respondents (57%) consisted of top and middle management (diagram 4.2, page 58).
- The majority of respondents (53%) had more than two years forensic investigative experience (diagram 4.3, page 59).
- The majority of respondents (46%) have received formal tertiary accounting education (diagram 4.4, page 60).
- 60% of top management respondents have more than five years forensic investigative experience (diagram 4.5, page 61), whilst 53% of respondents with more than ten years experience is employed as part of top management (diagram 4.6, page 61).
- The majority of respondents (more than 70%) expected the demand and interest in forensic-related services to increase (diagram 4.7, page 62).
- The majority of respondents indicated a response of 73% and higher regarding the perceived benefits of forensic accounting training (table 4.1, page 64).
- The importance of the selected 46 forensic accounting-related topics ranged between a minimum mean of 2.79 (56%) and a maximum mean
of 4.59 (92%), indicating that the entire range of forensic accounting topics were considered more important than not (table 4.2, page 66).

- 73.75% of respondents regarded the formation of an institute for forensic specialists as highly imperative (diagram 4.10, page 68).
- 81.25% of respondents indicated that compulsory articles should be part of the educational profile of forensic specialists, which may be a topic for further research (diagram 4.11, page 69).
CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS ON THE TRAINING OF A FORENSIC ACCOUNTANT IN SOUTH AFRICA

5.1 Introduction

The last decade has seen the development of an increased need for forensic accountants in the fight against misconduct, commercial crime and the prevention, detection and investigation thereof. The previous chapters have outlined and described what constitutes a forensic accountant in terms of definition, skills, attributes and working environment. These chapters further emphasised the need for the training of forensic accountants and concluded with a core curriculum of topics which are considered relevant for the training of a forensic accountant in South Africa, as seen in the light of perceived benefits of training forensic accountants.

The problem statement and main objectives of this study, as outlined in paragraphs 1.3 and 1.4 on pages 7 and 8, refers to the determination of the core curriculum contents in the training of a forensic accountant in South Africa. In order to make recommendations and conclusions pertaining to the latter, the study had to elaborate and clarify the remaining main objectives of this study, being to define the term South African forensic accountant (as outlined in chapter two) as well as the related services rendered by a forensic accountant within the working environment (as outlined in chapter three).

Once these two objectives have been established, an empirical study determined the proposed core curriculum contents in the training of a South African forensic accountant, as outlined in chapter 4 of this study.

This chapter will conclude and recommend on each one of the primary and secondary research objectives of this study.
5.2 Defining a South African forensic accountant

Conclusion on primary research objective 1

It is evident from the literature (refer to paragraph 2.4 of pages 31 to 32) that a forensic accountant is a person possessing sufficient legal, accounting, auditing and investigative skills to:

- Perform investigations in a commercial environment;
- Investigate the occurrence of fraud, commercial crime, procurement fraud, misconduct and other types of commercial crime and misconduct;
- Be involved in fraud, commercial crime and/or misconduct prevention;
- Perform agreed-upon procedures;
- Provide litigation support;
- Act as expert witness;
- Apply psychological and criminological aspects pertaining to human behaviour insofar as the establishment of facts and looking “behind” the numbers are concerned; and
- Provide accounting and auditing skills for specific business scenarios.

The core curriculum of knowledge and skills of the forensic accountant is an overlap of the three main disciplines of accounting, auditing, investigations and the legal environment.

Recommendation

The formation and establishment of a South African regulatory and professional body for forensic accountants with specific requirements for membership, will ultimately contribute to the definition of a forensic accountant through inter alia the establishment of uniform standards for work procedures.
5.3 The services rendered by forensic accountants

Conclusion on primary research objective 2

The primary services rendered by forensic accountants include (refer to paragraph 3.2 on page 38):

- Assistance in financial disputes;
- Litigation support and expert witnessing pertaining to financial aspects;
- Criminal and misconduct investigations of a financial nature; and
- Commercial crime prevention and management of the associated risks.

The unique services rendered by South African forensic accountants contribute to a unique set of skills or perhaps a profession on its own. As a result of an undefined professional forensic accounting environment, exact parameters and guidelines for service-delivery do not exist. The market dictates needs which are current addressed by, for example the forensic divisions of the traditional big four auditing firms.

Recommendation

Uniform standards enforced through legislation and/or regulation should be developed for forensic accounting services in order to protect clients in terms of work quality and expectations of service delivery.

