

**PERCEPTIONS OF COMMERCE GRADUATES FROM A
SELECTED HIGHER EDUCATION INSTITUTION**

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By

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I declare that, this thesis hereby submitted is my own independent work and has not been submitted to any other University or Higher Education Institution, except for references specifically indicated in the text, and such help as has been acknowledged.

MICHAEL KALIKA

ABSTRACT

The role of higher education in developing human capital and contributing to economic growth, competitive advantage and societal progress of any country is well documented. The direct link between the economic performance of a country and the level of education of its citizens cannot be repudiated.

Furthermore, the demands of a growing economy, governmental pressure and the competitive international business environment have put pressure on South African businesses. This is aggravated by a “skills crisis” and the need to deliver more goods and services to increasingly more diverse customers. There is consensus amongst experts that the shortage of skills and high-level managerial human resources in South Africa constitute a major threat to the country’s future economic development and productivity growth.

As the business world becomes increasingly sophisticated and challenging, so does the need to continuously review and assess the business qualifications that equip managers to cope with the challenges facing them. The competencies that come with a Commerce degree are relevant in every corner of society from managing successful private companies, public organisations, for governments to be able to contribute to the greatest good of society, to socially effective not- for- profit organisations. Despite the importance of a degree in Commerce there are some criticisms about the degree and Commerce graduates.

The problem statement of this study is therefore vested in the continuum of praise and criticisms of Commerce graduates and the Commerce curriculum and, the reported imbalances between higher education institutions and the needs of the labour market. The question is whether such praise and criticisms are justified and whether higher education institutions specifically meet the requirements and expectations of both the graduates themselves and of business practice.

The primary research objective of this study was, therefore, to obtain the opinions of Commerce graduates and Commerce graduate employers on the overall perception of Commerce graduates produced by a prominent HEI in the Eastern Cape Province in South

Africa. To achieve this objective and based on in-depth analysis of secondary sources, two independent empirical surveys, aimed at two population strata were conducted, namely:

- The Commerce graduates with known email addresses (N = 1 870) were extracted from the HEI's alumni database. A total of 231 usable questionnaires were received from these Commerce graduates.
- The employers with known addresses (N = 85) were extracted from the selected HEIs Career Centre database. A total of 47 usable questionnaires were received from the employers of the Commerce graduates.

The main findings in this research pertain to aspects concerning core courses in the Commerce curriculum offered by the selected HEI, management skills and traits as required in the work environment, commerce curriculum outcomes and perceived experience as a student in the Faculty of Commerce at the selected HEI and Employer perceptions on the profile of the Commerce graduate. In this regard, the main findings are therefore summarised below:

- Both graduates and employers assigned high relative importance scores to seventeen of the 19 core courses, supporting the multi-functionary interdisciplinary approach to the Commerce curriculum. Concerns were expressed by the Commerce graduates with the quality of tuition they had received in most of the core courses. Likewise, employers were not always satisfied with the Commerce graduates' proficiency in some of the core courses, relative to the importance of core courses for running a business.
- The Commerce graduates and employers strongly endorsed and supported the importance of the 43 management skills and traits in the work environment. Commerce graduates expressed concerns about the extent to which their management skills and traits had been developed through tuition. Concerns about the proficiency of the Commerce graduates in all the management skills and traits, relative to the importance in the work place, were conveyed by the employers.
- On average the perceptions on the outcome of studies in the Faculty of Commerce were very highly regarded by the Commerce graduates. The highest mean score was for the item "*Studying in the Faculty of Commerce contributed to an increase in my knowledge and abilities.*"

- The perceived experience of Commerce graduates as students in the Faculty of Commerce at the selected HEI was very highly regarded, implying that the selected HEI was meeting the expectations of its Commerce graduates.
- Employer perceptions of what would constitute an ideal Commerce graduate were not fully met by the profile of the actual Commerce graduate from the selected HEI.

KEY WORDS: Commerce graduates perceptions, Employer perceptions, Core courses, Management competencies (knowledge, skills and traits), Higher Education Quality perspectives, Management education.

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CHAPTER ONE

INTRODUCTION AND PROBLEM DEFINITION

1.1 INTRODUCTION AND BACKGROUND TO THE STUDY

The role of higher education in developing human capital and contributing to economic growth, competitive advantage and societal progress of any country has been well documented (for example, Griesel & Parker, 2009: 2). Renewed attention on the development of skills required by the South African economy and the role of higher educational institutions in doing so, has been the focal point of the Joint Initiative for Priority Skills Acquisition (JIPSA) (Griesel & Parker, 2009:2).

The demands of a growing economy, governmental pressure and the competitive international business environment have put pressure on South African businesses' functions. This is aggravated by a "skills crisis" and the need to deliver more goods and services to increasingly more diverse customers (Griesel & Parker, 2009:3). Educational experts agree that the shortage of skills and high-level managerial human resources in South Africa are the foremost threat to the country's future economic development and productivity growth (Bernstein & Johnston, 2007, cited in Roos, 2008: 3; Griesel, 2009:38; Horwitz, 2006:56; Kraak, 2004:70; RSA. Department of Education 1996; Pretorius & McKenzie, 2007:56). According to Louw (1999:2), "the availability of an adequate, competent and dynamic management corps is a prerequisite for the economic development, productivity growth and wealth creation of any country". The direct link therefore between the economic performance of a country and the level of education of its citizens cannot be repudiated (Louw, 1999:2).

With the unrelenting needs of the economy, the concept of a "skills revolution" has been variously articulated, and especially by the former Deputy President of South Africa in her mission to rally up collective high-level sustenance for priority skills development, she stated:

"The phenomenon of unemployed graduates, who are without abilities to self-employ and self-determine, after spending three to four years of post secondary education is an indication to all of us of the challenge in education at a tertiary level... the curriculum developers are not paying enough attention to issues of relevance and ensuring that we all pay attention to

the skills and competencies learners require when they come out of higher education... we need a skills revolution in the curriculum of tertiary education” (Mlambo-Ngcuka, 2006).

The development of high level human resource and management competencies is imperative to the development of “South Africa as a developmental state and young democracy” (Griesel & Parker, 2009: 3). Accordingly, it is expected that higher educational institutions would proactively contend with the skills needs of the South African economy by addressing the identified skills gaps through “research, knowledge generation and innovation” (Griesel & Parker, 2009: 3).

Moreover, in light of the global economic crisis that was precipitated in 2008, it is even more important that South Africa can produce even more competent graduates who are able to compete within a shrinking global work force (Roos, 2008:4). Business owners, managers, and entrepreneurs have to be appropriately educated which would enable them, through their intellectual skills and community sensitive values, to lead future transformation processes (Louw, 1999:3). In pursuance of being appropriately educated, individuals enrol at Higher Education Institutions (HEIs) whose primary responsibility, in general, is to provide human and intellectual capital to meet business and societal needs. Contemporary universities have gone beyond the advancement of knowledge and now serve different functions, lacking any single purpose (Thomas, 2010:14).

As the business world becomes increasingly sophisticated and challenging, so does the need to continuously review and assess the business qualifications that equip managers to cope with the challenges facing them such as developing higher order meta-competencies (Louw, 1999:4). The competencies that come with a Commerce degree are relevant in every corner of society from managing successful private companies, public organisations, for governments to be able to contribute to the greatest good of society, to socially effective not for- profit organisations (Borland, 2007:1). Within this context, the importance of the managerial competencies developed by a degree in Commerce comes to the fore.

Despite the importance of a degree in Commerce there are some criticisms such as (Borland, 2007; Mlambo-Ngcuka, 2006; Kruss, 2004:675, 673-689; Mbeki, 1996) listed below:

- Graduates are not adequately equipped through their studies to cope with or meet the challenges of a dynamic global business environment.
- A skills revolution is required in the Commerce curriculum of HEIs.
- Many courses are too theoretically inclined.
- The graduates lack entrepreneurial skills.
- Lecturers at HEIs often lack relevant business experience.
- Graduates have not acquired the level of interpersonal and decision-making skills required to work in a diverse and multicultural campus environment.

Louw (1999:5) asserted that many HEIs have failed to meet the needs and expectations of business practice. In addition, role of HEIs in ensuring that graduates have the required competencies has been impaired by the dwindling global workforce and the many demanding obligations that compel South Africa as a growing state and young republic (Griesel and Parker, 2009:1). The gap between the outcomes of higher education (in terms of quality, type and quantity of graduates) and the needs of the economy in South Africa has a widespread cause of concern for employers (Yorke & Knight, 2006: 10). Against this backdrop and in the same vein, the employability of Commerce graduates is further questioned. (Yorke & Knight, 2006:10). The knowledge, skills and traits are combined to represent “graduate competencies and attributes”. The competencies developed by higher education institutions in varying degrees, should be matched with the demands and expectations of employers and, the weights of an ever changing world work environment (Griesel & Parker, 2009:4). HEIs are often of the opinion that universities are not “Human Resource Development Factories” since employers want job-related skills which HEIs cannot provide graduates with, employers should instead value the role and function of higher education in producing competent graduates (South African Qualifications Authority, 2007: 4).

According to Yorke (2006:13), employers believe that employability “goes well beyond the simplistic notion of key skills, and is evidenced in the application of a mix of personal qualities and beliefs, understandings, skilful practices and the ability to reflect productively on experience in situations of complexity and ambiguity”. Employers expect the relevant

management competencies of graduates to be reflected in the course curriculum of any degree in order for the degree to be highly valued and credible (Luke & Ingold, 1990:21). Griesel and Parker (2009: 12) state that HEIs develop meta-competencies through case studies, application exercises, methods of teaching, business games (develop critical thinking), industry visits, international exchanges and collaboration with organisations. Individual competencies of graduates could be enhanced through greater partnerships between universities and organisations in offering vacation internships and placements.

With the decline of the global economy and shrinking institutional resources, HEIs are experiencing enormous pressure to do more with less when producing graduates (Saxon, 2001; Goldman & Malloy, 2002; Faenza & Satow, 2002). The extent to which HEIs meet the needs of business practice in producing knowledgeable graduates is influenced by many endogenous factors, such as the core courses that constitute qualifications in the Commerce field, the course content, and style of presentation. Moreover, the impeding “competencies gap,” could be related to inadequate and/or ineffective education and learning structures, non engagement of HEI’s concerning business practice, resulting in poorly designed curricula that ignore the needs of stakeholders in business practice resulting in a skills mismatch (Bhorat & Lundall, 2003:24; Griesel, 2003:38; Stumpf, 2007:1).

In different terms, it is anticipated that this study would shed some light on what appears to be different positions in respect of the competency of Commerce graduates in the work environment as perceived by the Commerce graduate employers and the Commerce graduates (Alumni) from selected HEI in the Eastern Cape Province in South Africa. Of particular importance was to take into account of a common view variously expressed in different contexts; namely, that the HEIs are expected to do better and to do more, not in terms of the obvious role regarding preparing graduates for employment, but notably, in terms of the numbers, type and quality of graduates required to meet societal and economic demands (Griesel and Parker, 2009:3).

1.2 PROBLEM STATEMENT

The problem statement is vested in the continuum of praise and criticisms of Commerce graduates and the Commerce curriculum and, the reported imbalances between HEIs and the needs of the labour market. The problem statement of this study can be phrased as research questions in a fivefold manner. Firstly, do various core courses representing various

disciplines, which collectively constitute the components of qualifications in the Commerce degree, meet the needs and expectations of Commerce graduates and employers in the business practice? Secondly, which management related skills and traits are important prerequisites for the successful execution of a career in the Commerce field? Thirdly, linked to the above, to what extent were the required management competencies developed by HEI's? And how satisfied are the employers with the proficiency of Commerce graduates in these competencies? Fourthly, what is the perceived overall experience of Commerce graduates studying in the Faculty of Commerce? And what is the outcome of Commerce graduate studies? Fifthly, what are the employers' perceptions of the ideal versus actual Commerce graduate? Therefore, it is important to establish whether the selected HEI is offering Commerce related qualifications, which comprise relevant curricula, to develop high-level human resources; human resources that possess management competencies that meet the current and future needs of business practice in an increasingly challenging business environment.

1.3 PURPOSE OF THE STUDY

Against the background of continued criticism of Commerce graduates, the importance of competent Commerce graduates in the South African economy, and the competencies they possess and the role of HEI's in developing management competencies which ensure successful job performance and growth, the main purpose of this study is to contribute to the body of knowledge pertaining to commerce and business education, gathering the opinions and perceptions of Commerce graduates and employers of these Commerce graduates from a selected HEI. To achieve the main purpose of this study, it was necessary to firstly, assess the opinions of Commerce graduates from a prominent HEI in the Eastern Cape Province and Commerce graduate employers (alumni) on: the importance of core courses required for managing a business and successful job performance; quality of tuition received in the core courses; the introduction of new courses in the Commerce curriculum; the importance of management skills and traits which are essential in the work environment and the extent to which the tuition received developed these abilities. Secondly, it was important to assess the opinions of Commerce graduates on their overall experience of studying in the Faculty of Commerce at the selected HEI and their views regarding the outcome of studying at the selected HEI; thirdly, the opinions of Commerce graduate employers (alumni) were sought on the profile of an ideal versus actual Commerce graduate; fourthly, to make recommendations towards the development of the Commerce graduate at the selected HEI.

1.4 RESEARCH OBJECTIVES

1.4.1 Primary research objective

The primary research objective of this study is to assess the Commerce and Business education delivered at a selected HEI by investigating the perceptions of Commerce graduates and graduate employers about the Commerce graduates produced by the selected HEI. The outcomes of the study will provide useful data to inform debate and engage with the HEI and industry, and further, to establish an empirical benchmark against which to conduct periodic future reviews.

1.4.2 Secondary research objectives

To achieve the primary research objective, the following secondary research objectives were identified:

- To conduct an extensive analysis of secondary resources pertaining to management competencies and quality perspectives pertaining to the process and output components of HEIs, and quality challenges in HEI.
- To present the most appropriate research paradigm, research methodology and data collection method and methods of data analysis for this study.
- To adopt and modify two previously used research instruments to solicit the opinions of Commerce graduates and employers regarding their perceptions of Commerce graduates from a prominent HEI.
- To administer the research instrument, thereby sourcing the required primary data, both quantitative and qualitative.
- To analyse the quantitative and qualitative data and report on the findings, and
- To make recommendations with regard to the strategic implications for HEIs.

Given the research purpose and the aim to achieve the stated primary research objective, the research questions for this study will subsequently be presented in three groupings, namely research questions for Commerce graduates; research questions for employers; and research questions relating to the comparison of the perceptions of Commerce graduates and employers.

1.5 RESEARCH QUESTIONS AND HYPOTHESES

1.5.1 Research questions: Commerce graduates (alumni) from the selected HEI

- What is the relative importance of the core courses offered by the Faculty of Commerce for successful job performance?
- What is the perception of the quality of tuition received in the core courses?
- Are there any disparities between the relative importance of core courses offered and the quality of tuition received by Commerce graduates?
- What is the relative importance of the possible introduction of new courses in the Commerce curriculum?
- What is the relative importance of management skills and traits required in the work environment?
- To what extent have these skills and traits been developed by the tuition received?
- Are there any disparities between the relative importance of management skills and traits as required in the work environment and the extent to which the skills and traits were developed by tuition?
- What is the outcome of the Commerce graduates’ studies in the Faculty of Commerce?
- What is the overall perceived experience of the Commerce graduate as a student in the Faculty of Commerce?
- What recommendations would the Commerce graduates make towards the development of Commerce graduates at the selected HEI?

The above mentioned research questions should establish whether the Commerce curriculum, the perceptions of the Commerce graduates’ outcome of their studies and their experience at the selected HEI has met the needs and expectations of the Commerce graduates.

1.5.2 Research questions: Employers of Commerce graduates from the selected HEI

- What is the relative importance of core courses offered by the Faculty of Commerce for running a business?
- How proficient are the Commerce graduates in these core courses?
- Are there significant differences between the relative importance of core courses for running a business and the employers’ perceptions of the proficiency of Commerce graduates in these core courses?
- What is the relative importance of the possible introduction of new courses in the Commerce curriculum?

- What is the relative importance of management skills and traits in the work environment?
- How proficient are Commerce graduates in these skills and traits?
- Are there significant differences between the relative importance of skills and traits required in the work environment and the Commerce graduates' proficiency in these skills and traits?
- What are the employers' perceptions of the ideal Commerce graduate?
- What are the employers' perceptions of the actual Commerce graduate?
- Are there any discrepancies between the employers' perception of the ideal Commerce graduate and the actual Commerce graduate?
- What recommendations would the employers make towards the future development of the Commerce graduate at the selected HEI?

The above questions should establish whether the Commerce curriculum at the selected HEI has met the needs and expectations of the employers and what the employer perceptions of a Commerce graduate from the selected HEI are.

1.5.3 Research questions: Comparison between Commerce graduates and employers of Commerce graduates from the selected HEI

- Are there any significant differences between the Commerce graduates' (Alumni) and employers' perceptions with regard to the:
 - Importance of core courses for running a business?
 - Importance of possible new courses?
 - Importance of management skills and traits required in the work environment? and
 - The proficiency of Commerce graduates in management skills and traits?

The above questions should establish whether comparisons between the Commerce graduates' (Alumni) and employers' perceptions are significantly different, that is, whether the views and opinions of the Commerce graduates and the employers are similar or divergent in terms of the Commerce graduates the selected HEI is producing.

1.5.4 Research hypotheses

Based on the research purpose and stated research questions the following sets of hypotheses have been formulated.

First set of hypotheses pertaining to Commerce Graduates (alumni)

- Ho¹: There are no statistically significant differences between Commerce graduates' perceptions of the relative importance of core courses offered, as required for successful job performance and the quality of tuition received in core courses at the selected HEI.
- Ha¹: There are statistically significant differences between Commerce graduates' perceptions of the relative importance of core courses offered, as required for successful job performance and the quality of tuition received in core courses at the selected HEI.
- Ho²: There are no statistically significant differences between Commerce graduates' perceptions of the relative importance of management skills and traits as required in the work environment and the extent to which formal tuition received at the selected HEI developed these abilities.
- Ha²: There are statistically significant differences between Commerce graduates' perceptions of the relative importance of management skills and traits as required in the work environment and the extent to which formal tuition received at the selected HEI developed these abilities.

Second set of hypotheses pertaining to Employers of the Commerce Graduates

- Ho³: There are no statistically significant differences between employers' perception of the relative importance of core courses for running a business and the proficiency of Commerce graduates in these core courses from the selected HEI in these courses.
- Ha³: There are statistically significant differences between employers' perception of the relative importance of core courses for running a business and the proficiency of Commerce graduates in these core courses from the selected HEI in these courses.
- Ho⁴: There are no statistically significant differences between employers' perceptions of the relative importance of management skills and traits as required in the work environment and the proficiency of Commerce graduates from the selected HEI in these skills and traits.
- Ha⁴: There are statistically significant differences between employers' perception of the relative importance of management skills and traits as required in the work environment and the proficiency of Commerce graduates from the selected HEI in these skills and traits.
- Ho⁵: There are no statistically significant differences between the employers' perception of the ideal Commerce graduate and the actual Commerce graduate from the selected HEI.

- Ha⁵: There are statistically significant differences between the employers' perception of the ideal Commerce graduate and the actual Commerce graduate from the selected HEI

Third set of hypotheses pertaining to the comparison between Commerce graduates (alumni) and employers of Commerce graduates from the selected HEI

- Ho⁶: There are no statistically significant differences between the Commerce graduates' and employers' perceptions relating to:
 - Ho^{6.1}: the importance of core courses for running a business;
 - Ho^{6.2}: the importance of possible new courses;
 - Ho^{6.3}: the importance of management skills and traits required in the work environment;
 - Ho^{6.4}: the proficiency of Commerce graduates in management skills and traits.
- Ha⁶: There are statistically significant differences between the Commerce graduates' and employers' perceptions' relating to:
 - Ha^{6.1}: the importance of core courses for running a business;
 - Ha^{6.2}: the importance of possible new courses;
 - Ha^{6.3}: the importance of management skills and traits required in the work environment;
 - Ha^{6.4}: the proficiency of Commerce graduates in management skills and traits.

1.6 RESEARCH DESIGN AND METHODOLOGY

To give effect to the purpose and research questions of the current research and to test the hypotheses, the research strategy was divided into two main components, namely a secondary and primary study. The research design and methodology will be discussed in full in Chapter Four.

1.6.1 Secondary sources

Secondary sources from related subject disciplines in the Commerce and Business Management field were consulted. The literature search at national and international level required the use of library facilities at the selected HEI. Searches through online databases such as Sabinet, Ebsco Host, Academic and Business Search Premier, Emerald Research

Register, and Google were conducted to obtain relevant directories and international dissertation abstracts.

In addition, internet searches were conducted for relevant books, articles and other appropriate literature on research *per se*, and on topics related to management competencies, and HEIs. In Chapter Two an overview of the relevant secondary sources dealing with the required competencies (skills and traits) as well as the relevant concepts and theories was given. While in Chapter Three the quality perspectives of the process and output components of Higher education were discussed.

1.6.2 Primary sources

Primary sources were used to acquire the data required for answering the research questions and for testing the hypotheses. In order to obtain the data required to give effect to the research questions and test the stated hypotheses two empirical surveys were undertaken. Both surveys contained carefully phrased statements to which the respondents had to respond by means of a Likert five-point scale. The questionnaires were based on questionnaires compiled and tested in a pilot study consisting of 25 Commerce graduates and 25 employers as reported in Section 4.7 of Chapter Four.

In the first survey, a questionnaire (see Annexure A) was emailed to selected Commerce graduate (Alumni) with known email addresses (N = 1 870). The email addresses were known to the alumni office in the Development and Alumni Relations Division of the selected HEI who facilitated the distribution process. In the second survey, questionnaires (see Annexure B) were mailed to 85 human resources practitioners who employ Commerce graduates from the selected HEI. The employers who supplied the Career Centre of the selected HEI with their Human Resources practitioners' electronic mail addresses were selected to participate in this research.

In Chapter Four a detailed explanation of the research design and methodology, including the data collection procedures, the structure of the research instrument and how data was analysed, will be given. To give effect to the primary objective, the data analysis will comprise several phases as linked to the structure of the research instrument. Given the nature of the research in question quantitative data analysis procedures will be followed as suggested by secondary sources. Due to the comprehensive nature of the research

instrument, a detailed description of the phases of data analysis will be presented in Chapter Five on research design and methodology and the subsequent findings chapters, namely Chapters Six, Seven and Eight.

1.7 SCOPE AND DEMARCATION OF STUDY

The scope and demarcation of the research can be summarised as follows:

- The study is limited to the responses of the alumni from the selected Eastern Cape HEI, who graduated with a Commerce qualification, referred to as Commerce graduates (Alumni) and employers of Commerce graduates at the selected HEI.
- The sampling unit for the research in question comprised the Alumni of the Faculty of Commerce who provided the Development and Alumni Relations Division of the selected HEI with their electronic mail addresses (N = 1 870) for the Commerce graduate survey and the employers of Commerce graduates who provided the Career Centre of the selected HEI with their human resources practitioners electronic mail addresses (N = 85). The focus of this study will be on assessing the overall perception of Commerce graduates (Alumni) and Employers of Commerce graduates who employ Commerce graduates from the selected HEI on: the relative importance of courses (knowledge), introduction of possible new courses, management skills and traits (competencies) required for successful job performance. Questions pertaining to the quality of tuition, Commerce graduates' overall experience of studying in the Faculty of Commerce, and their views the outcome of studying at the selected HEI will also be addressed. The opinions of Commerce graduate employers on the profile of an ideal versus actual Commerce graduate will also be sought.
- For the purpose of this study, management competencies include *knowledge, skills, traits, values and attitudes*.
- Even though the concepts *subject fields, courses, and modules* are often used interchangeably, for the sake of consistency reference will be made to courses in this study.
- For the purpose of this study the concept of management is deemed to be a broader concept which includes leadership as one of the management tasks.
- *Process* refers to the quality perceptions pertaining to the programmes offered and the structure of curricula at HEIs which includes method of instruction, lectures and lectures, role of learning, competency development.

- Output refers to the employer expectations and graduate perceptions. Graduate perceptions pertain to the outcome of studying at a HEI and the perceived overall learning experience. The outcome of studying at a HEI relate to self-development and growth and to the increase in knowledge and the enhancement of comprehension. The overall learning experience includes perceptions on how the HEI contributed to an increase in knowledge and abilities, enhanced insight and comprehension of the business world, developed abilities to formulate and apply theory from knowledge (curriculum content) and learning experiences.
- The scope of the study must be gauged within the context of the research purpose as stated in Section 1.3.

1.8 PRIOR RESEARCH

In recent years there has been extensive research that deals with management skills and competencies. Previous research mainly addressed the following aspects:

- The status and nature of the MBA programme in South Africa (Louw, 1999)
- Ranking of core courses (modules), management skills, and traits, that business practice is seeking in MBA graduates (Louw, 1999; Louw, Bosch & Venter, 2001).
- HEIs and their strategies regarding quality of tuition, curriculum design, and integration of competencies (Bhorat & Lundall, 2003).
- Perceptions of the business sector regarding the curriculum of Business Management degrees (Erasmus & Loedolff, 2005).

1.9 PLAN OF STUDY

In Chapter One the introduction and background to the study as well as the purpose of this study was stated. The research questions and hypotheses were formulated in this chapter. The secondary and primary sources used as well as the demarcation of the field of this study and prior research were discussed.

The analysis of secondary sources pertaining to management competencies was provided in Chapter Two. In particular, the scope of management activity, management tasks and roles, a discourse on management competencies (including knowledge, skills and traits) was given. The subsequent sections of the chapter focus on the higher order meta-competencies, emotional intelligence, knowledge and wisdom and work integrated learning skills and traits. The secondary sources as discussed in Chapter Two provided additional insights into adding

statements pertaining to knowledge and wisdom into both the research instruments (Annexure A and B).

In Chapter Three the focus is on understanding graduate and employer expectations and quality perspectives of the process and output component of higher education, quality challenges in higher education and outcomes of studies in the field of commerce.

The research design and methodology adopted for this research will be explained and motivated in Chapter Four. The research paradigms, sampling processes, data collection, measurement scales of relevant data, the structure of the research instruments, validity, reliability and generalisability, will be discussed in full in Chapter Four. In addition, the data analysis and ethical considerations and summary will also be presented.

In Chapter Five, the findings of the Commerce graduates’ perceptions will be presented in accordance with the research questions as stated in Section 1.5.1 of this chapter.

Chapter Six focuses on the findings pertaining to the expectations and opinions of the Employers of the Commerce graduates. The findings will be presented according to the research questions as stated in Section 1.5.2 of this chapter.

A comparison of the findings between the Commerce graduates’ and employers of the Commerce graduates pertaining to the research questions as stated in Section 1.5.3 in this chapter are presented in Chapter Seven.

Chapter Eight presents the summary, conclusion and recommendations of this study.

CHAPTER TWO

A DISCOURSE ON MANAGEMENT COMPETENCIES

2.1 INTRODUCTION

The downsizing and organisational shake-ups within the knowledge based economies, are placing ever-increasing demands upon companies to better utilise the competencies of their human resources, as well as their capital and financial resources in South Africa and the world over (Griesel & Parker 2009:2). With the ready-availability of financial resources, the fundamental and significant production factor has now become a matter of managing human resources, i.e. competent management and an intellectual workforce (Sanchez, Heene & Martens, and 2008:13). The need for highlighting the importance of competent management and human resource development has spread in most knowledge based organisations (South African Qualifications Authority, 2007:3). The overall business success and the survival of these organisations are dependent on prompt, readily accessible, accurate, and current information concerning the competence preparedness and availability of its high level intellectual workforce (Pretorius & McKenzie, 2007:18). However it has been asserted that there is a lack of high level human resources in South Africa (Louw, 1999:2).

Given the need for competent high level human resources required in South Africa and the pivotal role of Higher Education Institutions (HEIs) in providing competent managers and business leaders, the focus of this chapter is on providing an overview of the body of knowledge and secondary resources on management competencies. As mentioned previously, in the current study a management competency is conceptualised as consisting of three components, namely knowledge, skills and traits. The classification and grouping of competencies were performed within the context of the purpose and research objective of this study as stated in Sections 1.3 and 1.4 of Chapter One. Secondary sources pertaining to management competencies were analysed and the competencies grouped according to:

- core courses (knowledge areas) required for successful job performance and for running a business;
- management skills essential to successful job performance in the work environment; and
- management traits essential to successful job performance in the work environment.

The discussion on management competencies in this chapter pertaining to the above mentioned were analysed in order to gain a more holistic overview and insight into the management competencies as required for successful job performance, especially as required by Commerce graduates. The insights gained provided the basis for understanding the previous research by Louw (1999) and Roos (2008), and more particularly contributed towards modifying certain aspects of the previously used research instruments.

The contents in this chapter mirror the first two Sections (Section A and Section B) of the two research instruments (Appendix A and Appendix B) that were administered to the selected HEI's Commerce graduate (Alumni) and employers of Commerce graduates from this selected HEI. Section A of the two research instruments comprised the relative importance of the core courses required for successful job performance and for running a business, the perception of the quality of tuition received in the core courses at the selected HEI, the proficiency level of Commerce graduates in these core courses, and the possible introduction of new courses in the Commerce curriculum. While Section B pertained to the importance of management skills and traits required in the work environment, the extent to which these skills and traits had been developed through tuition received at the selected HEI, and the proficiency level of Commerce graduates in these abilities. The structure of this chapter to some extent resembles that of Louw (1999:60-115) and Roos (2008:34-60).

In Sections 2.2, 2.3 and 2.4 of this chapter, the concepts of management and management competencies are discussed. The management competencies relevant to the current study are synthesised and this is done by considering core knowledge areas in the Commerce curricula and the management skills and traits required for successful job performance in the work place. In Section 2.5 work integrated learning skills and traits will be discussed and a brief summary of this chapter will be given in Section 2.6.

2.2 CONTEXTUALISATION OF THE CONCEPT MANAGEMENT

The most essential aspect of any business, whether it is an individual operation or multi-layered with many employees, can be found within the most familiar of business concepts namely "*management*" (Helium, 2010:1). In order for an organisation to achieve its goals, the quality of its managers is the most important ingredient. The management of any organisation is the difference between an organisation's success or failure (Bosch & Gray, 2006 *cited in* Roos 2008:36). Research by Crutzen and Van Caillie (2008:288-316) examined

Balcaen and Ooghe's (2006:63-93) data and found that 95.6 per cent of small-business failures are associated with managerial short-comings. Likewise Mellahi and Wilkinson (2004:21-41) attributed 47.3 per cent of small-business failures to a lack of managerial skill and know-how. Everett and Watson (1998:371-390) in their review of small business failure affirmed that a lack of managerial skill creates problems in every area of business. This argument is supported by Khan and Rocha's (1982:57) study which attributed inefficient management to be the universal source of problems experienced by organisational failure.

Failed organisations had various characteristics in common which are directly related to individual-based qualities of the owner (lack of insight, inflexibility, emphasis on technical skills, etc.), managerial shortcomings (lack of management skills and appropriate managerial training, etc.) and financial shortcomings (no accounting background, inadequate cash flow analyses, financial records, etc.) (Crutzen & Van Caillie, 2008:288-316). Ooghe and De Prijcker (2008:224) concluded that managerial skills were more imperative despite the view that the ideal blueprint to achieve success in small business would include an equal mix of managerial and technical skills.

Considering the importance of management, a clear understanding of the concept *management* as well as the competencies required by contemporary Commerce graduates is essential in order to provide the basis for the research in question and to be able to modify the research instruments to acquire the necessary primary data. The concept *management* is clarified in the next section by considering various key elements in the definitions of this concept as well as providing an overview of perspectives on management versus leadership; the scope, tasks and roles of management.

2.2.1 The concept management

Management (derived from the French *ménagement* "the art of conducting, directing", and from Latin *manu agere* "to lead by the hand") characterises the process of leading and directing all or part of an organisation through the utilisation, effective and efficient use of resources -human, financial, material, intellectual or intangible (Needle, 2004:253). There are many words associated with the concept of management which include the following; administer, govern, administrate, lead, control, be in charge, be in power, handle, manipulate, direct, rule and organise. It has also been asserted that there are as many descriptions and definitions of management as there are authors on the subject (Drucker, 1994:14; Louw,

1999:62; Needle, 2004:252). Some of these descriptions and definitions are summarised in Table 2.1.

TABLE 2.1: Definitions of the concept management

Author	Definition
Cooper (2011:8)	“The conventional definition of management is getting work done through people, but real management is developing people through work.”
Mello (2011: 13)	“Management is the process of designing and maintaining an environment in which individuals, working together in groups, efficiently accomplish selected aims.”
Bush (2010: 15).	The basic definition of management should therefore be extended to read “deciding what to do and then getting it done through the effective use of resources.”
Mullins and Christy (2010:29)	“Management is nothing more than motivating other people.”
Shead (2010:1)	“Management is the process of setting and achieving goals through the execution of five basic management tasks: planning, organising, leading, controlling and staffing, that utilize human, financial and material resources”.
Hellriegel et al. (2008:7)	“Management includes “the tasks and activities performed by managers in managing an organisation.”
Bosch and Gray (2006:5)	“The concept management can be seen as a rational process of getting things done with the help of a community of other people.”
Needle (2004: 253)	“Management can also be seen as a broad term that is applied to a wide range of people and organisations and in different contexts. In essence, management is the balancing of external and internal influences, the coordination of activities and of people to achieve the goals of the organisation.”
Rees and Porter (2001:3)	“Management can also be defined as a set of competencies, attitudes, and qualities broadly distributed throughout the organisation.”
Bowman and Jarett (1996:7)	“Management is a process of working with and through people...and directing actions towards a common goal.”
Drucker (1994:325)	“Management is the organisation and coordination of the activities of an enterprise in accordance with certain policies and in achievement of clearly defined objectives.”

(Source: Researcher’s own construction based on authors mentioned in table)

From the sample of definitions presented in Table 2.1, almost all the above definitions suggest the following:

- Management is a process, because: all managers irrespective of their levels in the organisation engage in certain interrelated activities in order to achieve the desired goals; it involves working with and through others to effectively achieve the goals of the organisation; and it is never ending and concerned with constantly identifying the problem and solving it by taking adequate steps.
- Management is also about coordination which involves the unification, integration, synchronisation of the efforts of group members so as to provide unity of action in the pursuit of common goals. It is a hidden force which binds all the other functions of management. Management seeks to achieve co-ordination through its basic functions of planning, organising, staffing, directing and controlling.
- Management involves achieving goals through people. Therefore, managers have to interact with superiors as well as their sub-ordinates.
- Managers use all the resources of the organisation, both physical as well as human.

Management has different meanings to many professionals. It is considered as a factor of production by economists. Socialists view it as a class or group of persons, whilst management practitioners treat it as a process. The Trade Unionist, however considers management as an exploiting set of people (Helium, 2010: 1). In its simplest forms *‘Management is what a manager does’* and most importantly, a process by which an organisation realises its objectives in a strategic way (Huczynski, 1996:11).

Mullins and Christy (2010: 29) define management in terms of being an art and a science. The art of management is determined by a manager’s style, personality and behaviour, influencing “how” a manager works with people to accomplish the organisational goals. On the other hand, the science of management is based on the body of management knowledge guiding successful job performance. The science of management is thus concerned with “what a manager does”.

‘Administration Industrielle Et Generale’ the seminal work published by Henri Fayol in 1916 identified fourteen generic managerial principles regardless of managerial level (Carroll & Gillen, 1987:41). According to Fayol, these principles were universal, because all managers executed them in the course of their careers, whether the managers worked in commerce,

military, government, religious or humanitarian settings (Caroll & Gillen, 1987:41). These fourteen principles are: the division of labour, authority, discipline, unity of command, unity of direction, the subordination of the individual interest to the company interest, proper remuneration, centralisation, the scalar chain, order, equity, stability of tenure, initiative and spirit de corps (Caroll & Gillen, 1987:41). These fourteen principles provided guidance and a point of reference for various authors and experts in respect of the scope of management activity, tasks and roles. As stated in Chapter One the concept of management will be used interchangeably with the concept of leadership and prior to discussing management competencies, a further conceptualisation of management will also be explained in terms of management versus leadership.

2.2.2 Management versus Leadership

“Leadership and management are two distinctive and complementary systems of action. Each has its own function and characteristic activities and both are necessary for success in an increasingly complex and volatile business environment... strong leadership with weak management is no better, and is sometimes actually worse, than the reverse. The real challenge is to combine strong leadership and strong management and use each to balance the other” Kotter (1999:23). The terms "management" and "leadership" are often used interchangeably and frequently viewed as being the same thing.

Kotter’s perspective in differentiating between management and leadership is shared by many academics. For example according to Hoyle (2006:5), leadership is a process whereby an individual provides guidance to a group of individuals to realize a common goal. Bennis and Nanus (1985:21) define management as accomplishing activities and mastering routines; while Drucker (1999:17) states that influencing others and creating visions for change is what leadership entails. Day (2001:582) cited in Campbell, Dardis and Campbell (2003:32) asserted that leadership is a multidirectional influence relationship while management is a unidirectional authority relationship. Crainer and Dearlove (2005:13-17) argued that management and leadership require different types of people. A vital distinction between management and leadership is that *things* are managed and *people* are led. Things include physical assets, processes, and systems. People include consumers, associates, and people in a team or organisation (or "internal partners"). When working with things managers and leaders talk about a way of *doing*. In the people context, the emphasis should be on a way of *being*. The definition of leadership and management share many parallels. Leadership and

management both involve influencing people, working with people, and working with effective goal management (Boaden, 2006:7).

Since management tasks, are commonly task-oriented than leadership tasks, one significant way to operationalise effective management is to discourse necessary skills (Katz, 1974:90-103). Skills differ from traits or characteristics in that they are the ability to use an individual’s knowledge and competences to achieve a set of objectives (Katz, 1974:90-103). Effective management hinges on three personal skill sets: technical, human and conceptual skills which will be discussed further in this chapter in Section 2.4.2. Each of these skills is imperative for effective management and as a result, equally relevant at the different levels of management within an organisation. Many of these skills are also useful for effective leadership, generally within a slightly different context.

Despite the differences between leadership and management, both have complementary strengths as well. The two fields overlap, for example, when managers are involved in influencing their employees to meet the set goals, they are operating under leadership. Equally, when leaders are involved in facets such as planning, organising, staffing or controlling, they are operating within management (Katz, 1974:90-103).

Therefore, the question of how does one distinguish between leadership and management arises. In Table 2.2 a direct comparison between leadership and management activities is provided. Any person can be a great leader, a great manager, or both, but each area requires the expertise of slightly different skills and competencies (Northouse, 2007:10).

TABLE 2.2: A comparison of management and leadership activities

Management produces order and consistency	Leadership produces change and movement
<ul style="list-style-type: none"> • Planning and budgeting • Establishing agendas • Setting timetables • Allocating resources 	<ul style="list-style-type: none"> • Establishing direction • Creating a vision • Clarifying the big picture • Setting strategies
<ul style="list-style-type: none"> • Organising and staffing • Provide structure • Making job placements • Establishing rules and procedures 	<ul style="list-style-type: none"> • Aligning people • Communicating goals • Seeking commitment • Building teams and coalitions
<ul style="list-style-type: none"> • Controlling and Problem Solving • Developing incentives • Generating creative solutions • Taking corrective action 	<ul style="list-style-type: none"> • Motivating and Inspiring • Inspiring and energize • Empowering subordinates • Satisfying unmet needs

(Source: Northouse, 2007:10)

In conclusion the concepts “leadership” and “management” are viewed differently by different people. Most times they are considered as being alternatives and frequently used interchangeably. Sometimes they are considered as extreme opposites; so extreme, that they would argue that one cannot be a good manager and a good leader at the same time. While other people reside on the fence somewhere in the middle and realise that while there is a difference between leadership and management, with the right knowledge and competencies an individual can successfully navigate both from the same position. For the purpose of this study the concept of management is deemed to be broader and encompasses leadership. As will be discussed in the next section, leadership is considered as one of the tasks of management for the purpose of this study.

2.3 SCOPE OF MANAGEMENT ACTIVITY, TASKS AND ROLES

In managing effectively, management have certain responsibilities to meet which would be shaped by how effectively they administer their tasks and fulfil their roles as well as their scope of management activities. To better understand the concept of management and its complexity, the scope of management will be explained according to the different managerial levels and functional areas in the firm. Subsequently the scope of management activity, tasks and roles of management will be discussed in this section.

2.3.1 Scope of management activity

Prior to providing an overview of the roles and tasks of managers it is important to refer to the scope of activity within which management operate in the working environment. There are many types of managers and many ways in which managerial jobs differ from each other. One difference is the scope of activities being managed. In terms of scope of activities, management perform tasks across the levels of management and within organisational functional areas. As such a manager’s activities can be classified according to the levels they occupy, such as top, middle and lower, and according to their functional area in the organisation such as finance, operations, human resources, operations, and information technology.

The term “*Levels of Management*’ refers to a line of demarcation between various managerial positions in an organisation (Cooper, 2011:23). As the organisation grows and the human capital increases, so does the number of levels in management. In Figure 2.1 the following levels of management and their associated roles are shown namely top, middle and lower

levels. The level of management determines a chain of command, the amount of authority and status which comes with any managerial position (Cooper, 2011:23-24). The levels of management can be classified in three broad categories as illustrated in Figure 2.1 namely: (1) Top level, (2) Middle level / Executory and (3) Low level / Supervisory / Operative / First-line managers.

Figure 2.1 Scope of Management Activity



(Source: Cooper, 2011:23-24)

Managers at all these levels as depicted in Figure 2.1 perform different activities, tasks and roles. The role of manager's at all three levels is discussed below. The top managers are responsible for the overall direction and performance of an organisation. As the figure illustrates top managers are responsible for executive coaching, change management, leadership, delegation and empowerment among other responsibilities. Higgins (2005:34) points out that top level managers are responsible for strategy formulation and execution, planning and coordinating functions. Top managers develop goals, policies, and strategies for the entire organisation (Hellriegel *et al.* 2008:16). They set the goals that are passed down through the hierarchy to the floor workers. The middle level constitutes the branch managers and departmental managers. They are responsible to the top management for the functioning of their department or branch (Hellriegel *et al.* 2008:16-17). They allocate most of their time to organisational and directional functions. As illustrated in Figure 2.1, the responsibilities of middle managers include problem solving, team building, and talent development and performance management.

Middle level managers are the link between top management and low level management. They receive broad, general strategies and policies from top managers, and translate them into specific goals and plans for the low level managers to implement. The heavier emphasis on managing group performance and allocating resources represents the most important difference between middle level and low level managers (Hellriegel *et al.* 2008:14). Low level management refers to those executives whose work deals largely with personal oversight and direction of operative employees” (Hellriegel *et al.* 2008:14). In other words, they are concerned with the directing and controlling function of management. As illustrated in Figure 2.1, low level management responsibilities include emotional intelligence and coaching performance because low level management spend most of their time directing the actions of employees who actually do production work or deliver services ” (Hellriegel *et al.* 2008:14). In order to fully understand the scope of management activity the functional areas of management will be discussed briefly in the next section.

2.3.2 Functional areas of management

For Commercial and functional purposes only are functional areas of management distinguished, but in reality they are viewed as interrelated, integrated, and holistic functions (Roos, 2008:54). Despite the fact that each function needs to be managed as a functional area on its own, top management are required to coordinate the activities of each function into a synergistic whole, leading the organisation to achieve its specified desired (or stated) goals (Louw, 1999:91).

Present day observers find it increasingly difficult to partition management into functional categories. More and more processes simultaneously involve several categories. Instead, one tends to think in terms of the various processes, tasks, and objects subject to management. In this regard the main managerial functional areas include financial management, marketing management, human resource management, strategic management, and production/operations management (Hellriegel *et al.* 2008:9-13). The scope of activities performed by functional managers is relatively narrow, whereas the scope of those performed by general managers is quite broad (Hellriegel *et al.* 2008:9). Functional managers supervise employees having expertise in one area, such as human resources, sales, finance, marketing or production. The management levels as shown in Figure 2.1 are also interrelated to the functional areas as top managers are usually involved in strategic management, whilst middle management are involved in finance management, marketing and human resources management and the low

level management are mostly involved with the production/operations management aspect. Managers in the different functional areas however also have to perform their tasks and roles which will be discussed fully in the subsequent sections. The functional areas of management, namely financial, marketing, human resources, strategic management and production/operations management will now be discussed briefly.

Financial managers' scope and responsibilities differ from one organisation to another. Financial management means planning, organising, directing and controlling the financial activities such as procurement and utilisation of funds of the enterprise and working capital management and also applying general management principles to financial resources of the organisation (Hellriegel *et al.* 2008:13-15). This process includes accounting and financial reporting, budgeting, collecting accounts receivable, risk management, and insurance for a business.

Marketing management according to Rees and Porter (2001:24) includes all those business activities in which a need is created in the market for a product or a service to the consumer. Marketing management incorporates a number of activities like product development, advertising, brand development, merchandising, and market research similar to other functions that help a company to assess its product in the market (Hellriegel *et al.* 2008:13-15). The marketing department, according to many management experts, is the most important department.

Human resources management involves mainly looking after and maintaining good relations among the personnel of an organisation and the interactions of different departments at all levels (Mullins & Christy, 2010:32). The important areas of human resources are manpower planning, industrial relations, training and development and recruitment. The human resources management should assist in creating a mutually beneficial work environment.

In order for an organisation to create and sustain competitive advantages it undertakes Strategic Management through analysis, decision making and strategic actions (Hellriegel *et al.* 2008:13-15). Strategic management comprises the continuous analysis of the factors associated within the organisation (internal environment) and the customers and competitors (the external environment) which provides the foundation for sustaining best management practices (Hellriegel *et al.* 2008:13-15). The objective of strategic management is to achieve better alignment of corporate policies and strategic priorities.

Production/operations management is concerned with the direction, co-ordination and control of production processes and the organisational operations (Hellriegel *et al.* 2008:13-15). The branches of production and operations management include production research, design and development, production and materials supply, standardisation, inspection, testing and quality control and similar other functions.

2.3.3 Management tasks and roles

The tasks and roles of managers are considered when explaining what managers do in the process of management. The main difference being the tasks of management are generic to each functional area within an organisation, while the roles of management vary according to the scope of activity (Roos, 2008:41). The notion of manager, in terms of the management tasks, is a person who plans, organises, directs, and controls the allocation of human, material, financial, and information resources in pursuit of the organisation's goals and therefore includes anyone who carries out the four fundamental tasks of management (Smit, Cronje, Brevis & Vrba, 2007:15).

Different authors adapted the seminal work by Fayol of the fourteen generic managerial principles and have different classifications of the tasks of management. Gulick (1936:3-35) described the tasks of management by using the acronym 'POSDCORB' where P stands for Planning, O for Organising, S for Staffing, D for Directing, CO for Co-ordination, R for reporting and B for Budgeting. In addition Koontz and O'Donnell (1968:19-31) classified the tasks of management as "POSDC", that is, Planning, Organising, Staffing, Directing and Controlling. Conversely, the most commonly accepted are the tasks of management postulated by Hellriegel *et al.* (2008:10-11), Accordingly the four fundamental tasks of management include planning, organising, leading and controlling "POLC" will be used for the purposes of this study to discuss managerial tasks.

More specifically the four basic tasks performed by managers could be briefly explained as follows (Hellriegel *et al.* 2008:9-11):

- **Planning**, which involves defining organisational goals and proposing ways to reach them? Managers' plan for three reasons: (i) to establish overall direction for the organisation's future, (ii) to identify and commit the organisation's resources to achieving its goals, and (iii) to decide which tasks must be performed to achieve those goals.
- **Organising**, which involves assigning the tasks identified during planning to individuals and groups within the organisation so that objectives set by planning can be achieved; organisation, thus involves turning plans into action.

- **Leading**, this involves staffing, communicating with and motivating others to perform the tasks necessary to achieve the organisation's goals within the context of a supporting organisational culture. Leading is not done only after planning and organising ends - it is a crucial element of those tasks.
- **Controlling**, which involves consciously monitoring the performance of a person, group, or organisation, and taking corrective action when necessary? A management control system sends signals to managers that things are not working out as planned and that corrective action is needed.

In outlining what managers do, besides considering the management tasks which managers carry out, their roles, namely the things they do in the process of carrying out their managerial tasks, are subsequently discussed (Hellriegel *et al.* 2008:10). Mintzberg (1971:102-107) as illustrated in Table 2.3 further added to the school of management thought by stating that a manager's job could best be represented by three sets of roles, or activities: decisional roles, interpersonal roles and informational roles. Mintzberg (1971:102-107) described the interpersonal roles as consisting of figurehead, leader and liaison. The three informational roles as being monitor disseminator and spokesperson; and the four decision-making roles as being an entrepreneur, disturbance handler, resource allocator and negotiator.

Table 2.3: Managerial roles identified by Mintzberg

Type of Role	Specific Role	Examples of role activities
Decisional	Entrepreneur	Takes risks in the process of identifying and evaluating business opportunities and allocating resources thereto in order to make a profit.
	Disturbance Handler	Moves quickly to take corrective action to deal with unexpected problems facing the organisation from the external or internal environment.
	Resource Allocator	Allocates organisational resources among different functions and departments of the organisation and sets the budgets and salaries of subordinates.
	Negotiator	Works with suppliers, distributors, and trade unions to reach agreements about the quality and price of input, technical, and human resources and works with organisations to establish agreements to pool resources to work on joint projects.
Interpersonal	Figurehead	Performs ceremonial and symbolic duties, and represents the organisation when and where necessary.
	Leader	Directs and coordinates subordinates' activities, which may involve motivating employees.
	Liaison	Involves managers in interpersonal relationships outside their area of command. Within the organisation, managers must interact with numerous other managers and other individuals.
Informational	Monitor	Evaluates the performance of managers in different functions and takes corrective action to improve their performance; watches changes occurring in the external and internal environments that may affect the organisation in the future.
	Disseminator	Informs employees about changes taking place in the external and internal environments that may affect them and the organisation; communicates to employees the organisation's vision and purpose.
	Spokesperson	Represents the unit or organisation to other people, either within the organisation or outside the organisation.

(Source: Jones & George, 2006:52).

Having conceptualised the concept of management and considered the scope of activity, tasks and roles of management, the fundamental importance of management to any organisation could be summarised as follows (Du Toit *et al.* 2007:126-129; Hellriegel *et al.* 2008:17):

- Management provides clear direction toward the attainment of the overall goals;
- Management sets and keeps the operations of the organisation on a balanced course;
- Management keeps the organisation in equilibrium with its environment;
- Management selects the right people to staff the organisation;
- Management is necessary to reach the goals of the organisation at the highest possible level of productivity;
- Management coaches and supports subordinates and seeks to understand them;
- Management provides objective recognition; and
- Management realises employee potential through training, development and performance management.

From this, it is evident that management is a central component of the successful functioning of an organisation. The aspects pertaining to the scope of activity, tasks and roles of management were discussed as well the relationships between these aspects. The management competencies required to enhance the effective and efficient functioning of an organisation will be discussed in the next section.

2.4 MANAGEMENT COMPETENCIES

Confusion and debate reigns concerning the concept of competence that it is difficult to identify or attribute a coherent theory or to thrash out a definition capable of incorporating and reconciling all the different ways in which the concept is applied. A set of competencies though have been shown empirically to cause or predict outstanding leaders, managers, and successful professional performance in literature (Xiang, 2009; Ulrich, Johnson, Sandholtz, Brockbank, & Younger, 2008; Hellriegel *et al.* 2008; Sanghi, 2004; Rychen & Tiana, 2004; Cassidy, 2004; Boyatzis, Stubbs & Taylor, 2002).

Spencer and Spencer (1993: 20) view competency as a characteristic or attribute of an individual that is causally related to job performance. Boyatzis (1982: 13) further expound on this viewpoint by stating that the possession of certain competencies precedes and leads to effective and/or superior job performance. Competencies can be accumulated within an individual and represent a capacity to perform at some future point (Ulrich *et al.* 2008:31).

Collins and Wood (2009:43) provided a more explicit definition: a competency, which is an integration of knowledge, skill and values, and is demonstrated according to a defined standard in a specific context. Sanchez *et al.* (2008:16-21) described managerial competence as an outcome of a conjunction of education, experience and personal traits (mental, physical and personality). The last two definitions in this paragraph are the hallmark and focal point of this study.

Organisations need to understand the concept of competency because it provides the following:

- A consistent measure of performance, making it easier to be more objective when assessing and monitoring performance.
- A structured way of describing behaviour - a common language for the organisation.
- A tool to help managers give constructive feedback because competencies provide examples of required levels of behaviour.
- A self-assessment tool to help individuals identify strengths and development needs.

In the context of the workplace and what employers look for, competency is a combination of cognitive skills (technical knowledge, expertise and abilities), and personal or behavioural characteristics (principles, attitudes, traits, values and motives) which are a function of an individual's personality (Burchell, Hodges & Rainsbury, 2001:17). A combination of cognitive skills and personal characteristics is what is required for successful job performance in addition to a number of work related factors.

Bhorat and Lundall (2003:23-27) suggested that, if employees with the right personal characteristics are recruited, then they should have the competence to quickly acquire the relevant (technical) knowledge and skills in order to achieve their performance objectives. Human capital factors such as the level of education, work experience, start-up expertise, training and skills and technical knowledge have been empirically researched for their influence and relationship with successful managerial performance (Xiang, 2009:18). These human capital factors determine whether a manager possesses the appropriate abilities, which in turn affects the decision to start up a business or run an organisation and also its success (Xiang, 2009:18-19). There is sufficient evidence to prove that competencies can be gained through work experience or on the job training. On the other hand, experts argue that such

competencies would be more specialised and specific in a particular organisational context. Conversely, the competencies acquired through education are viewed as generic, in the sense that they are skills repertoires that are germane to more than one organisational context (Sanchez *et al.* 2008:20).

The competencies gained through education are particularly relevant to this study and has reference to the knowledge gained by Commerce graduates during the course of their studies. Despite the fact that most employers acknowledge the importance of graduates' personal characteristics, the balance expected between these and their discipline-specific technical knowledge remains a bone of contention (Harvey, Burrows & Green, 1992:43). Nevertheless, a review of modern day literature examining generic competencies which are mandatory for contemporary graduates, points to increasing importance on personal attributes (traits), instead of technical skills (Bush 2010; Collings & Wood, 2009; Fleming, Martin, Hughes, & Zinn, 2008; Gordon, 2007; Bell, Crebert, Patrick, Bates, & Cragolini, 2003; Griesel, 2003; Goleman, Boyatzis, & McKee, 2002; Fallows & Steven, 2000).

The rationale for any managerial competency research is to identify the characteristics and qualities of an effective and efficient manager and leader so that organisations can achieve their goals (Mintzberg, 1971:97). According to Louw (1999:68-70), Moore, Cheng and Dainty (2002:314), Fleming, Martin, Hughes and Zinn (2008:9) and Xiang (2009:4) managerial competencies can be studied from three viewpoints that is, inputs (antecedents to competencies), process (task or behaviour leading to competencies), or outcomes (achieving standards of competence in functional areas).

Based on research by various authors (Louw, 1999:68-70; Moore, Cheng & Dainty, 2002:314; Fleming, Martin, Hughes & Zinn, 2008:9; Brennan & Little, 2009:3 and Xiang, 2009:4), three outstanding components of competencies can be stated which are associated and these are knowledge, skills and traits:

- The knowledge component refers to the scope of management activity at different organisational levels and within organisational functional areas, management tasks and related roles. Knowledge related competencies are associated with specific forms of behaviour, usually acquired through education, training, personal development efforts and experience.

- The skills component refers to overt observable behaviour or actions that lead to specific performance, also closely associated with management roles and how the management tasks are implemented.
- The traits component refers to covert cognitive activities or dispositions to behave or respond in a certain way.

Schroder (1989:28-53) built on Boyatzis (1982)'s seminal work and developed three classes of managerial competencies: entry level competencies, which consist of individual characteristics gained through education, experience, training and background; basic competencies, which consist of knowledge and skills needed to perform the jobs or functions of managing; and high performance competencies, which include behaviours that produce significantly superior workgroup performance in more complex organisational environments.

Based on the afore-mentioned discussion and for the purpose of this study the concept *competency* refers to the sum of experiences and knowledge, skills, traits, aspects of self-image or social roles, values and attitudes that an individual has acquired (Viitala, 2005:437; Hellriegel *et al.* 2008:22-23). The significance of including social and emotional intelligence competencies in management education in dealing with contemporary issues has also been recognised for over two decades (Boyatzis *et al.* 2002:49). A brief explanation of the essential components of management competencies, namely knowledge, observable behaviour or actions (skills component) and covert cognitive activities (traits component) will now be given, after which the concept meta-competencies will be clarified further.

2.4.1 Knowledge

According to Burchell *et al.* (2001:12) knowledge is the sum of all the facts, information, and/or skills gained through experience or education or (more generally) the theoretical or practical understanding of a subject. Cassidy (2004:438) defined knowledge as "the confident understanding of a subject with the ability to use it for a specific purpose if appropriate." Heery and Noon (2008:54) further stated that knowledge is the actuality or state of apprehending truth; knowing something with familiarity gained through experience or association. The Oxford South African Dictionary (2010:694) defines knowledge as (i) expertise, and skills acquired by a person through experience or education; the theoretical or practical understanding of a subject; (ii) what is known in a particular field or in total; facts and information; or (iii) awareness or familiarity gained by experience of a fact or situation.

Knowledge is occasionally seen as if it were a tangible expression of abstract intelligence, but it is in reality the product of an interaction between intelligence (capacity to learn) and situation (opportunity to learn), and hence more socially-constructed than intelligence (Yorke & Knight, 2006:112). In philosophy, the theory of knowledge is called *epistemology* and deals with such questions as how much knowledge comes from experience or from innate reasoning ability, whether knowledge needs to be believed or can simply be used, and how knowledge changes as new ideas about the same set of facts arise (De Geus, 1999:84).

Knowledge includes supporting theory and concepts, and also tacit knowledge acquired as a result of the experience and know-how of performing certain tasks and roles (Winterton, Le Deist, & Stringfellow, 2006:52). Understanding refers to a more holistic knowledge of processes and contexts, and may be distinguished as know-why, as opposed know-that. The knowledge realm includes facts, ideas, principles and theories. Acquisition of knowledge is a central aim of education and would be linked with the science of management (Winterton *et al.* 2006:54). The learner needs to be provided with training and coaching for performing activities for developing information and concepts about the immediate environment and these activities incorporate both physical and mental activities (Whetten & Cameron, 2001:173). Learning is the process of acquiring and retaining knowledge in memory is and is a product of all the experiences of individuals (Hunt, 2003:101).

Knowledge is asset which is not easily measured or audited, thus, organisations have an obligation to manage knowledge effectively in order to benefit of the skills and experience inherent in their systems and structures as well as the tacit knowledge possessed to the employees of the organisation (Hellriegel *et al.* 2008:183-185). Knowledge can be further elaborated as “information, theory and concepts that have been conceptualised within an individual’s cognitive and affective domains” and also comprises what an individual knows, how they think and internalise concepts (Louw, 1999:69).

2.4.2 Core Knowledge areas in Commerce and Business

Management knowledge is essential for effective practice and is broadly accepted as learnable through formal management education (Badawy, 1982:18). Formal education, in the realm of the body of knowledge of management, would call for the imparting of “what managers should do” based on the science of management developed by management scientists (Roos, 2008:47). As discussed in Section 2.3 of this chapter, management

knowledge would pertain to the scope of management activity, managerial tasks and partially to the roles of management. For example, general managers are responsible for the operations of a more complex unit such as an organisation or a division of it and should have a broad range of well-developed competencies to do their jobs well (Hellriegel *et al.* 2008:9-11). While functional managers usually have a great deal of experience and technical expertise in the operations they supervise, such as human resources, sales, finance, marketing, or production (Hellriegel *et al.* 2008:9-11), the finance function relies largely on knowledge available from the disciplines of Accounting, Theory of Finance and Statistics. Their success as managers is due in part to their own, detailed knowledge about the work being done by the people they supervise, the problems those people are likely to face, and the resources they need to perform well (Hellriegel *et al.* 2008:9-11).

In many higher education institutions management education curriculum and syllabus (for example undergraduate courses, MBA programs) are structured according to what is known as the content of management. In other words, courses and programmes are naturally classified into distinct functional areas divided into courses such as strategy, accounting and marketing and are designed to improve the technical competence of managers and managers to be (commerce graduates) (Burchell *et al.* 2001:11-20). The offering of management courses affirms Badawy's, (1982: 18) contention that management knowledge is fundamental for effective practice and can be acquired through formal management education. Even though the body of management knowledge or content of management is functionally organised for analytical purposes, it should be noted that in practice a holistic, integrated, cross-functional perspective is required (Louw, 1999:19).

Against this background, the question arises what the specific content of the body of knowledge taught at HEI's offering commerce and business related degrees is. The question was raised in Section 1.4 of Chapter One, which courses, should form the basis of the body of management knowledge in the Commerce curriculum? In response to this question, core courses were identified from the Selected HEI institution's general prospectus. These courses were then grouped together based on the general management functional areas, secondary sources on management, as well as on distinct similarities and insights. The classification of these core courses used in the current study, is as follows (Selected HEI institution Prospectus 2010):

- *Accounting*, which includes the following modules: “accounting cycle; presentation and disclosure for financial statements; adjustments; accounting for receivables and payables; inventories; cash and cash equivalents; partnerships; companies; cash flow statements; consolidations; equity accounting; income taxes; foreign exchange; forward exchange contracts; accounting policies; earnings per share; provisions and contingencies and financial instruments (excl. derivatives)”.
- *Auditing*, this includes “the nature, definition and objective of an audit, qualities and qualifications, duties and responsibilities. It also includes requirements of relevant legislation; the Companies Act and Auditing Profession Act. The audit process; internal controls; compliance and substantive auditing of the major business cycles; audit reports and computer auditing”.
- *Ethics*, which includes “modules in general ethics; ethical decision-making; macro-ethics; stakeholder theory and corporate social responsibility; management and organisational ethics”.
- *Management Accounting*, which includes “modules in cost classification (job order costing, process costing, JIT, ABC); Cost behaviour (CVP analysis, standard and variable costing); valuations; capital budgeting; working capital management; credit policy; current asset management; leasing and sources of finance”.
- *Taxation* includes “modules in principles of income tax; practical application of the income tax act; and the value added tax to financial; commercial transactions and donations tax. The course also includes other relevant acts; court decisions; and Inland Revenue practices; calculation of tax payable; estate and tax planning”.
- *Financial Management*, which includes “modules in capital budgeting; valuations; working capital management; credit policy and current asset management; sources of finance; leasing and other selected topics”.
- *Human Resource Management*, which includes “modules in the human resource management function (planning, staffing and compensation); organisational behaviour; labour relations; leadership; organisation development and interventions; organisational diagnosis; learning organisations and knowledge and intellectual capital”.
- *Marketing Management*, which includes “the marketing concept; an introduction to the marketing mix; marketing research; business markets; business buyer behaviour; market targeting; market positioning; international marketing; brand management; relationship marketing; services marketing; e-marketing and marketing communication”.

- *Strategic Management*, which covers “the principles of strategic management in accordance with the constraints and opportunities imposed by both internal and external environmental factors; stakeholders and strategic direction; strategic analysis; strategy development and formulation and strategy implementation.
- *Economics*, which covers “modules in microeconomics (the study of production and consumption by households, firms and industries), macroeconomics (the study of the economy as a whole, including monetary and fiscal policy; national income accounting, unemployment and inflation; international trade; public finance; money and banking and international finance; economic history; environmental economics; mathematical economics and econometrics”.
- *Information Systems*, which includes “modules in the development, application and management of information systems in organisations and the technology used in these processes; corporate communications; decision support systems; IT project management tools; computer programming; information systems theory; end user development; accounting information systems; information systems security and control; computer assisted audit techniques; information systems design; advanced data manipulation; e-business and software engineering modules”.
- *Computer Science*, which includes “introduction to ICT problem solving with computers, introductory programming, computer skills; machine organisation; design principles; designing for windows systems; database theory and query languages; modelling; software engineering techniques; data communications and computer networks; functional programming; web 2.0 technologies; XML; AJAX; mobile web technologies; social networking; multiplayer / network game programming and development frameworks”.
- *Mathematics*, which includes “modules in introductory calculus; discrete mathematics; mathematics literacy; differential equations; foundation of mechanics; mathematical modelling; transformation geometry; algebra, applied and complex analysis; linear control, numerical analysis; quantum mechanics; and real analysis”.
- *Statistics*, which includes “modules in theory of finance, mathematical statistics, linear models and probability theory; survey methods and sampling techniques; sampling distributions; point and interval estimation; tests of hypotheses; design and analysis of questionnaires; time series analysis; limit theorems; Bayesian inference and financial statistics”.

- *Commercial Law*, which includes “introduction to the nature of law; interpretation of statutes; contracts of sale; partnerships; close corporations; registering companies; labour law; commercial agency; letting and hiring; property law statutes; mortgage loan and lien; carriage of goods, surety ship, marketing law; arbitration; insurance; insolvency; negotiable instruments; administration of estates and property transactions”.
- *Legal Theory* includes “modules in foundations in law; legal interpretation; customary law; law of persons; administrative law; competition law; constitutional law; environmental law; insolvency and winding up of companies; law of life partnerships and trusts; law of patents; designs and geographical indications; law of succession and administration of estates; international trade law; law of trademarks and copyrights; law of tax and estate planning; legal accounting; negotiation and mediation; legal practice and legal skills”.
- *Philosophy*, which includes “modules theory of knowledge; theories of human nature; theories of mind and society; moral and political philosophy; metaphysics; history of philosophy; philosophy of religion; philosophy of science; epistemology; African philosophy; continental European philosophy; ethics; social philosophy and philosophy of religion”.
- *Psychology*, which includes “clinical and counselling psychology, educational psychology, organisational psychology, developmental psychology and learning, social psychology, biological psychology, personality, psychopathology and psychotherapy, and industrial psychology”.
- *Theory of Finance*, which includes “studying the value of money under the following headings: linear growth, exponential growth, serial growth and calculus”.

The above mentioned core courses or major disciplines are analogous with the curriculum content and educational standards that should be provided by HEI’s as provided by Higher Education South Africa (HESA) and Council on Higher Education (CHE) in South Africa. The Commerce curriculum, generic to most universities include Accounting, Financial Management, Strategy, Human Resource Management, Marketing Management, Economics, Commercial Law, Information Systems and Management Accounting (Rhodes, 2010:1; University of Cape Town, 2010:1; Nelson Mandela Metropolitan University, 2010:1; Stellenbosch University, 2010:1; University of Pretoria, 2010:1). Criticisms of Commerce graduates and the curriculum were the rationale behind this study and also to obtain the

views and the perceptions of graduates and employers on which new courses should be added to the Commerce curriculum in line with contemporary issues and needs in practice.

The classification of the core courses according to subject disciplines at the selected HEI is illustrated in Table 2.4. These courses form the basis of the Commerce curriculum classification criterion for both the Commerce graduate and employer surveys.

TABLE 2.4: Classification of core courses at the selected HEI

Discipline	Courses
Accountancy	<ul style="list-style-type: none"> • Accounting • Auditing • Management Accounting • Taxation • Ethics
General Management	<ul style="list-style-type: none"> • Financial Management • Human Resource Management • Marketing Management • Strategic Management
Economics	<ul style="list-style-type: none"> • Economics
Legal Law	<ul style="list-style-type: none"> • Commercial Law • Legal Theory
Information Systems Management / Information Technology	<ul style="list-style-type: none"> • Computer Science • Information Systems
Quantitative methods and data analysis	<ul style="list-style-type: none"> • Mathematics • Statistics • Theory of Finance
Social Sciences	<ul style="list-style-type: none"> • Philosophy • Psychology

(Source: Researcher’s own construction)

2.4.3 Managerial skills

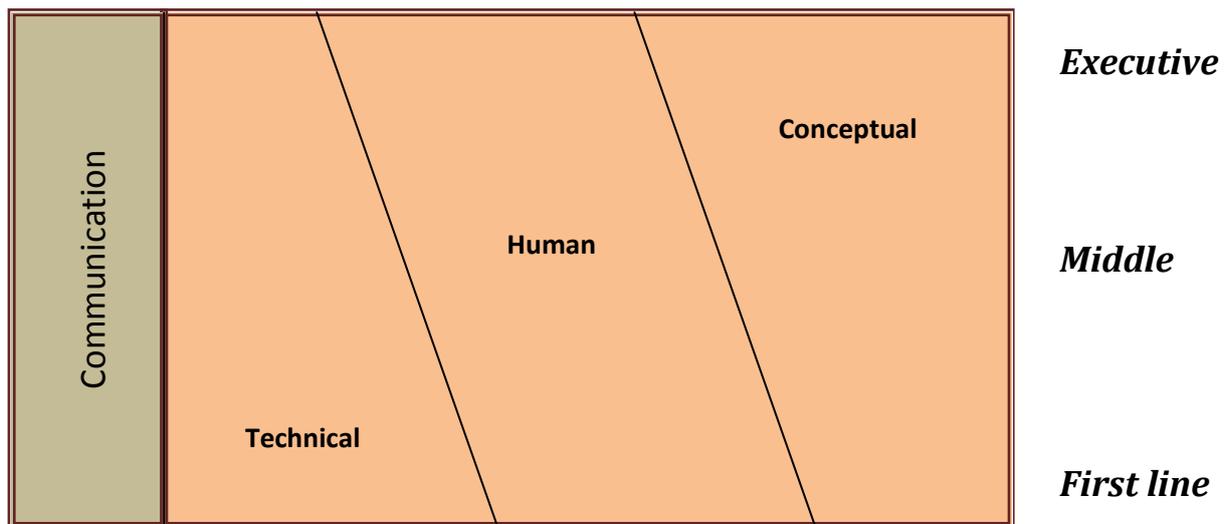
As with the body of management knowledge, management skills are important in developing successful managers. To give effect to the research questions posed in Section 1.5 of Chapter One, the following question - “which management skills and traits are required for successful job performance in the workplace?” needed to be answered. In order to answer this question, management skills and traits were identified and included from seminal research by (Louw, 1999), and the secondary literature review on skills and traits discussed in this section and subsequent sections.

The proficiency of managers to fully comprehend the profitability and cost effectiveness of an organisation is based on an integration of skills (Griesel & Parker, 2009:5). Hunt (1991:156) and Raybould and Sheedy (2005:260) referred to skills as the capacity to convert knowledge into action, resulting in the desired performance, while Hellriegel *et al.* (2008:16) stated that it was the ability to perform effectively. More often than not the notion *skill* is used to refer to a level of performance, in the sense of accuracy, speed and confidence in performing particular tasks, illustrating a skilled performance (Hellriegel *et al.* 2008:16-18).

This definition of skills is affirmed by Welford (1968:12-13) who define skills as being an amalgamation of factors ensuing in competent, professional, rapid and precise performance. Recent research into the notion '*skills*' has progressively taken into account broader cognitive skills such as analytical skills and decision making (Griesel & Parker, 2009; Ulrich *et al.* 2008; Sanchez *et al.* 2008; Hogarth, Winterbotham, Hasluck, Carter, Daniel, Green, & Morrison, 2007; Raybould & Sheedy, 2005).

Managerial skills are defined as a combination of complementary and corresponding skills possessed by the organisation's management. The criteria for classifying managerial skills can vary but based on the seminal work by Katz (1974:90-103) technical skills, human skills and conceptual skills are considered to be the fundamental managerial skills, required in the work environment and for effective managerial performance as shown in Figure 2.2. A fourth skill, namely communication has been included by Piškanin and Rudy (2006:11). Katz (1974:90-103) suggests that these three important managerial skills that must be refined and improved by the organisation as the level of development a manager has in each of these skills will influence not only the success of the organisation but also the career achievements of the manager. An individual manager, regardless of how capable and endowed they are, is unlikely to possess all the managerial skills that are required for the successful running of a multifaceted organisation (Hellriegel *et al.* 2008:16-18). Each of these managerial skills will subsequently be discussed.

Figure 2.2: Relative significance of managerial skills



(Source: Katz, 1974:90-103); Piskan & Rudy, 2006:11)

- *Technical skills*: the ability of a manager to use specific methods and techniques in doing the managerial work. However these technical skills are not related to technology, such as skills of an engineer. The technical skills for managers represent the usage of methods like break even analysis in planning or ability to prepare for and conduct a structured interview (Katz, 1974:90-103; Hellriegel *et al.* 2008:16-18).
- *Human skills*: people are the most valuable resource of any enterprise and managers need to know how to lead people. Abilities include motivation of workers, solving work conflict, communication and working with people. Therefore interpersonal skills are essential on every level of management (Katz, 1974:90-103; Hellriegel *et al.* 2008:16-18).
- *Conceptual skills*: a conceptual skill is the ability to think analytically and to solve complex problems. These skills are vital for middle or top managers. This is the ability to “grasp the whole picture” and seeing the organisation as one intertwined whole with the surrounding environment with the relevant priorities and important issues (Katz, 1974:90-103; Hellriegel *et al.* 2008:16-18).
- *Communication*: managers need information for decision making. The ability to disseminate and receive information is thus a key attribute of a manager. It is not only verbal communication, but the manager should be able to distinguish non verbal signals as well as mood and feelings to filter the right information (Katz, 1974:90-103; Piškanin & Rudy, 2006:11). This skill is vitally important and should be consistent across all managerial levels.

Although efficient managers must have an advanced level of proficiency in technical, human, conceptual and communication skills the reality is each skill will vary in importance according to the level at which the manager is positioned in the organisation (Bell *et al.* 2003:15; Hellriegel *et al.* 2008:17). As illustrated in Figure 2.2 managers move up the managerial hierarchy from first-line to middle to executive level, as they move up the hierarchy of management, the greater are the number of ambiguous problems with longer-term consequences they have to deal with. Technical skills are more prominent at lower levels of management because first-line managers are more involved with the production process, where technical expertise is in utmost demand (Bell *et al.* 2003:16). Technical skills become less imperative at the top level of the management hierarchy, where conceptual skills are more prominent (Mabey & Finch-Lees, 2008:27).

Conceptual skills are essential for top managers because the strategies, policies, and decisions developed at this level involve the ability to identify how a change in one activity will affect changes in other activities (Hellriegel *et al.* 2008:16-18). Human and communication skills are equally necessary at each level of the management hierarchy, similarly communication skills are the most important skill and overlapping and included at all managerial levels

Literature suggests various typologies of managerial skills of successful managers, for example Castanias and Helfat, 1991:2001; Katz, 1974; Yukl, 2002; Hellriegel *et al.* 2008; and Bush, 2010. These typologies will not be discussed in this thesis. Castanias and Helfat (2001:661-678) and Bailey and Helfat (2003:347-369) have introduced a hierarchy of four types of skills from their studies namely:

- generic skills, which are transferable across sectors and organisations;
- sector-related skills;
- organisation-specific skills; and
- industry-related skills.

For the purposes of this study, a typology of managerial skills which were classified into eleven categories namely, administrative skills, analytical skills, communication skills, conceptual skills, decision-making skills, generic skills, human skills, interpersonal skills, industry-related skills, organisation specific skills and technical skills is presented in Table 2.5. Managers must possess the managerial skills from each category in order to execute their tasks, roles and functions effectively regardless of level.

Table 2.5: Typology of managerial skills

Skills	Definition
Administrative	Ability to follow policies and procedures, process paper work in an orderly manner, and manage expenditures within the limits set by budget.
Analytical	Ability to indentify key variables, observe how they are interrelated and decide which ones should receive the most attention.
Communication	Ability to send and receive information, thoughts, and feelings, which create common understanding and meaning.
Conceptual	Ability to see the business (organisation) as a whole and to solve problems systematically.
Decision-making	Ability to generate alternatives and choose effective solutions from alternatives
Generic	Ability to develop a range of attributes, characteristics, values, skills and qualities which are necessary for successful employment.
Human	Ability to work cooperatively with others, to communicate effectively, to motivate and train others, to resolve conflicts, and be a team player.
Interpersonal	Ability to develop and maintain a trusting and open relationship with one's superiors, subordinates and peers to facilitate the free exchange of information and provide a productive work setting.
Industry-related	Ability to develop specific managerial skills which are dependent on the type of industry of the organisation in which one is involved. Industry related skills can be transferred across industries
Organisation specific	Ability to develop specific skills which are unique to the particular organisation
Technical	Ability to use methods, procedures, processes, tools, techniques, and specialised knowledge to perform specific tasks.

(Source: Adapted from Roos, 2008:50)

According to Yukl (2006: 31-32) “the relative importance of and the degree to which any of the skills management use are determined by the type and size of the enterprise, organisational life-cycle, complexity of tasks, diversity of functions, lateral interdependence, crisis conditions, as well as personal characteristics and traits”. Being in possession of managerial skills is not a straightforward task because it means theoretical knowledge needs to be put into practice in the work environment. The dilemma, however, is that newly conferred graduates do not have the practical experience while those in the work environment may not have been exposed to contemporary management theory (Griesel & Parker, 2009:6-7). Managerial skills are thus gained by combining and matching theoretical knowledge with experience (Griesel & Parker, 2009:6-7).

Without a doubt, there is proof that the possession of skills and the manifestation of skilled performance involve an amalgamation of essential perceptual, cognitive and motor skills (Gordon, 2007:75-82; Carlson & Yaure, 1990:484-496). Furthermore, the retention of even relatively simple motor skills appears to depend upon understanding of results (Lavery, 1962:301) and verbalised knowledge (Berry & Broadbent, 1984:212), or knowledge that is expressed in the course of developing such skills (Winterton *et al.* 2006:34). In addition, knowledge and working memory play a key role in the acquisition of skills (Griesel & Parker, 2009:6) including technical skills (Carlson, Sullivan & Schneider, 1989:518), problem-solving skills (Hellriegel *et al.* 2008:16) and complex cognitive skills (Griesel & Parker, 2009:8). Proctor and Dutta (1995:18), in their study on skill acquisition and performance, defined skill as a ‘goal-directed, well-organised behaviour that is acquired through practice and performed with economy of effort’. Each element of this definition is significant and broken down in the following; Firstly, skill develops over a period of time, with practice; Secondly, it is goal-directed in response to some demand in the external environment; Thirdly, it is acquired when components of behaviour are structured into coherent patterns; and finally, cognitive demands are reduced as skill develops (Proctor & Dutta, 1995:18-25).

Based on the literature overview provided in this section and the research by Louw (1999), managerial skills have been categorised and classified according to technical and administrative; interpersonal and communication; conceptual, diagnostic and critical thinking skills. A summary is provided in Table 2.7 at the end of this chapter.

2.4.4 Managerial traits

The traits viewpoint on human behaviour was based on an early psychological focus that stated that people were born with inherited traits or characteristics (Ulrich *et al.* 2008:138). Hellriegel *et al.* (2008:296-297) defined *traits* as individual personality characteristics, for example the strengths of various needs that can affect a person’s job performance. Poling (2009:54) defined traits as components of a person's behaviour that is assumed to serve as an explanation or justification of their enduring personal characteristics.

Zaccaro (2004:104) defined traits as “relatively stable and coherent integrations of personal characteristics that foster a consistent pattern of managerial performance across a variety of group and organisational situations”. These characteristics and qualities reflect an array of

stable individual differences that incorporate both cognitive ability and a variety of personality attributes (Zaccaro, 2004:104).

Traits theories were developed to identify the personal characteristics that make successful managers and leaders. According to this viewpoint, the existence or nonexistence of these characteristics distinguishes leaders from non-leaders and successful managers and non-successful managers due to being born with inherited traits or characteristics (Kotterman, 2006:13-17). Physical, social background and personality are some of the characteristics studied in within the traits theory. There is some coherent support for the belief that successful managers and leaders have certain traits (Poling, 2009:57). Nonetheless, research has not provided evidence that traits without fail are the difference between potential successful managers and non-successful managers, for example, physical characteristics do not correlate with successful management (Hellriegel *et al.* 2008:296-297). It has been assert that Traits without doubt are more personality theories and relate more to the inborn spectrum than the perception that traits could be developed (Mc Crae & Costa, 1997:510).