5.3.1 Skills and attributes

Conclusion on secondary research objective 2(i)

The following main areas of expertise will be required by a forensic accountant to perform his/her duties (refer to paragraph 3.3 on pages 43 to 44):

- Accounting, business and auditing knowledge, as it is financial records that will be examined;
- Investigative skills, including the performance of successful interviews and people skills (including certain psychological aspects and knowledge of criminal behaviour);
Legal knowledge, both criminal and civil aspects, as findings of the forensic accountant should support subsequent legal proceedings;

Application of information technology and data analysis; and

The ability to provide expert testimony.

**Recommendation**

Forensic accountants should be exposed to sufficient training and skills development through a process of internship, practical experience and theoretical education.

**5.3.2 Need for forensic accountants**

**Conclusion on secondary research objective 2(ii)**

The field of forensic accounting is rapidly growing and evolving into a profession of its own (refer to paragraph 3.4 on pages 44 to 45). The majority of respondents have indicated that the demand and interest in forensic-related services will increase (refer to diagram 4.7 on page 62.)

**Recommendation**

Forensic accountants should be exposed to sufficient training and skills development through a process of internship, practical experience and theoretical education in order to meet the demand and interest in forensic-related service delivery.

**5.3.3 Need for the training of forensic accountants**

**Conclusion on secondary research objective 2(iii)**

A dire need for the training of forensic accountants as well as the need for forensic accounting training exists (refer to paragraph 3.5 pages 46 to 47). The majority of respondents regarded the perceived benefits of forensic accounting training as significant (refer to table 4.1 on page 64).

**Recommendation**

Training for South African forensic accountants and forensic accounting training as part of other disciplines, for example as part of the training of
South African Chartered Accountants, should take place as the perceived benefits are significant. Practical considerations might pose problems which would be better addressed through the regulation of the forensic industry.

5.3.4 Future demand and interest for forensic-related services

Conclusion on secondary research objective 2(iv)
The future demand and interest of forensic-related services will be indicative of rapid growth and expansion (refer to diagram 4.7 on page 62).

Recommendation
Growth and expansion of forensic-related services will necessitate increased training of forensic accountants and regulation of the forensic investigative industry.

5.3.5 Perceived benefits of forensic accounting training

Conclusion on secondary research objective 2(v)
The following perceived benefits of forensic accounting training were rated as significant by respondents (refer to table 4.1 on page 64) and are listed in order of significance:

- Students competent as forensic accounting investigators;
- Promoting responsible corporate governance;
- Students to engage in commercial crime investigations;
- Students to engage in detection of procurement fraud;
- Students to engage in fraud prevention;
- Students to engage in factual findings; and
- To strengthen credibility of financial reporting.

Recommendation
The overriding factor that students should be trained to be competent as forensic accounting investigators necessitates thorough training programmes which will prepare students to become competent forensic accountants as required by the market.
5.4 Core curriculum content of topics for the training of a forensic accountant in South Africa

Conclusion on primary research objective 3

The top 13 forensic accounting curriculum topics with mean responses in excess of 85% were identified as (refer to table 4.2 on page 66):

1. Financial statement misrepresentations 4.59 92%
2. Report writing 4.49 90%
3. Types of fraud 4.49 90%
4. Specific investigation techniques 4.43 89%
5. Crime scenes, search and seizures 4.34 87%
6. Expert witnessing 4.33 87%
7. Fraud prevention techniques 4.33 87%
8. Companies Law 4.33 87%
9. Law of Evidence 4.30 86%
10. Identification of red flags 4.29 86%
11. Investigation planning 4.28 86%
12. Criminal Law 4.28 86%
13. Specific legislation 4.28 86%

Top management considered report-writing and specific investigation techniques as most important, whilst investigators with more than ten years experience considered fraud prevention, companies law and the identification of red flags as most important. It appears as if management is more concerned with how to do the job (investigate and report), whilst experienced investigators are more concerned with preventing fraud and commercial crime.

Recommendation

The identified topics should form the basis for establishing a core curriculum content for the training of South African forensic accountants.

5.5 Regulation of the forensic investigative environment

Conclusion on primary research objective 4

Respondents emphasized the importance of self-regulation within the forensic industry as well as the fact that internship should form part of the training of a forensic accountant in South Africa (Refer to paragraph 4.7 on pages 70 to 71).
Recommendation

The areas for further research should inter alia aim to determine how, where and when the South African forensic accountant should be trained and educated. Aspects like the regulation of the South African forensic investigative environment should be explored with specific emphasis being placed on providing admission requirements to a governing body for forensic professionals. The role of SAICA in this regard, especially the definition of trained chartered accountants in the light of recent developments should be considered. Not only should SAICA consider the option of training forensic accountants, but also the inclusion of forensic accounting curricula (as identified as part of this research) as part of the curriculum contents of the SAICA syllabus for chartered accountants.
Lectori Salutem

Dear Sir/Madam

MASTER'S DEGREE RESEARCH: JAN VAN ROMBURGH

This is to certify that the above-mentioned candidate is currently a registered student at the North-West University. He is currently busy with his research on educating forensic accountants in South Africa. I would like to ask you for your support in completing the relevant questionnaire as attached.