Notwithstanding the conception that traits are inborn, Bass (1990: 21-53) published the results of a wide-ranging review on leader trait research and presented a list of constant personality traits that were supported by numerous empirical studies up to the late 1980s. Zaccaro *et al.* (2004:6-16) and Yukl (2006:13-29) summarised the leader traits that have been given empirical support as being significant to managerial effectiveness since Bass's (1990) review (Poling, 2009:12). These reviews highlight a set of traits that have been validly linked to managerial effectiveness (Poling, 2009:12). Table 2.6 lists the key traits identified in each of these three studies. Fifteen unique traits were identified (**highlighted in bold**) and included in the research instruments used in this study, namely Appendices A and B are included in Table 2.7 at the end of this chapter. The classification criteria are cognitive intelligence and mental ability, emotional intelligence and knowledge and wisdom.

Table 2.6: Key traits identified in trait studies

Bass (1990)	Zaccaro <i>et al.</i> (2004)	Yukl (2006)
Adjustment (Emotional stability) Adaptability (Openness) Aggressiveness (Need for power) Alertness (Energy) Dominance (Need for power) Self-control / Emotional balance (Emotional stability) Independence Nonconformity / Originality / Creativity (Openness) Self-confidence	Cognitive ability Extroversion Conscientiousness (Personal integrity) Emotional stability Openness Agreeableness Need for power Need for achievement Motivation to lead (Need for power) Social intelligence	Energy Stress tolerance Self-Confidence Internal locus of control Emotional stability Personal integrity (Conscientiousness) Socialised power motivation (Need for power) Achievement orientation (Need for achievement) Low need for affiliation

(Source: Poling, 2009)

Traits alone do not hold the key and answers to understanding effectiveness of a manager. Waddell, Devine, Jones and George (2007: 200) stated that, “Some effective managers do not possess all of these traits, and some managers who do possess them are not effective in their managerial roles.” Even if an individual boasts of the right traits this is not a guarantee for successful job performance, but it improves the chances of success (Waddel *et al.* 2007:200). For that reason the trait theory is significant, because it seeks a framework based on the personal characteristics which can be used to identify potential effective managers (Rowley, 1997:3-4). On the other hand, the trait theory does not present evidence on which traits are essential in which situation or the amount of the trait required (Dubrin, Dalglish & Miller, 2006:51).

Having discussed management competencies and its components (knowledge, skills and traits) the next phase entails the detailed definition of competencies in terms of levels of complexity, namely the notion of meta-competencies.

2.4.5 Meta-competencies

In the present study, the term meta-, trans-, and super-competencies will be used interchangeably to refer to meta-competencies. Pedler, Burgoyne and Boydell (1994:26-34) developed a competency classification system reflecting the successful manager. Their

research indicated that there were three levels of competencies and qualities an effective manager should possess, namely:

- Basic **knowledge and information** which include command of basic facts, relevant professional understanding.
- **Skills and attribute** sensitivity to events, judgement making, social skills, emotional intelligence, pro-activity.
- **Meta-Competencies** creativity, mental agility, balanced learning, self-knowledge.

The components of the three levels of competencies (**highlighted in bold**) form the basis of the theoretical framework of this study. Meta-competencies are therefore ‘overarching’ competencies that are applicable to a wide range of work settings and which smooth the progress of adaptation and flexibility on the part of the organisation (Cheng, Dainty & Moore, 2005:381). Learning, adapting, anticipating, and creating change are usually classified as meta-competencies (Grzeda, 2005:532). Boak and Coolican (2001:212-220) focussed on “meta-competencies” which they stated “refer to abilities that underpin or allow for the development of competencies, as well as characteristics that individuals will need in addition to competencies such as motivation and key cognitive abilities”.

Brown and McCartney (1995:43-53) defined meta-competencies as the “advanced level skills and abilities upon which competencies are based and which are associated with being able to learn, adapt, anticipate, and create rather than being able to demonstrate that one has the ability to do”. Abilities to develop a proposal, gather data, make a logical argument, apply knowledge, and communicate ideas are also associated with meta-competencies (Brown & McCartney, 1995:43-53). Boyatzis (2007:6) stated that meta-competencies are “those abilities, skills, and capacities which exist above and beyond any competency which an individual may develop, guiding and sustaining them, and from which they originate”. Toolsema (2003:47) stated that meta-competencies make the gaining of new competencies possible and make present competencies more adaptive and efficient. Cheetham and Chivers (1996:28) described meta-competencies as an ability to manage ability.

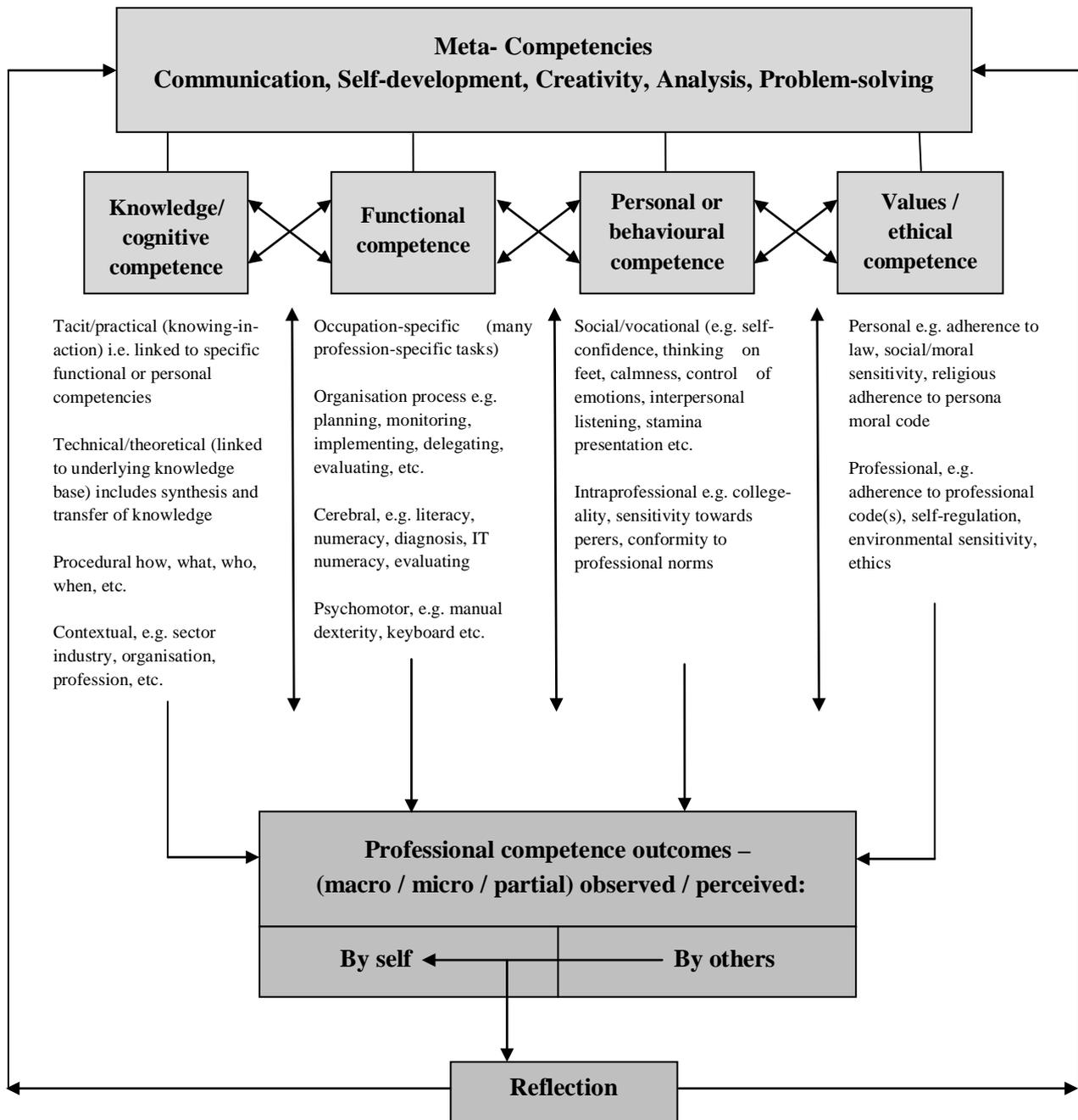
Meta-competencies therefore represent cognitive processes of a higher order, such as creativity and analysis (Cheetham & Chivers, 1996:28-30). Professional practitioners and graduates therefore must develop meta-competencies that as Martin and Pope (2008; 82) suggests “will help them develop the just-in-time competencies they will need in order to adapt to ongoing, short-term challenges and the personal competencies that will help them

endure and lead through multiple waves of change”. Personal capabilities that seem like sound judgment, instinctive thinking, and expertise have a mutual relationship that exceeds the concept of competency; these baseline managerial qualities are meta-competencies (Martin & Pope, 2008:83). That is to say, the capacity to use different competencies in the context of certain behaviours can be described as a meta-competency (Ruth, 2006:211). In simpler terms, competencies may be seen as learning to learn, flexible transfer and application of knowledge and skills across contexts or thinking outside the box (Fleming, Martin, Hughes & Zinn, 2008:190). Meta-competencies are placed higher than the other competencies; in other words a meta-competency can only be developed when the other competencies are existing (Boyatzis, 2007:6). Cheetham and Chivers (1998: 28-30) grouped meta-competencies with concepts of communication, vision, innovation, problem-solving strategies, learning styles, and mental agility together.

Meyer and Semark (1996:96-103) proposed four meta-competency clusters namely, managing cognitive complexity; ability to facilitate multiple levels of communication; abilities to generate new ideas; and openness to diversity. The first cluster consists of *managing cognitive complexity* in the same vein Boulding (1956:197-208) described in general systems theory. Cognitive complexity runs along a range that runs from static structures, through open system self-maintaining structures, to the level of overarching transcendental systems. The second cluster involves *facilitating multiple levels of communication* such as team member relationships (intra-team), inter-team exchanges across functional lines, and relations with stakeholders in the external environment. The third meta-competency cluster involves *abilities to generate new ideas* and propose new strategies before the need is widely visible. The final cluster concerns *openness to diversity* which includes “new knowledge, concepts, values, and behavioural norms, both at a cognitive and affective level”.

Meta-competencies embody the cognitive power of experts and skilled practitioners needs to manoeuvre beyond existing competencies - to analyse, modify, and create competencies’ hence they occupy a higher level (Boyatzis, 2007:11). For the purposes of this study, the key components of meta-competencies by Cheetham and Chivers (1996:20-30) as illustrated in Figure 2.3 will be used to provide an overview of the concept meta-competencies. According to Cheetham and Chivers (1996:20-30), the core components of meta-competencies are knowledge/cognitive competence; functional competence; personal or behavioural competence; and values/ethical competence.

Figure 2.3: The key components of Meta-competency



(Source: Cheetham & Chivers, 1996:24)

Knowledge/Cognitive competencies, in Figure 2.3, include the acquisition of relevant work-related knowledge and the ability to convert this knowledge and utilise it effectively. Functional competencies are the ability to execute a wide array of job specific tasks successfully to produce particular results (Cheetham & Chivers, 1996:20-30). Functional competence strategies focus on tasks or functions that are executed within the job responsibility, instead of the personal characteristics of the person who has the job (Cheetham & Chivers, 1996:20-30; Le-Deist & Winterton, 2005:27-46). Individual or behavioural competencies comprise the ability to implement suitable discernible behaviours in work-related situations (Cheetham & Chivers, 1996:20-30). Personal (or behavioural) competence models in comparison to functional approaches focus on the personal attributes and behavioural skills that a person is obligated to bring when offered employment (Le-Deist & Winterton, 2005:27-46). These will incorporate characteristics such as ‘self-confidence, stamina - the capability of sustaining prolonged stressful effort (like endurance), attention to detail, output orientation and thinking on one’s feet, control of emotions, emotional intelligence, interpersonal listening, task centeredness, presentation, collegiality’ (Cheetham & Chivers, 1996:20-30; Le-Deist & Winterton, 2005:27-46). An important aspect of personal or behaviour competence, namely emotional intelligence, will be discussed in the next section. Values/ethical competencies is the acquisition of personal and expert values, and the ability to formulate and make decisions in the work environment based on these competencies (Cheetham & Chivers, 1996:20-30).

As illustrated in Figure 2.3 a number of ‘meta-competencies’ overarch these four core components (knowledge/cognitive, functional, personal/behavioural, and values/ethical competence). These meta-competencies include communication, self-development, creativity, analysis and problem solving (Cheetham & Chivers, 1996:20-30). According to Boyatzis (2007:7-9), ‘meta-competencies either assist in developing other competencies (e.g. self-development) or are capable of enhancing or mediating competence in any or all of the component categories (e.g. creativity)’. The same meta-competencies are generic and relevant to most occupations and transferable between different work situations, tasks and responsibilities.

Reflection as stated by Cheetham and Chivers (1996:20-30) is the ‘ability to learn through and within practice and occurs during an action or afterwards and is the basis of continuous improvement’. Therefore self-perception of competence leads to (or should lead to) reflection, as illustrated in Figure 2.3. Hence reflection is seen as flowing directly from self-

perception of outcomes. Reflection may be done by skilled practitioners when they reflect on their performance against any of the core competencies (or probably against any of their constituent competencies), or against any of the meta-competencies, or certainly about his or her overall professional competence. Reflection may be based either on macro- or micro-outcomes (Cheetham & Chivers, 1996:20-30).

Reflection may also take place in the middle of an activity (i.e. “reflection-in-action”) (Cheetham & Chivers, 1996:20-30). This is incorporated in the model through the concept of partial outcomes, referred to before (i.e. reflection against partial outcomes equates to reflection-in-action). The main purpose of reflection is (or ought to be) to improve and develop professional competence. Therefore, as illustrated in Figure 2.3, the results of reflection are shown as having the potential to feed back into any of the core components and their various constituents, or into any of the meta-competencies, thus completing the cycle of continuous improvement.

The development of meta-competencies in preparing graduates for managerial positions provides a challenge for HEIs, as teaching graduates how to acquire higher order competencies, highlighted in Figure 2.3 is particularly challenging. In order to develop graduates to be able to be effective and successful managers HEIs should develop both competencies and meta-competencies. This can be done by focusing the syllabi on the outstanding features of meta-competencies, such as learning, knowledge and wisdom, ability to adapt, cognitive ability, emotional intelligence, anticipating events and being innovative as shown in Table 2.6.

2.4.6 Emotional Intelligence

Salovey and Mayer (1990:185-211) in their leading article "Emotional Intelligence," defined emotional intelligence (EI) as "the subset of social intelligence that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions". Emotional intelligence is defined as a set of competencies indicative of the ability an individual has to be aware of their behaviours, feelings, moods, frame of mind and impulses, and *to manage them best according to the situation* (Ashkanasy & Daus, 2002:77). EI as stated by Goleman (1997: 13) refers to ‘an individual’s awareness and understanding of their own and other individuals’ emotions and their ability to use this awareness to assess and manage their relationships’.

Emotional intelligence encompasses the following; empathy; awareness of one's emotions; correct identification of one's own and other individuals' own moods; mood management and managing emotions; reacting with the right (adaptive) emotions and behaviours in different day to day situations (particularly to stressful and hard situations); and balancing of candid expression of emotions against politeness, selflessness, and respect, in other words possession of superior social skills and communication skills (Becker, 2003:192-195). Furthermore, other qualities, include choosing tasks and responsibilities that are emotionally rewarding to avoid procrastination, self-doubt and low self-esteem (i.e. good self-motivation and goal management) and a balance between work life and social life (Becker, 2003:192-195).

EI can also be viewed as the pattern of how individuals' biases in their thoughts results in them to think of something or a selection is superior to another, and also their precision in differentiating within those biases to exercise clear and sound judgment (Caruso & Salovey, 2004:53). According to Goleman (2004:82), emotional intelligence may be the most important trait or characteristic which separates exceptional performers from those who are simply average. Most scientific investigations support the viewpoint that there is a genetic element to emotional intelligence. Psychological and developmental studies suggest that nurture plays a significant role in that aspect also. It might never be known the amount each influences, but what is clear is that research and practice evidently reveal that emotional intelligence can be taught and trained. Organisations in the South African work environment have focused their efforts mainly on integrating emotional intelligence into leadership development programmes and skills management strategies, i.e. EI has been largely engaged for top management only within large organisations. As stated by Goleman (2004: 87) 'EI is born largely in the neurotransmitters of the brain's limbic system, which governs feelings, impulses and drives'. Organisations must therefore emphasise their training to incorporate the brain's limbic system in order to develop and boost emotional intelligence (Goleman, 2004:87). In the following section the concepts wisdom and knowledge will be defined and their relevance to managers of the future discussed.

2.4.7 Wisdom and Knowledge

Wisdom is defined by the Oxford South African Dictionary (2010:357) as the faculty of making the best use of knowledge, experience, and understanding by exercising good judgement. Acquiring or gaining wisdom is presented by Bloom's (1956) ``level 6''

(evaluation) of increasing an individual's cognitive skill, it is further than the previous levels by having the ability to make mindful value judgements based on clearly distinct norms (Bierly, Kessler & Christensen, 2000:601). Wisdom is applied in the organisational context during the planning, decision making and execution (or action) stages hence wisdom is considered action-oriented (Sternberg, 2003:49). For that reason, wisdom can also be viewed as the ability to utilize knowledge optimally for setting and accomplishing desired goals and understanding wisdom as the process of making judgments and actions based on knowledge (Malan & Kriger, 1998:242).

Wisdom can also be considered as expert knowledge in the “*fundamental pragmatics of life* that permits exceptional insight, judgment, and advice about complex and uncertain matters” (Pasupathi, Staudinger & Baltes, and 2001:351) and “... as an expertise in the conduct and meaning of life” (Baltes & Staudinger, 2000:124). The *fundamental pragmatics of life* refers to questions about life preparation, life management (day to day living) and life assessment (Baltes & Smith, 1990; Baltes, Staudinger, Maercker & Smith, 1995; Dittmann-Kohli & Baltes, 1990; Smith, Staudinger & Baltes, 1994). In order to come up with solutions about the questions about the *pragmatics of life*, knowledge that is expressive and practical, resourceful, distinguished, incorporated and well organised is vital (Dittmann-Kohli & Baltes, 1990:57).

As recalled by Sternberg (2003:112-138) Aristotle pioneered the difference between theoretical wisdom and practical wisdom. Theoretical wisdom is associated with the uppermost forms of rationality including those presented by the inquisitive systems of high abstraction and logic, while practical wisdom is associated with “the capacity for sound judgement in matters of conduct.”

The definition of knowledge has been addressed in Section 2.4.1 of this chapter. Knowledge encompasses both knowing *how*, which is generally more tacit knowledge, and knowing *about*, which is more explicit knowledge (Grant, 1996:117). Increasing one's knowledge represents Bloom's (1956) “level 4” (analysis) and “level 5” (synthesis) of increasing one's cognitive skill because it goes further than previous levels by understanding the content and structural form of something and formulating new structures based on it (Bierly *et al.* 2000:608). For example, gaining knowledge is being able to recognize the opportunities and threats in an industry and formulate strategies based on these for competitive strategy (Bierly

et al. 2000:608). As a result, knowledge can be defined as a lucid understanding of information and the linked patterns and understanding knowledge (our third level of learning) as the process of analysis and amalgamation of information (Bierly *et al.* 2000:608).

The relevance of this section is not only to highlight the effect of global and environmental changes in transforming the way organisations create value and conduct business, but also to emphasise the point that future managers would need knowledge and wisdom in order to deal with future social, economic, technological and political problems. Knowledge and wisdom are the highest levels of cognitive skill as stressed above by Bloom (1956). HEIs should be pioneering curricula to emphasize the importance of knowledge and wisdom in dealing with future and social problems of managers. Knowledge and wisdom are represented by the ability to apply knowledge to new situations, creative thinking and initiatives, intellectual flexibility and adaptability and social skills and sociability as shown in Table 2.7.

As mentioned previously, for the research in question, management competencies are viewed as a combination of knowledge derived from the body of management knowledge presented in core courses, as well as the skills and traits developed through these courses. The development of appropriate management skills and traits include the acquisition of meta-competencies. As with the body of management knowledge, management skills are important in developing successful managers. One of the research questions posed in Section 1.5 of Chapter One pertains to “which management skills and traits are required for successful job performance in the workplace?” In order to answer this question, management skills and traits were identified and included from seminal research by Louw (1999) and the secondary literature review on skills and traits as discussed in this section. These skills and traits have been categorised and classified according to relevant literature as illustrated in Table 2.7 below.

TABLE 2.7: Classification of management skills and traits

CLASSIFICATION CRITERION	SKILLS AND TRAITS
Technical and administrative skills	<ul style="list-style-type: none"> • Computer Literacy • Controlling skills • Enquiry and research skills • Planning and organising skills • Time management
Interpersonal and communication	<ul style="list-style-type: none"> • Ability to collaborate across cultures • Ability to delegate • Conflict management • Developing others • Diversity management • Impact and influence on others • Interpersonal (networking skills) • Leadership • Motivating skills • Negotiating skills • Oral presentations and use of visual aids • Organisational awareness • Teamwork and collaboration
Conceptual, diagnostic and critical thinking (decision making skills)	<ul style="list-style-type: none"> • Ability to convey a strong sense of vision • Ability to follow and construct logical argument • Analytical thinking and problem solving • Conceptual thinking (big picture) • Decision making skills • Entrepreneurial skills • Holistic (systems) thinking • Pro-activity • Sensitivity to business environment
Cognitive intelligence and mental ability	<ul style="list-style-type: none"> • Ability and willingness to learn • Interest and studiousness • Self confidence and decisiveness
Emotional intelligence	<ul style="list-style-type: none"> • Ability to act independently • Accountability • Business ethics and integrity • Driving force, motivation and resilience • Emotional stability and self control • Empathy • Stress management • Trustworthiness
Knowledge and wisdom	<ul style="list-style-type: none"> • Ability to apply knowledge to new situations • Creative thinking and initiatives • Intellectual flexibility and adaptability • Social skills and sociability

(Source: Adapted from Louw (1999) and researcher's own construction)

2.5 WORK INTEGRATED LEARNING SKILLS AND TRAITS

Preparing graduates for the work environment by focusing on the development of generic and specific skills and competencies that boost the employability of graduates is the main objective of HEIs and work integrated learning experiences (Fleming *et al.* 2008:1). According to Yorke (2006:54), employability “involves the appropriate knowledge, skills and personal attributes that help people gain employment and make an effective contribution at work”. Whilst employers demand job-related skills, HEIs express their dissatisfaction by stating that universities are not “Human Resource Development factories” (Griesel & Parker, 2009:6-8). Instead employers should acknowledge and value the fundamental role and purpose of higher education and its outcomes (Griesel & Parker, 2009:4). Higher Education is required to engage the skills needs of the economy, by addressing the identified skills gaps through research, knowledge generation and innovation (Griesel and Parker, 2009: 3).

In the 1990s to early 2000s, several countries embarked on programmes which produced lists of skills that were regarded as fundamental facets of employability, often described as *core, key or generic* skills (Harvey & Green, 1994:4; Ulrich, 2008:72). Examples of these are contained in the Mayer Report (Mayer, 1992) and the Finn Report from Australia (Finn, 1991), the Dearing Report from the United Kingdom (Dearing, 1996) and The Secretary’s Commission on Achieving Necessary Skills from the United States of America (SCANS, 2000).

These reports produced an inventory of skills and distinguished between core and generic skills required to be successful in the work environment. A familiar trend in all these reports was that “skills are transferable” or that graduates possess a certain “set of generic skills” (Griesel & Parker, 2009:6). In recent times there has been a shift from approaches that were associate with specific skills in an unplanned and gradual way to more holistic and cognitively based approaches which highlight the abilities and characters of graduates and predominantly the graduates’ ability to learn and continuous learning in the work environment (Griesel & Parker, 2009:6-11). For example, Yorke (2006:13) suggested that “employability goes well beyond the simplistic notion of key skills, and is evidenced in the application of a mix of personal qualities and beliefs, understandings, skilful practices and the ability to reflect productively on experience in situations of complexity and ambiguity”.

On the whole, employability is affected by four inter-related aspects namely: skilful practices (communication, time-management, problem-solving and lifelong learning); deep understandings founded on a disciplinary base (specialised expertise in a field of knowledge); effective beliefs about personal identity and self-worth; and, meta-cognition - self-awareness and the capability to reflect on, in and for action (Yorke & Knight 2006:55). It is this 'deep' notion of employability that has been embraced within this study.

2.6 SUMMARY

The main purpose of this chapter was to facilitate a comprehensive and holistic understanding of the research in question pertaining to management competencies. The enhanced understanding of management competencies was instrumental in modifying the research instrument. Hence, a number of core courses were identified, which are generally accepted to be the background knowledge required by Commerce graduates at the selected HEI, as well as the management skills and traits required to develop the generic competencies and the level of employability of graduates. This chapter discussed the contextualisation of the concept management which also included management versus leadership, the scope of management activity, management tasks, management roles and functional areas of management (Section 2.2 to Section 2.3). An overview of management competencies which encompassed discussions on knowledge, core knowledge areas in Commerce and Business, managerial skills, managerial traits and meta-competencies, was also provided (Section 2.4). Section 2.5 focused on emotional intelligence and wisdom and knowledge. Work integrated learning skills and traits were then presented which focused on how the management skills and traits developed in higher education enhance employability.

In Chapter Three the focus is on understanding the quality perspectives of the process and output component of higher education as well as the quality challenges in higher education.

CHAPTER THREE

QUALITY PERSPECTIVES PERTAINING TO HIGHER EDUCATIONAL INSTITUTIONS

3.1 INTRODUCTION

This chapter is the second chapter of the analysis of secondary sources, with the objective of gaining an understanding of graduate and employer expectations of the quality perceptions of programmes offered by HEIs. The focus of this chapter is on the process and output components of educational programmes offered at Higher Education Institutions in general and with reference to the Commerce and Business related field. *Process* refers to the quality perceptions pertaining to the programmes offered and the structure of curricula at HEIs which include methods of instruction, lectures and lecturers, role of learning and competency development. *Output* refers to the employer expectations and perceptions of graduates. Graduate perceptions pertain to the outcome of studying at an HEI and the perceived overall learning experience. The outcome of studying at an HEI relates to self-development and growth and to the increase in knowledge and as well as the enhancement of comprehension. The overall learning experience includes perceptions on how the HEI contributed to an increase in knowledge and abilities, enhanced insight and comprehension of the business world, developed abilities to formulate and apply theory from knowledge (curriculum content) and learning experiences.

In the environment of increasing competition and massification, the quality of education becomes the main strategic asset. *“Strong and flexible universities pursuing excellence in their different missions... requires... enhancing quality and improving transparency by fully embracing the responsibilities derived from the commitment of universities to quality and providing accurate information about institutional mission, activities, performance and results obtained to learners, employers and other stakeholders”* (Prague declaration, 2009:1).

Due to the complex, dynamic network of relationships and interconnectedness between HEIs and its stakeholders, the expectations and perceptions of the specific stakeholders should also be considered in *evaluating the Alumni and Employer perceptions of Commerce Graduates at a selected HEI*. The significance and content of a diploma or degree curriculum gives an indication of the status of the nation’s academic and intellectual progression as well as the

state of development of the country (HECI, 2004:1). The world has evolved into one global village through continuous disseminating of information, innovations and new ideas. There is therefore, a fundamental need to continuously revise, update and modernize curricula in order for the different courses to be applicable to current developments in the relevant fields of knowledge (HECI, 2004:1).

The expectations and opinions of the various stakeholders, in particular Commerce graduates (alumni) and employers contribute towards the overall perception of the quality of the process and output components of Commerce related programmes and curriculum at an HEI. The perceptions and expectations of these stakeholders provide the standards against which the service provided are compared (Griesel & Parker, 2009:6). These perceptions and expectations are often formulated in terms of what graduates and employers expect from HEIs (Rust, Zahorik & Keiningham, 1994:42). The perceptions that graduates and employers have of the curricula and courses is characterised by their insight and experiences with regard to the quality of the curricula and relates to their thoughts, beliefs and opinions (Griesel & Parker, 2009:6).

In order to identify possible statements and/or questions to be included in the research instruments, to be tested empirically, and to develop a holistic and comprehensive understanding of the research in question an extensive literature analysis is necessary. To gain a better understanding of the literature relevant to this chapter, the following will be discussed; firstly, the *quality perspectives of the process component of programmes at HEIs* will be discussed in Section 3.2. Subsequently, *the quality perspectives of the output component of programmes at HEIs* will be presented in Section 3.3. An overview of the quality challenges in HEIs is then presented and the chapter will conclude with a brief summary.

3.2 QUALITY PERSPECTIVES OF THE PROCESS COMPONENT OF PROGRAMMES AT HIGHER EDUCATION INSTITUTIONS

As stated previously, the process component pertaining to HEIs refers to the quality perceptions relevant to the structure of the HEI curriculum, method of instruction, lectures and lecturers, role of learning, the higher education qualification, competency development and the graduates themselves. For the purpose of this study, the discussion in this section

pertains to the role of transferable skills, development of transferable skills, the impact and role of learning styles in skills development and engagement with employers.

3.2.1 Transferable skills programmes of higher education institutions

An all encompassing view of education suggests that a holistic perspective to the development of skills and traits and the acquisition of knowledge is essential in university education. These holistic skills are frequently universal to all courses and units of courses, regardless of their subject realm and are often referred to as *transferable skills*. Transferable skills have been defined by the Skillsproject (2011:1) as "*skills developed in one situation which can be transferred to another situation*". Such skills include team work, communication skills, problem solving and planning skills – skills that are fundamental not just in learning or work situations, but in all areas of life.

Transferable skills are skills that all education, employment and careers have in common, and therefore serve as the link from education to employment or from one career to another (Oliver & McLoughlin, 2001:307). For instance when a person has expert skill in one career, they can easily *transfer* it from one job to another, from one field to another, from one career to another (Oliver & McLoughlin, 2001:307). Graduates need transferable skills in order to become successful learners as well as becoming experts in their fields of study and work and in every facet of their lives (Oliver & McLoughlin, 2001:307). The status of transferable skills has gained prominence in all fields of education, and this has resulted in HEIs incorporating transferable skills in all facets of their curricula in order to remain relevant to the ever-changing requirements of the work environment (Griesel & Parker, 2009:7). As Yorke (2006:12) stated “defining the full range of transferable skills that are useful (or essential) for university students is an exhaustive process. It is almost as exhaustive as finding agreement in the terms which might best be used to describe the set”. In the context of this study the concept *transferable skills* is used to describe the full range of domain independent skills that are considered to be essential life skills for people both in and out of the workforce (Yorke, 2006:11-13). The term transferable skills includes – “*core skills*”, “*soft skills*”, “*generic skills*”, “*generic competencies*” (Curry, Sherry & Tunney, 2003:4; Skillsproject, 2011:1).

Transferable skills are those, which are understood to transfer readily across a range of contexts. If HEIs are to meet the needs of the employers and the individual, the focus should

emphasise active development of these skills (Yorke, 2006:11-13; Bennet *et al.*1999:72). Most HEIs acknowledge the importance of developing transferable skills and include these key skills in their mission statements. These key skills include higher level aims relating to critical thinking, inquiry and a capacity for lifelong learning. According to the authors Liston, 1998; Meade and Andrews, 1995; Louw, 1999; Griesel and Parker, 2009, typical skills described for graduates include:

- skills that students need to develop to become successful and independent learners. For example, information literacy, and cognitive skills;
- intellectual and ingenious powers, understanding and judgement, problem solving and critical thinking skills and an ability to see relationships;
- personal and interpersonal skills needed for communication, cooperative and collaborative teamwork, and leadership; and
- skills required for successful work practices including time management, task management leadership and self-evaluation.

3.2.2 Development of transferable skills at HEIs

Griesel and Parker (2009:5) state that HEI's must adapt a competency-based approach to graduate development and graduate preparation in order to reduce the gap between graduate and employer expectations as well as addressing other challenges facing tertiary education curriculum. Evers, Rush, and Berdrow (1998:12) suggested there is a set of transferable skills that form the foundation of competencies that are essential to be able to be successful in the work place and serve as the basis for life-long learning. The transferable skills provide the basis from which to consider a competency-based framework for graduate curricula (Evers *et al.* 1998:12). According to Evers *et al.* (1998:12-16), there are four broad generic management skills which require the inclusion of meta-competencies, as discussed in Section 2.4.4 of Chapter Two, which contemporary employers expect graduates to have acquired. More specifically meta-competencies within the following categories are highlighted by Evers *et al.* (1998:12-16) as managing self, communicating, managing people and tasks, and mobilising innovation and change as was discussed in Section 2.4.4 of Chapter Two. The authors suggested that these four broad management skills provide the basis for the acquisition of discipline-based knowledge and also provide the skill sets necessary to apply specific knowledge. These same four broad management skills, along with the specific content knowledge components serve as the foundation for the development of a set of core competencies required for graduates. It has been asserted by Amey and Reesor (2002:35)

that many of the questionable deficiencies attributed to new graduates are a lack of the components of these four skill sets.

The development of transferable skills in HEIs can be done through case studies, practical application exercises, practical methods of teaching, business games (develop critical thinking), exchange programmes and partnerships with companies. Graduates' personal characteristics and abilities can be improved through better partnerships between higher education institutions and companies through for example providing holiday internships (Griesel & Parker, 2009:12). The idea of offering higher education work placements and vacation internships as part of the curriculum has gained prominence amongst employers because of the strong belief that they help through the development of transferable skills and abilities (Fleming *et al.* 2008:190). Employers expect the appropriate and required *management competencies of graduates* to be reflected in the course curriculum of any university qualification in order for the qualification to be highly esteemed and credible (Luke & Ingold, 1990:21).

Academic experts and industry leaders of Commerce and Business should agree on the skills which should be focused on in the curriculum of HEIs and furthermore which skills can be improved through the practical aspects of the curriculum (Griesel & Parker, 2009:4-5). These stakeholders in particular are by and large responsible for the quality aspects of the graduate curricula and courses as well as the graduate development programmes in the work environment (Griesel & Parker, 2009:4-5).

It is paramount to identify the approaches or methods used to develop transferable skills. The three approaches considered in developing transferable skills are: '*embedding*', '*bolting on*' and '*integrating*' skills components. These are defined as clearly identified teaching strategies relating to transferable skills development (Chada, 2006:5):

- **Embedding** – no direct reference is made to developing transferable skills and the emphasis is on promoting the development of technical 'know-how' within a curriculum.
- **Bolting-on** – skills are developed independently of the core discipline, enabling the explicit development of students' transferable skills.

- **Integrating** – skills are developed and taught explicitly within the core discipline and the same amount of emphasis is placed on the development of transferable skills as technical abilities.

HEIs through embedding skills into the curriculum make it possible to create learning links and for aspiring graduates to develop a broad range of skills (Fieldhouse, 1998:12). In considering the processes involved, embedding skills could be regarded as relatively simple compared to the integration or bolting-on of skills. However, unless there is an explicit awareness related to developing the skills, the associated teaching is less effective (Drummond *et al.* 1998:21). Bolting-on (or stand-alone) skills development approaches / methods experience the opposite problem. Although skills development becomes overt, undergraduates often fail to understand the academic worth of such an approach. Cottrell (2001:51) commented that ‘learning development and skills enhancement do not thrive if they are divorced from the students’ overall teaching and learning experience’.

The incorporation of transferable skills into the curriculum has gained prominence, particularly when these skills are incorporated into the normal coursework which will be taught by the subject expert (Atlay & Harris, 2000:77). The incorporation of transferable skills development in the curriculum brings knowledge and understanding, creativity, evaluation, and analysis which makes it imperative to incorporate the skills. Numerous studies have shown that the incorporation of transferable skills components into the curriculum is a highly effective approach in tertiary education as it is more reflective of the real-life application of skills in the work environment (Cottrell, 2001:57).

Chadha and Nicholls (2006:117), argued that all three teaching strategies as illustrated in Table 3.4 are required for developing transferable skills in the curriculum, even though it is vital to ascertain a lucid path for applying these approaches for the ‘holistic view’ to be successful. Table 3.4 provides some examples of teaching techniques which could be used to implement the teaching strategies of developing transferable skills.

Table 3.4 Examples of implementation of the three teaching strategies

Teaching Strategy	Example of implementation
Embedded	Design assignments in which students are placed in pre-determined teams
Bolted-on	Non-technical presentations, projects and assignments in which students are peer observed and peer reviewed
Integrated	Student-led lectures on subjects in which students are assessed on both their professional knowledge and transferable skills

(Source: Chada, 2006:5)

The teaching strategies listed in Table 3.4 are illustrated in Figure 3.1 which is *the framework for curriculum development*. Figure 3.1 can be useful for supporting the development of transferable skills. It can be acclimatized and incorporated into teaching strategies to augment the development of these skills by recognising and responding to undergraduates' perceptions of learning (Chada, 2006:3).

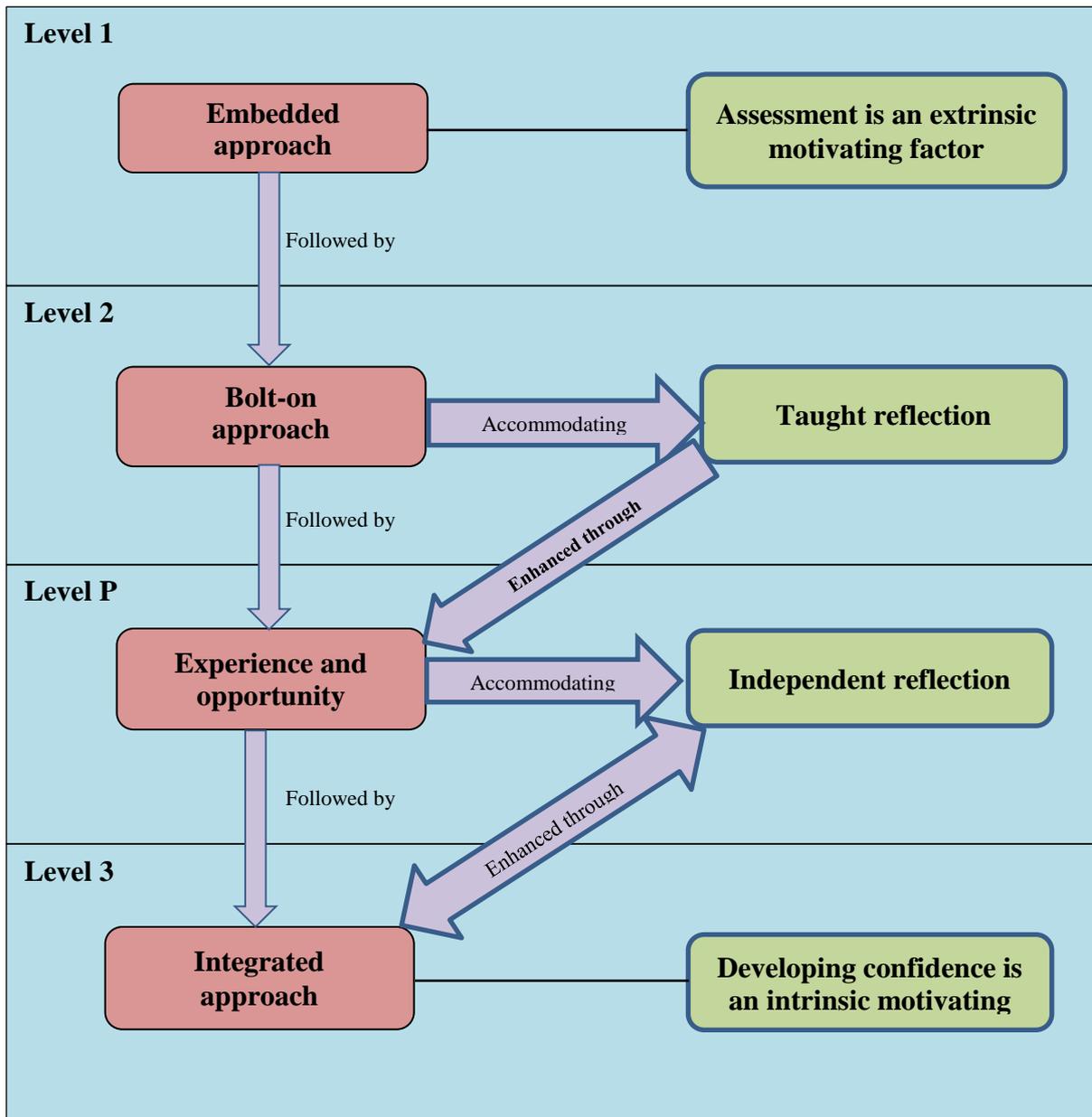
For level one students who have a propensity to place greater importance on technical 'know-how' and the academic assessment criterion related to it rather than developing their skills, an embedded approach to teaching transferable skills is suggested (Chada, 2006:3). By using an embedded approach, undergraduates are still capable of developing a wide array of skills. A bolt-on teaching approach to developing transferable skills is recommended at level two in which learners are taught to assess and reflect upon their development of skills through the explicit nature of such development (Chada, 2006:5).

The next stage of the framework (P) recommends work-based learning of some description in which students can apply their technical knowledge and further develop their transferable skills through assimilation and reflection (Chada, 2006:5). The final stage of the framework, level three, suggests that an integrated approach to teaching skills, which reflects the situation in industry, ought to be considered (Chada, 2006:5). Learners (undergraduates) perceptions also specify that they have a greater understanding of their skills at this level of their education and a greater ability to internalise their experiences and knowledge, and critically evaluate them and use them to further develop their skills

(Chada, 2006:5). Learners' ability to reflect and use that reflection to further develop their skills becomes almost inbuilt and entrenched, as is suggested by the framework.

This framework, as shown in Figure 3.1, is necessary for the identification of alternative and acceptable modes of transferable skills provision and delivery by HEIs. Other views by Greenan, Humphreys and McIlveen (1997:71-78) concluded that 'business education programmes should focus on the needs of participants and be more interactive in design; they should offer participants the opportunity to apply theoretical concepts in practical solutions; and finally curriculum development must focus on utilising appropriate techniques that enhance learning and develop leadership and interpersonal skills'. There has also been a shift towards assessment of the transferable personal skills of students, as well as the academic content of what they are studying.

Figure 3.1: A curriculum framework for developing transferable skills



(Source: Adapted from Chad, 2006:6)

3.2.3 Impact and role of learning styles in transferable skills development

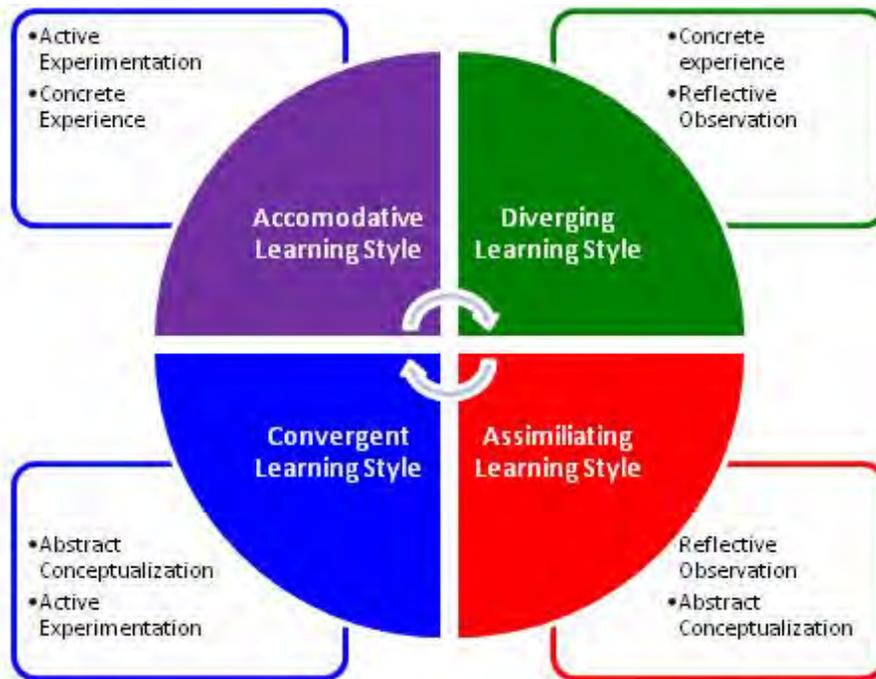
In recent times learning styles have gained prominence amongst academics and researchers as a way of explaining individual differences in learning (Desmedt & Valcke, 2004:445). The notion of “learning style” applied in this context is believed to have constructs that demonstrate an approach to individual learning (Price, 2004:684). There has been lots of research regarding learning styles in a wide range of academic fields such as education, management, computer science, anthropology, sociology, medicine, nursing, psychology, accountancy, and law (Cassidy, 2004:423; Kolb & Kolb, 2005:194).

There is a general consensus amongst experts in the field of learning styles that the learning style inclinations of individuals influence their performance and accomplishments (Cassidy, 2004:425). Research done by Demirbas and Demirkan (2007:345-359) of the academic framework of design education shows the impact of learning styles on academic performance. While there exist several learning theories that clarify the relationship between learning styles and skills such as Curry’s (1987) *cited in* Riding and Rayner’s (2000:239-279) three-layer “onion” model and Kolb’s (1984) experiential learning theory, in recent times there has been little empirical research since the 1970s on how learning styles affect skills development in higher education.

Of all the existing learning style theories, Kolb’s (1984) experiential learning theory is one of the most influential and prominent theories, especially in respect of management development (Reynolds, 1997), management learning (Vince, 1998; Kayes, 2002), business education (Duff & Duff, 2002), business school and community (Yuen & Lee, 1994) and cross-cultural learning (Yamazaki & Kayes, 2004; Yamazaki, 2005). Jarvinen (1998:132) highlights the fact that Kolb’s experiential learning theory has been largely used not only in the field of adult education but also in education in general and in its entirety.

According to Kolb’s (1984:37), learning styles theory illustrated in Figure 3.2, the ideal learning process engages all the four learning style approaches, namely convergent, diverging, assimilating and accommodative, in response to situational demands. In order for learning to be effective, all four of these approaches must be incorporated.

Figure 3.2: Kolb's learning cycle



(Source: Kolb, 1984:37)

Each of Kolb's (1984) learning styles will subsequently be discussed. *Convergers* are characterised by abstract conceptualisation and active experimentation. Their abilities lie in making practical applications of ideas and using deductive reasoning to solve problems (Kolb, 1984:37). *Divergers* are characterised by concrete experience and reflective observation. They are imaginative, creative and are good at coming up with ideas and seeing things from different perspectives (Kolb, 1984:38). *Assimilators* are characterised by abstract conceptualisation and reflective observation. They are capable of creating theoretical models by means of inductive reasoning (Kolb, 1984:38). *Accommodators* are characterised by concrete experience and active experimentation. Their abilities lie in actively engaging with the world and being practical actually doing things instead of merely reading about and studying them (Kolb, 1984:38). As stated by Kolb (1984: 39) 'an individual may exhibit a preference for one of the four learning styles – *Accommodating, Converging, Diverging and Assimilating* – depending on their approach to learning via the experiential learning theory model'. Even if learning environments for higher education are different according to the level of education (from undergraduate to postgraduate), the understanding of learning styles is fundamental for learning development (Sims & Sims, 1995:44), and how this can be used

to facilitate the development of transferable skills in HEIs. The following section will provide a brief overview of the relationship between HEIs and employers.

3.2.4 Higher Education Institutions and employer engagement

There are numerous propositions in the literature about addressing the relationship between higher education and employers (Hogarth *et al.* 2007; Kruss, 2004; Louw, 1999; Roberts & Maycock 1995; Anderson & Gubbay, 1997; Atlay, 1998), including the provision of skills modules, the modification of curricula to identify skills rudiments, the appraisal of non-cognitive skills, the inclusion of work experience and internships and the use of projects in which undergraduates work closely with employers to address a 'real-life' concerns and provide practical solutions. According to Hogarth *et al.* (2007:15), HEIs can be seen to engage with employers and their local communities in a number of different ways. In summary, these are:

- through graduate development and recruitment (as a supplier of labour);
- as a source of labour demand (many HEIs are now amongst the largest employers in their city-regions);
- as a source of lifelong learning/continuous professional development and training (CPD);
- as a supplier of research and development (R and D); and
- as a leader in a variety of economic development related networks and partnerships;

Government and employers are encouraged to work with educational institutions to better train and equip the workforce, and to keep the economy competitive (Anderson & Kosarek, 1997:32). In order for the economy to be competitive it requires a skilled workforce capable of learning, growing, and innovating. Through greater co-operation, between South African commerce and industry, and higher education institutions the workforce can remain very important and competitive. The most evident form of employer engagement with HEIs is through the recruitment of graduates. Other noteworthy levels of engagement in which employers enhance the learning process in HEIs include funding, work placements, setting standards, assisting with course design, assisting with assessment, involvement in, or contributing to teaching, lecturing or workshops, industry visits and releasing staff for workforce development activities (Anderson & Kosarek, 1997:26; Prague Declaration, 2009:41).

By continuously engaging with HEIs, employers may reduce the search and productivity costs of graduate recruitment and development in several ways. Through engaging with HEIs, employers are better positioned to understand graduate dynamics and also able to easily identify suitable and competent graduates (Anderson & Kosarek, 1997:17). The Lambert Review of Business on University Collaboration (2003) *cited in* Horgart *et al.* 2007:12) found that businesses that engaged with HEIs reaped a number of business benefits. These included access to:

- a supply of skilled graduates and post-graduates for recruitment;
- highly skilled academics and researchers;
- the latest research and cutting-edge technology;
- international networks of academics; and
- continuing professional development for staff and management.

HEIs also mutually benefit from associations and engagements with employers and business. Many HEIs openly acknowledge this in their mission statements or have clear strategies to engage with employers. According to Horgart *et al.* (2007:12), the benefits of an employer-HEI link include:

- an enhanced role in regional and national economic development;
- access to funding not earmarked for specific purposes;
- access to research funding and scholarships;
- access to real world problems and an opportunity to market ideas;
- access to new facilities and equipment; and
- incentives to recruit, reward, and retain academic staff.

From the benefits stated above it is evident that HEIs can benefit from establishing relationships with organisations and potential employers, thus ensuring better alignment of curricula to meet the needs of business practice and endure wider economic and social relevance of its courses and research. Therefore, relationships between business practice and HEIs should be encouraged in all South African HEIs as it is mutually beneficial to both parties as well as to society in general, i.e. sustainable wealth creation and development.

3.3 QUALITY PERSPECTIVES OF THE OUTPUT COMPONENT OF PROGRAMMES AT HIGHER EDUCATION INSTITUTIONS

As discussed previously the quality perspectives pertaining to the output component of programmes offered at HEIs refer to the expectations of employers and the perceptions of graduates on how studying in HEIs contributed to an increase in their knowledge and abilities, enhanced their insight and comprehension of the business world, developed their abilities to formulate and apply theory from knowledge (curriculum content) and learning experiences; in other words output refers to the perceptions regarding the outcome of studies at HEIs. For the purpose of this study, the mentioned output components will be categorised and discussed according to employer expectations, graduate perceptions, an overview of the University Future, and quality challenges faced by HEIs. An overview of the University of the Future is important especially how universities of the future will respond to future economic and social problems, changing management styles, changing customer base, technological advancements and adapting to the contemporary needs of organisations. The discussion on quality challenges faced by HEIs centres on the following themes: generalist versus specialist; structure of programmes; integration of contemporary courses and value of the higher education qualification in terms of the outcome of studying at an HEI and the perceived overall learning experience.

3.3.1 Employer expectations

It is usually implied that organisations employ graduates because they want ‘bright’ (Biggs, 1999), ‘brainy’ (Harvey & Mason, 1996) or ‘competent’ (Louw, 1999) individuals and that a higher education qualification provides something beyond ‘native intelligence’, which is the ability to acquire and apply knowledge. According to Burchell et al. (2001:12) the employment of graduates with excellent academic marks might be a reason in itself, but then why do employers attempt to employ graduates? It is fundamental to look further than the academic qualification or ‘brains’ to attempt and identify what it is that a graduate has to offer by virtue of being a graduate.

With the exceptions of medicine, engineering and law, subject-specific knowledge is not the primary determinant of aptness and competence for employment in most graduate recruitment. Employers require an array of other skills in supplementary to a first degree and these over-arch the degree specialisation in various areas (CBI 1994, 1995; AGR 1995; CIHE 1996; Griesel & Parker, 2009). In addition to subject specific knowledge, numerous studies have highlighted the benefits of employing graduates which includes the ability of graduates

in demonstrating hunger, eagerness, flexibility, ambition, logical thinking, quick learning, high levels of motivation, good communication skills, creativity, maturity, specialist knowledge, analytic skills and initiatives (Liston, 1998; Meade & Andrews, 1995; Louw, 1999; Griesel & Parker, 2009). In other words, the meta-competencies, as discussed in Section 2.4.4 of Chapter Two, are critical to the enhancement of employability:

Empirical investigation and literature suggest that there are four underlying reasons for the employment of graduates (Liston, 1998; Meade and Andrews, 1995; Louw, 1999, Harvey, 2001, Griesel & Parker, 2009), namely:

- the knowledge, skills and values graduates bring to an organisation;
- graduate's ideas and willingness to learn and speed of learning;
- graduate's flexibility, adaptability and ability to deal with change; and
- graduate's logical, analytic, critical, problem-solving and synthetic skills and the impact they have on innovation.

As clearly stated by Yorke (2006:13), employers believe that employability "goes well beyond the simplistic notion of key skills, and is evidenced in the application of a mix of personal qualities and beliefs, understandings, skilful practices and the ability to reflect productively on experience... in situations of complexity and ambiguity". A report on graduate recruitment in the leisure industry in Australia pointed to the fact that organizations do not only require a strong knowledge base and academic record to guarantee new employment and but believe the personal attributes and capabilities of the graduate to have a greater weight on success in the work environment (Bell, Crebert, Patrick, Bates & Cagrolini, 2003:5).

Future employers require graduates to display a broad range of attributes which go beyond the acquirement of a body of knowledge. In this regard, Havey and Green (1994:32) suggested that graduates have acquired a set of transferable skills, as discussed in 3.2.1 and 3.2.2 of this chapter and attitudes which include, inter alia: willingness to learn, teamwork, communication skills, problem solving, analytical ability, logical argument and ability to summarise key issues. Furthermore, graduates should also have the following personal attributes such as: commitment, energy, self-motivation, self-management, reliability, co-operation, flexibility and adaptability (Kraak & Press, 2008:14).

Employers believe anticipating and adapting to change must be made an indispensable and a constant activity within most student curricula (VW South Africa, 2010:1). The future will definitely require most of the same contemporary skill sets which are required presently, but certainly there will be new skills sets which have not yet been envisioned or invented (Yorke, 2006:15). Consequently it is fundamental that the competencies that graduates obtain have to be effective in the modern-day work environment and also expandable and adaptable in the future world of work (Amey & Reesor, 2002:16). In this regard the concept of lifelong learning becomes of essence.

Furthermore, employers seek graduates who are flexible and can acclimatize themselves easily to meet contemporary and explicit workplace requirements so as to make sure the organisation maintains its competitive edge (Griesel & Parker, 2009; Louw, 1999). Conversely, according to South African employers, there is proof that an ever-increasing number of graduates have not acquired the minimum level of interpersonal and decision-making skills required to succeed in a diverse and multicultural work environment (Pope & Reynolds, 1997:267; Kruss, 2004:673-689). Informal feedback from employers of graduates who graduated in Business or Commerce and Economic Sciences discloses a growing apprehension that these gaps are becoming immense and are starting to place their organisations in jeopardy (Pope & Reynolds, 1997:267; Kruss, 2004:673-689).

Higher Education South Africa (HESA) is aware that a familiar source of disgruntlement from employers is about the gap between the “outcomes of higher education (in terms of quality, type and quantity of graduates) and the needs of the economy” (Griesel & Parker, 2009:1-2). Employers acknowledge that this gap, between what the “new graduates know and what they can actually do”, is becoming a challenge in terms of their employment of potential new graduates and “the career success” of such graduates (Griesel & Parker, 2009:1-2). Even though graduates receive and are exposed to wide ranging training in theory and research, many recent graduates still lack the ability to successfully manage the demands of the day to day work environment (Kretovics, 2002:914).

The various responses and opinions from the many employers in South Africa consistently highlighted the various shortcomings of higher education in preparing the students to meet the needs of the work environment and these shortcomings result in the ever-increasing rate of unemployment among graduates (Griesel & Parker, 2009:4). The South African

manufacturing and service sectors are of the view that most employers have no choice but to reluctantly employ “graduates who do not possess the necessary competencies” (HESA, 2007:4). This is because employing graduates who do not possess the required competencies does not add value to the organisation but only makes its position worse by adding to liabilities. For example, graduates who lacked innovation and creativity were found to hamper the sharing of technical know-how and expertise among workmates, and were also found to be impassive to new technologies in the workplace (Lee, Quek & Chew, and 2001:47). These shortcomings contribute to the increase in operational costs and human resource costs with organisations having to provide funds for retraining workers in order to rectify the imbalances between the requirements of the work environment and improving the competencies of the workers (Griesel & Parker, 2009:5).

Graduates who did not acquire generic competencies that are transferable to match their areas of specialisation are not capable of coping and surviving in the work environment and these graduates encounter difficulties in acquiring employment (Lee *et al.* 2001:36; Yorke, 2006:21; Louw, 1999:175-178). The reason for this is employers prefer to employ graduates who have transferable skills like decision making, statistical, evaluation, problem solving and innovation skills for functioning as educated personnel to satisfy the burdens of the multifaceted work environment (Louw, 1999:175-178; Roos, 2008:119-129).

By employing graduates with competencies, such as resourcefulness and innovativeness, organisations benefit from the competitive advantage of a well equipped and proficient human resources pool within their organisation (Quek & Soon, 1999:68). A common theme in the business world is that “many graduates are good only in theory;” ...and that new graduates were not able to fulfil the expectations of the business world (Griesel & Parker, 2009:18). This trending theme is shared by many employers in the Commercial sector in South Africa. Delegates at the South African Education Summit in 2008 expressed that higher education has to train students in transferable skills in order to smooth their transition into the work environment and also assist them in obtaining employment upon graduation (HESA, 2007:8).

The effective attributes of graduates are more significant and decisive than ever for a number of reasons. Firstly, in a ever-changing world there is a reduced amount of time for graduates to adapt to a specific work environment since graduates are more and more expected to be able to “get the ball rolling” (Whetten & Cameron, 2002:11). Secondly, while many larger

organisations train and developing graduates, the ever-increasing number of small and medium organisations have lesser resources for training and development and expected a more immediate return on their investment in graduates (Whetten & Cameron, 2002:11). Thirdly, the expansion of the global market means that if South Africa is to continue being competitive on a global scale, graduates will need to be resourceful and adaptable as well as erudite (Griesel & Parker, 2009:7). Fourthly, and more fundamental in the educational context, as stated by Harvey and Green (1994: 2) is ‘the shift to addressing the student perspective and the need to respond by empowering students for life-long learning through enhancing a range of skills and abilities as well as knowledge’.

In this study the perceptions of Commerce graduate employers (Section C, Annexure B) in terms of their expectation of the ideal versus the actual Commerce graduate were gathered by means of nine statements. These statements can broadly be explained according to themes such as leadership and interpersonal skills; knowledge of the external environment; and generalists versus specialists. In Chapter Six the data analysis and empirical findings in this regard will be presented.

3.3.2 Graduate perceptions

The issue of management competence is fundamental to graduate perceptions and expectations. Institutional demographics are continuously changing and undergraduate enrolments are regularly increasing in South Africa, which means students entering HEIs are exhibiting larger and more multifarious needs than ever before (Kraak & Press, 2008:17).

Research conducted between graduates of the Leisure Management Programme at Griffith University, eighty two percent (82%) of respondents agreed that internships and vacation work provide adequate opportunities to develop generic competencies (Bell et al. 2003:14). The respondents (graduates) in addition, acknowledged that higher education experiences had also added to the development of various employment skills such as decision making, time-keeping, self-confidence, emotional intelligence, leadership, teamwork, initiative and presentation skills, highlighting the development of management competencies outside of the academic span of HEIs (Bell et al. 2003:14). Restricted and inadequate opportunities for growth have been one of the major causes behind the lowering of expectations amongst modern day graduates (South African Qualifications Authority, 2007:15). The transitional process of graduates advancing into the field of work can be more than ever challenging

when the expectations from employers are significantly greater than the new graduates' level of competence (Evers, Rush, & Berdrow, 1998:51; Amey & Reesor, 2002:30).

However, there is mounting concern among graduates that the curricula at HEIs are not effectively preparing them to tackle the changing and future demands of the work environment (Amey & Reesor, 2002:30). Recent graduates may be knowledgeable and erudite about theory and research, but many are not aptly skilled in their ability to apply this theory and research (knowledge) to day to day practice (Amey & Reesor, 2002:32).

'Empowering learners' is an idiom that is frequently articulated in academic debates with regard to the future outlook of higher education and the expectations of graduates (Harvey, 2000:9). Nevertheless, empowering learners has many different insinuations and it is contentious on how genuine academics are about giving students some sort of leverage control over the educational process and their post-educational lives in order to meet their expectations (Harvey, 2000:11-12). According to Harvey (2000:11-12), there are several processes for learner empowerment, including:

- choice and variety within the curriculum;
- feedback from learners designed to scrutinize service provision and the learning experience;
- representation of learners on decision-making bodies; and
- the development of a critical, transformative approach to learning.

These, according to Harvey (2000:11-12), are some of the processes which affect graduate expectations and play a part in their perceptions of their university experiences, their curriculum and the expected outcomes.

3.3.3 Universities of the future

The role of universities and higher education in future societies is fast becoming a great concern for academic globally. In examining '*The Idea of a University?*,' Sutherland (1994) cited in Srikanthan, 2000:1) noted that "*the governments have been very tentative in handling the increasing numbers for higher education participation in the last two decades of the twentieth century. They have been caught between the dichotomous notions of equity in meeting the needs of a diverse customer base, and maintaining standards of education*".

Only continuous discussions and exchange of ideas among the academic community and stakeholders can resolve many of these issues.

Marchese (1998:8) stated that by the end of the 1990s the information revolution was seen 'as a far sighted tip of an ice berg', when the new providers like Phoenix University and many other 'virtual universities' spread across the world-wide-web making 'geography largely irrelevant'. 'Higher education without walls, the electronic (online) campus is already a virtual reality' (Wright, 1994:10). The University of South Africa (UNISA) South Africa's first distance learning model has been a leader in finding solutions to Africa's developmental and educational troubles (Griesel & Parker, 2009:6). Marchese (1998:13-15) pointed to two major factors that are going to have an impact on universities of the future, firstly the market for post secondary education by and large will continue to expand at an increasing rate, and secondly the reputable institutions will be required to re-evaluate their positions in the broader scheme of things, focussing on their strengths in specific market niches.'

According to Srikanthan (2000:1) the vice chancellors of the future universities must 'introduce new and alien styles of management... to formulate and achieve objectives' in order to acclimatize to the hi-tech advancements in learning. Looking into the future 'University of 2050,' (Gunkel, 1994:34-35) views them as organisations of 'high order creativity and innovation'. By that time, knowledge and wisdom will have come to dominate the economy more and more. Eventually 'these will be the most important raw materials' and will be 'the ones to be continuously enriched' Gunkel (1994:34-35). 'Knowledge intensive economy will replace work or capital intensive economy'. The role and mandate of the universities will be one of guiding and combining the flow of knowledge, wisdom and information (Gunkel, 1994:34-35). The entire notion of education will shift consequently. This will have a fundamental impact on the universities. The phase of education will expand to an individual's whole working life and this will predictably put the academia in a strong position of influence in society (Gunkel, 1994:34-35). Boyer (1994:43) stated that the universities 'will turn into a more fluid model' which 'will require techniques beyond anything we know; far more complex than the knowledge engineering exercises embarked upon so far.' Wright (1994) made the notion more graphic by stating that '*The university will become less of an institution, more of a focal point, an agency, a facilitator...*'

3.4 QUALITY CHALLENGES IN HIGHER EDUCATION INSTITUTIONS

One of the definitions of quality (depending on the status and purpose of the institution) in the field of higher education could be: Quality is the degree to which the institution is successful in achieving its objectives to the satisfaction of itself, the students and society (Eppnik & Van Raad, 2005:28). The question is; who defines the objectives and requirements and how is satisfaction measured? What are the quality challenges? This section will discuss briefly the quality challenges of higher education by highlighting the most common criticisms levelled against higher education and quality related perspectives. The criticisms and perspectives are wide ranging and form the basis of Section D of Annexure A (Commerce graduate questionnaire) Section C of Annexure B (employer questionnaire). The quality challenges are broad and are offered both from a process component as well as an output component of programmes at HEIs. These quality challenges will be discussed briefly with specific groupings though they are closely interrelated and sometimes overlap. However, the discussion will mainly touch on the following themes: generalist versus specialist, structure of programmes, and integration of contemporary courses and value of the higher education qualification.

3.4.1 Generalist versus specialist

Government and the corporate world have collectively challenged South African HEIs to produce graduates that are able to provide inspiration and solutions to the many current and future problems facing the country (Griesel & Parker, 2009:3). Faculties of Commerce and Business Schools are faced with the dilemma of whether to teach general business skills which are required to operate in a multifaceted work environment versus the pursuit of specific functional proficiency (HESA, 2007:3). Previous literature indicated that the generalist approach as opposed to the specialist approach has become a significant and continuing trend in contemporary organisations more than the specialists approach (Louw, 1999:129).

Porter and McKibbin (1988:75) *cited in* Louw (1999:126) stated that generalisation or breadth refers to the grounding and preparation of graduates for general management careers equipping them with a broader knowledge base of the different functions, while specialisation refers to the increased expertise and proficiency of students in a particular, narrow functional area of specialisation. In other words, a generalist is a professional who has not only mastered but also integrated more than one specialty. A generalist's practice is an expanded

one by virtue of synthesis or integration, not mere addition. Bowden and Marton (1998:94-95) argued that “...*the curriculum for any university programme needs to be developed around the idea that students are being prepared for a future which is largely unknown... If you do not know what the future situation will be, then teach students some fundamental skills which they can apply to any situation*”. This argument favours the generalist approach against specialisation in higher education.

Arguments for a generalist approach continue to outweigh the specialisation argument. Generalist competencies (such as decision making, adaptability, flexibility, problem-solving abilities and analytical thinking), socio-communicative competence, cultural competence (such as foreign language skills) in addition to attitudes or personal characteristics (such as the ability to cooperate, willingness to learn, being accountable, emotional intelligence) are frequently considered more essential than specific discipline-related theoretical and practical knowledge, which rapidly becomes outdated in many fields of practice (Nilsson, 2007:34). The ability to comprehend the holistic chain of production or the entire context in which a specific job is performed is becoming more and more important and consequently organisations are leaning towards the generalist approach (Ferreira, Daniel & Raaj Sah, 2010:3).

In order to prepare potential graduates for an unknown future, it has been recommended, that HEIs needs to promote a broad range of generalist competencies, which will provide the basis for further development in professional practice, accordingly making the graduates adaptable and flexible (Nilsson, 2007:34). Ferreira *et al.* (2010:4) however argued that ‘*students should go deep into the subject at some stage*’ and that a broadening of the knowledge base would develop in time. Nonetheless, many employers and human resource practitioners have stressed the importance of broad cross-disciplinary knowledge.

Numerous proposals and suggestions have been offered to overhaul the curriculum of undergraduate and post-graduate business programs with regard to the never ending debate of generalist versus specialist. Celsi and Wolfenbarger (2001:308) suggested that business schools and Faculties of Commerce dedicate their efforts to generalisation (cross-functional integration) and relinquish skill based training to alternative or ancillary venues. Nilsson (2007:34) proposed that students ought to develop specific functional skills first. Subsequent

to that, students should partake in cross-functional teams with students from other disciplines with segregated departmental courses no longer an alternative.

Berns (2000:1) claims that organisations must take a generalist approach to encourage team members to acquire cross-functional work experience through rotating job assignments in other disciplines such as finance, marketing and production. Berns (2000:1) also found that graduates with industry-specific skills (specialised) earn less compared to employees with generic transferable skills (generalised) as they switch between industries. By implication generic transferable skills are more valuable for employees outside the industry they are working for, thus favouring generic skills for employees over specialist skills. Based on the above discussion, the perspective of this study is that the focus of HEI curriculum should be that of generalisation with a blend of specialising in the latter stages of the programme. The challenge to HEIs is on how to provide graduates with the proper balance between generalisation and specialisation. Contemporary HEIs and business schools will forever face the challenge of how to maintain a balance between the two mutually inclusive approaches.

3.4.2 Structure of curriculum

There is no consistent approach to curriculum content regardless of the degree programme among HEIs (Griesel & Parker, 2009:5-6). Nonetheless, in most HEIs there is still a lot of emphasis on subject discipline even though undergraduates have to some extent freedom to select modules from other disciplines (HESA, 2007:5). Organisations have highlighted that gradually curricular transformation has steered away from classical academic fields towards contemporary domains or interdisciplinary programmes such as computer science and information technology (Bhorat & Lundall, 2002:27).

The assumption is that specific discipline knowledge, or learning about concepts and developing skills, is taught to the undergraduates in HEIs and that that this can then be useful and turned practical when new problem situations occur in the work environment (Trow, 2005:48). However, it is becoming difficult to “...*specify exactly what skills and knowledge are needed to be a competent worker or that learning the discipline as it now exists prepares a graduate for the workplace*” (Bowden & Marton, 1998:115).

As mentioned earlier many employers are of the view that competencies can be acquired through vacation internships, work experience, and diverse forms of apprenticeships and these ought to be integrated in the practical facet of a curriculum (Tinto, 2000:48). In such an

environment, undergraduates study how to relate theory to practice and at the same time gaining work experience and the requirements of the work environment (Tinto, 2000:48). According to the employers, students will comprehend the theory learnt more, if they utilize their skills and competencies in a particular work setting and this reality will help shape their theoretical reflections and skill development (Smith, Hebert, Robinson & Watt 2001:490). Furthermore case work studies are viewed as an excellent approach of combining theory with practice (Griesel, 2003:6). The shared planning of curriculum is viewed as very essential, predominantly for practice-oriented programmes (Griesel, 2003:7). In this sense, Management is considered more an art than a science and the approach is therefore essentially field driven (Louw, 1999:132).

The structure of a curriculum does not only cover the scope of the theory versus practicality debate, but in addition also includes the incorporation of new courses which will assist the development of graduates who can deal with future socio-economic problems (Smith *et al.* 2001:492). In South Africa the universal perception is that the curriculum of HEIs and business schools lacks courses such as project management, entrepreneurship, investment management and knowledge management (Griesel & Parker, 2009:7). In order to obtain valuable insight into the structure of the Commerce curriculum at the selected HEI various statements were compiled. These statements on the outcomes of studying and quality perspectives of the overall learning experience at the selected HEI, as posed in the Commerce graduate research instrument (Sections C and D in Annexure A), were generated and empirically tested based on secondary sources and on previous research by Louw (1999) and Roos (2008). In Table 3.5 eleven statements regarding the tuition outcomes of studying at a Faculty of Commerce are grouped together into two classifications namely, self-development and growth, or outcomes related to the increase in knowledge and the enhancement of comprehension. The above classifications will be used for the purpose of data analysis in this study. Chapter Five will present the data analysis and empirical findings in this regard.

Table 3.5: Classification of statements relating to the tuition outcome of studies in the Commerce field

Outcome Classification criterion	Statements
Outcomes related to self-development and growth	<ul style="list-style-type: none"> • cultivated diversity by placing greater emphasis on teamwork • provided me with the ability to analyse study material and identify its elements and to integrate them holistically • enhanced my insight and comprehension of the business world • developed my ability to deal with and respond to the needs of others • developed my ability to formulate general theory from learning experiences
Outcomes related to the increase in knowledge and the enhancement of comprehension	<ul style="list-style-type: none"> • equipped me in coping with different cultures and attitudes and the challenges of globalisation • contributed to an increase in my knowledge • enabled me to test theory in new experiences • developed my ability to assess learning material in terms of specific criteria, i.e. the ability to judge logical consistency of study material or to determine the pros and cons of a theory • developed my ability to identify the relationship between elements, concepts and theories and to integrate them into a new holistic framework • provide me with an opportunity for the practical application of material learnt

(Source: Adapted from Louw, 1999 and secondary sources)

Based on the discussion in Sections 3.3 and 3.4 of this chapter and previous research by Louw (1999) and Roos (2008), thirty statements relating to overall learning experience, as a student in the field of Commerce, were classified into four groups, namely:

- Quality of lecturers, administrators and lectures;
- Overall quality of the Faculty of Commerce;
- Quality of the HEI's Commerce qualification; and
- Exposure to skills development.

The classifications as presented in Tables 3.5 and 3.6 will be used for the purpose of data analysis in this study. Chapter Five will present the data analysis and empirical findings.

Table 3.6: Classification of statements relating to the overall learning experience pertaining to quality perspectives in the Field of Commerce

Classification Criteria	Statements
Quality of lecturers and lectures	<ul style="list-style-type: none"> • My lectures were at the leading edge of knowledge in their fields • The coursework was integrated as opposed to being taught as a cluster of loosely-related topics • The lecturing staff were available for informal discussion when classes were not in session • The material / research presented in class for discussion and review was relevant • The overall quality of lecturing in the Faculty of Commerce was excellent • The quality of guest lecturers (including visiting professors) was outstanding • The responsiveness of the lecturers and administration to students' concerns and opinions was outstanding • The lecturers compromised teaching in order to pursue their own research interests
Overall quality of the Faculty of Commerce	<ul style="list-style-type: none"> • The responsiveness of the Faculty of Commerce in providing relevant courses was without delay • My classmates' emphasised individual achievement at the expense of teamwork
Quality of the HEI's Commerce qualification	<ul style="list-style-type: none"> • A Commerce degree enabled me to deal with information technology and other analytical tools • Assignments were relevant within the total framework of the Commerce degree • I would urge my friends and colleagues to take the same degree at the selected HEI • My Commerce degree fulfilled my expectations of what a relevant degree should be • My Commerce degree was worth its cost in time, tuition and opportunity cost • Practical information was provided during the degree that was relevant for my first job • Overall the course content was too theoretical in nature • The value of the Commerce qualification is overrated • Assigned work and readings were so excessive that it impeded learning • The calibre of my classmates enhanced the learning process
Exposure to skills development	<ul style="list-style-type: none"> • Analytical skills were adequately stressed in the curriculum • Excellent opportunities were afforded to me – either in class or in extracurricular activities – to nurture and improve my skills in leading others • Interpersonal skills were adequately stressed in the curriculum • Studying in the Faculty of Commerce provided me with numerous ways of analytical thinking and problem solving

(Source: Adapted from Louw (1999) and Roos (2008))

3.4.3 The value of higher education qualification

During graduate recruitment organisations have different policies and practices pertaining to the value they place on a higher education qualification (Eppnik & Van Raad, 2005:31). A higher education qualification can give a general idea about what a candidate has learned, or it can act as confirmation of subject knowledge and/or skills proficiency (Nilsson, 2007:43). A higher education qualification can also highlight a graduate's potential and to further training needs (HESA, 2007:18). A higher education qualification will be advantageous on the labour market if subject-specific and cross-disciplinary education objectives are similarly adopted and achieved (Nilsson, 2007:51). Cross-disciplinary competences should be developed concurrently and need to be practiced in real situations (Nilsson, 2007:51).

The main area of concern for organisations is that those graduates with 'only a Bachelor degree' will require more workplace training and development than those with a post-graduate degree, thus placing the weight of work-related training on to industry and commerce instead of traditionally on to higher education (HESA, 2007:18). In the same vein, many organisations, predominantly the small to medium business enterprises, do not comprehend how to place Bachelor graduates in terms of compensation, job specification and training needs within their own organisation (Nilsson, 2007:53).

The suggestion is that if an individual has for example written a thesis at Masters Level, the individual will have specialised a particular subject (Arthur, Brennan, & De Weert, 2007:36). The system consequently has to 'wean' that individual and provide breadth; that individual will have to learn and be trained to become more of a generalist (Smits, 2007:663). Whereas an individual with only a Bachelor degree will require a lot more subject-specific training and development (Arthur *et al.* 2007:36). In terms of the value of a higher education qualification, two aspects particularly significant to graduates, employers and the HEI are the outcome of studying at an HEI and the perceived overall learning experience as discussed in the previous section.

3.5 SUMMARY

The purpose of this chapter was to address the quality perspectives pertaining to Higher Education Institutions. This was achieved by addressing the quality perspectives of the process and output components of Higher Education Institutions. The quality challenges in

Higher Education were also addressed and these included the generalists versus specialist debate; the structure of curricula; and the value of a higher education qualification.

In the next chapter the research design and methodology relevant to this study will be discussed.

CHAPTER FOUR

RESEARCH DESIGN AND METHODOLOGY

4.1 INTRODUCTION

The purpose of this chapter is to provide a clear research methodological approach that will guide the way to the primary objective as stated in Section 1.4.1 of Chapter One. As previously mentioned in Section 1.3 of Chapter One, this study proposes to authenticate the opinions and perceptions of Commerce graduates and employers of these Commerce graduates from a selected HEI. The opinions and perceptions of Commerce graduates and employers of Commerce graduates will be gathered by canvassing their opinions on: the importance of core courses required for managing a business and successful job performance; quality of tuition received in the core courses; the introduction of new courses in the Commerce curriculum; the importance of management skills and traits which are essential in the work environment and the extent to which the tuition received developed these abilities; graduate perceptions on overall experience of studying in the Faculty of Commerce at the selected HEI; graduate perceptions on the outcome of the Commerce degree at the selected HEI; and employer views on the actual and ideal Commerce graduate. As previously mentioned, the outcomes of the study aim to provide useful information to inform debate and engagement within the HEIs and industry, and further, to establish an empirical benchmark against which to conduct periodic future reviews.

As a build-up of a theoretical body of knowledge, the previous chapters (Chapter Two and Chapter Three) provided the basis for the empirical research (gathering of primary data). With this theory used as a base, this chapter is to provide an overview of the research design and methodology relevant to the research problem at hand, as stated in Section 1.2 of Chapter One.

A research design is a plan that guides the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with efficiency in procedure (Babbie & Mouton, 2003:74). A research design is a strategic framework for action that serves as a bridge between research questions and the execution or implementation of the research (Terre Blanche & Durreim, 1999:29). The aim of a research design is to plan and structure a given research project in such a manner that

the eventual validity of the research findings is maximised (Mouton & Marais, 1990 *cited in* Terre Blanche & Durrheim, 1999:37). Terre Blanche and Durreim (1999:29-30) also stated that “In developing a research design, the researcher must ask two further questions about the research purpose: who or what do you want to draw conclusions about; and what type of conclusion do you want to draw about your object of analysis,” as stated in Sections 1.4 and 1.5 of Chapter One. The rationale for the research provides reasons why the research is being conducted, and this can be a theoretical basic research or practical applied research. The research rationale is normally developed alongside a review of some central ideas in the relevant literature. The purpose of a literature review is to show that the proposed study is part of a broader context of academic enquiry. The key features of any research design are methodology, collection and assignment of samples, collection and analysis of data along with procedures and instruments to be used which will all be presented in this chapter.

Research methodology which is part of the research design is a structured set of guidelines or activities to assist in generating valid and reliable research results (De Vos, Strydom, Fouche & Delport, 2005:117). Collis and Hussey (2003:55) are of the opinion that research methodology is therefore concerned with the following main issues:

- (i) Why certain data was collected;
- (ii) From where the data was collected (population and sampling);
- (iii) How the data was collected;
- (iv) When the data was collected;
- (v) What data was collected; and
- (vi) How the data was analysed (research instruments).

This chapter will provide answers to all the above questions except “why certain data was collected” which was answered in Sections 1.3, 1.4 and 1.5 of Chapter One, that is, the research purpose, objective, research questions and hypotheses. This is aligned with two of Remenyi’s (1996:22) main philosophical questions that need to be addressed when commencing research namely “why research?”, “what to research?” and Remenyi’s (1996:22) last question “how to research?” is the primary focus of this chapter. In answering the “how to research,” cognisance was taken of Collis and Hussey’s 2003 main research methodology issues or questions (ii) to (vi) as stated in the previous paragraph

(2003:55). The integration of these issues into the content of this chapter will subsequently be highlighted.

This chapter will begin with a brief description of the quantitative and qualitative methodological approaches and subsequently the research paradigms, namely the positivistic, phenomenological and the post-positivistic paradigms will be discussed. The sampling process will be addressed in Section 4.4 of this chapter and answers the methodological issue of “From where data was collected”. Data collection will then be clarified in Section 4.5 of this chapter by addressing the methodological issue of “how and when data was collected”. The subsequent sections 4.6 and 4.7 respectively will discuss the measurement scales of relevant data, the structure of the two research instruments and the pilot testing of the research instruments, in response to the methodological issue of “what data was collected”. The reliability, validity and generalisability of the research instruments will then be presented. “How data was analysed” will be elaborated on in Section 4.9 in this chapter. Finally the ethical considerations and summary of the research design and methodology will be presented.