I undertake to see that all information will be kept confidential and you can give an indication if you do want a report afterwards.

Thank you for your support and co-operation in this regard.

Yours Faithfully

PROF S S VISSE
(DIRECTOR: SCHOOL OF ACCOUNTING SCIENCES)
TRAINING FORENSIC ACCOUNTANTS IN SOUTH AFRICA

Questionnaire to major forensic role players
This questionnaire is designed to determine:
- the need for formal training of forensic accountants;
- the core curriculum contents of forensic accountants’ formal training; and
- the need for regulating the forensic environment.

The term “forensic” in the context of this questionnaire refers to forensic accounting investigations performed in a commercial environment, including but not limited to commercial crime investigations.

PLEASE INDICATE YOUR PREFERRED CHOICE WITH AN “X”

Question 1
In which of the following sectors are you employed?

<table>
<thead>
<tr>
<th>Sector</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Private forensic investigative practice</td>
<td>1</td>
</tr>
<tr>
<td>South African Police Service</td>
<td>2</td>
</tr>
<tr>
<td>Specialized government investigative agency</td>
<td>3</td>
</tr>
<tr>
<td>Academia</td>
<td>4</td>
</tr>
<tr>
<td>Internal departmental investigation unit: Government</td>
<td>5</td>
</tr>
<tr>
<td>Internal departmental investigation unit: Private Sector</td>
<td>6</td>
</tr>
<tr>
<td>Other: (Please state)</td>
<td>7</td>
</tr>
</tbody>
</table>

Question 2
Would you describe your position of employment as:

<table>
<thead>
<tr>
<th>Position</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff</td>
<td>1</td>
</tr>
<tr>
<td>Management</td>
<td>2</td>
</tr>
<tr>
<td>Middle management</td>
<td>3</td>
</tr>
<tr>
<td>Top management</td>
<td>4</td>
</tr>
<tr>
<td>Consultant</td>
<td>5</td>
</tr>
</tbody>
</table>

Question 3
Indicate the number of years experience in the field of forensic investigations:

<table>
<thead>
<tr>
<th>Experience Duration</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than two years</td>
<td>1</td>
</tr>
<tr>
<td>Between two and five years</td>
<td>2</td>
</tr>
<tr>
<td>Between five and ten years</td>
<td>3</td>
</tr>
<tr>
<td>More than ten years</td>
<td>4</td>
</tr>
</tbody>
</table>

Question 4
In which of the following fields did you receive formal tertiary education/training:

<table>
<thead>
<tr>
<th>Field</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investigation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Question 5**
If your answer to question four is “other”, please describe:

---

**Question 6**
Do you expect the future demand and interest in the following areas of forensic-related services to:

<table>
<thead>
<tr>
<th>Area</th>
<th>Unsure</th>
<th>Decrease</th>
<th>Remain the same</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Commercial Crime Investigations (Excluding procurement fraud)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b) Fraud Prevention</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>c) Dispute Resolutions</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>d) Litigation Support</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>e) Procurement Fraud</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>f) Other</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**Question 7**
If your answer to question 6 is “other”, please describe:

---

**Question 8**
Please indicate the importance of the perceived benefits of forensic accounting training by circling the appropriate number where 1 = least important and 5 = most important.

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Least Important</th>
<th>Most Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Satisfy society’s demand for forensic accounting education and training</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>(b) Strengthen the credibility of financial reporting</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>(c) Promote responsible corporate governance</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>(d) Make students more desirable in the marketplace</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>(e) Prepare students to be competent as forensic accounting investigators</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>(f) Prepare students to engage in commercial crime investigations</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>(g) Prepare students to engage in fraud prevention</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>(h) Prepare students to engage in dispute resolutions</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>(i) Prepare students to engage in litigation support</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>(j) Prepare students to engage in factual findings</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>(k) Prepare students to engage in detection of procurement fraud</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>(l) Other (please specify)</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

81
Question 9

Please indicate the importance of covering the following topics in a forensic accounting curriculum by circling the appropriate number where 1 = least important and 5 = most important.