The research design and methodology differs depending on the type of study, whether it is quantitative or qualitative; hence, the differences between quantitative and qualitative research presented in the next section.

4.2 QUANTITATIVE VERSUS QUALITATIVE

In any research enquiry, the researcher has to determine whether the study will be quantitative or qualitative in nature. A quantitative study is an inquiry into a social or human problem, based on testing a theory composed of variables, measured with numbers, and analysed with statistical procedures, in order to determine whether the predictive generalisations of the theory hold true (Cresswell, 1994:1-2). Quantitative research is associated with the positivistic paradigm which will be discussed in the next section.

Alternatively, a qualitative study is an inquiry process of understanding a social or human problem, based on building a complex, holistic picture, formed with words, reporting detailed views of informants and conducted in a natural setting (De Vos *et al.* 2005:93). Qualitative research is associated with the phenomenological paradigm. An overview of the phenomenological paradigm will be given in the next section.

The distinctions between quantitative research and qualitative research can be summarised as follows according to Kaplan and Duchon (1988:580) and Cresswell (1994:21-24): *Quantitative research* is generally done by making use of scientific methods which can include:

- The generation of models, theories and hypotheses.
- The development of instruments and methods for measurement.
- Experimental control and manipulation of variables.
- Collection of empirical data.
- Modeling and analysis of data, and
- Evaluation of results.

Qualitative research usually has one or more of the following features:

- A focus on natural settings.
- An interest in meanings, perspectives and understandings.
- An emphasis on process, and
- A concern with inductive analysis and grounded theory.

Based on the above, the following can be stated in terms of this study: Firstly, the research in question is primarily quantitative in nature given that primary, quantitative data will be sourced and statistically analysed. The quantitative part of this study included the collection and analysis of data which was collected in two surveys (questionnaires) from Commerce graduates (alumni) at the selected HEI and employers of these graduates. In doing so, the researcher sought to achieve the primary and secondary objectives and research questions of this research as stated in Sections 1.4 and 1.5 of Chapter One, respectively.

Secondly, the research methodology comprises analytical as well as descriptive features. As such a methodological triangulation approach was adopted given that the responses to the open-ended questions, qualitative data, were reported on. Cresswell (1994:174) defined triangulation as the combination of methodologies in the study of the same phenomenon. The logic of triangulation is an ability to fill in the gaps left when using one dominant approach, that is, the use of quantitative research to facilitate qualitative research and vice versa, combining static and procedural features, gaining the perspective of the researcher and

the researched, to address the issue of generality and to study different aspects of a phenomenon (De Vos *et al.* 2005:361-362).

Thirdly, this research can be labelled as deductive because a conceptual and theoretical structure (statements in the research instruments) will be developed. The quantitative dimension of the research in question is clearly based on deductive reasoning (which develops theories or hypotheses about a problem and then tests these theories or hypotheses through empirical observations). Inductive reasoning (which implies that general inferences are induced from particular instances) also plays a part when interpreting the responses to the open-ended questions (Terre Blanche, 1999:41; Babbie, 2001:35). Inductive reasoning is linked to qualitative research. These concepts of deductive and inductive pertain to the type of methodological reasoning that takes place during the research process.

Finally the purpose of research is two-fold: on the one hand to develop and evaluate concepts and theories, thereby contributing to the general body of knowledge (basic or pure research); and on the other hand, to solve an existing real life problem (applied research), for example in businesses, or, for the research in question, for HEIs (Terre Blanche, 1999:41). The overall approach followed in this study is based on the principles of applied research given that the findings should be useful in providing advice to curriculum development in a Commerce related faculty at HEIs and enhance the graduate recruitment by business practice by ascertaining the needs of business practice.

In general, the approach followed in this study is based on the principles of applied scientific research by providing an explanation to a specific research problem and the potential application possibilities of the findings. By following requirements of a good research, a systematic analysis of the body of knowledge (secondary sources) will be evaluated to validate, modify and adapt the Commerce graduate (alumni) and employer research instruments developed by Louw (1999), with further refinement of the business and economics sciences graduate research instrument by Roos (2008).

Irrespective whether the research is quantitative or qualitative in nature two types of data collection are required. Primary research, which comprises the collection of data that does not yet exist and secondary research, which is the summarising, collation and/or synthesis of existing research information. Secondary and primary data were sourced in this study. The

primary data were sourced from existing sources by means of an all-embracing literature review of research design and methodology, management competencies and quality perspectives pertaining to Higher Education Institutions (Chapters Two and Three). Secondary data from related subject fields such as Management Education, Organisational Behaviour, and Business Management were first examined. Data searches nationally and internationally were done at the main library at Rhodes University and these included: Sabinet, Business Source Premier, Emerald Management Plus, LexisNexis, SAGE Premier Package, Open Journals and the internet. Primary (raw) data, both quantitative and qualitative in nature, was sourced by means of on-line surveys that were administered to Commerce graduates (alumni of the Commerce Faculty) of a prominent Eastern Cape HEI and employers of the Commerce graduates from this HEI.

4.3 RESEARCH PARADIGMS

4.3.1 Positivistic and Phenomenological research paradigms

Bryman (2004:453) identified a paradigm as a cluster of beliefs and dictates which, for scientists in a particular discipline influence what should be studied, how research should be done and how results should be interpreted. Paradigms are opposing worldviews or belief systems that are a reflection of and guide the decisions that researchers make (Tashakkori & Teddlie, 1998:71). According to Collis and Hussey (2003:47), there are two main paradigms namely the *phenomenological and positivistic* research paradigms.

The phenomenological paradigm attempts to understand people's perceptions, perspectives and understanding of a particular situation (De Vos *et al.* 2005:264). However, its findings need to be related to an existing body of theory and research. This by implication implies that the literature review should be performed after the findings of the research have been formulated (De Vos *et al.* 2005:264). However, the positivist paradigm, associated with the quantitative research approach, asserts that real events can be observed empirically and explained with logical analysis (Cresswell, 1994:4). Positivistic approaches seek to identify, to measure and evaluate any phenomena and to provide rational explanations for it (Terre Blanche, 1999:6). This explanation will attempt to establish causal links and relationships between the different elements (or variables) of the subject and relate them to a particular theory or practice (Terre Blanche, 1999:6). There is a belief that people do respond to stimulus or forces, (rules and norms) external to themselves and that these can be discovered, identified and described using rational, systematic and deductive processes (De Vos *et al.* 2005:5).

The positivistic approach seeks the facts or causes of social phenomena and usually applies a deductive reasoning process, seeking cause-and-effect relationships. This research is deemed to be accurate and reliable, through validity and reliability (Collis & Hussey, 2003:52). To summarise, the distinguishing characteristics of the positivistic paradigm and the phenomenological paradigm are highlighted in Table 4.1.

Table 4.1: The distinguishing characteristics of these paradigms

Positivistic paradigm	Phenomenological paradigm
Concerned with hypothesis testing	Concerned with generating theories
Tends to produce quantitative data	Tends to produce qualitative data
Uses large samples	Uses small samples
Data is highly specific and precise	Data is rich and subjective
Reliability is high	Reliability is low
Validity is low	Validity is high
Generalises from sample to population	Generalises from one setting to another

(Source: Collis and Hussey, 2003:55)

Within the context of this study, positivism is considered to be the most appropriate research paradigm mainly due to the nature of the quantitative data, testing of hypotheses, use of large samples and the potential of generalisation. The following section will discuss the sampling techniques and steps followed in this study.

4.4 SAMPLING PROCESS

According to Terre Blanche *et al.* (1999:44-45), the sampling process comprises several stages, namely:

- Defining the population of concern.
- Specifying a sampling frame, a set of items or events possible to measure.
- Determining the sample size.
- Specifying a sampling method for selecting items or events from the frame.
- Implementing the sampling plan, and
- Sampling and data collecting

The decisions regarding the sequential stages in the sampling process normally follow the sequence as stated above, although the actual order of events did not always follow this

particular sequence. These events are generally highly interrelated (Terre Blanche *et al.* (1999:44-45; Collis & Hussey, 2003:155-160).

The process of sampling involves any procedure using a small number of parts of the whole population to draw conclusions regarding the population (Terre Blanche *et al.* 1999:44-45), while the purpose of sampling is to enable researchers to estimate some unknown characteristic of the population (Collis & Hussey, 2003:155-160). In this section the following stages in the sampling process, namely population, sampling frame, sampling unit, sample size and sampling methods will be discussed,

4.4.1 Population

For research purposes, a population can be defined as including all people or items with the characteristics one wish to understand or any complete group or body of people or any collection of items under consideration for the research purpose (Sekaran, 2000:226). The research population is defined as a group that the research wants to generalise about (Cresswell, 1994:119). For the current study, the population (N) refers to all the Alumni of the selected HEI in the Eastern Cape and all potential employers of graduates from the selected HEI.

4.4.2 Sampling frame

Throughout the actual sampling process the elements of the sample frame must be selected according to a certain procedure. The population (N) has to be narrowed down to the sampling frame which comprises the complete group of specific population elements relevant to the research project (Terre Blanche *et al.* 2006:133). The sampling frame for this study comprised all the Alumni who attained qualifications in the Commerce Faculty at the selected HEI for the Commerce Graduate questionnaire and the all employers who employ these Commerce graduates. About 6 377 (N) alumni from the Faculty of Commerce were identified and also 200 Commerce graduate employers (N) were identified from the database of the selected HEI's Career Centre which was drafted by the then Head of the Career Centre, Mr Jurgen Kietzmann. Defining the sampling frame is important as it is the source from which the primary data will be obtained.

Because there rarely is enough time or money to gather information from everyone or everything in a population, the goal becomes finding a representative sample (or subset) of

that population (Yates, 2004:25). In Sections 4.4.3 to 4.4.5 the sampling unit, size and method will be discussed respectively.

4.4.3 Sampling unit

The sampling unit is a distinct element or group of elements subject to selection in the sample (Seaberg, 1988:244). The sampling unit for the research in question comprised the Alumni of the Faculty of Commerce who provided the Development and Alumni Relations Division with their electronic mail addresses (N = 1 870) for the Commerce graduate survey and the employers of Commerce graduates who provided the Career Centre with their human resources practitioners' electronic mail addresses (N = 85).

The Commerce graduates with known email addresses (N = 1 870) were extracted from the alumni database, with a total of 6 377 holding a Baccalaureus of Commercii degree. This was facilitated by the alumni office in the Development and Alumni Relations Division of the selected HEI. The employers with known addresses (n = 85) were extracted from the selected HEIs Career Centre database, with a total of 200 employers identified.

4.4.4 Sample size

The sample size (n) refers to the number of people in a particular sample (De Vos *et al.* 2005:196). In other words, sample size is the number of observations used for calculating estimates of a given population (Welman & Kruger, 2001:63-65). Larger samples enable researchers to draw more representative and accurate conclusions and to make predictions with greater accuracy than do smaller samples. In contrast, it also holds that the smaller the total population, the relatively larger the sample size should be to ensure satisfactory results. According to Welman and Kruger (2001:63-65), sample sizes may be chosen in the following ways:

- Expedience - for example, including those items readily available or convenient to collect. A choice of small sample sizes, though sometimes necessary, can result in wide confidence intervals or risks of errors in statistical hypothesis testing;
- Using a target variance for an estimate to be derived from the sample eventually obtained; and
- Using a target for the power of a statistical test to be applied once the sample is collected.

Based on the aforementioned it was important to have as large a sample possible for the purposes of this study. The sample size for this study included 85 organisations who

employed Commerce graduates from the selected HEI with known email addresses to the selected HEIs Career Centre and 1 870 Commerce graduates (Alumni) whose email addresses were known to the selected HEI's Development and Alumni Relations Division.

4.4.5 Sampling methods

There are two main categories of sampling methods, namely probability and non-probability sampling (De Vos *et al.* 2005:192-199). A probability sampling scheme is one in which every unit in the population has a chance (greater than zero) of being selected in the sample, and this probability can be accurately determined (De Vos *et al.* 2005:192-199). Considering the aforementioned, it is possible in probability sampling to produce unbiased estimates of population totals by weighting sampled units according to their probability of selection (Welman & Kruger, 2001:43-64). Probability sampling includes: simple random sampling, systematic sampling, stratified sampling, probability proportional to size sampling and cluster or multistage sampling (Terre Blanche *et al.* 1999:275). This variety of ways of probability sampling have, according to Collis and Hussey (2003:155-160), two things in common, namely, every element has a known non-zero probability of being sampled and it involves random selection at some point.

On the other hand non-probability sampling is any sampling method where some elements of the population have *no* chance of selection (these are sometimes referred to as 'out of coverage/under covered'), or where the probability of selection cannot be accurately determined (De Vos *et al.* 2005:198-200). It involves the selection of elements based on assumptions regarding the population of interest, which forms the criteria for selection. In essence, therefore, the units of the sample are selected on the basis of personal judgement. Non-probability sampling includes: accidental sampling, quota sampling, purposive sampling, and convenience sampling (De Vos *et al.* 2005:198-200).

Based on the merits of the sampling frames and sampling units described above, the non-probability sampling methods were deemed appropriate for this research. More specifically, a combination of convenience sampling and purposive sampling were used in this study. *Convenience sampling* is when the researcher uses the most convenient or most economical sample (Terre Blanche *et al.* 1999:276). The advantage of convenience sampling is that it is fast and there is no need for a list of the population. Its disadvantages are that variability and bias of estimates cannot be measured or controlled and projecting data beyond the sample is

inappropriate (Terre Blanche *et al.* 1999:276). In this study, all respondents comprised the Commerce graduates (Alumni) and employers of Commerce graduates at the selected HEI with electronic mail addresses of Alumni and Human Resource practitioners of employers that could be accessed conveniently. From the above, it is evident that convenience sampling pertains to sampling by obtaining units or people who are most conveniently available, in this case, access to respondents with known email addresses (De Vos *et al.* 2005:198-200).

A *purposive sample* is one which is selected by the researcher subjectively. The researcher attempts to obtain a sample that appears to him/her to be representative of the population and will usually try to ensure that a range from one extreme to the other is included (De Vos *et al.* 2005:198-200). Purposive sampling was chosen because the Commerce graduate (Alumi) respondents are familiar with and ideally positioned to assess the Commerce students and programmes of the relevant HEI. They had to state whether their needs and expectations specifically in terms of quality of tuition received in core courses) were met, the extent to which certain skills and traits required for successful job performance were developed, and the outcomes of studies in the Commerce faculty as well as their perceptions on the overall experience as a Commerce graduate.

The human resources practitioners were selected as a respondent group because of their involvement in the selection and recruitment of suitable and competent personnel to meet the needs of business practice. Moreover, they are also involved in assessing the training and development needs of their business firms. Due to their position in business and the recruitment of Commerce graduates from the selected HEI, they were regarded as the most appropriate practitioners to make recommendations pertaining to the Commerce curriculum development in South Africa and to assess the following:

- The relative importance of core courses for the running of a business and the proficiency of the Commerce graduate in these courses.
- The relative importance of management skills and traits as required in the work environment, as well as the proficiency of the Commerce graduate in these skills and traits, and
- The profile of the ideal and actual Commerce graduate.

For the research in question, Commerce graduates (Alumni) with qualifications in the Commerce field and employers who employ these graduates were selected purposely, as they have the knowledge and first-hand experience pertaining to the research topic as explained in this section.

4.5 DATA COLLECTION

As mentioned in Section 1.6.2 in Chapter One, data was collected from both Commerce graduates and employers of Commerce graduates (Alumni) from a selected HEI by means of an on-line survey. In this regard data was collected from the Commerce graduates who's email addresses were known to the alumni office in the Development and Alumni Relations Division of the selected HEI (N = 1 870). The data collection was facilitated by the alumni office in the Development and Alumni Relations Division by including a brief in the Alumni newsletter from the selected HEI on the purpose of this research and a request for Commerce alumni to participate in this research. In the brief and request in the Alumni newsletter, a web link directing participants to the online survey, hosted on the selected HEIs open source learning website site, was provided. A cover letter (included in Annexure A) was included in the online survey as well as the ethical statement pertaining to voluntary participation, anonymity and use of data. Respondents were invited to return completed questionnaires electronically to the selected HEIs open source learning website.

As explained in the Section 4.4.3 concerning the sample unit, data was also collected from 85 employers who supplied the Career Centre of the selected HEI with their Human Resources practitioners' electronic mail addresses. The Career Centre facilitated the data collection process by attaching a cover letter (included in Annexure B) to an email which was sent to each Human Resources practitioner from each organisation in the sample size requesting their participation and directing the respondents to an online survey on the selected HEIs open source learning website, allowing them to respond to the questionnaire and submit it electronically. The ethical statement pertaining to voluntary participation, anonymity and use of data was included in the cover letter (included in Annexure B).

4.6 MEASUREMENT SCALES OF RELEVANT DATA

Measurement can be defined as the process of observing and recording the observations that are collected as part of a research effort and as the assignment of symbols to represent the properties of persons, objectives, events or states according to certain rules (De Vos *et al.*

2005:146). Certain scales that allow for the measurement of concepts have been developed. A scale was defined by Babbie (2001:150) as any series of items which is progressively arranged according to value or magnitude into which an item can be placed according to its quantification.

The measurement scales used in a research instrument to collect the data has important implications for the type of statistical analysis that a researcher may perform. Based on the secondary study and other related research objectives, the Likert five-point scale was chosen as the most appropriate method of measuring the data in the current research in which a series of uncomplicated questions were asked and/or statements made according to a continuous response continuum. The Likert scale is a scale in which respondents indicate their level of agreement with statements that express a favourable or unfavourable attitude towards a concept being measured (Terre Blanche *et al.* 1999:296-297). Likert items place responses on a continuum in response categories such as "strongly agree," "agree," "disagree," and "strongly disagree."

Although the Likert-type scale is primarily referred to as an ordinal scale (Zikmund, 1994:303) the motivation for choosing it is because it is widely acknowledged and used as a scale with interval properties in different fields of study such as Marketing research and Psychology (Leedy, 1993:38; and Zikmund, 1994:286). Furthermore, both direction (good or bad feelings) and the strength (strong or weak feelings) of the affective and cognitive perceptions can be assessed by means of the respondent's responses (opinions) on a continuous Likert five-point scale (Louw, 1999:41). Furthermore, Elmore and Beggs (1975) established that a five point scale was just as good as a seven or nine-point scale and that an increase in the points (from five to nine) did not improve the reliability of the ratings.

4.7 STRUCTURE OF THE RESEARCH INSTRUMENTS

Besides an in-depth analysis of secondary sources, two independent empirical surveys, aimed at two populations strata were administered by means of online questionnaires. The purpose of the two surveys was to source primary data in order to determine the opinions and perceptions of *Commerce graduates (Alumni)* at the selected HEI (see Annexure A for a copy of the relevant questionnaire), and the opinions and perceptions of *Employers of Commerce graduates from the selected HEI (business practice)*, (see Annexure B for a copy of the

relevant questionnaire). In sections 4.7.1 and 4.7.2 the structures of the research instruments used in the Commerce graduate survey and the Employer survey will be presented.

4.7.1 Structure of the Commerce graduate (alumni) research instrument

The variables in this research instrument and more complete explanations of secondary resources underpinning the research instrument were presented in Chapters Two and Three. As mentioned previously, the cover letter and research instrument pertaining to the Commerce graduate (Alumni) survey, are included in Annexure A. All the questions in the questionnaire, except those in Section E, were carefully phrased statements and/or questions to which respondents had to respond by a means of a continuous Likert five-point scale. An explanation for selecting this scale was presented in Section 4.5 of this chapter. The items of Sections A, B, C and D of the research instrument, included in Annexure A, were all generated from in-depth secondary research on the related issues (refer Chapters Two and Three) and previous research by Louw (1999) and Roos (2008).

The questionnaire aimed at the Commerce graduates (Alumni) at the selected HEI comprised the following eight sections:

- Section A-1 contained 19 items (core courses) whereby respondents were requested to give their opinions and perceptions on the relative importance of core courses for successful job performance.
- Section A-2 comprised the same 19 items of Section A-1 and requested respondents to indicate their perceptions of the quality of tuition received in the core courses. Respondents had the option to mark N/A (not applicable) if a specific course was not part of their curriculum.
- In Section A-3 the opinions of respondents were canvassed in order to assess the relative importance of the possible introduction of 22 new courses in the Commerce curriculum. In addition, respondents were requested to add any additional courses (subject fields) that they perceived relevant to the work environment, at the end of sections A-1, A-2 and A-3.
- Section B-1, comprised 43 items pertaining to the relative importance of skills and traits in the work environment. Based on the secondary research additional items pertaining to wisdom and knowledge were added to the questionnaire for the purpose of this study.

- Section B-2 comprised the same 43 items as in Section B-1 and assessed the respondents' agreement as to whether formal tuition developed these skills and traits.
- Section C consisted of 11 statements, canvassing the level of agreement pertaining to the achievement of certain outcomes of the Commerce graduate studies in the Faculty of Commerce.
- Section D comprised 24 statements dealing with the perceptions of respondents on the perceived overall experience of a student in the selected HEI's Faculty of Commerce. At the end of Section D, an open ended question was included, encouraging respondents to make additional comments or recommendations on the future development and education of Commerce graduates at the selected HEI.
- Section E consisted of three categories to obtain the biographical data of the respondents, an open question and statements on research ethics. Respondents were also requested to respond to an open question pertaining to their recommendations towards the education and development of Commerce graduates at the selected HEI.

4.7.2 Structure of the employer research instrument

All the questions, except those in Section D, were carefully phrased statements and/or questions to which the respondents had to respond by means of a continuous Likert five-point scale. As was done in the Commerce graduate survey, all the questions were generated from an extensive secondary study of the related issues.

The questionnaire aimed at the employers of the Commerce graduates from a selected HEI consisted of the following seven sections (see Annexure B)

- Section A-1 contained 19 items (core courses) whereby respondents were requested to give their opinions/perceptions on the relative importance of core courses for running a business. Section A-2 comprised the same 19 items in Section A-1 and requested respondents to indicate their perceptions of the proficiency of Commerce graduates in the core courses. Respondents had the option to mark N/A (not applicable) if a specific course did not apply to them.
- In Section A-3 the opinions of respondents were canvassed in order to assess the relative importance of the possible introduction of 22 new courses to the Commerce curriculum. In addition, respondents were requested at the end of sections A-1, A-2 and A-3, to add

any additional courses (subject fields) that they perceived relevant for running a business and to the work environment.

- Section B-1 comprised 43 items pertaining to the relative importance of skills and traits in the work environment. Based on the secondary research additional items pertaining to wisdom and knowledge were added to the questionnaire for the purpose of this study.
- Section B-2 comprised the same 43 items as in Section B-1 and canvassed the opinions of respondents on the Commerce graduates' proficiency in the skills and traits.
- Section C consisted of 10 statements pertaining to the perception of the ideal Commerce graduate (in row A) and the perceptions of the actual Commerce graduate (in row B) from the selected HEI. Respondents were required to indicate their level of agreement or disagreement with their perceptions of the ideal Commerce graduate and the actual Commerce graduate.
- Section D consisted of four categories to obtain the biographical data of the respondents, an open question and statements relating to research ethics. Respondents were also requested to respond to an open question relevant to their recommendations towards the development of the ideal Commerce graduate at the selected HEI.

4.7.3 Pilot testing of research instruments

The research instruments, as stated before, were replicated (with modifications and adaptations since the study went beyond the previous research) from the seminal study by Louw (1999), (graduate [alumni) and employer) and Roos (2008), in which cases the research instruments demonstrated acceptable levels of construct and discriminant validity and reliability. The validity and reliability of the previous research instruments will be discussed in Section 4.8 of this chapter. In addition, two pilot studies were conducted to ensure the functionality of the electronic version of the adapted questionnaires, as well as, the appropriateness of the amended and updated content within the context of the selected HEI and this research.

The graduate (Alumni) research instrument was subjected to pilot testing that consisted of 25 Commerce graduate respondents. While the employer research instrument was subject to pilot testing amongst 25 employer respondents who were present at the Rhodes University Career Centre Commerce Fair Day and the General Fair Day in August 2010. The initial questionnaires were piloted with the assistance of the Career Centre and Centre for Higher Education Research, Teaching and Learning at the selected HEI to check for three aspects

namely (1) any grammar or spelling errors, (2) ease of completing the form electronically and (3) to ensure that all the questions were well understood. In addition, both research instruments were circulated to the Dean and Heads of Departments in the Commerce Faculty of the selected HEI to request their amendments and approval. Furthermore, standardised procedures were used to administer the questionnaires to all the respondents, in other words the research instruments were administered in a consistent manner. Lastly, based on previous research and the objectives of this research, specific criteria were established for this research, for instance the selection of an appropriate research design.

4.8 VALIDITY, RELIABILITY AND GENERALISABILITY OF THE RESEARCH INSTRUMENT

Validity and reliability are important criteria for evaluating the quality of measurement instruments. Once data have been obtained, the tests of validity and reliability assist in assessing the *goodness of the data* (Sekaran, 1992:175). Generalisability is important when researchers want to make general theoretical claims or aim to describe populations (Terre Blanche *et al.* 1999:63).

4.8.1 Validity

Validity refers to the extent to which a measure reflects the construct under consideration (Babbie, 2004:143). It is vital for a test to be valid in order for the results to be accurately applied and interpreted. According to Rubin and Babbie (2001:194), a trade-off exists between reliability and validity namely that measuring in a qualitative manner may increase validity but may decrease reliability. Similarly, measuring in a quantitative manner could increase reliability but decrease validity. Research errors, such as research procedures, poor samples and inaccurate or misleading measurement, can undermine validity (Babbie, 2004:143). Validity takes on different forms and the most general forms of validity include the following:

- *Construct validity* occurs when the theoretical constructs of cause and effect accurately represent the real-world situations they are intended to model (De Vos *et al.* 2005:161-162). This is related to how well the experiment is operationalised. A good experiment turns the theory (constructs) into actual things that can be measured (Babbie and Mouton, 2001:122-125). The two types of construct validity are *convergent validity* and *discriminant validity*. Convergent validity occurs where measures of constructs that

are expected to correlate do so, this is similar to concurrent validity, which looks for correlation with other tests (Punch, 2005:97). Discriminant validity occurs where constructs that are expected not to relate do not, such that it is possible to discriminate between these constructs (De Vos *et al.* 2005:161-162). Convergence and discrimination are often demonstrated by correlation of the measures used within constructs (De Vos *et al.* 2005:161-162).

- *Content validity occurs* when the research provides adequate coverage of the subject being studied, in other words “the extent to which the content of the items adequately represent the universe of all relevant items under study” (Roos, 2008:29). Content validity includes measuring the right things as well as having an adequate sample. Samples should be both large enough and be taken for appropriate target groups (De Vos *et al.* 2005:161-162). The application of content validity in this research is explained at the end of this section.
- *Internal validity* occurs when it can be concluded that there is a causal relationship between the variables being studied (De Vos *et al.* 2005:161-162). A danger is that changes might be caused by other factors. It is related to the design of the experiment, as in the use of random assignment of treatments.
- *Criterion-related validity* examines the ability of the measure to predict a variable that is designated as a criterion (De Vos *et al.* 2005:161-162). A criterion may well be externally-defined, for example the 'gold standard'. Achieving this level of validity thus makes results more credible. Criterion-related validity is related to external validity (De Vos *et al.* 2005:161-162).

The construct and discriminant validity of the research instruments are usually assessed by means of a factor analysis. Factor analysis is a statistical technique used to identify a relatively small number of factors that can be applied to represent the relationship among sets of many interrelated variables (Terre Blanche *et al.* 1999:362). Factor analysis is a collection of methods used to examine how underlying constructs influence the responses on a number of measured variables (De Vos *et al.* 2005:32). There are basically two types of factor analysis: exploratory and confirmatory (Terre Blanche *et al.* 1999:362-365). Exploratory factor analysis (EFA) attempts to discover the nature of the constructs influencing a set of responses while confirmatory factor analysis (CFA) tests whether a specified set of constructs is influencing responses in a predicted way.

Factor analyses are performed by examining the pattern of correlations (or covariances) between the observed measures (Terre Blanche *et al.* 1999:362-365). Measures that are highly correlated (either positively or negatively) are likely to be influenced by the same factors, while those that are relatively uncorrelated are possibly influenced by different factors (Terre Blanche *et al.* 1999:362-365). A factor loading represents the correlation between an original variable and its factor (Hair, Black, Babin, Anderson & Tatham, and 2006:128). Factor loadings of 0.30 and 0.40 are considered significant for sample sizes of 350 and 200 respectively (Hair *et al.* 2006:128).

In the previous research pertaining to MBA graduates by Louw (1999) the following factor loadings, all above 0.40 were found: management skills and traits ranged from 0.44 and 0.84; outcome of studies 0.54 to 0.89; and overall learning experience ranging from 0.40 to 0.91. The Commerce graduate related findings pertaining to factor loading in the research by Roos (2008) indicated the following: management skills and traits ranged from 0.53 and 0.79; outcome of studies ranging from 0.49 to 0.85; and overall learning experience ranging from 0.70 to 0.84.

In terms of the employer related research done by Louw (1999) the following factor loadings, all above 0.31, are reported for management skills and traits, ranging from 0.31 to 0.95; and the profile of the ideal graduate ranging from 0.54 to 0.85. All the factor loadings in the previous research are above the threshold value of 0.40 (Hair *et al.* 2006:128), except for the employer questionnaire in terms of management skills and traits. In this research factor analyses were not applied as the discriminant validity of the research instruments have already been confirmed by Louw (1999) and Roos (2008) as explained

In this research, content (or face) validity was assured in the following ways; the appropriate selection of categories and item measures was made; measurement was done with enough measurement items; great variation in data; the questionnaires were designed so that respondents do not give biased answers or try to guess how they should respond. Furthermore, professionals proof read the wording and structure of the research instruments during pilot testing and in addition the research was benchmarked against two previous studies by Louw (1999) and Roos (2008). Furthermore in terms of face validity the 19 core courses included in the research instruments are representative of the courses offered to Commerce students at the selected HEI. In terms of management skills and traits the 43

items based on previous research were classified into five classifications, namely, the technical and administrative skills, interpersonal and communication skills, conceptual, diagnostic and critical thinking, emotional intelligence and knowledge and wisdom classification criteria.

The technical and administrative classification, in turn, was represented by the following items namely, controlling skills, enquiry and research skills, planning and organising skills, time management and computer literacy skills as illustrated in Table 2.7 of Chapter Two. In the Commerce Graduate (alumni) research instrument, the statements relating to the tuition outcomes of studying in the Commerce Field, there were two classifications, namely, outcomes related to self-development and growth and outcomes related to the increase in knowledge and the enhancement of comprehension to represent a range of items. In the tuition outcomes related to self-development and growth there were multiple variables such as ‘develop my ability to understand myself better, thereby enabling me to exercise positions of responsibility more effectively’, cultivate diversity by placing greater emphasis on teamwork’, and ‘give me the ability to analyse study material and identify its elements and to integrate them holistically’ as illustrated in Table 3.5 of Chapter Three.

In the Commerce Graduate (alumni) research instrument, statements pertaining to relating to the overall learning experience pertaining to quality perspectives in the Commerce Field there were 24 items representing four classifications based on previous research, namely, the Quality of lecturers, administrators and lectures; Overall quality of the Faculty of Commerce; Quality of the HEI’s Commerce qualification; and exposure to skills development. The classification and items were stated in Table 3.6 of Chapter Three. In terms of the employer research instrument 10 items pertaining to the employers’ perception of the ideal and actual Commerce Graduate were included based on previous research by Louw (1999).

4.8.2 Reliability

Research findings are deemed reliable if another researcher obtains the same results on replicating the research (Collis & Hussey, 2003:58). In other words, reliability is the extent to which an experiment, test, or any measuring procedure yields the same result on repeated trials (Collis & Hussey, 2003:58). According to Terre Blanche *et al.* (1999:63), a reliable measurement instrument will produce the same results each time it is used. Reliability is a necessary contributor to validity but is, however, not a sufficient condition for validity

(Collis & Hussey, 2003:59). The reliability of the findings of a research project is closely linked to the methods of data sourcing and the design of the research instruments.

Reliability is measured by means of the Cronbach's alpha reliability coefficient. The Cronbach's alpha reliability coefficient measures the internal consistency of a measurement instrument by measuring the underlying constructs (Bohrstedt, 1969:123). The range of alpha values is between 1 (perfect internal consistency) and 0 (no internal consistency), values above 0.80 are regarded as being good, those between 0.60 and 0.70 are regarded as acceptable and those below 0.60 are regarded as poor (Sekaran, 1992:287). To establish whether the research instruments had actually measured what they were supposed to measure, the Cronbach's alpha reliability coefficients were calculated to assess the consistency of the inter-item reliability of both the Commerce graduate (Alumni) and employer questionnaires used in this research. These findings will be reported in the next chapter. The reliability of both the research instruments in this research was enhanced in the following ways: Firstly, the research instruments (questionnaires), while replicated from previous research by Louw (1999) and Roos (2008), were modified and contextualised to the Commerce related field in the selected HEI.

Both the research instruments have demonstrated previous high levels of reliability (Louw, 1999:50). In terms of the graduate (alumni) research instrument developed by Louw (1999) and replicated by Roos (2008) the following is evident: Louw (1999:169-185) reported the following Cronbach's alpha scores between: 0.64 and 0.75 for the core courses; 0.72 and 0.84 for management skills and traits; 0.70 and 0.80 for the outcomes of the MBA programme; and 0.51 and 0.79 for the quality of the MBA programme. Roos (2008:105-120) found Cronbach's alpha scores of between: 0.43 and 0.83 for core courses; 0.73 and 0.91 for the management skills and traits; 0.79 and 0.80 for the outcome of studies in the Faculty of Commerce; and 0.70 and 0.87 for statements relating to overall experience as a student in the Faculty of Commerce.

With reference to the employer research instrument developed by Louw (1999) the following Cronbach's alpha scores were obtained: core courses 0.84; management skills and traits 0.96 and a profile of the ideal MBA graduate 0.76. The generally agreed lower limit for Cronbach's alpha reliability coefficients is 0.70, although the requirement may be lowered to 0.60 in the case of exploratory research (Hair, Anderson, Tatham & Black, 1998:449).

Nunnally and Bernstein (1994) were of the opinion that reliability coefficients that exceed 0.50 are sufficient for basic or exploratory research.

4.8.3 Generalisability

Generalisability or external validity refers to the approximate truth of conclusions that involve generalisations (Terre Blanche *et al.* 1999:313). Generalisability therefore involves the extent to which the results of a study can be generalised beyond the sample of this research (Cresswell, 1994:159). In other words, can the results of this research apply to other people (population validity) or settings (ecological validity). In simpler terms, generalisability is the degree to which the conclusions in a particular study would hold for other persons in other places and at other times (Terre Blanche *et al.* 1999:313). In the context of the current study, generalisability means that the findings from a sample of Commerce graduates and Commerce graduate employers, of a selected HEI, regarding the relative importance of courses, new courses, management skills and traits, statements pertaining to the outcomes of studying at the selected HEI, overall learning experience in the Faculty of Commerce and the employer perceptions about the actual and ideal Commerce graduate can be applied to the entire populations, that is, all Commerce related departments in all HEIs in South Africa and employers of Commerce graduates from all HEIs in South Africa. For the purpose of this research, the findings are specific to a selected HEI and given that, a convenience and purposive sampling method was used, generalising findings to all other Commerce related Faculties in HEIs in South Africa would have to be done carefully. The findings pertaining to core courses and management skills and traits which have been tested in previous research and are relatively generic to all Commerce related Faculties at HEIs in South Africa, could be generalised. However, the other findings could be used as a benchmark and be of interest to other HEIs in re-designing curricula and to employers of Commerce graduates. The following section will present the response rate for the research instruments.

4.8.4 Response rate Commerce graduates

In total 247 (N) Commerce graduates responded to the invitation to participate in the survey of which 231 (N) questionnaires were usable for statistical analysis. Despite the low response rate of 13.2 per cent, based on the biographical data (Chapter Five, Table 5.2) 65.4 per cent of the respondents (N = 151) obtained their first degrees at the HEI between 2000 and 2010. It is also noteworthy, based on the biographical data, that 85 per cent of the

respondents (N = 74) and 82 per cent of the respondents (N = 14), graduated with their second and third degrees, respectively during the period 2000-2010. This should be considered as relevant as the findings will reflect contemporary issues affecting the recent graduates. Furthermore, the required response rate should, as a rule of thumb, be equal to the number of statements in the questionnaire multiplied by five. In this survey, Section A-1 and A-2 of the questionnaire comprised 19 statements thus a target minimum of 95 respondents (19 x 5) were required to perform the necessary statistical analysis. Section A-3 of the questionnaire comprised 22 statements which required 110 respondents (22 x 5), whilst Section B in the questionnaire comprised 43 statements and required 215 respondents (43 x 5) whereas Section C in the questionnaire, 11 statements, required 55 respondents (11 x 5) and Section D of the questionnaire, 24 statements, required 120 respondents (24 x 5). Evident from the afore-mentioned, the minimum number of respondents should have been 215 respondents. With 231 usable questionnaires it was decided to proceed with the data analysis considering that the number of responses exceeded the minimum of 215 respondents required.

4.8.5 Response rate employers

In the second survey 47 (N) employers responded to the invitation to participate in this research. All the responses were usable for statistical analysis, indicating a response rate of 55.3 per cent. In this survey, Section A-1 and A-2 comprised 19 statements, thus a target minimum of 95 respondents (19 x 5) were required to perform the necessary statistical analysis. Section A-3 of the questionnaire comprised 25 statements and required 125 respondents (25 x 5), whilst Section B in the questionnaire comprised 43 statements which required 215 respondents (43 x 5). Section C contained 10 statements requiring 50 respondents (10 x 5) and Section D comprised 3 statements requiring 15 respondents (3 x 5). Even though the number of responses was less than required (N = 215), according to the number of responses required in sections of the research instrument, the employer survey responses (N = 47) can be justified according to the response rate of 55.3 per cent which was regarded as acceptable for research purposes (De Vos et al, 2005:195).

4.9 DATA ANALYSIS

Data was analysed in various phases. Firstly, the returned questionnaires were inspected for any discrepancies and cleaned, resulting in usable questionnaires as explained in the previous section for both instruments. Secondly, descriptive and inferential statistical analyses were

performed according to the structure of the Commerce graduate (Alumni) questionnaire (Annexure A) and the Employer questionnaire (Annexure B).

Descriptive analysis is done first to help the researcher gain an initial impression of the data that were collected and to make the data set more understandable (Salkind 2010: 8). The purpose of descriptive statistics, according to Hardy and Bryman (2009: 37-39), is to provide insight into three characteristics of a data set, namely the shape (the concentration of the data relative to the most likely observation), the central tendency (the most likely observation), and the dispersion (the degree to which observations vary). For the purpose of this research, measures of central tendency, for example, mean and median, will be given as well as measures of dispersion, for example, standard deviation and frequency distribution. In this study the data will thus be described by investigating the typical scores (central tendency), distribution of scores on each variable (dispersion), and by determining whether the scores on different variables are related to each other (Terre Blanche *et al.*, 1999: 101). For the purpose of this research statements in all the tables provided in Chapters 5 to 7 will be ranked, in most instances from the highest to the lowest mean score. In addition the following interpretation intervals will be used to categorise respondents' perceptions and opinions, namely:

- Very negative: $1.0 \leq \text{score} < 1.8$
- Negative: $1.8 \leq \text{score} < 2.6$
- Neutral: $2.6 \leq \text{score} \leq 3.4$
- Positive: $3.4 < \text{score} \leq 4.2$
- Very positive: $4.2 \leq \text{score} \leq 5.0$

While descriptive statistics help in arranging numerical data in an orderly and readable manner, inferential statistics are used to estimate population parameters and to test hypotheses in order to for example decide whether variables are related to each other (Terre Blanche *et al.*, 1999: 121). Inferential data analysis allows the researcher to draw conclusions about the populations from sample data (Terre Blanche *et al.*, 1999: 101). A brief summary of the types of inferential statistical analysis used in this research is provided in the following sections which included one sample-t tests, pairwise t-tests, independent t-tests, Cohen's *d* post-test and Chi² test with Cramér's *V* post-test.

- (i) **One sample t-tests** which are statistical procedures used to determine the mean difference between the sample and the known value of the population mean (Terre Blanche *et al.* 1999:340-352). The one sample t-test also uses the standard deviation of the sample to estimate the population standard deviation. If the difference between the sample mean and the test mean is large relative to the variability of the sample mean, then the population mean is unlikely to be equal to the test mean (Terre Blanche *et al.* 1999:340-352). T-tests therefore provide the significant differences between the means of the two groups. The statistical significance is a mathematical tool used to determine whether the outcome of an experiment is the result of a relationship between specific factors or due to chance. Statistical significance is usually represented by the p-value. Statistical significance is used to reject or not reject the *null hypothesis* (Terre Blanche *et al.* 1999:340-352). The null hypothesis holds that the variables a researcher is looking at have no effect on differences in the data. The amount of evidence required to accept that an event is unlikely to have arisen by chance is known as the significance level or critical probability value (p-value) (Terre Blanche *et al.* 1999:340-352).

The p-value is the probability, with a value ranging from zero to one of observing data at least as extreme as that observed, *given that the null hypothesis is true*. If the obtained p-value is small then it can be said either the null hypothesis is false or an unusual event has occurred (Terre Blanche *et al.* 1999:340-352). When a p-value is very small it indicates that the observed effect is very unlikely to have arisen purely by chance, and therefore provides evidence against the null hypothesis (Terre Blanche *et al.* 1999:340-352). It has been common practice to interpret a p-value by examining whether it is smaller than particular threshold values. In particular, p-values less than 0.05 ($\alpha = 0.05$) at the 95 percentile confidence level are often reported as “statistically significant” and interpreted as being small enough to justify rejection of the null hypothesis. The 95 percent confidence level is therefore the threshold value (cut-off point).

- (ii) **Pairwise t-tests** also known as all pairs testing is an effective test case generation technique that is based on the observation that most faults are caused by interactions of at most two factors (Terre Blanche *et al.* 1999:340-352).
- (iii) The **independent t-test** is used to test for a difference between two independent groups (*like males and females*) on the means of a continuous variable (Welman & Kruger,

2001:213-216). In order to perform the *t*-test for independent samples, one independent (*grouping*) variable (e.g., Gender: *male/female*) and at least one dependent variable (e.g., a test score) are required (Welman & Kruger, 2001:213-216). The means of the dependent variable will be compared between selected groups based on the specified values (e.g., *male* and *female*) of the independent variable (Welman & Kruger, 2001:213-216). The Independent Samples T-Test therefore, compares the mean scores of two groups on a given variable (for example core courses), and in the context of the current study (Commerce Graduates and Employers).

- (iv) **Cohen's *d*** statistic is defined as the difference between two means divided by a standard deviation for the data (Bretz *et al.* 2011:87-93). Cohen's *d* is frequently used in estimating sample sizes. A lower Cohen's *d* indicates a necessity of larger sample sizes, and vice versa, as can be determined together with the additional parameters of a desired significance level and statistical power (Bretz *et al.* 2011:87-93). The practical significance as illustrated in Table 4.2 of the Cohen's *d* test is small effect size when $0.2 \leq d \leq 0.5$; medium effect size when $0.5 \leq d \leq 0.8$; and large effect size when $d > 0.8$; An effect size assists in determining whether a statistically significant difference is a difference of practical concern (Gravetter & Wallnau, 2009:278-302).

Table 4.2: Practical significance interpretations

Inferential Test		Interpretation		
Statistic		Small	Moderate	Large
t-test:	Cohen's <i>d</i>	$0.2 < d < 0.5$	$0.5 < d < 0.8$	$d > 0.8$

(Source: Gravetter & Wallnau, 2009: 278-302)

- (v) **The chi-square (c^2)** test measures the alignment between two sets of frequency measures (Terre Blanche *et al.* 1999:340-352). Chi-square tests indicate whether there is a significant relationship between variables but it does not indicate how significant and important this is. Cramér's *V* is a post-test used to indicate the strength of association after the chi-square test has determined the statistical significant relationship (Terre Blanche *et al.* 1999:340-352). Cramér's *V* is a measure of the strength of association among the levels of the row and column variables (Terre Blanche *et al.* 1999:340-352). Cramér's *V* is also a way of calculating correlations in tables which have more than 2 x 2 rows and columns. Cramér's *V* varies between 0 and 1. Close to 0 it shows little association

between variables. Close to 1, it indicates a strong association between variables. As illustrated in Table 4.3, depending on the degrees of freedom (df^*), in this case ($df^* = 1$) would mean general values between $0.10 < V < 0.30$ will indicate generally low levels of association (small) between variables being compared; therefore a weak positive correlation. Values between $0.30 < V < 0.50$ would mean moderate levels of association, whilst values $V > 0.50$, would mean a strong (large) level of association, which illustrates a strong positive correlation or strong relationship between the variables.

Table 4.3: Practical significance interpretations (2)

Inferential Test	Small	Moderate	Large
Chi ² Test:			
Cramer's <i>V</i>			
$df^* = 1$	$.10 < V < .30$	$.30 < V < .50$	$V > .50$
$df^* = 2$	$.07 < V < .21$	$.21 < V < .35$	$V > .35$
$df^* > 3$	$.06 < V < .17$	$.17 < V < .29$	$V > .29$

(Source: Gravetter & Wallnau, 2009: 278-302)

In terms of the inferential statistical procedures for the Commerce graduate (Alumni) questionnaire, the following phases are relevant; firstly the reliability of the research instrument was assessed by means of determining the Cronbach's alpha coefficients for relevant sections. The findings pertaining to the Cronbach's alpha coefficients for the Commerce graduate (Alumni) questionnaire will be provided in Chapter 5. Secondly, matched pairwise t-tests (with Bonferroni adjustment of significance level α) were conducted and Cohen's *d* statistics calculated to determine the statistical and practical significance respectively for:

- The *ranking categorisation* of the relative importance of core courses, possible new courses, and the quality of tuition received in the core courses.
- The differences between the relative importance of core courses offered and the quality of tuition received in these core courses.
- The *ranking categorisation* of the importance of skills and traits in the work environment, and the extent to which skills and traits been developed by the tuition received.

- The differences between the relative importance of skills and traits as required in the work environment and the extent to which the skills and traits were developed by tuition.
- The *ranking categorisation* of the outcome of the Commerce graduates' studies in the Faculty of Commerce.
- The *ranking categorisation* of the overall perceived experience of the Commerce graduate as a student in the Faculty of Commerce.

In terms of the statistical procedures followed for the Employer questionnaire (Annexure B), the following phases are relevant; firstly the reliability of the research instrument was assessed by means of determining the Cronbach's alpha coefficients for relevant sections. The findings pertaining to the Cronbach's alpha coefficients for the Commerce graduate questionnaire will be provided in Chapter 6. Secondly, matched pairwise t-tests (with Bonferroni adjustment of significance level α) were conducted and Cohen's *d* statistics calculated to determine the statistical and practical significance respectively for:

- The *ranking categorisation* of the relative importance of core courses, possible new courses, the proficiency of Commerce graduates in core courses.
- The differences between the relative importance of core courses for running a business and the employers' perceptions of the proficiency of Commerce graduates in these core courses.
- The *ranking categorisation* of the importance of skills and traits in the work environment, and the proficiency of Commerce graduates in skills and traits.
- The differences between the relative importance of skills and traits required in the work environment and the Commerce graduates' proficiency in these skills.
- The *ranking categorisation* of the employers' perceptions of the ideal and actual Commerce graduate (Graduate profile).
- The differences between the employers' perception of the ideal Commerce graduate and the actual Commerce graduate (Graduate profile).

Due to the large number of variables in both research instruments in terms of core courses, new courses, management skills and traits, outcome of the Commerce graduates' studies, overall perceived experience of the Commerce graduate as a student in the Faculty of Commerce, employers' perceptions of the ideal and actual Commerce graduate, it was necessary to Bonferroni adjust the significant p-values for both instruments (Hair, Anderson,

Tatham and Black, 1995: 258, 281) in order to rank the variables according to categories. This approach is used for adjusting the selected alpha level to control for the overall Type 1 error rate. The technique used was to divide the significance level, $\alpha = 0.05$, by the number of t-tests conducted for a specific variable. For example if variable X1 was compared with four other variables X2 to X5 in a series of one-sample t-tests, the significance level was divided by four for the fourth test, i.e. to be significant at the $\alpha = 0.05$ level, the p-value for the fourth test had to be less than 0.05 divided by four which implies that the p-value had to be less than 0.0125.

Regarding the information gathered from the qualitative data from the Commerce graduate (Alumni) questionnaire (Section A1, A2, A3 and E in Annexure A) and the employer questionnaire (Section A1, A2, A3 and D in Annexure B) the following data analysis procedure was followed. The qualitative information gathered was significantly large and in order to make sense of this data the researcher condensed and transcribed the data into common or main themes that were shown to emerge. This was done by typing out the data into a Microsoft Word document, and then common words or paragraphs were noted, thereby reducing the data into a more valuable form of text applying the principles of thematic analysis. Historically, Thematic analysis is a conventional practice in qualitative research that involves searching through data to identify any recurrent patterns (Terre Blanche *et al.* 1999:141). A theme is a cluster of linked categories conveying similar meanings and usually emerges through the inductive analytic process which characterises the qualitative paradigm. Themes should naturally arise from the data, but at the same time they should also have a bearing on the research (Terre Blanche *et al.* 1999:141).

The findings of the comparative analysis between the Commerce graduate (Alumni) and the employer respondent perceptions will be provided in Chapter Seven. The following sets of statistical analyses were performed to determine the statistically significant differences between the Commerce graduate (Alumni) and the employer respondent perceptions with regard to:

- The relative importance of core courses for running a business.
- The relative importance of possible new courses.
- The relative importance of management skills and traits in the work environment.
- The proficiency of Commerce graduates in management skills and traits.

In the above-mentioned statistical analyses use was made of independent t-tests where one group was compared with another group and inferences were made about the two groups of respondents and Cohen's *d* statistics, Chi² tests and Cramér's *V*. The Chi² tests were used to determine whether there were significant relationships between Commerce Graduate perceptions and Employer perceptions while the Cramér's *V* test was used to indicate the strength of the Chi² statistically significant relationships.

4.10 ETHICAL CONSIDERATIONS

Whenever any form of social research is being conducted, the need arises to address ethical issues. Ethical considerations of openness, informed consent, confidentiality and anonymity were upheld in this research. The survey responses were anonymous and specific individuals could not be identified. A cover letter accompanied both instruments, informing participants about the purpose of this research and that their participation in the survey was voluntary, completely anonymous and no confidential information was required. The cover letter also informed participants that all the data will be used for research purposes only and the privacy and confidentiality of their opinions will be respected. Participants were also informed that once the research had been conducted the data will be handed to the research supervisor, Professor L. Louw, for private storage. The research was approved by the Faculty of Commerce Higher Degrees Committee and the Department of Management Human Research Ethics Committee. Furthermore, it is supported by the selected HEIs Career Centre and the Development and Alumni Relations Division. The final research findings will be made available to respondents via the selected HEIs Development and Alumni Relations Division and the Career Centre.

4.11 SUMMARY

The focus of this chapter was on the research design and methodology applied for the Commerce Graduate and Employer surveys. A brief presentation on the quantitative versus qualitative methods together with the positivistic and phenomenological paradigms was given in Sections 4.2 and 4.3. An explanation of the sampling process, which included the population, sampling frame, sampling unit, sample size, and sampling methods was given in Section 4.4. The data collection and measurement scales of relevant data were presented in the subsequent sections 4.5 and 4.6 respectively. Section 4.7 provided a detailed account of the structure of the research instruments and the pilot testing of the research instruments. The validity, reliability and generalisability of the research instruments together with the response

rate of the research instruments were presented in Section 4.8. The data analysis and ethical considerations were addressed in Section 4.9 and 4.11 respectively.

The next chapter is the beginning of the series of discussions pertaining to the empirical results, namely Chapters 5, 6 and 7 with the next chapter focusing on the empirical results pertaining to the Commerce graduates (alumni).

CHAPTER 5

FINDINGS OF COMMERCE GRADUATE (ALUMNI) PERCEPTIONS

5.1 INTRODUCTION

The primary purpose of this chapter is to report on the findings pertaining to the opinions and perceptions of the Commerce graduates (Alumni) in the Faculty of Commerce at a selected HEI. In doing so, effect will be given to the Commerce graduate related research questions and hypothesis as stated in Section 1.5.1 and Section 1.5.2 of Chapter One.

In this chapter the following will be discussed. Firstly, the validity and reliability of the research instrument; the biographical information of the respondents; based on the structure of the questionnaire, findings pertaining to the relative importance of the core courses and the quality of tuition; new courses, relative importance of management skills and traits and development thereof; the outcomes of studies in the Commerce Faculty; the perception on overall experience as a student in the Faculty of Commerce will be discussed. A summary of the noteworthy findings will also be given.

5.2 VALIDITY AND RELIABILITY OF THE SCORES DERIVED FROM THE RESEARCH INSTRUMENT

The validity and reliability of the scores derived from the research instrument was established before any statistical analyses were performed. In this section the validity and reliability of the scores will be explained.

5.2.1 Validity

The validity of the scores derived from the research instrument is used to determine whether the instrument measures what it is intended to measure (Brown, 1996:231) and to approximate the truthfulness of the results as explained in Section 4.8.1 of Chapter Four. In this section reference is made of the construct and face validity of the research instrument. Hair *et al.* (2006: 126-129) define construct validity as the “extent to which a set of measured variables (items) actually represent the theoretical latent construct they are supposed to measure”. Construct validity confirms the network of related hypotheses generated from a theory for the research in question, for example, theory pertaining to management competencies required in the Commerce Field. Construct validity therefore refers to the

ability of the research instrument to measure the statement (items) posed and the extent to which the research instrument confirms the stated hypotheses (Roos, 2008:104). The construct validity of the research instruments was determined by means of a factor analysis in previous research as discussed in Section 4.8.1 in Chapter Four. In the research by Louw (1999) the factor loadings in the MBA graduate research instrument for management skills and traits were above 0.44; outcomes of studies above 0.54; and overall learning experience above 0.40. The graduate related findings pertaining to factor loading in the research by Roos (2008) indicated the following: management skills and traits above 0.53; outcome of studies above 0.49; and overall learning experience above 0.71. All these factor loadings were above the threshold value of 0.40 (Hair *et al.* 2006:128), confirming construct validity of the Commerce graduate (Alumni) research instrument.

As highlighted in Table 2.7 in Chapter Two the factors or classifications used for management skills and traits in this research included technical and administrative skills, interpersonal and communication skills, conceptual, diagnostic and critical thinking skills, cognitive intelligence and mental ability, emotional intelligence and knowledge and wisdom.

With reference to this research, the face validity of the research instrument is regarded as being representative of the core courses, management skills and traits, overall graduate experience, and outcomes of the Commerce degree as explained in Section 4.8.1 of Chapter Four. For example the courses as stated in the research instruments are a representative sample of courses being taught in the Faculty of Commerce at the selected HEI. In terms of content validity, it can be stated that the section on core courses included all the core courses and other courses that could be selected by Commerce students. In terms of management skills and traits, overall graduate experience and the outcomes of the Commerce degree, a range of statements were posed for each section or category in the research instrument.

5.2.2 Reliability

Cronbach's alpha is a measure of how well each individual item in a scale correlates with the sum of the remaining items and also measures consistency among individual items in a scale (Brown, 1996:231-239). As a rule of thumb, the widely-accepted social science cut-off is that alpha should be 0.70 or higher for a set of items to be considered a scale. A "high" alpha value is often used (along with substantive arguments and possibly other statistical measures) as evidence that the items measure an underlying (or latent) construct (Cook and Campbell

1979:72-87). According to Nunally (1978:85-94), Cronbach's alpha coefficients between 0.50 and 0.70 are also adequate indicators of acceptable reliability for exploratory research. Based on this, the Cronbach's alpha threshold value of 0.60 was regarded as acceptable for the purpose of this research.

To authenticate whether the scores derived from the current research instrument were reliable, the internal consistency of the responses to the items in the questionnaires were verified by the Cronbach's alpha coefficients for the Commerce graduate (Alumni) research instrument, as presented in Table 5.1.

Table 5.1: Cronbach's alpha coefficient for the Commerce graduate (Alumni) research instrument

Cronbach's alpha			
Skills and Traits	Importance	Quality of Tuition	Level of satisfaction
Technical and administrative skills	0.86	0.69	0.78
Interpersonal and communication	0.94	0.90	0.92
Conceptual, diagnostic and critical thinking (decision making skills)	0.91	0.88	0.90
Cognitive intelligence and mental ability	0.77	0.74	0.75
Emotional Intelligence	0.89	0.80	0.86
Knowledge and Wisdom	0.81	0.67	0.74
Studies in the Faculty of Commerce	Outcome	Experience	
Studies in the Faculty of Commerce	0.91	0.90	

From Table 5.1, it is evident that the Cronbach's alpha scores were greater than 0.74 except for the knowledge and wisdom proficiency, with a score of 0.67, suggesting that the score derived from the items in "knowledge and wisdom proficiency" have slightly lower internal consistency compared to the other scales. Noteworthy to mention from Table 5.1 are the Cronbach's alpha scores for the "studies in the Faculty of Commerce" and the "outcome and learning experience in the Faculty of Commerce" with both having scores of 0.90 and greater.

5.3 BIOGRAPHICAL DATA

The biographical data of the Commerce Graduates of the selected HEI are summarised in this section, shown in Tables 5.2 to 5.4. As mentioned previously, 231 useable Commerce graduate (Alumni) questionnaires were used for the purpose of this research, as explained in Section 4.7.1 of Chapter Four. However, not all respondents responded to all the biographical data questions which can be seen from the Tables 5.2 to 5.4. In Table 5.2 the number of degrees obtained by the respondents is indicated. For the purposes of this research the 1st degree is regarded as a BCom degree, the 2nd degree as a Post Graduate Diploma or Honours degree, the 3rd degree as an MBA or Masters and a 4th degree a PhD.

Table 5.2: Number of degrees obtained

Degree Year	1st Degree n	%	2nd Degree n	%	3rd Degree n	%	4th Degree n	%
1963 to 1969	2	1%	0	0%	0	0%	0	0%
1970 to 1979	4	2%	0	0%	0	0%	0	0%
1980 to 1989	22	10%	3	3%	2	12%	1	50%
1990 to 1999	49	21%	10	11%	1	6%	1	50%
2000 to 2010	151	66%	74	86%	14	82%	0	0%
Total	228	100%	87	100%	17	100%	2	100%

As shown in Table 5.2, 66% of the respondents graduated with their first degrees during the past ten years between 2000-2010. This is particularly significant for the interpretation of the findings of this study. It is also noteworthy that 86% of those with two or more degrees (n = 74) and 82% of those with three or more degrees graduated with their second and third degrees during the period 2000-2010. This implies that most of the respondents would be in a position to provide an opinion on recent (past ten years) experience at the Faculty of Commerce at the selected HEI and on contemporary management related issues in the workplace.

In Table 5.3 the highest qualifications obtained by the respondents are indicated.

Table 5.3: Highest qualifications obtained

Qualification	n	%
BCom Degree	132	57%
BCom Honours	43	19%
DPhil/Economics	3	1%
MBA	4	2%
MComm/Economics	17	7%
Post Graduate Diploma	32	14%
Total	231	100%

Table 5.3 indicates that 57% of the respondents have an undergraduate degree in Commerce, while 14% hold a postgraduate diploma in Commerce and 19% hold an honours degree whilst nine hold a Masters degree from the Faculty of Commerce. As many as 43% (14% + 19% + 2% + 7% + 1%) of the respondents have post-graduate qualifications in the commerce field, highlighting that an increasing number of Commerce graduates are furthering their qualifications in the commerce field and the level of post graduate knowledge, development of skills and traits and experience gained at the selected HEI.

Table 5.4 presents the job designation of the Commerce Graduates, that is, the different fields of the work environment in which the respondents are based. From Table 5.4 (following page) it can be seen that 70 respondents (31 %) are in the Finance related field (Financial managers, Accountants, Insurance brokers and Financial Consultants) while 178 (69 %) are respondents hold senior positions at middle and top management levels (such as Business analysts, Business Development Manager, Consultants, Financial Managers, Corporate Communications Manager, Human Resource Manager, Legal Advisor/Advocate, Managing Directors, Marketing/Sales Managers, Middle level/Divisional Managers, Production and Operations Managers, Project Managers and Purchasing/Logistics Managers). Since most of the respondents occupy senior positions, their insights and pro-opinions and perceptions could be more highly regarded.

Table 5.4: Job designation

Job Designation	n	%
Academic (Prof/Lecturer)	11	5%
Accountant	3	1%
Business Analyst	21	9%
Business Development Manager	6	3%
Consultant	32	14%
Corporate Communications Manager	1	0%
Environmental Sector	1	0%
Financial Manager	31	14%
Human Resource Manager	20	9%
Insurance Broker/Financial Consultant	36	16%
Internship	5	2%
Legal Advisor/Advocate	1	0%
Managing Director	24	10%
Marketing/Sales Manager	12	5%
Middle Level/Divisional Manager	11	5%
Other	3	1%
Production/Operations Manager	7	3%
Project Manager	8	3%
Purchasing/Logistics Manager	10	4%
Quantitative Surveyor	0	0%
Student	8	3%
Systems/Computer Analyst	11	5%
Take over family business	13	6%
Total	275	100%

5.4 CORE COURSES

In order to give effect to the research questions as stated in Chapter 1, Section 1.5.1 and hypothesis Ho¹, (refer Chapter 1, Section 1.5.4) a total of 19 core courses which usually form the basis of courses offered in the Commerce Faculty of the selected HEI, were identified and listed in the questionnaire (Annexure A, Section A1). The core courses were identified

through by using the selected HEI student handbook and calendar (see Chapter 2, Section 2.5). The respondents (N = 231) were requested to indicate their perceptions of the relative importance rating (1 = unimportant to 5 = important) of the core courses for the running of a business as shown in Panel 1, Table 5.5 and the relative quality of tuition (1 = poor to 5 = excellent) they had received in these core course as shown in Panel 2 in Table 5.5, by using a Likert five-point interval scale. The number of respondents in Panel 2 varied between 12 and 165, depending on whether the respondents received tuition in a specific course. Panel 3 of Table 5.5 indicates the level of satisfaction of Commerce Graduates (Alumni) with the quality of tuition received at the selected HEI, calculated as the difference between the perceived quality (Panel 2) and perceived importance (Panel 1) scores.

As explained in Section 4.9 of Chapter 4, for the purpose of this research, the descriptive statistical analyses included measures of central tendency (mean scores, median and frequency distributions) and dispersion (standard deviation). For the purpose of this research, the following intervals were used to interpret respondents' importance scores (Gravetter and Wallnau, 2009: 278-302):

- $1.0 \leq \text{score} < 1.8$: **very low importance**
- $1.8 \leq \text{score} < 2.6$: **low importance**
- $2.6 \leq \text{score} \leq 3.4$: **medium importance**
- $3.4 < \text{score} \leq 4.2$: **high importance**
- $4.2 < \text{score} \leq 5.0$: **very high importance**

The upper and lower limits of the 95% confidence interval, as shown in Table 5.5, Panels 1 and 2 are calculated by respectively adding and subtracting the 95% confidence offset to and from the mean score. In Panel 1 the relative importance of core courses and in Panel 2 the respondents' perception of the quality of tuition they had received in these core courses was ranked according to the mean sample scores for each course, while in Panel 3 the level of satisfaction of the respondents is given. The level of satisfaction is calculated as the difference between the sample scores of quality of tuition received at the selected HEI (Panel 2) and the importance of core courses (Panel 1), namely Panel 2 minus Panel 1.

As can be seen from Panel 1 in Table 5.5, the 19 core courses were ranked according to the mean sample score into six categories of significance. In order to determine the categories of significance for the courses, use was made of one sample matched pair t- test and Cohen's *d*

statistics. The matched sample pair wise t-test provides an indication of whether differences are statistically significant ($p \leq 0.05$) while the Cohen's d statistic provides an indication of whether the statistically significant differences are also practically significant. (TerreBlanche *et al.* 1999: 341-342). Cohen's d statistics are defined as the difference between two means divided by the pooled standard deviation of the means (Gravetter and Wallnau, 2009:278-302). The practical significance of the Cohen's d statistic has a small effect when $0.2 \leq d \leq 0.5$; medium effect when $0.5 \leq d \leq 0.8$; and large effect when $d > 0.8$. An effect size assists in determining whether a statistically significant difference is a difference of practical concern (Gravetter and Wallnau, 2009:278-302).

The above-mentioned analyses resulted in six ranking categories for the importance of courses and seven categories for the quality of tuition received in these courses, as shown in Panels 1 and 2 in Table 5.5, respectively. Because multiple comparisons were made for the same data, for example Accounting with: Economics; Financial Management; Human Resource Management; Strategic Management; and Information Systems, and Information Systems with: Marketing, it was necessary to make Bonferroni adjustments for the p-value for each iteration within each ranking category (Gravetter and Wallnau, 2009:278-302). The Bonferroni "adjustment" will be explained in the next section. All items that are not statistically different from each other (p-value greater than the Bonferroni adjusted alpha value) or having no significant Cohen's d statistic were grouped together into one category. For example, all the courses included in the ranking "category 1" are not statistically significantly different from each other (p-value greater than the Bonferroni adjusted alpha value) or the Cohen's d statistic was not significant. However, as soon as the matched pair t-test and Cohen's d statistic are significant, (p less than Bonferroni adjusted p-value and Cohen's d statistic > 0.2) the next ranking category would be formed, for example, between Accounting and Information Systems. Information Systems would signify the first item in the second ranking category. The same statistical procedure as explained previously would result in the second ranking categorisation of Information Systems, Marketing, Commercial Law, Legal Theory and Auditing, shown in Table 5.5.

In Panel 3 of Table 5.5 the p-values for all the core courses in terms of the "level of satisfaction" were greater than the Bonferroni adjusted alpha, implying that there were no statistically significant differences between the items and all the items were ranked into the

same category. Consequently the ranking categorisation has not been indicated in Table 5.5 for Panel 3.

The Bonferroni “adjustment” is based on the idea that if an experimenter is testing n dependent or independent hypotheses on a set of data, then one way of maintaining the family wise error rate is to test each individual hypothesis at a statistical significance level of $1/n$ times the alpha value which would have been used if only one hypothesis were tested (Gravetter and Wallnau, 2009:278-302). So, if it is desired that the significance level for the whole family of tests should be (at most) α , then the Bonferroni adjustment would be to test each of the individual tests at a significance level of α/n . *Statistically significant* means that a given result is unlikely to have occurred by chance assuming the null hypothesis is actually correct (e.g., no difference among groups, no effect of treatment, no relation among variables) (Gravetter and Wallnau, 2009:278-302).

In other words in using the 'Bonferroni adjustment' the acceptable α - level is divided by the number of comparisons while keeping the experiment wise error rate at a specified level (usually $\alpha = .05$) (Bretz, Horthon and Westfall, 2011:87-93). For example, if 10 pair wise comparisons were to be made, keeping the overall experiment wise error rate to 5 per cent, each of the pair wise comparisons would be evaluated against .05 divided by 10. That is, for any one comparison to be considered significant, the obtained p-value would have to be less than **0.005** - and not **0.05** (Bretz *et al.* 2011:87-93). This obviously makes it harder to claim a significant result and in so doing decreases the chance of making a Type I error to acceptable levels (Bretz *et al.* 2011:87-93).

Table 5.5: Relative importance of core courses, the quality of tuition and the level of satisfaction

Core courses	Panel 1: Relative importance of courses				Panel 2: Quality of tuition				Panel 3: Level of satisfaction			
	Rank- ing	95% Conf. Interval	Mean	SD	Rank- ing	95% conf. Interval	Mean	SD	Rank- ing	95% Conf. Interval	Mean difference	SD
Accounting	1	4.79 4.94	4.86	0.58	3	3.42 3.67	3.55	0.84	1	-1.47 -1.18	-1.32*	0.94
Economics	1	4.78 4.89	4.84	0.44	1	4.19 4.41	4.30	0.68	1	-0.63 -0.40	-0.51	0.74
Financial Management	1	4.71 4.86	4.78	0.59	3	3.41 3.69	3.55	0.75	1	-1.40 -1.00	-1.20	1.05
Human Resource Management	1	4.67 4.84	4.75	0.67	1	4.12 4.42	4.27	0.81	1	-0.64 -0.28	-0.46	0.95
Strategic Management	1	4.67 4.84	4.75	0.62	1	4.10 4.38	4.24	0.74	1	-0.63 -0.26	-0.45	0.98
Information Systems	2	4.65 4.81	4.73	0.62	3	3.63 3.90	3.77	0.68	1	-1.10 -0.73	-0.91	0.94
Marketing Management	2	4.59 4.78	4.68	0.74	6	2.91 3.26	3.08	0.90	1	-1.85 1.36	-1.60	1.28
Commercial Law	2	4.59 4.77	4.68	0.72	4	3.07 3.27	3.19	0.75	1	-1.66 -1.33	-1.49	1.08
Legal Theory	2	4.56 4.78	4.67	0.88	1	3.80 4.51	4.15	0.92	1	-0.83 -0.10	-0.46	0.95
Auditing	2	4.53 4.74	4.64	0.84	3	3.59 3.95	3.77	0.69	1	-1.21 -0.76	-0.98	0.86
Computer Science	3	4.49 4.69	4.59	0.76	4	3.24 3.45	3.34	0.65	1	-1.40 -1.06	-1.23	1.05
Theory of Finance	3	4.50 4.67	4.58	0.67	2	3.80 4.05	3.92	0.80	1	-0.80 -0.47	-0.64	1.06
Taxation	3	4.43 4.65	4.54	0.86	2	3.85 4.12	3.98	0.52	1	-0.84 -0.43	-0.63	0.79
Ethics	3	4.43 4.62	4.53	0.74	3	3.65 4.00	3.82	0.68	1	-0.95 -0.49	-0.72	0.88
Statistics	3	4.38 4.58	4.48	0.79	5	3.02 3.27	3.15	0.78	1	-1.50 -1.12	-1.31	1.21
Management Accounting	4	4.31 4.53	4.42	0.88	2	3.70 4.02	3.86	0.61	1	-0.75 -0.26	-0.51	0.95
Psychology	4	4.26 4.51	4.39	0.97	7	2.61 3.07	2.84	1.09	1	-2.02 -1.39	-1.70	1.22
Mathematics	5	3.71 4.00	3.85	1.15	3	3.41 4.00	3.70	0.78	1	-0.88 -0.01	-0.44	1.15
Philosophy	6	2.23 2.54	2.39	1.23	1	3.30 4.86	4.08	1.38	1	-0.44 0.94	0.25	1.49

The most prominent findings on the ranking of the importance of core courses (Panel 1, Table 5.5) were as follows:

- Almost all (17 of the 19) courses had a mean score rating of greater than 4.38 indicating a very high importance rating even though courses have been ranked in six different categories.
- Accounting obtained the highest mean assessment score of 4.86 indicating that it was regarded as being most important by the respondents.
- Other courses ranked in the first category include Economics (mean score of 4.84), Financial Management (mean score of 4.78), Human Resource Management (mean score of 4.75) and Strategic Management (mean score of 4.75).
- In addition to the abovementioned courses, Information Systems (mean score of 4.73), Marketing (mean of score 4.68), Commercial Law (mean of 4.68), Legal Theory (mean score of 4.67), and Auditing (mean score of 4.64) were ranked in the second category.
- Management Accounting and Psychology were ranked in the fourth category, with mean scores of 4.42 and 4.39 respectively. Even though these courses were ranked in the fourth category, the mean score values are above 4.38 which can be regarded as being very important.
- Philosophy (with mean score of 2.39) was ranked last and considered as being of low importance (mean score of less than 2.6) and Mathematics (with mean score of 3.85) ranked second last. Even though Mathematics was ranked in this position, it is regarded as being of high importance (mean score between 3.4 and 4.2). The Mathematics ranking could possibly be attributed to Mathematics being taught that is not relevant to Commerce graduates as one alumnus noted “*Maths should be a service not pure maths for the Commerce curriculum*”.

All the courses except Philosophy and Mathematics had a mean score greater than 4.2, the lower limit of the very positive interval, as explained in Section 4.9 of Chapter 4, which means all courses obtained very high ratings, confirming the general opinion that a wide variety of core courses are essential in providing students with the holistic background knowledge they will need as practising business leaders and managers. This observation supports the hypothesis that the Commerce programme ought to contribute to the widening of students’ intellectual capabilities, educating them to think holistically and become independent and self-sufficient to contribute to the development of human capital and economic growth.

The most prominent findings on the quality of tuition received in the core courses (Panel 2, Table 5.5) are as follows:

- Of the 19 courses, the perceived quality of tuition received in three of the courses, namely Economics (mean score of 4.30), Human Resource Management (mean sample score of 4.27) and Strategic Management (mean score of 4.24), had a mean score of greater than 4.24, indicating a very high rating. This means that the quality of tuition received in these courses was regarded on average as being good to excellent.
- The quality of tuition received in Economics (mean score of 4.30), Human Resource Management (mean score of 4.27), Strategic Management (mean score of 4.24), Legal Theory (mean score of 4.15) and Philosophy (mean score of 4.08) were ranked in “category 1”. Even though there were slight differences in the mean scores, the perceived quality of tuition received in these courses is not statistically significantly different for these courses, implying that the quality of tuition received in all these courses would be regarded as being of equal standing. However, it should be noted that only 12 respondents responded to the quality of tuition received in Philosophy. This is possibly due to the fact that it is offered outside the general Commerce curriculum; hence most respondents did not take the subject.
- In addition to the above mentioned courses, Taxation (mean score of 3.98), Theory of Finance (mean score of 3.92) and Management Accounting (mean score of 3.86) were ranked in the second category of satisfaction (high mean scores) with the quality of tuition.
- Commercial Law (mean score of 3.19), Commercial Law (mean score of 3.19), Statistics (mean score of 3.15), Marketing (mean score of 3.08), and Psychology (mean score of 2.84), were in the lower ranking categories 4 to 7, indicating a neutral attitude towards the quality of tuition received in these courses (mean score less than 3.4).

More important than the findings pertaining to Panels 1 and 2 are the findings contained in Panel 3, indicating the respondents’ level of satisfaction with the quality of tuition received in the core courses relative to the importance of the core courses. One-sample t-tests were conducted and Cohen’s *d* statistics were calculated for Panel 3.

The most prominent findings on the level of satisfaction (Panel 3, Table 5.5) include:

- All mean differences were negative except for Philosophy (mean difference score of 0.25). A negative mean score implies that respondents were not satisfied with the quality of tuition received in a course, relative to its importance. This was true for all core courses in the Commerce Faculty at the selected HEI, except for Philosophy which had a low response rating.
- The respondents were least (mean difference score of greater than -1.00) satisfied with the quality of tuition received, relative to the importance, in the following courses, namely Psychology (mean difference score of -1.70), Marketing (mean difference score of -1.60), Commercial Law (mean difference score of -1.49), Accounting (mean difference score of -1.32), Statistics (mean difference score of -1.31), Computer Science (mean difference score of -1.23), Financial Management (mean difference score of -1.20).
- Accounting, for example, was deemed as the most important core course (Panel 1). However, it was ranked in the third category in terms of quality of tuition (14th position). Noteworthy, Accounting was ranked in the 16th position in terms of overall satisfaction with the quality of tuition relative to the importance of Accounting (mean difference score of -1.32).
- Even though the mean differences were negative, except for Philosophy (mean difference score of 0.25), the respondents were least dissatisfied with the quality of tuition received, relative to the importance, in the following core courses with a mean difference score of greater than -0.5, namely Mathematics (mean difference score of -0.44), Strategic Management (mean difference score of -0.45), Human Resource Management (mean difference score of -0.46), and Legal Theory (mean difference score of -0.46).

Testing of hypothesis: Relative importance of core courses and quality of tuition

In order to determine whether statistically significant differences exist between the relative importance of core courses for running a business and the quality of tuition received in the core courses in the Commerce Faculty at the selected HEI, the null hypothesis H_0^1 was tested using the matched sample pair wise t-test on the mean differences, as shown in Table 5.6.

The first hypotheses in the first set of hypotheses are stated as follows:

- H_0^1 : There are no statistical differences between Commerce graduates' perceptions of the relative importance of core courses offered as required for successful job performance and the quality of tuition received in the core courses at the selected HEI.

- H_a^1 : There are statistically significant differences between Commerce graduates' perceptions of the relative importance of core courses offered at the selected HEI as required for successful job performance and the quality of tuition received in the core courses.

From Table 5.6 it is evident that all the mean difference scores were significant at the 95 per cent confidence level ($\alpha = 0.05$), except for Philosophy (p-value = 0.491) and Mathematics (p-value = 0.056). Based on these findings, it can be concluded that hypothesis H_o^1 is rejected in all instances except for Mathematics and Philosophy. This implies that, except for these two courses, respondents were dissatisfied with the quality of tuition they had received in all the courses relative to the importance of these courses for successful job performance.

Table 5.6: Statistics of testing the first hypothesis in the first set of hypotheses

Courses	t-value	d.f.	p-value	Cohen's <i>d</i>
Philosophy	0.71	11	.491	n.a.
Mathematics	-2.00	26	.056	n.a.
Strategic Management	-4.72	106	.000	0.46
Human Resources Management	-4.96	106	.000	0.48
Legal Theory	-2.48	25	.020	0.49
Management Accounting	-4.06	56	.000	0.54
Economics	-8.72	159	.000	0.69
Taxation	-6.01	56	.000	0.80
Theory of Finance	-7.51	156	.000	0.60
Ethics	-6.16	56	.000	0.82
Information Systems	-9.49	93	.000	0.98
Auditing	-8.51	55	.000	1.14
Financial Management	-12.02	109	.000	1.15
Computer Science	-13.98	142	.000	1.17
Statistics	-13.55	156	.000	1.08
Accounting	-17.99	164	.000	1.40
Commercial Law	-17.56	159	.000	1.39
Marketing	-12.85	105	.000	1.25
Psychology	-10.70	87	.000	1.14

In terms of Cohen's d statistics, the following practical significance is evident from Table 5.6:

- The Cohen's d statistics for Mathematics and Philosophy is not applicable as the mean difference between the quality of tuition of these courses and their perceived relative importance was not statistically different from zero (null-hypothesis cannot be rejected).
- Small practically significant ($0.2 \leq d \leq 0.5$) differences were observed for Strategic Management, Human Resources Management, and Legal Theory. This implies a small "gap" between the perceived qualities of tuition received in these courses relative to the importance of these courses for successful job performance.
- Moderate practically significant ($0.5 \leq d \leq 0.8$) differences were observed for Management Accounting, Economics, Taxation and Theory of Finance. This implies a moderate "gap" between the perceived qualities of tuition received in these courses relative to the importance of these courses for successful job performance.
- Large practically significant ($d > 0.8$) differences were observed for Ethics, Information Systems, Auditing, Financial Management, Computer Science, Statistics, Accounting, Commercial Law, Marketing and Psychology. This implies the "gap" between the perceived qualities of tuition received in these courses relative to the importance of these courses for successful job performance is large.

Qualitative Data: Core courses

To give effect to the secondary research objective (5), Section 1.4.2 in Chapter One, i.e. *to analyse the quantitative and qualitative data and report on the findings*, five open-ended questions were included in the questionnaire (See Annexure A at end of Sections A-1, A-2, A-3, and Section D). The following responses are noteworthy:

Responses to "Other courses of importance in business practice" (Annexure A, Sections A-1 and A-2) include:

- Professional Communication excellent.
- International relations/politics would also be a good combination to include in commerce
- Some form of leadership course i.e. on how to motivate subordinates, will equip graduates to become managers.
- A qualification on investment and investment banking would be essential.
- Logistics and Supply Chain Management, Business Intelligence, Management of Information and Project Management.

- Stock exchange done in 1968.
- Industrial Sociology.
- Entrepreneurship for the PDEM course was really good!
- Public Speaking and Presentation Skills.
- International financial markets and corporate governance.