<table>
<thead>
<tr>
<th>Accounting/Auditing-related</th>
<th>Least Important</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Most Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Preparation of financial statements in accordance with International Accounting Standards (IAS) and IFRS</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(b) Internal control systems and related standard controls</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(c) Auditing techniques in terms of International Standards on Auditing</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(d) Auditor reports</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Law-related</th>
<th>Least Important</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Most Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>(e) South African Tax Law</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(f) South African Companies Law</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(g) Selected aspects of South African Criminal Law</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(h) Selected aspects of South African Law of Criminal Procedure</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(i) Selected aspects of South African Law of Civil Procedure</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(j) Selected aspects of South African Law of Evidence</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(k) Selected aspects of South African Labour Law</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(l) Selected aspects of South African Law of Contracts</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(m) Selected aspects of South African Law of Delicts</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(n) Selected aspects of South African Constitutional Law</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(o) Selected aspects of South African Insolvency Law</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(p) Applicable law and procedures pertaining to matrimonial disputes</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(q) Specific legislation: PFMA, MFMA, Auditing Profession Act, Public Audit Act, etc</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(r) Specific legislation: Bank Act, Control regulations, etc</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IT-related</th>
<th>Least Important</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Most Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>(s) Computer literacy and specific investigative applications</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Investigation-related</th>
<th>Least Important</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Most Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>(t) Functions of the forensic accountant</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(u) Defining role players in the forensic investigative environment (i.e. SAPS)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(v) Performing interviews</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(w) Principles of valuation techniques</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>(x) Types of fraud</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(y) Financial statement misrepresentations</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(z) Investigation techniques: Docket administration</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(aa) Investigation resources</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(ab) Investigation techniques: Statements</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(ac) Investigation techniques: Crime scenes, search and seizures</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(ad) Investigation techniques: Questioned documents</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(ae) Specific investigation techniques</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(af) Engagement acceptance and risk control</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(ag) Report writing</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(ah) Expert witnessing</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(ai)</td>
<td>Project and investigation planning</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>(aj)</td>
<td>Arbitration and alternative dispute resolution</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>(ak)</td>
<td>Identification of red flags</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>(al)</td>
<td>Fraud prevention techniques</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>(am)</td>
<td>Employment screening</td>
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<td>2</td>
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<td>4</td>
</tr>
<tr>
<td>(an)</td>
<td>Entrapments</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>(ao)</td>
<td>Informants and covert operations</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>Supportive subjects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ap)</td>
<td>Ethics and corporate governance</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>(aq)</td>
<td>Mathematics and statistics</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>(ar)</td>
<td>Criminology and reasons for crime causation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>(as)</td>
<td>Psychological aspects of human behaviour</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>(at)</td>
<td>Economics</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>(au)</td>
<td>Other:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

**Question 10**

Would you describe the regulation of the forensic investigative environment (with specific reference to the formation of an institute for forensic specialists) as:

| A waste of time | 1 |
| Unimportant | 2 |
| Unsure | 3 |
| Imperative | 4 |
| Highly imperative | 5 |
| Other (Please specify) | 6 |

**Question 11**

Would you include compulsory articles/internship as part of the educational profile of forensic specialists?

| Yes | No |

**Question 12**

Provide a reason for your answer in question 11.

________________________________________________________________________

________________________________________________________________________

**Question 13**

Please provide any further comments pertaining to the effective training of forensic accountants.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

83
BIBLIOGRAPHY


ASSOCIATION OF CERTIFIED FRAUD EXAMINERS see ACFE.


CANADIAN INSTITUTE OF CHARTERED ACCOUNTANTS see CICA


84


DIRECTORATE OF SPECIAL OPERATIONS see DSO


EDWARD NATHAN SONNENBERGS see ENS


85


INTERNATIONAL STANDARD ON AUDITING 240 REVISED see ISA 240R


MINUTES. 2007. Meeting of major role players held on 2 August at the Johannesburg Country Club.


PRICEWATERHOUSECOOPERS see PWC

http://www.pwc.com/extweb/insights.nsf/docid/A548CD55456C7B8785257371005DDBB4
Date of access: 24 Oct. 2008.

http://www.pwc.com/extweb/home.nsf/docid/29CAE5B1F1D40EE38525736A007123FD.
Date of access: 24 Oct. 2008.

http://www.pwc.com/Extweb/service.nsf/docid/49B55905C5E38EEE852571070076AF49.
Date of access: 2 Sept. 2008.


SOUTH AFRICAN POLICE SERVICE see SAPS

SPECIAL INVESTIGATION UNIT see SIU

www.ipocafrique.org/cases/armsdeal/shaik/shaiksentencejun05.pdf Date of access: 1 May 2007.

STATISTICS SOUTH AFRICA. 2008. Table 3: Seasonally adjusted and annualised quarterly value added by industry and gross domestic product at constant 2000 prices (R million). 