Responses to “Other languages besides English which should be introduced to the curriculum” (Annexure A, Sections A-1 and A-2) include:

- Afrikaans, Zulu, Xhosa.
- Mandarin - or a relevant popular Asian Dialect.
- French.
- Latin.

5.5 RELATIVE IMPORTANCE OF NEW COURSES

This section of the questionnaire (Annexure A, Section A-3) requested respondents to rate the importance of the possible introduction of new courses. Processing this set of responses comprised one phase only, namely, the assessment of the mean scores which were assessed at the 95% confidence level ($\alpha = 0.05$) by means of one sample t-tests and Cohen’s *d* statistics as well as ranking based on Bonferroni adjustment of significant p-values. The relative importance of the new courses to be introduced was ranked into nine categories as shown in Table 5.7, using the same statistical procedure as previously explained for the ranking categorisation of core courses.

Table 5.7: Introduction of new courses – relative importance

New courses	Relative importance of new courses					
	Ranking	n	95% Conf. Interval		Mean	SD
Project Management	1	156	4.77	4.91	4.84	0.48
Information Systems Evaluation	1	150	4.69	4.87	4.78	0.54
Entrepreneurship	1	154	4.67	4.87	4.77	0.64
Information Systems Audit and Control	1	152	4.64	4.86	4.75	0.67
Information Technology Governance	2	151	4.65	4.85	4.75	0.62

New courses	Relative importance of new courses					
	Ranking	n	95% Conf. Interval		Mean	SD
Knowledge Management	2	150	4.58	4.81	4.69	0.71
International Business Management	2	152	4.53	4.73	4.63	0.64
Investment Management	3	158	4.43	4.63	4.53	0.65
Business Research	3	154	4.28	4.54	4.41	0.81
Services Marketing	4	151	4.05	4.36	4.21	0.96
Portfolio Management	4	155	4.05	4.29	4.17	0.76
Actuarial Science	4	151	3.07	4.18	4.07	0.65
Risk Management	5	153	3.73	4.00	3.86	0.87
Introduction to Insurance	5	152	3.65	3.91	3.78	0.81
Personal and Corporate Financial Planning	6	152	3.22	3.47	3.35	0.79
Customer Relations Management	7	153	2.94	3.32	3.13	1.20
Events Management	7	154	2.88	3.22	3.05	1.08
Managerial Economics	7	150	2.79	3.06	2.93	0.85
Cross-Cultural Management	8	149	2.39	2.78	2.58	1.22
Sports Management	9	149	1.73	2.19	1.96	1.41
Media Management	9	148	1.70	2.12	1.91	1.31
Tourism Management	9	145	1.58	2.00	1.79	1.29

The most prominent findings from Table 5.7 regarding the relative importance of the possible introduction of new courses into the Commerce Curriculum are:

- In category 1 (ranking 1), the following new courses were ranked the most important in the Commerce Curriculum, namely Project Management (mean score of 4.84), Information Systems Evaluation (mean score of 4.78), Entrepreneurship (mean score of 4.77) and Information Systems Audit and Control (mean score of 4.75).
- Noteworthy mentions are the following new courses, namely, Information Technology and Governance (mean score of 4.75), Knowledge Management (mean score of 4.69), and International Business Management (mean score of 4.63) which were ranked important in the second category (ranking 2).

- All the new courses listed in the ranking categorisation 1 to 5 have mean scores of greater than 3.4, indicating a high importance rating given to all these potential new courses.
- The mean scores for Personal and Corporate Finance, Customer Relations Management, Events Management and Managerial Economics were between 2.6 and 3.4, indicating a neutral importance rating.
- Potential new courses with mean sample scores of less than 2.6 included Cross Cultural Management (mean score of 2.58), Sports Management (mean score of 1.96), Media Management (mean score of 1.91) and Tourism Management (mean score of 1.79). These potential new courses were regarded as being least important by the respondents.

It is important also to highlight that courses such as Risk Management, Customer Relations Management, Personal and Corporate Financial Planning and Events Management, which are considered contemporary business courses i.e. not in the traditional business curriculum and are in high demand, received a moderate relative importance rating (mean scores between 3.05 and 3.86). More so and of concern, Cross-Cultural Management was regarded as being of low importance by respondents and given South Africa's multi-racial population and past, more awareness and positive effort should be made to introduce this course in any capacity for Nation Building.

Qualitative data: New Courses

To give effect to the secondary research objective (5) in Section 1.4.2 in Chapter One, i.e. *to analyse the quantitative and qualitative data and report on the findings*, four open-ended questions were included in the questionnaire (See Annexure A at end of Sections A-1, A-2, A-3, and Section D). The following responses are noteworthy:

Responses to the possible “introduction of new courses” (Annexure A, Section A-3) include:

- Environmental Management, Corporate Social Responsibility, Agricultural Management. Business Ethics.
- Business Etiquette.
- Change management, Management and development of staff to increase skills transfer.
- Social Media Technology (for Computer Science and Information Technology).
- Life orientation.
- Organisational development and business administration.

5.6 RELATIVE IMPORTANCE OF MANAGEMENT SKILLS AND TRAITS

The purpose of this section is to achieve the research questions pertaining to management skills and traits, as stated in Chapter One, Section 1.5.1, and hypothesis Ho² in Section 1.5.4. In order to do so, the next question in the research instrument (Annexure A, Section B-1) requested respondents to indicate the relative importance of specific management skills and traits essential in the work environment as well as requesting respondents to indicate the extent to which their tuition, primarily in the Commerce Faculty, at the selected HEI had contributed to the development of these abilities (Annexure A, Section B-2). Based on intensive literature studies, 43 skills and traits were identified (refer Chapter 2, Table 2.7). These skills and traits were analysed and grouped together into classification criteria (factors) based on secondary sources and empirical evidence. The respondents were requested to provide their opinions and perceptions of the relative importance rating (1 = unimportant to 5 = important) of the skills and traits and the development thereof through tuition (1 = strongly disagree to 5 = strongly agree), using the Likert five-point interval scale. The relative importance (Panel 1) and development of skills and traits through tuition (Panel 2) are given in Table 5.8.

Panel 1 of Table 5.8 shows the relative importance of management skills and traits in the work environment based on the mean scores, while Panel 2 indicates the extent to which these skills and traits were developed through the tuition received at the specific HEI. In order to establish the level of satisfaction, the differences between the mean scores of the development of skills and traits (Panel 2, Table 5.8) minus the relative importance of skills and traits required in the work environment (Panel 1, Table 5.8) were calculated and shown in Panel 3 of Table 5.8. Panel 3 provides an in-depth understanding and insight in terms of the level of satisfaction as perceived by the Commerce graduates with regard to the development of management skills and traits as required in the work environment at the selected HEI. As explained previously in Section 5.4 the descriptive data analysis includes the 95 per cent confidence intervals, mean and standard deviation scores as shown in Table 5.8. Likewise, one sample t-tests and Cohen's *d* statistics as well as the Bonferroni adjustment of significant p-values were used in determining the ranking classification of the management skills and traits. The interpretation of the mean differences shown in Panel 3 of Table 5.8 is likewise interpreted as was previously done in Section 5.4 for core courses. One-sample t-tests and Cohen's *d* statistics were performed for Panel 3. All the respondents (N = 231) responded to this section (refer to Annexure A, Sections B-1 and B-2).

The most significant findings on relative importance of management skills and traits (Panel 1, Table 5.8) are as follows:

- The management skills and traits were grouped into three categories of significance with only “Ability to collaborate across cultures” ranked in the first category. This implies that it was considered the most important skill and regarded as being statistically and practically significant ($p \leq$ Bonferroni adjusted α and $d > 0.20$) on its own. Even though 30 management skills and traits were ranked in the second classification, with a relatively small variation in mean scores (Time Management mean score of 4.77 to the “Ability to follow and construct a logical argument” mean score of 4.66), the differences in perception of the importance of all these skills and traits were not significantly different. The same applied to the 12 management skills and traits in the third ranking classification.
- All (43) management skills and traits had a mean score rating of greater than 4.58 indicating a very high perceived importance even though the skills and traits have been ranked in three different categories.
- “Ability to collaborate across cultures” obtained the highest mean assessment score of 4.90 indicating that it was regarded as being most important by the respondents. It is important to note that this was the only skill and trait in the number one importance category, again emphasising its importance to the respondents.
- A total of 30 skills and traits were categorised in the second ranking category, which included amongst others, Time Management (mean score of 4.77), Leadership (mean score of 4.76), Planning skills (mean score of 4.75), Teamwork and Collaboration (mean score of 4.74), Decision Making skills (mean score of 4.72). Of importance was that the skills ‘Teamwork and Collaboration’, ‘Developing others’ and ‘Social skills and sociability’ had very high mean scores in the top ten skills and traits by the respondents. This highlights the fact that in order to be successful in the working environment, interpersonal skills are essential, and being able to work with other people is very important for success.
- The remaining 12 skills and traits were ranked in the third category.

The most significant findings on the development of management skills and traits through tuition (Panel 2, Table 5.8) are as follows:

- The extent to which tuition (primarily received in the Faculty of Commerce at the selected HEI) developed the management skills and traits were grouped into five ranking categories. This implies that the differences in perception of the development of the skills

and traits in each ranking classification were not statistically significant. In other words, the development of the management skills and traits as listed in the first ranking classification were all regarded as being of similar importance.

- The development of the following management skills and traits through tuition, ranked in the first classification, was regarded as being excellent (mean score of greater than 4.2), Time Management (mean score of 4.47), Computer literacy (mean score of 4.45), Social skills and sociability (mean score of 4.45), Teamwork and collaboration (mean score of 4.42) and Leadership (mean score of 4.39).
- All the other management skills and traits, ranked in classifications two to five all have a mean score of greater than 3.4, implying that the respondents regarded the development of those skills and traits, through tuition, as being good.
- In addition to the above mentioned skills and traits, 12 skills and traits were ranked in the second category with mean scores of above 4.03. It is noteworthy to highlight that 'Ability to collaborate across cultures' which was ranked highest in importance (Panel 1, Table 5.8) was also in this category (mean score of 4.19) indicating that respondents regarded the development of this fundamental skill and trait as being satisfactory.
- It should be noted that the item 'Enquiry and Research skills' had relatively low mean score of 3.84 placed in ranking category four. This could be attributed to the fact that most respondents had undergraduate degrees and most of the basic research at the selected HEI starts at postgraduate level.

Table 5.8: Relative importance and development of management skills and traits, and the level of satisfaction.

Skills and Traits	Panel 1: Relative importance of skills and traits				Panel 2: Development of skills and traits				Panel 3: Level of satisfaction			
	Ranking	95% Conf. Interval	Mean	SD	Ranking	95% Conf. Interval	Mean	SD	Ranking	95% Conf. Interval	Mean difference	SD
Ability to collaborate across cultures	1	4.85 4.96	4.90	0.46	2	4.07 4.31	4.19	0.92	3	-0.83 -0.60	-0.71	0.89
Time Management	2	4.70 4.83	4.77	0.50	1	4.38 4.56	4.47	0.70	1	-0.41 -0.19	-0.30	0.82
Leadership	2	4.68 4.83	4.76	0.57	1	4.30 4.48	4.39	0.71	1	-0.47 -0.26	-0.37	0.81
Planning Skills	2	4.69 4.82	4.75	0.50	2	3.95 4.13	4.04	0.70	3	-0.83 -0.59	-0.71	0.89
Stress Management	2	4.68 4.82	4.75	0.57	3	3.85 4.05	3.95	0.79	3	-0.92 -0.68	-0.80	0.94
Teamwork and Collaboration	2	4.67 4.81	4.74	0.54	1	4.33 4.50	4.42	0.66	1	-0.43 -0.23	-0.33	0.80
Developing others	2	4.67 4.81	4.74	0.54	3	3.80 3.99	3.90	0.76	3	-0.96 -0.72	-0.84	0.90
Ability and willingness to learn	2	4.66 4.80	4.73	0.52	2	3.94 4.14	4.04	0.77	2	-0.81 -0.57	-0.69	0.95
Social skills and sociability	2	4.65 4.81	4.73	0.61	1	4.36 4.54	4.45	0.69	1	-0.38 -0.18	-0.28	0.78
Business ethics and integrity	2	4.66 4.79	4.72	0.51	3	3.92 4.11	4.01	0.75	2	-0.83 -0.59	-0.71	0.92
Decision making skills	2	4.65 4.80	4.72	0.58	2	4.09 4.29	4.19	0.78	2	-0.65 -0.42	-0.53	0.90
Analytical thinking and problem solving	2	4.65 4.78	4.71	0.53	3	3.93 4.11	4.02	0.69	2	-0.81 -0.58	-0.70	0.90

Skills and Traits	Panel 1: Relative importance of skills and traits				Panel 2: Development of skills and traits				Panel 3: Level of satisfaction			
	Ranking	95% Conf. Interval	Mean	SD	Ranking	95% Conf. Interval	Mean	SD	Ranking	95% Conf. Interval	Mean difference	SD
Organising skills	2	4.64 4.78	4.71	0.55	2	3.94 4.12	4.03	0.71	2	-0.79 -0.57	-0.68	0.85
Ability to act independently	2	4.64 4.78	4.71	0.53	2	3.97 4.17	4.07	0.75	2	-0.76 -0.52	-0.64	0.90
Oral presentations and use of visual aids	2	4.64 4.78	4.71	0.53	2	4.02 4.21	4.12	0.73	2	-0.71 -0.47	-0.59	0.93
Creative thinking and initiatives	2	4.64 4.78	4.71	0.54	3	3.80 4.00	3.90	0.80	3	-0.92 -0.69	-0.81	0.91
Interpersonal (networking) skills	2	4.63 4.78	4.71	0.55	2	4.08 4.27	4.18	0.73	1	-0.65 -0.41	-0.53	0.95
Pro-activity	2	4.63 4.78	4.70	0.58	3	3.86 4.06	3.96	0.76	3	-0.87 -0.61	-0.74	0.98
Accountability	2	4.63 4.77	4.70	0.54	2	4.01 4.21	4.11	0.75	2	-0.70 -0.47	-0.59	0.89
Impact and influence on others	2	4.62 4.78	4.70	0.61	3	3.85 4.05	3.95	0.77	3	-0.86 -0.64	--0.75	0.88
Computer literacy	2	4.63 4.76	4.69	0.52	1	4.36 4.53	4.45	0.69	1	-0.34 -0.15	-0.25	0.76
Intellectual flexibility and adaptability	2	4.61 4.77	4.69	0.62	3	3.89 4.08	3.99	0.72	2	-0.82 -0.59	-0.70	0.90
Self-confidence and decisiveness	2	4.61 4.77	4.69	0.60	2	3.94 4.14	4.04	0.78	2	-0.77 -0.52	-0.65	0.97
Driving force, motivation and resilience	2	4.61 4.76	4.68	0.59	3	3.87 4.06	3.97	0.76	3	-0.83 -0.60	-0.72	0.89
Trustworthiness	2	4.60 4.77	4.68	0.66	5	3.32 3.62	3.47	1.16	4	-1.39 -1.04	-1.22	1.35
Diversity Management	2	4.60 4.76	4.68	0.64	3	3.82 4.03	3.93	0.80	3	-0.87 -0.64	-0.75	0.89
Holistic (systems) thinking	2	4.60 4.75	4.68	0.59	3	3.79 3.99	3.89	0.77	3	-0.90 -0.67	-0.79	0.90
Conceptual thinking (big picture)	2	4.60 4.74	4.67	0.57	3	3.83 4.02	3.93	0.73	3	-0.86 -0.62	-0.74	0.93

Skills and Traits	Panel 1: Relative importance of skills and traits				Panel 2: Development of skills and traits				Panel 3: Level of satisfaction			
	Ranking	95% Conf. Interval	Mean	SD	Ranking	95% Conf. Interval	Mean	SD	Ranking	95% Conf. Interval	Mean difference	SD
Organisational awareness	2	4.59 4.75	4.67	0.63	3	3.86 4.06	3.96	0.78	2	-0.84 -0.58	-0.71	1.02
Sensitivity to business environment	2	4.58 4.75	4.67	0.64	3	3.86 4.07	3.96	0.81	2	-0.83 -0.58	-0.71	0.96
Ability to follow and construct logical argument	2	4.59 4.74	4.66	0.59	2	3.94 4.14	4.04	0.78	2	-0.75 -0.49	-0.62	0.99
Emotional stability and self-control	3	4.59 4.74	4.66	0.58	3	3.83 4.04	3.94	0.82	3	-0.86 -0.60	-0.73	1.00
Conflict Management	3	4.58 4.73	4.66	0.57	3	3.76 3.97	3.87	0.79	3	-0.91 -0.67	-0.79	0.95
Negotiating skills	3	4.58 4.73	4.66	0.60	3	3.81 4.02	3.91	0.84	3	-0.87 -0.62	-0.74	0.97
Interest and studiousness	3	4.57 4.74	4.65	0.63	2	3.96 4.14	4.05	0.71	2	-0.72 -0.48	-0.60	0.94
Motivating skills	3	4.57 4.74	4.65	0.64	3	3.86 4.06	3.96	0.75	2	-0.82 -0.57	-0.69	0.98
Enquiry and research skills	3	4.56 4.73	4.65	0.66	4	3.73 3.94	3.84	0.83	3	-0.95 -0.67	-0.81	1.09
Ability to apply knowledge to new situations	3	4.55 4.70	4.63	0.57	3	3.92 4.08	4.00	0.65	2	-0.74 -0.51	-0.63	0.88
Ability to convey a strong sense of vision	3	4.51 4.68	4.60	0.66	4	3.73 3.91	3.82	0.72	3	-0.90 -0.65	-0.77	0.95
Controlling skills	3	4.50 4.70	4.60	0.76	3	3.76 3.99	3.87	0.87	3	-0.84 -0.60	-0.72	0.93
Ability to delegate	3	4.51 4.67	4.59	0.62	3	3.84 4.02	3.93	0.71	2	-0.78 -0.55	-0.66	0.89
Entrepreneurial skills	3	4.50 4.69	4.59	0.75	5	3.41 3.69	3.55	1.07	4	-1.21 -0.88	-1.04	1.30
Empathy	3	4.49 4.67	4.58	0.70	5	3.59 3.82	3.70	0.90	3	-1.02 -0.74	-0.88	1.09

- Entrepreneurial skills received the second lowest mean score of (3.55) and were in the fifth ranking category. This could be due to there being no specific course on entrepreneurship or courses which incorporate development of entrepreneurial skills except at the Post-graduate Diploma in Enterprise Management course. This Diploma course is at the post-graduate level and does not cater for undergraduate Commerce students. This result is a cause of concern and requires further investigation by the HEI.
- Even though the development of “Trustworthiness” was ranked last, the development of this ability was highly regarded by the respondents with a mean score of 3.47.

With regard to Panel 3 in Table 5.8, one sample pair wise t-tests were performed for Panel 3, “level of satisfaction” and revealed that all difference scores were significant at the 95% confidence level, indicating that the respondents were significantly dissatisfied with the extent to which the management skills and traits were developed relative to the importance rating.

The most significant findings on level of satisfaction (differences in perceptions) with regard to the relative importance and development of skills and traits through tuition (Panel 3, Table 5.8) are as follows:

- The level of satisfaction with the development of management skills and traits through tuition relative to the importance of skill and traits were grouped into four categories of significance.
- All the mean difference scores were negative, implying that graduates’ skills and traits were not fully developed through tuition as required by business practice.
- Even though the mean differences were negative, the respondents were least dissatisfied with the extent to which tuition developed the following skills and traits with a mean difference score of less than -0.50, namely Computer Literacy (mean difference score of -0.25), Social skills and sociability (mean difference score of -0.28), Time management (mean difference score of -0.30), Teamwork and collaboration (mean difference score of -0.33), and Leadership (mean difference score of -0.37).
- The respondents were most dissatisfied (mean difference score of greater than -1.00) with the extent to which tuition received developed their skills and traits in the following items, namely entrepreneurial skills (mean difference score of -1.04) and trustworthiness (mean difference score of -1.22).
- Trustworthiness, for example, was ranked in the second category in terms of importance (Panel 1) (25th position) and in the last position (43rd) in terms of development (Panel 2).

This skill was ranked 43rd position as well in terms of overall satisfaction with the development thereof relative to the importance of Trustworthiness (mean difference score of -1.22).

- The ‘Ability to collaborate across cultures,’ was ranked first (Panel 1) in order of importance for successful job performance. It was ranked sixth in the second category (2) in terms of the development thereof through tuition (Panel 2). However, considering the differences between the required ratings (i.e. importance) and the actual ratings (i.e. development), this competency was ranked in the third category in 25th position, with a negative mean difference of -0.71 (Panel 3).

Summated scores for the factors pertaining to management skills and traits

The summated scores for the factors pertaining to management skills and traits based on the secondary research (also refer to Chapter 2, Table 2.7) as guided by previous empirical research factor analyses (Louw 1999; Roos 2008) are shown in Tables 5.9 to 5.11. From Table 5.9 it can be seen that two ranking categories emerged with very high relative importance ratings were assigned to all the management skills and traits ranging between 4.67 for conceptual, diagnostic and critical thinking (decision making skills) to 4.70 for interpersonal skills. It is also being noted that there is a relatively small range of mean sample scores in both the ranking classifications. Even though interpersonal and communication skills were regarded as being the most important (mean score 4.70), all the factors ranked in the first category are not statistically different from each other having no significant Cohen’s *d* statistic. This implies that all the factors in the first category were all regarded as being of similar importance.

Table 5.9: Importance of factors pertaining to management skills and traits

Factors	Ranking	n	Mean	SD	95% Conf. Interval		Frequency Distribution									
					Low	High	1.0 to 1.8		1.08 to 2.6		2.6 to 3.4		3.4 to 4.2		4.2 to 5.00	
Interpersonal and communication	1	231	4.70	0.45	4.65	4.76	0	0%	2	1%	2	1%	23	10%	204	88%
Technical and administrative skills	1	231	4.69	0.46	4.64	4.75	0	0%	0	0%	7	3%	27	12%	197	85%
Cognitive intelligence and mental ability	1	231	4.69	0.49	4.63	4.75	0	0%	2	1%	4	2%	27	12%	198	86%
Knowledge and Wisdom	1	231	4.69	0.47	4.63	4.75	0	0%	1	0%	4	2%	27	12%	199	86%
Emotional Intelligence	1	231	4.69	0.45	4.63	4.74	0	0%	0	0%	5	2%	32	14%	194	84%
Conceptual, diagnostic and critical thinking (decision making skills)	2	231	4.67	0.47	4.61	4.73	0	0%	2	1%	2	1%	35	15%	192	83%

In terms of the summated scores for the factors pertaining to the development of management skills and traits as shown in Table 5.10 (also refer to Chapter 2, Table 2.7), three ranking categories emerged with a relatively small variation in mean scores, ranging from 3.90 to 4.12. However, none of the mean scores were greater than 4.2 indicating that the respondents were not very satisfied with the development of all the management skills and traits. Respondents were more satisfied with the development of management skills and traits in terms of: Technical and administrative skills; Knowledge and wisdom; Interpersonal and communication; and Cognitive intelligence and mental ability, based on the range of mean scores ranging between 4.05 and 4.12. Conceptual, diagnostic and critical thinking (decision making) and Emotional Intelligence were ranked in the third category in terms of development thereof.

Table 5.10: Development of factors pertaining to management skills and traits

Factor	Ranking	n	Mean	SD	95% Conf. Interval		Frequency Distribution									
					Low	High	1.0 to 1.8		1.08 to 2.6		2.6 to 3.4		3.4 to 4.2		4.2 to 5.00	
Technical and administrative skills	1	231	4.12	0.47	4.05	4.18	1	0%	0	0%	13	6%	133	58%	84	36%
Knowledge and Wisdom	1	231	4.08	0.51	4.02	4.15	0	0%	1	0%	17	7%	97	42%	116	50%
Interpersonal and communication	2	231	4.05	0.52	3.99	4.12	1	0%	0	0%	25	11%	110	48%	95	41%
Cognitive intelligence and mental ability	2	231	4.05	0.61	3.97	4.13	1	0%	2	1%	34	15%	100	43%	94	41%
Conceptual, diagnostic and critical thinking (decision making skills)	3	231	3.93	0.57	3.86	4.00	1	0%	2	0%	43	19%	99	43%	86	37%
Emotional Intelligence	3	231	3.90	0.55	3.83	3.97	1	0%	2	1%	42	18%	112	48%	74	32%

The ranking of the differences between the development of and relative importance of factors pertaining to management skills and traits (level of satisfaction), as explained previously, is shown in Table 5.11 (also refer to Chapter 2, Table 2.7). Three ranking categories emerged with variation in mean scores, ranging from -0.78 to -0.58. All the factors namely, Technical and administrative skills, Knowledge and wisdom, Interpersonal and communication, and Cognitive intelligence and mental ability, Conceptual, diagnostic and critical thinking (decision making) and Emotional Intelligence had negative mean difference scores implying that the Commerce graduates' skills and traits required in business practice were not fully developed through the tuition they had received, primarily in the Faculty of Commerce, at the selected HEI. Respondents were least dissatisfied with the development of technical and administrative skills (mean difference score of -0.58) and the most dissatisfied with the development of Conceptual, diagnostic and critical thinking and Emotional intelligence with a mean difference scores of -0.74 and -0.78 respectively.

Table 5.11: Level of satisfaction with the development of factors pertaining to management skills and traits relative to the importance thereof

Factors	Ranking	n	Mean	SD	95% Conf. Interval		Frequency Distribution									
					Low	High	-4.0 to -2.4	-2.4 to -0.8	-0.8 to 0.8	0.8 to 2.4	2.4 to 4.0					
Technical and administrative skills	1	231	-0.58	0.62	-0.66	-0.50	1	0%	101	44%	124	54%	5	2%	0	0%
Knowledge and Wisdom	1	231	-0.60	0.65	-0.69	-0.52	0	0%	82	35%	145	63%	4	2%	0	0%
Cognitive intelligence and mental ability	1	231	-0.65	0.78	-0.75	-0.54	0	0%	110	48%	118	51%	3	1%	0	0%
Interpersonal and communication	2	231	-0.65	0.66	-0.74	-0.57	1	0%	104	45%	124	54%	2	1%	0	0%
Conceptual, diagnostic and critical thinking (decision making skills)	3	231	-0.74	0.73	-0.83	-0.64	2	1%	106	46%	122	53%	1	0%	0	0%
Emotional Intelligence	3	231	-0.78	0.71	-0.88	-0.69	1	0%	118	51%	112	48%	0	0%	0	0%

Testing of hypothesis: The relative importance of management skills and traits and the development thereof from the tuition received.

In order to determine whether statistically significant differences exist between the relative importance of management skills and traits as required in the work environment and the extent to which tuition received developed these abilities, the null hypothesis H_0^2 was tested using the matched sample pair wise t-test on the mean differences, as shown in Table 5.12. As mentioned previously the matched sample pair wise t-test provides an indication of whether differences are statistical significant at the (≤ 0.05) while the Cohen's *d* statistics provides an indication of whether the statistically significant differences (≤ 0.05) are also practically significant (Terre Blanche *et al.* 1999:341-342).

The second hypothesis in the first set of hypotheses is stated as follows:

- H_0^2 : There are no statistically significant differences between Commerce graduates' perceptions of the relative importance of management skills and traits as required in the work environment and the extent to which formal tuition received at the selected HEI developed these abilities.

- H_a^2 : There are statistically significant differences between Commerce graduates' perceptions of the relative importance of management skills and traits as required in the work environment and the extent to which formal tuition received at the selected HEI developed these abilities.

From Table 5.12 it is evident that all the mean difference scores were significant at the 95 per cent confidence level ($\alpha = 0.05$). Based on this finding, it can be concluded that hypothesis H_o^2 is rejected in all instances. This finding implies that respondents were not satisfied with the extent to which all the management skills and traits had been developed relative to the importance rating.

Table 5.12: Statistics of testing the second hypothesis in the first set of hypotheses

Skills and traits	t-value	d.f.	p-value	Cohen's d
Computer Literacy	-4.93	230	.000	0.32
Social skills and sociability	-5.51	230	.000	0.36
Time Management	-5.51	230	.000	0.36
Teamwork and Collaboration	-6.25	230	.000	0.41
Leadership	-6.89	230	.000	0.45
Interpersonal (networking)skills	-8.45	230	.000	0.56
Decision making skills	-9.01	230	.000	0.59
Accountability	-10.06	230	.000	0.66
Oral presentations and use of visual aids	-9.72	230	.000	0.64
Interest and studiousness	-9.73	230	.000	0.64
Ability to follow and construct logical argument	-9.52	230	.000	0.63
Ability to apply knowledge to new situations	-10.85	230	.000	0.71
Ability to act independently	-10.79	230	.000	0.71
Self-confidence and decisiveness	-10.14	230	.000	0.67
Ability to delegate	-11.33	230	.000	0.75
Organising skills	-12.24	230	.000	0.81
Ability and willingness to learn	-11.01	230	.000	0.72
Motivating skills	-10.78	230	.000	0.71
Analytical thinking and problem solving	-11.75	230	.000	0.77
Intellectual flexibility and adaptability	-11.90	230	.000	0.78
Sensitivity to business environment	-11.17	230	.000	0.74
Business ethics and integrity	-11.76	230	.000	0.77
Organisational awareness	-10.62	230	.000	0.70
Planning skills	-12.08	230	.000	0.79
Ability to collaborate across cultures	-12.23	230	.000	0.80
Driving force, motivation and resilience	-12.32	230	.000	0.81
Controlling skills	-11.78	230	.000	0.77
Emotional stability and self-control	-11.11	230	.000	0.73
Pro-activity	-11.44	230	.000	0.75
Conceptual thinking (big picture)	-12.20	230	.000	0.80

Skills and traits	t-value	d.f.	p-value	Cohen's d
Negotiating skills	-11.68	230	.000	0.77
Impact and Influence on others	-12.96	230	.000	0.85
Diversity Management	-12.91	230	.000	0.85
Ability to convey a strong sense of vision	-12.38	230	.000	0.81
Holistic (systems) thinking	-13.29	230	.000	0.87
Conflict Management	-12.66	230	.000	0.83
Stress Management	-12.94	230	.000	0.85
Creative thinking and initiatives	-13.39	230	.000	0.88
Enquiry and Research skills	-11.28	230	.000	0.74
Developing others	-14.23	230	.000	0.94
Empathy	-12.22	230	.000	0.80
Entrepreneurial skills	-12.15	230	.000	0.80
Trustworthiness	-13.66	230	.000	0.90

In terms of Cohen's *d* statistics, the following practical significance is evident from Table 5.12:

- All items have Cohen's *d* statistics above 0.2, implying that all differences are practically significant.
- Small practically significant differences ($0.2 \leq d \leq 0.5$) were observed for Computer Literacy ($d = 0.32$), Social skills and sociability ($d = 0.36$), Time Management ($d = 0.36$), Teamwork and Collaboration ($d = 0.41$), and Leadership ($d = 0.45$). This implies the "gap" between the overall level of satisfaction with the extent to which tuition developed these skills and traits relative to the importance of these abilities as required in the work environment is significant but small.
- Medium practically significant differences ($0.5 \leq d \leq 0.8$) were observed for 20 of the management skills and traits items, ranging from Interpersonal (networking) skills ($d = 0.56$) to Ability to collaborate across cultures ($d = 0.80$). This implies the "gap" between the overall level of satisfaction with the extent to which tuition developed these skills and traits relative to the importance of these abilities as required in the work environment is moderate.
- The remaining 18 management skills and traits items, as from driving force, motivation and resilience ($d = 0.81$), listed in Table 5.12, demonstrate a large effect size ($d > 0.8$). This indicates the "gap" between the overall level of satisfaction with the extent to which tuition developed these skills and traits relative to the importance of these abilities as required in the work environment is large.

5.7 OUTCOME OF STUDIES IN THE COMMERCE FACULTY

In this section respondents were invited to indicate their level of agreement on a five point Likert type scale with statements regarding the outcome of their studies in the Faculty of Commerce at the selected HEI (refer Annexure A, Section C). Outcome (output) in this research, refers to the perceptions of graduates on how studying at the selected HEI contributed to self-development and the enhancement of comprehension and opportunity for the practical application of material learnt, in other words it refers to the perceptions of the outcome of studies in Higher Education Institutions (refer research question in Chapter 1, Section 1.5.1 and Table 3.5 in Chapter 3). As explained previously one sample t-tests and Cohens *d* statistics as well as the Bonferroni adjustment of significant p-values were applied to determine the ranking classification for the Outcome of studies in the Faculty of Commerce. The findings are presented in Table 5.13. From Table 5.13 it is evident that there are three ranking classifications. As previously explained, all items in one category of ranking would not differ significantly from each other; each item was adjusted to the Bonferroni alpha to counteract the problem of multiple comparisons.

The most significant findings on the outcome of studies in the Faculty of Commerce as shown in Table 5.13 are as follows:

- There were small differences in mean scores; the highest mean score of 4.61 was for the outcome “*Studying in the Faculty of Commerce contributed to an increase in my knowledge and abilities*” with 93% of respondents agreeing to the statement and the lowest mean score of 4.11 for the outcome “*Studying in the Faculty of Commerce provided me with an opportunity for the practical application of material learnt*”. The overall goal of education is to contribute to an increase in one’s knowledge and abilities, and it is important to highlight that this item received the highest mean score as shown in Table 5.13.

Table 5.13: Ranking of statements relating the outcome of studies in the Faculty of Commerce

Item	Ranking	n	Mean	SD	95% Conf. Interval		Frequency Distribution									
					Low	High	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
Contributed to an increase in my knowledge and abilities	1	231	4.61	0.68	4.53	4.70	2	1%	0	0%	14	6%	53	23%	162	70%
Developed my ability to formulate general theory from learning experiences	2	231	4.31	0.73	4.21	4.40	2	1%	3	1%	15	6%	113	49%	98	42%
Developed my ability to identify the relationship between elements, concepts and theories and to in	2	231	4.30	0.76	4.21	4.40	3	1%	1	0%	21	9%	104	45%	102	44%
Cultivated diversity by placing greater emphasis on teamwork	2	231	4.30	0.67	4.22	4.39	1	0%	1	0%	19	8%	116	50%	94	41%
Developed my ability to assess learning material in terms of specific material.	2	231	4.29	0.68	4.20	4.38	1	0%	2	1%	18	8%	118	51%	92	40%
Developed my ability to deal with and respond to the needs of others	2	231	4.29	0.73	4.20	4.38	2	1%	5	2%	11	5%	119	52%	94	41%
Enabled me to test theory in new experiences	2	231	4.29	0.82	4.18	4.39	4	2%	4	2%	18	8%	101	44%	104	45%
Equipped me in coping with different cultures and attitudes and the challenges of globalisation	2	231	4.23	0.80	4.12	4.33	4	2%	4	2%	18	8%	115	50%	90	39%
Provided me with the ability to analyse study material, identify its elements and to integrate them	2	231	4.19	0.71	4.10	4.29	2	1%	2	1%	22	10%	128	55%	77	33%
Enhanced my insight and comprehension of the business world	2	231	4.17	0.73	4.08	4.27	1	0%	3	1%	29	13%	120	52%	78	34%
Provided me with an opportunity for the practical application of material learnt	3	231	4.11	0.73	4.02	4.21	2	1%	4	2%	26	11%	133	58%	66	29%

- It is noteworthy that the outcome” *provided me with an opportunity for the practical application of material learnt*” was ranked last in the third ranking category. This implies that the Faculty of Commerce should consider providing more opportunities for students to apply their theoretical knowledge. However it should be noted that 87% of respondents agreed to this statement as shown in Table 5.13.

- The statements “*contributed to an increase in my knowledge and abilities*”, “*developed my ability to formulate general theory from learning experiences*”, “*developed my ability to identify the relationship between elements, concepts and theories and to integrate them into a new holistic framework*” and “*cultivated diversity by placing greater emphasis on teamwork*”, “*enabled me to test theory in new experiences*”, “*equipped me in coping with different cultures and attitudes and the challenges of globalisation*” all had mean scores of greater than 4.20. This indicates that these “outcomes derived from studying in the Faculty of Commerce at the selected HEI” are very highly regarded.
- All the remaining outcomes listed in Table 5.13 had mean scores of between 4.19 and 4.11, implying that these outcomes, even though highly regarded, were slightly less valued by the respondents.
- Three ranking classifications can be summarised as follows: contributed to an increase in knowledge and abilities (ranking 1, $d = 0.38$ small effect); self-development and the enhancement of comprehension (collective description for all items ranked in second category); opportunity for the practical application of material learnt (ranking 3, $d = 0.26$ small effect).
- The summated score (average mean) for the outcome of graduates’ studies in the Faculty of Commerce at the selected HEI is 4.28, indicating that on average, all the outcomes were very highly regarded. This finding is supported by sixty one per cent (61%) of the respondents.

5.8 PERCEPTIONS ON THE OVERALL EXPERIENCE AS A STUDENT IN THE FACULTY OF COMMERCE

Based on an in-depth analysis of secondary sources pertaining to the quality of the Commerce curriculum, 24 statements on the overall experience of Commerce graduates’ as students in the Faculty of Commerce and the quality of the Commerce programme were identified (Louw, 1999: 125-153; and refer to Chapter 3 and Table 3.6). This was done to assess the quality perception and overall perceived experience of the Commerce curriculum in the Faculty of Commerce of the selected HEI in the Eastern Cape. These statements have a direct weighting on the Faculty of Commerce at the selected HEI. Using the Likert five-point scale, respondents were requested to indicate their assessment of each statement by rating their overall perceived experience according to a level of agreement rating of (1 = strongly disagree to 5 = strongly agree) (refer Annexure A, Section D). As explained previously, one sample t-tests and Cohen’s d statistics as well as the Bonferroni adjustment of significant p-

values were applied to determine the ranking classification for the Overall Commerce graduates' perceived experience as students in the Faculty of Commerce. The findings are presented in Table 5.14. From Table 5.14 it is evident that there are seven ranking classifications.

A careful analysis of Table 5.14 can reinforce or refute certain perceptions of the Faculty of Commerce curriculum as well as the Commerce degree in general, for example:

- All the items had mean scores ranging from the highest of 4.68 to the lower of 2.89. It should be noted that the last three statements were negatively phrased, thus the lower mean scores of between 2.96 and 2.89.
- It is highly significant to note that the item '*My Commerce degree was worth its cost in time, tuition and opportunity cost*' with a mean sample score of 4.68 and it was the only one ranked in category 1, with 97% of respondents agreeing to the statement. This item is important to the HEI especially in giving back value and satisfaction to its main stakeholder, the students, and also for retention of students to become post-graduates and referring prospective students.
- Equally noteworthy is the second highly ranked items '*The overall quality of lecturing in the Faculty of Commerce was excellent*' (mean score of 4.48) and 93% of respondents agreeing to the statement, '*Assignments were relevant within the total framework of the Commerce degree*' (mean score of 4.42) with 95% of respondents agreeing to the statement and '*I would urge my friends and colleagues to take the same degree at Rhodes University*' (mean score of 4.35) with 94% of respondents agreeing to the statement.

Table 5.14: Overall perceived experience of Commerce graduates' as students in the Faculty of Commerce

Item	Ranking	n	Mean	SD	95% Conf. Level		Frequency Distribution									
					Low	High	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
My Commerce degree was worth its cost in time, tuition and opportunity cost	1	231	4.68	0.58	4.61	4.76	1	0%	1	0%	5	2%	56	24%	168	73%
The overall quality of lecturing in the Faculty of Commerce was excellent	2	231	4.48	0.66	4.40	4.57	1	0%	1	0%	13	6%	86	37%	130	56%
Assignments were relevant within the total framework of the Commerce degree	2	231	4.42	0.61	4.34	4.49	0	0%	2	1%	9	4%	111	48%	109	47%
I would urge my friends and colleagues to take the same degree at Rhodes University	2	231	4.35	0.74	4.25	4.45	4	2%	2	1%	7	3%	114	49%	104	45%
The calibre of my classmates enhanced the learning process	3	231	4.33	0.66	4.25	4.42	1	0%	3	1%	9	4%	123	53%	95	41%
The material/research presented in class for discussion and review was relevant	3	231	4.30	0.62	4.22	4.38	0	0%	1	0%	17	7%	125	54%	88	38%
My Commerce degree fulfilled my expectations of what a relevant degree should be	3	231	4.28	0.79	4.17	4.38	5	2%	3	1%	10	4%	118	51%	95	41%
The coursework was integrated as opposed to being taught as a cluster of loosely-related topics	3	231	4.27	0.70	4.18	4.36	2	1%	3	1%	13	6%	125	54%	88	38%
Analytical skills were adequately stressed in the curriculum	3	231	4.26	0.69	4.17	4.35	3	1%	2	1%	9	4%	135	58%	82	35%
The lecturing staff were available for informal discussion when classes were not in session	3	231	4.25	0.65	4.17	4.34	2	1%	1	0%	12	5%	138	60%	78	34%
Interpersonal skills were adequately stressed in the curriculum	3	231	4.25	0.73	4.15	4.34	2	1%	4	2%	15	6%	124	54%	86	37%
My lecturers were at the leading edge of knowledge in their fields	3	231	4.24	0.60	4.17	4.32	0	0%	1	0%	17	7%	138	60%	75	32%

Item	Ranking	n	Mean	SD	95% Conf. Level		Frequency Distribution									
					Low	High	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
The responsiveness of the Faculty of Commerce in providing relevant courses was without delay	3	231	4.21	0.75	4.11	4.31	3	1%	4	2%	16	7%	126	55%	82	35%
Excellent opportunities were afforded to me - either in class or in extracurricular activities - to nurture and improve my skills in leading others	3	231	4.21	0.69	4.12	4.30	2	1%	3	1%	15	6%	136	59%	75	32%
The responsiveness of the lecturers and administration to students' concerns and opinions was outstanding	4	231	4.18	0.72	4.09	4.28	3	1%	3	1%	16	7%	136	59%	73	32%
The quality of guest lecturers (including visiting professors) was outstanding	4	231	4.16	0.66	4.07	4.25	0	0%	4	2%	23	10%	136	59%	68	29%
Practical information was provided during the degree that was relevant for my first job	4	231	4.13	0.83	4.02	4.23	6	3%	6	3%	13	6%	134	58%	72	31%
A Commerce degree enabled me to deal with information technology and other analytical tools	5	231	4.00	0.59	3.92	4.07	1	0%	4	2%	22	10%	172	74%	32	14%
Studying in the Faculty of Commerce provided me with numerous ways of analytical thinking and problem solving	5	231	3.97	0.59	3.89	4.05	1	0%	3	1%	28	12%	169	73%	30	13%
Overall the content of courses was too theoretical in nature	6	231	3.39	1.41	3.21	3.58	40	17%	17	7%	49	21%	62	27%	63	27%
My classmates emphasised individual achievement at the expense of teamwork	6	231	3.31	1.61	3.10	3.52	64	28%	13	6%	11	5%	74	32%	69	30%

Item	Ranking	n	Mean	SD	95% Conf. Level		Frequency Distribution									
					Low	High	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
The value of the Commerce qualification is overrated	7	231	2.96	1.74	2.73	3.18	95	41%	7	3%	5	2%	61	26%	63	27%
Assigned work and readings were so excessive that it impeded learning	7	231	2.95	1.72	2.73	3.17	91	39%	11	5%	10	4%	57	25%	62	27%
The lecturers compromised teaching in order to pursue their own research interests	7	231	2.89	1.71	2.67	3.11	96	42%	9	4%	5	2%	67	29%	54	23%

- All the statements ranked in categories one to three have mean scores greater than 4.20. This implies that the respondents regarded these experiences highly.
- All the statements ranked in categories four and five have mean scores of between 4.18 and 3.97. This implies that the respondents regarded these experiences highly.
- The items ranked in category six namely, “*Overall the content of courses was too theoretical in nature*” with a mean score of 3.39; and “*My classmates emphasised individual achievement at the expense of teamwork*” with a mean score of 3.3, are deemed to be neutral ($2.6 \geq \text{Mean} \leq 3.4$) by the respondents. This finding is supported by the frequency distribution which is widely spread.
- In the ranking category of seven, the negatively stated statement pertaining to the “*Value of the Commerce qualification is overrated*” with a mean score of 2.96 implies that respondents had mixed perceptions. Forty four per cent of the respondents disagreed with this statement, two per cent were neutral and fifty three (53) per cent agreed with this statement. As few as fifty two (52) per cent of the respondents agreed with the statement “*Assigned work and readings were so excessive that it impeded learning*” (mean score of 2.95), four per cent of the respondents were neutral while forty four (44) per cent of the respondents agreed with this statement. This finding should be further investigated by the Faculty of Commerce. In the ranking category of 7, the lowest mean score of 2.89 was obtained by the negatively stated statement ‘*The lecturers compromised teaching in order to pursue their own research interests*’. Forty six (46) per cent of the respondents agreed with this statement, two per cent of the respondents were neutral while fifty two (52) per cent of the respondents agreed with this statement. This finding should be of interest to the Faculty of Commerce.
- The summated score (average mean) for the perceived experience of Commerce graduates as students in the Faculty of Commerce at the selected HEI is 4.02, indicating that on average, all the experiences were very highly regarded. This finding is supported by ninety one (91) per cent of the respondents.

5.9 OPEN-ENDED QUESTION FINDINGS

To give effect to the fifth secondary research objective as stated in Section 1.4.2 in Chapter One, i.e. *to analyse the quantitative and qualitative data and report on the findings*, four open-ended questions were included in the questionnaire (See Annexure A at the end of Sections A-1, A-2, A-3, and Section D). The following responses pertaining to the

recommendations Commerce graduates would make towards the development of Commerce graduates at selected HEI (Section D in Annexure A) are noteworthy:

- The introduction of a **project management** course was highlighted in numerous responses. As one respondent summed up the current situation *“Project management would be a good addition to the management curriculum since as a manager project planning is a skill I still lack”*.
- As in most previous research on higher education in South Africa, the **practical theme** is the most cited and highlighted by responses, thereby providing the opportunity for more pragmatic learning, for instance *“More South African business case studies as opposed to international case studies to increase interest, awareness and relevance”, “more industry visits to large corporations in South Africa”, “presentations and assessments by managers in business practice,” “higher coursework weighting with regard to final class and exam mark.”*
- Respondents also expressed strong support for vacation **internships** to encourage graduates to gain the necessary workplace skills and also to be able to put their education into practice. More practical exposure to business practice besides industry visits, there should be more opportunities for students to liaise with companies and do projects and research for organisations whilst still completing their degrees.
- The courses also should be up to date and relevant to the **South African context**. South African academics should be encouraged to continuously author textbooks with greater emphasis on the SA situation, as well as highlighting the international business world.
- Respondents also emphasised the **inter-cultural skill** as very important through encouraging more students to go for international exchange programs, applying for international post-graduate scholarships and student work and travel programs during vacations.
- More **interaction with organisations and business leaders** in terms of course content and ‘relevance’ was also encouraged and emphasised in several responses.
- A fundamental issue was raised by one respondent who stated, *“The BCom foundation course is a good idea which is not being well executed in my opinion for the previously disadvantaged South Africans.”*
- A more **entrepreneurial** approach was also underlined by respondents as important, to *“encourage creativity and innovation as well as encouraging graduates to start their own businesses”*.

5.10 SUMMARY

The purpose of this chapter was to canvass the opinions, perceptions and experiences of Commerce graduates (Alumni) from a selected HEI on the importance, quality, prominence and standing of the Commerce curriculum of the selected HEI. The empirical findings presented in this chapter are based on the research questions and relevant hypotheses as stated in Chapter One, Sections 1.5.1 and 1.5.4 (statements in the research instrument Annexure A). The findings in this chapter pertain to aspects concerning core courses, management skills and traits, commerce curriculum outcomes and perceived experience as a student in the Faculty of Commerce. The main findings are summarised below:

5.10.1 Findings: Core courses

Even though detailed findings pertaining to the relative importance of core courses, the quality of tuition received in core courses, and the overall level of satisfaction with the quality of tuition relative to the importance of the core courses have been provided in Section 5.4, the main findings can be summarised as follows:

- Almost all (17 out of 19) of the courses had a mean score rating of greater than 4.38 indicating a very high importance rating which supports the notion that “*Commerce graduates should be generalists instead of specialists*” and that “*Commerce graduates should be able to think holistically*”.
- The importance of Accounting, Economics, Financial Management, Strategic Management and Human Resource Management was highlighted in the Commerce Field.
- Of the 19 courses, the perceived quality of tuition received in the following courses, namely Economics, Human Resource Management and Strategic Management were regarded, on average, as being good to excellent. Commerce graduates’ (Alumni) expectations in terms of quality of tuition received in these courses were met.
- Overall, the respondents’ level of satisfaction with the quality of tuition received in a course, relative to its importance, in the Commerce Faculty at the selected HEI, was not met except for Philosophy which also had a low importance rating.
- Other courses of importance in business practice include: International relationships, Leadership, Investment and Banking Management, Logistics and Supply Chain, Project Management, Public Speaking and Presentation Skills.

5.10.2 Findings: New core courses

- The introduction of the following new courses are deemed as being most important namely, Project Management, Information Systems Evaluation, Entrepreneurship and Information Systems Audit and Control.

5.10.3 Findings: management skills and traits

Even though detailed findings pertaining to the relative importance of management skills and traits, the extent to which tuition developed these skills and traits and the overall level of satisfaction (differences in perception) with regard to the relative importance and development of skills and traits through tuition have been provided in Section 5.6, the main findings can be summarised as follows:

- The Commerce graduates allocated high importance ratings to all the management skills and traits (43) with mean scores of above 4.58.
- “Ability to collaborate across cultures” obtained the highest mean assessment score of 4.90 indicating that it was regarded as being most important by the respondents. It is important to note that this was the only skill and trait in the number one importance category, again emphasising its importance to the respondents.
- Of importance was that the skills ‘Teamwork and Collaboration’, ‘Developing others’ and ‘Social skills and Sociability’ were allocated high mean scores in the top ten of the skills and traits by the respondents. This highlights the fact that in order to be successful in the working environment, interpersonal skills and also being able to work with other people are essential for success.
- Even though the respondents regarded the development of all the management skills and traits through tuition as being good (mean score of greater than 3.4), the development of the following management skills and traits through tuition, was regarded as being excellent (mean score of greater than 4.2), Time Management, Computer literacy, Social skills and sociability, Teamwork and collaboration, and Leadership.
- In terms of the level of satisfaction, respondents indicated that the graduates’ skills and traits were not fully developed through the tuition as required by business practice. Graduates were least satisfied with the development of the following skills and traits: trustworthiness, entrepreneurial skills, empathy, developing others, enquiry and research skills, and Ability to collaborate across cultures. This is a cause of concern as these skills and traits are fundamental aspects of management and leadership.

5.10.4 Findings: Outcome of studies in the Faculty of Commerce

Even though detailed findings pertaining to outcomes of studies in the Faculty of Commerce have been provided in Section 5.7, the main findings can be summarised as follows:

- The highest mean score of 4.61 was for the outcome “*Studying in the Faculty of Commerce contributed to an increase in my knowledge and abilities*” with 93% of respondents agreeing to the statement. The overall goal of education is to contribute to an increase in one’s knowledge and abilities, and it is important to highlight that this item received the highest mean score.
- The summated score (average mean) for the outcome of graduates’ studies in the Faculty of Commerce at the selected HEI is 4.28, indicating that all the outcomes, on average, were very highly regarded. This finding is supported by Sixty one (61) per cent of the respondents.

5.10.5 Findings: Overall perceived experience as a student in the Faculty of Commerce

Even though detailed findings pertaining to the overall perceived experience as a student in the Faculty of Commerce have been provided in Section 5.8, the main findings can be summarised as follows:

- It is highly significant to note that the item ‘*My Commerce degree was worth its cost in time, tuition and opportunity cost*’ with a mean sample score of 4.68 and it was the only one ranked in category 1, with 97% of respondents agreeing to the statement. This item is important to the HEI especially in giving back value and satisfaction to its main stakeholder, the students, and also for retention of students to become post-graduates and also referring prospective students.
- There was mixed support for the following statements; ‘The lecturers compromised teaching in order to pursue their own research interests’ fifty two (52) per cent; Assigned work and readings were so excessive that it impeded learning, fifty two (52) per cent) and the Value of the Commerce qualification is overrated” fifty three (53) per cent.
- The summated score (average mean) for the perceived experience of Commerce graduates as students in the Faculty of Commerce at the selected HEI is 4.02, indicating that all the experiences, on average, were very highly regarded. This finding is supported by ninety one (91) per cent of the respondents.

5.10.6 Findings: Commerce graduate (Alumni) recommendations

The main recommendations provided by Commerce graduates towards the development of Commerce graduates include:

- Introduction of a course in project management.
- Include a practical component such as making use of South African business case studies, industry visits, visiting lecturers from business practice. Interaction with business leaders is imperative.
- Lecturing material should be contemporary and lecturers should author South African textbooks, highlighting the international business context.
- Foster inter-cultural competencies by encouraging international exchanges, international post-graduate scholarships, vacation travel programmes and work.
- Fostering a spirit of entrepreneurialism, including creativity and innovation.

This chapter is concluded by summarising the results of the tested hypotheses.

Core courses

- H_0^1 : There are no statistically significant differences between Commerce graduates' perceptions of the relative importance of core courses offered as required for successful job performance and the quality of tuition received in the core courses at the selected HEI. *H_0^1 is therefore rejected, except for Mathematics and Philosophy.* This implies that except for these two courses, Commerce graduates (Alumni) were dissatisfied with the quality of tuition they had received in all the core courses, at the selected HEI, relative to the importance of these courses for successful job performance.
- Large practically significant ($d > 0.8$) differences were observed for Ethics, Information Systems, Auditing, Financial Management, Computer Science, Statistics, Accounting, Commercial Law, Marketing and Psychology. This implies the "gap" between the perceived quality of tuition received in these courses relative to the importance of these courses for successful job performance is large.

Management skills and traits

- H_0^2 : There are not statistically significant differences between Commerce graduates' perceptions of the relative importance of management skills and traits as required in the work environment and the extent to which formal tuition received at the selected HEI developed these abilities. *H_0^2 is therefore rejected in all instances.* This means that

respondents were not satisfied with the extent to which formal tuition developed management skills and traits as required in the work environment.

- All items (management skills and traits) have Cohen's d statistics above 0.2, implying that all differences are practically significant. Eighteen (18) management skills and traits items, as from Driving force, motivation and resilience ($d = 0.81$), listed in Table 5.12, demonstrate a large effect size ($d > 0.8$). This indicates the "gap" between the overall level of satisfaction with the extent to which tuition developed these skills and traits relative to the importance of these abilities as required in the work environment is large.

A summation of the Commerce graduate (alumni) findings and concluding remarks will be given in the final chapter of this thesis. The empirical findings of employer perceptions of Commerce graduates from the selected HEI are presented in the next chapter.

CHAPTER 6

FINDINGS OF EMPLOYER PERCEPTIONS

6.1 INTRODUCTION

As highlighted in Section 1.3 of Chapter One, the primary purpose of this research is to contribute to the body of knowledge pertaining to Commerce and Business education, *inter alia* by amalgamating and authenticating the opinions and perceptions of Commerce graduates and employers of these Commerce graduates from a selected HEI. In order to realise this purpose, two independent empirical surveys were conducted. In contrast to Chapter Five, the objective of this chapter is to present the empirical findings of the employer survey perceptions on the competency and profile of the ideal and actual Commerce graduate from the selected HEI.

This chapter in essence mirrors Chapter Five where the focus now shifts to employers, so the same methodology will be followed. However, for clarity and ease of reading the methodology followed will be explained briefly in the relevant sections. The purpose of this chapter is achieved by giving effect to the research questions and hypotheses pertaining to the employer respondents, as stated in, Sections 1.5.2 and 1.5.4 respectively of Chapter One. This chapter will present the following: the validity and reliability scores derived from the research instrument will be reported on Section 6.2 whilst the biographical information of the employer respondents is given in Section 6.3. Subsequently, the findings pertaining to the relative importance of core courses and proficiency of the Commerce graduates are will be discussed in Section 6.4. Furthermore, the findings pertaining to the relative importance of the possible introduction of the new courses will be discussed in Section 6.5. The relative importance of management skills and traits and the proficiency of the Commerce graduates will also be discussed in the same vein in Section 6.6. The perceptions of the employers on the profile of the ideal Commerce graduate and the actual Commerce graduate from the selected HEI will be presented in Section 6.7 as well as the findings on the open question, which refer to the employers' recommendations towards the development of the ideal Commerce Graduate at the selected HEI, are reported in Section 6.8. The chapter is then concluded in Section 6.9 with a summary of the noteworthy findings. Ideally, the abovementioned research objectives and findings should shed more light on whether the selected HEI is producing the ideal Commerce graduate as required by the needs and expectations of business practice. The findings in this chapter can contribute further to the

body of knowledge on Higher Education, graduates, the labour market and business in South Africa, especially from the viewpoint of employers.

6.2 VALIDITY AND RELIABILITY OF THE SCORES DERIVED FROM THE RESEARCH INSTRUMENT

The validity and reliability of the scores derived from the research instrument was established before any statistical analyses were performed. In this section the validity and reliability of the scores will be explained.

6.2.1 Validity

As reported in Chapter Four, Section 4.8.1, to substantiate whether the current research instruments actually measured what they were supposed to measure, the construct and discriminant validity of the research instruments were measured. The construct and discriminant validity of the research instruments is usually assessed by means of a factor analysis (De Vos *et al.*, 2005: 32). In terms of the Employer survey, factor analyses were not applied as the discriminant validity of the research instruments had already been confirmed by Louw (1999) as previously explained in Section 4.8.1 of Chapter 4. In terms of the employer related research done by Louw (1999) the following factor loadings are reported for core courses ranging from 0.50 to 0.84; management skills and traits, ranging from 0.31 to 0.95; and the profile of the ideal MBA graduate ranging from 0.54 to 0.85. All the factor loadings in the previous research are above the threshold value of 0.40 (Hair *et al.*, 2006: 128), except for some items in management skills and traits, illustrating construct validity of the Employer research instrument.

As highlighted in Table 2.7 in Chapter Two the classifications of factors used for management skills and traits in this research included technical and administrative skills, interpersonal and communication skills, conceptual, diagnostic and critical thinking skills, cognitive intelligence and mental ability, emotional intelligence and knowledge and wisdom. With reference to this research, the face validity of the research instrument is regarded as being representative of the core courses, management skills and traits, and statements pertaining to the Commerce Graduate as reported in Section 4.8.1. For example the courses as stated in the research instrument are a representative sample of courses being taught in the Faculty of Commerce at the selected HEI. In terms of content validity, it can be stated that section of core courses included all the core courses that could be selected by Commerce

students from the selected HEI. In terms of management skills and traits, statements were posed for each factor classification. Previous validity of the research instrument was determined by means of a factor analysis as discussed in Chapter Four, Section 4.8.1.

6.2.2 Reliability

As stated before, research findings are deemed reliable if another researcher obtains the same results on replicating the research (Collis and Hussey, 2003: 58-59). In other words, reliability is the extent to which an experiment, test, or any measuring procedure yields the same result on repeated trials (Collis and Hussey, 2003: 58-59). Reliability is measured by means of the Cronbach's alpha reliability coefficient as explained in Section 4.8.2 of Chapter Four. Cronbach's alpha reliability coefficient measures the internal consistency of a measurement instrument by measuring the underlying constructs (Bohrnstedt, 1969: 123). The range of alpha values is between 1 (perfect internal consistency) and 0 (no internal consistency), values above 0.80 are regarded as excellent, while values above 0.70 regarded as being good, those between 0.60 and 0.70 are regarded as acceptable and those below 0.60 are regarded as poor (Sekaran, 1992:287). However, Nunally (1978: 85-94) argued that in the early stages of basic research, coefficients between 0.50 and 0.60 are sufficient evidence of adequate reliability. For the purpose of this research the Cronbach's alpha threshold value of 0.60 will be regarded as being acceptable.

To authenticate whether the scores derived from the current research instrument were reliable, the internal consistency of the responses to the items in the employer questionnaire was verified by the Cronbach's alpha coefficients, as presented in Table 6.1. From Table 6.1, it can be seen that the Cronbach's alpha scores were greater than the threshold value of 0.60 except for the Knowledge and Wisdom Proficiency, with a score of 0.59, suggesting that all items in this research instrument are reliable for general research purposes with the Knowledge and Wisdom being reliable for exploratory research purposes.

Table 6.1: Cronbach's alpha for the employer research instrument

Skills and Traits	Cronbach's alpha		
	Importance	Proficiency	Proficiency-Importance
Technical and administrative skills	0.92	0.71	0.78
Interpersonal and communication	0.94	0.83	0.93
Conceptual, diagnostic and critical thinking (decision making skills)	0.93	0.81	0.92
Cognitive intelligence and mental ability	0.87	0.66	0.83
Emotional Intelligence	0.91	0.83	0.90
Knowledge and Wisdom	0.91	0.59	0.81
Profile of Commerce Graduates'	Ideal	Actual	Actual - Ideal
Perception of Ideal and Actual Commerce Graduates'	0.92	0.75	0.84

6.3 BIOGRAPHICAL DATA

The biographical data of the employer respondent group is summarised in this section, as shown in Tables 6.2 to 6.4. As mentioned previously in Section 4.8.5 of Chapter Four, 47 usable employer questionnaires were used for the purpose of this research. However, not all respondents responded to all the biographical data questions which can be seen from Table 6.2 to 6.4. In Table 6.2, the major employment sectors are presented. In Table 6.3, the employers' current focus in terms of graduate recruitment is indicated. Lastly, in Table 6.4, the employers preferred areas of recruitment is given.

Table 6.2: Employment sector

Sector	n	%
Services (including Financial)	29	66%
Manufacturing	8	18%
Wholesale and retail	4	9%
ICT	3	7%
Total	44	100%

Table 6.3: Employer’s current focus in graduate recruitment

Employer’s Focus	n	%
Undergraduate Degree	45	96%
Four Year Professional Degree	45	96%
Honours Degree	44	94%
Masters	35	74%
PhD	15	32%
Undergraduate Diploma	20	43%
Post-graduate Diploma	33	70%
BTech Degree	18	38%

Table 6.4: Employer’s preferred areas of recruitment

Areas of recruitment	n	%
Commerce / Business Management	45	96%
Education	8	17%
Engineering	8	17%
Humanities	16	34%
Law	18	38%
Science and Technology	18	38%
Social Sciences	17	36%

In summary form, the following findings are most prominent from Tables 6.2 to 6.4:

- A large number of the respondents, (66%) were from the services (including financial services) sector of the economy. Whilst, manufacturing (18%), wholesale and retail (9%) and ICT (7%) were the other major industry groups as reported in Table 6.2. There were no respondents from the Mining, Construction and Transport sectors (thus not indicated in Table 6.2), this is largely due to the fact that, a greater number of the employers of Commerce graduates from the selected HEI are from services, manufacturing, wholesale and retail and ICT.
- Most of the employers’ current recruitment focus in terms of level of education is undergraduate degree (96%), four year professional degree (96%), honours degree (94%), Masters Degree (74%) and post-graduate diploma (70%) as reported in Table 6.3. The employers’ other focus in terms of level of education are, BTech Degree (38%), undergraduate diploma (43%), and PhD’s (32%).

- In terms of the preferred areas of recruitment, most of the respondents preferred to recruit Commerce graduates (96%), due to the nature of the employers, as highlighted in Table 6.2. However, 38 per cent of the respondents indicated that they also recruited graduates from Law (n = 18) and Science and Technology (n = 18). Thirty six per cent of the respondents recruited graduates from Social Sciences (n = 17), 34 per cent from Humanities (n = 16), 17 per cent from Education (n = 8) and Engineering (n = 8).

6.4 CORE COURSES

In order to give effect to the research questions as stated in Chapter One, Section 1.5.2 and the hypothesis Ho³, (refer Chapter One, Section 1.5.4) a total of 19 core courses which usually form the basis of courses offered in the Commerce Faculty of the selected HEI, were identified and listed in the questionnaire (Annexure B, Section A1). The core courses were identified by using the selected HEI student handbook and calendar (see Chapter Two, Section 2.5). The respondents (n = 47) were requested to express their opinions on the relative importance of each core course (1 = unimportant to 5 = important) using the Likert scale and on the basis of their experience in working with Commerce graduates from the selected HEI, the proficiency of the Commerce graduates (1 = poor to 5 = excellent). As in Chapter Five, the responses to this composite question are reflected in Table 6.5. Panel 1 of Table 6.5 shows the relative importance ratings of core courses (refer to Chapter One, section 1.5.2) as required for running a business, while Panel 2 indicates the relative perception of the Commerce graduate's proficiency (refer to Chapter One, section 1.5.2). The number of respondents in Panels 2 and 3 varied between 16 and 34, depending on whether the respondents were exposed to a Commerce graduate who had prior exposure to the specific course. The numbers of respondents for Panels 2 and 3 are similar and have only been shown in Panel 3 of Table 6.5. In order to establish the level of satisfaction, the differences between the mean scores (Panel 2 minus Panel 1) were calculated, as shown in Panel 3 (refer to Chapter One, section 1.5.2), therefore Panel 3 calculated the difference between the perceived proficiency of Commerce graduates (Panel 2) and perceived importance (Panel 1) scores.

As explained in Section 4.9 of Chapter Four, for the purpose of this research, the descriptive statistical analyses included measures of central tendency (mean scores, median and frequency distributions) and dispersion (standard deviation). For the purpose of this research, the following intervals were used to interpret respondents' importance scores (Gravetter and Wallnau, 2009: 278-302):

- $1.0 \leq \text{score} < 1.8$: **very low importance**
- $1.8 \leq \text{score} < 2.6$: **low importance**
- $2.6 \leq \text{score} \leq 3.4$: **medium importance**
- $3.4 < \text{score} \leq 4.2$: **high importance**
- $4.2 < \text{score} \leq 5.0$: **very high importance**

The upper and lower limits of the 95% confidence interval, as shown in Table 6.5, Panels 1 and 2 are calculated by respectively adding and subtracting the 95% confidence offset to and from the mean score. In Panel 1 the relative importance of core courses and in Panel 2 the respondents' perception on the proficiency of Commerce graduates (in their organisations) in the core courses was ranked according to the mean sample scores for each course, while in Panel 3 the level of satisfaction of the respondents is given. The level of satisfaction is calculated as the difference between the sample scores of the knowledge proficiency of the Commerce graduates from the selected HEI in the selected core courses (Panel 2) and the importance of core courses (Panel 1) for running a business, namely Panel 2 minus Panel 1. As can be seen from Panel 1, 2 and 3 the 19 core courses were ranked according to the mean sample score into categories of significance which resulted in four ranking categories for the importance of courses and five categories for the proficiency of Commerce graduates in these courses and one category for the level of satisfaction. The categories of significance were determined by means of one sample matched pair t-test and Cohen's *d* statistic. Because multiple comparisons were made for the same data, for example the relative importance of Accounting with: Economics; Strategic Management; Human Resource Management, and Human Resource Management with: Theory of Finance, Auditing, Legal Theory and so forth, it was necessary to make Bonferroni adjustments for the p-value for each iteration within each ranking category (Gravetter and Wallnau, 2009: 278-302) as was explained previously in Section 5.4 of Chapter Five. All items that are not statistically different from each other (p-value greater than the Bonferroni adjusted alpha value) or having no significant Cohens's *d* statistic were grouped together into one category. For example, all the courses included in the ranking "category 1" are not statistically significantly different from each other (p-value greater than the Bonferroni adjusted alpha value) or the Cohen's *d* statistic was not significant. However, as soon as the matched pair t- test and Cohen's *d* statistic are significant, (p less than Bonferroni adjusted p-value and Cohen's *d* statistic > 0.2) the next ranking category would be formed, for example, between Accounting and Human Resource Management. Human Resource Management would signify the first item in the second

ranking category. The same statistical procedure as explained previously would result in the second ranking categorisation of Theory of Finance, Auditing, Legal Theory, Financial Management and so forth shown in Table 6.5. In Panel 3 of Table 6.5 the p-values for all the core courses in terms of the “level of satisfaction” were greater than the Bonferroni adjusted alpha, implying that there were no statistically significant differences between the items and all the items were ranked into the same category.

Table 6.5 Relative importance of core courses, proficiency of Commerce graduates and the level of satisfaction

Core courses	Panel 1: Relative importance of core courses				Panel 2: Proficiency of Commerce Graduates				Panel 3: Level of satisfaction				
	Ranking	95% Conf. Interval	Mean	SD	Ranking	95% Conf. Interval	Mean	SD	Ranking	N	95% Conf. Interval	Mean Diff.	SD
Accounting	1	4.86 4.97	4.91	0.41	1	4.35 4.74	4.55	0.56	1	33	-0.60 -0.19	-0.39	0.61
Economics	1	4.77 4.88	4.83	0.43	2	4.32 4.71	4.52	0.57	1	33	-0.55 -0.05	-0.30	0.73
Strategic Management	1	4.69 4.84	4.77	0.56	2	4.16 4.55	4.35	0.55	1	31	-0.67 - 0.17	-0.42	0.72
Human Resource Management	2	4.65 4.80	4.72	0.58	2	4.24 4.63	4.44	0.56	1	32	-0.59 -0.10	-0.34	0.70
Theory of Finance	2	4.64 4.81	4.72	0.65	3	3.91 4.36	4.13	0.63	1	30	-0.97 - 0.36	-0.67	0.84
Auditing	2	4.62 4.78	4.70	0.62	2	4.11 4.52	4.31	0.59	1	32	-0.69 -0.06	-0.38	0.91
Legal Theory	2	4.61 4.80	4.70	0.75	1	4.54 4.94	4.74	0.53	1	27	-0.30 0.38	0.04	0.90
Financial Management	2	4.59 4.77	4.68	0.73	4	3.52 4.00	3.76	0.71	1	33	-1.25 -0.56	-0.91	1.01
Marketing	2	4.60 4.77	4.68	0.66	5	2.95 3.68	3.31	1.06	1	32	-1.92 -0.96	-1.44	1.39
Information Systems	2	4.59 4.77	4.68	0.69	2	4.23 4.71	4.47	0.71	1	34	-0.52 0.11	-0.21	0.95
Commercial Law	2	4.58 4.78	4.68	0.75	4	3.49 4.03	3.76	0.74	1	29	-1.34 -0.52	-0.93	1.13
Ethics	2	4.58 4.74	4.66	0.64	3	3.81 4.26	4.03	0.65	1	32	-0.90 -0.22	-0.56	0.98
Statistics	2	4.56 4.76	4.66	0.81	3	3.65 4.09	3.87	0.62	1	31	-1.23 -0.70	-0.97	0.75
Management Accounting	2	4.52 4.71	4.62	0.74	3	3.84 4.29	4.06	0.63	1	31	-0.88 - 0.15	-0.52	1.03
Computer Science	2	4.51 4.72	4.62	0.82	2	4.08 4.63	4.35	0.81	1	34	-0.67 0.02	-0.32	1.04
Mathematics	2	4.47 4.68	4.57	0.80	3	3.64 4.17	3.90	0.75	1	31	-1.11 -0.38	-0.74	1.03
Taxation	2	4.44 4.66	4.55	0.85	2	4.13 4.51	4.32	0.54	1	31	-0.49 0.10	-0.19	0.83
Psychology	3	4.29 4.47	4.38	0.71	4	3.20 4.01	3.61	0.99	1	23	-1.22 -0.17	-0.70	1.29
Philosophy	4	2.90 3.23	3.06	1.28	4	2.80 4.32	3.56	1.55	1	16	-0.34 0.59	0.13	0.96

The most prominent findings on the ranking of the importance of core courses (Panel 1, Table 6.5) were as follows:

- Almost all (18 of the 19) courses had a mean score of greater than 4.37 indicating a very high importance rating even though courses have been ranked in four different categories.
- Panel 1 shows that Accounting obtained the highest mean assessment score of 4.91 and respondents believed it was the most important course to be successful in the workplace.
- Other courses ranked in the first category in terms of importance were Economics (mean score of 4.83) and Strategic Management (mean score of 4.77).
- Even though Psychology was ranked in third category with a mean score of 4.38, it is regarded as being of high importance (mean score greater than 3.4). This indicates that the respondents believed that 18 of the courses were very important in order to be successful in business practice.
- Philosophy was ranked in the last rank (fourth rank), with a mean score of 3.06. This could be due to most of the respondents being representative of the Commerce and Business field, and not regarding Philosophy as being most important to Commerce graduates.

As presented in Table 6.5 (Panel 1), all courses except Philosophy had a mean score greater than 4.2, the lower limit of the very positive interval (Gravetter and Wallnau, 2009: 278-302), which means all courses obtained very high ratings which substantiates the universal view that a broad array of core courses are indispensable in providing students with the holistic background knowledge they will require as practising business leaders and managers. As in Chapter Five, this observation also supports the hypothesis that the Commerce programme ought to contribute to the widening of students' intellectual capabilities, educating them to think holistically and become independent and self-sufficient also contribute to the development of human capital and economic growth.

The most prominent findings on proficiency of the Commerce graduates from the selected HEI (Panel 2, Table 6.5) are as follows:

- Of the 19 courses, the perceived proficiency of Commerce Graduates in nine courses had a mean score of greater than 4.30 indicating a very high rating. In order of proficiency, these courses included Legal theory, Accounting, Economics, Information Systems, Human Resource Management, Strategic Management, Computer Science, Taxation and Auditing.

- Legal theory obtained the highest mean score of 4.74 indicating that respondents believed the Commerce graduates they were exposed to were most proficient in this course. Accounting was also in the first category and had the second highest mean score of 4.55. Even though there were slight differences in the mean scores, the perception of the proficiency of Commerce Graduates in these courses is not statistically significantly different, implying that the proficiency of Commerce Graduates in these two courses would be regarded as being of equal standing.
- Marketing was ranked last (rank 5) and had the lowest mean score of 3.31 indicating a neutral attitude towards the proficiency of Commerce Graduates in this courses (mean score less than 3.4). This is in tally with the findings of the quality of tuition where marketing was also ranked the second lowest, and if the employers and graduates are in complete agreement then this is a cause for concern.

More important than the findings pertaining to Panels 1 and 2 are the findings contained in Panel 3, indicating the respondents' level of satisfaction with the knowledge proficiency of Commerce graduates to whom they have been exposed relative to the importance of core courses for running a business. One sample t-tests were conducted and Cohen's *d* statistics calculated for Panel 3. The interpretation of the negative mean differences (as previously described) was done to obtain the level of employer satisfaction.

The most prominent findings on the differences between the proficiency of the Commerce graduates and importance (level of satisfaction) in core courses, as shown in Panel 3 of Table 6.5, include:

- As in the case for graduates findings, the data contained in Panel 3 of Table 6.5 reflect the difference scores calculated for each item by subtracting the corresponding importance mean score (Panel 1) from the item's proficiency mean score (Panel 2). Negative scores imply that respondents were not satisfied with the knowledge proficiency of the Commerce graduates from the prominent HEI in core courses. The most prominent findings are as follows:
- All mean difference scores were negative; except for Philosophy (mean difference of 0.13) and Legal Theory (mean difference of 0.04) were the only scores with positive mean scores. A positive score means respondents were satisfied with the proficiency of the graduates to some extent, whilst, negative mean scores imply that respondents were

not satisfied, relative to the importance in core courses, with the knowledge proficiency of the Commerce graduates from the selected HEI they were exposed to. It should be noted that Philosophy had a low importance rating by Commerce graduates, as reported in Section 5.5 of Chapter Five.

- The respondents were least (mean difference score of greater than -1.00) satisfied with the knowledge proficiency of Commerce Graduates relative to the importance, in Marketing (mean difference score of -1.44). As mentioned before this is a cause for concern as the graduates' findings yielded the same results with the same course.
- The following courses also had relatively high mean difference score Statistics (mean difference score of -0.97), Commercial Law (mean difference score of -0.93) and Financial Management (mean difference score of -0.91).

Testing of hypothesis: Relative importance of core courses and proficiency of graduates

In order to determine whether statistically significant differences exist between the relative importance of core courses for running a business and the proficiency of Commerce graduates from the selected HEI in these core courses, the null hypothesis H_0^3 was tested using matched-sample pairwise t-tests on the mean differences as shown in Table 6.6. As in Chapter Five, the matched pair wise t-test provides an indication of whether differences are statistically significant (≤ 0.05), while the Cohan's d statistic provides an indication of whether the statistically significant differences are also practically significant. The practical significance of Cohan's d statistic has a small effect when $0.2 \leq d \leq 0.5$; medium effect when $0.5 \leq d \leq 0.8$; and large effect when $d > 0.8$ (Gravetter and Wallnau, 2009: 278-302). An effect size assists in determining whether a statistically significant difference is a difference of practical concern.

The first hypothesis in the second set of hypotheses is stated as follows:

- H_0^3 : There are no statistically significant differences between employers' perception of the relative importance of core courses for running a business and the proficiency of Commerce graduates in these core courses from the selected HEI.
- H_a^3 : There are statistically significant differences between employers' perception of the relative importance of core courses for running a business and the proficiency of Commerce graduates in these core courses from the selected HEI.

From Table 6.6 it is evident that all the mean difference scores were significant at the 95 per cent confidence level ($p \leq 0.05$), except for Philosophy (p -value = 0.609), Legal Theory (p -value = 0.832), Taxation (p -value = 0.206), Information Systems (p -value = 0.214), and Computer Science (p -value = 0.078). Based on this finding, it can be concluded that the null hypothesis H_0^3 is rejected in all instances except for Philosophy, Legal Theory, Taxation, Information Systems, and Computer Science.

Table 6.6: Statistics of testing the first hypothesis in the second set of hypotheses

Courses	t-value	d.f.	p-value	Cohen's d
Philosophy	0.52	15	.609	n.a.
Legal Theory	0.21	26	.832	n.a.
Taxation	-1.29	30	.206	n.a.
Information Systems	-1.27	33	.214	n.a.
Economics	-2.39	32	.023	0.42
Computer Science	-1.82	33	.078	n.a.
Human Resource Management	-2.78	31	.009	0.49
Auditing	-2.34	31	.026	0.41
Accounting	-3.71	32	.001	0.65
Strategic Management	-3.24	30	.003	0.58
Management Accounting	-2.79	30	.009	0.50
Ethics	-3.24	31	.003	0.57
Theory of Finance	-4.33	29	.000	0.79
Psychology	-2.58	22	.017	0.54
Mathematics	-4.00	30	.000	0.72
Financial Management	-5.16	32	.000	0.90
Commercial Law	-4.43	28	.000	0.82
Statistics	-7.16	30	.000	1.29
Marketing	-5.85	31	.000	1.03

In terms of Cohen's d statistics, the following practical significance is evident from Table 6.6:

- The Cohen's d statistics for Philosophy, Legal Theory, Taxation, Information Systems and Computer Science are not applicable as the mean difference between the proficiency of Commerce Graduates from the selected HEI in these courses and the perceived relative importance was not statistically different from zero (null-hypothesis cannot be rejected).
- Small practically significant ($0.2 \leq d \leq 0.5$) differences were observed for Economics, Human Resource Management and Auditing. This implies the "gap" between the overall

levels of satisfaction in terms of proficiency of the Commerce graduates in these courses relative to the importance of these courses for running a business is small.

- Moderate practically significant ($0.5 \leq d \leq 0.8$) differences were observed for Accounting, Strategic Management, Management Accounting, Ethics, Theory of Finance, Psychology and Mathematics. This implies the “gap” between the overall levels of satisfaction with proficiency of Commerce graduates in these courses relative to the importance of these courses for running a business is moderate.
- Large practically significant ($d > 0.8$) differences were observed for Financial Management, Commercial Law, Statistics and Marketing. This implies the “gap” between the overall level of satisfaction with the proficiency of Commerce graduates in these courses relative to the importance of these courses for running a business is large.

- **Qualitative Data: Courses**

To give effect to the secondary research objective (5) in Section 1.4.2 of Chapter One, i.e., *to analyse the quantitative and qualitative data and report on the findings*, four open-ended questions were included in the questionnaire (See end of Sections A-1, A-2, A-3, and Section D). The following responses are significant for this section:

- **An open-ended question in Section A-1, requested respondents to name other courses of importance in business practice.**

The following are some of the noteworthy responses:

- “Project Management”
- “Enterprise Management”
- “Financial Markets”
- “Industrial Sociology”

- **Responses to Section A-2, in which respondents were requested to indicate other languages besides English which should be introduced to the curriculum, the following are notable responses:**

- “Afrikaans”
- “German”
- “African languages”

6.5 RELATIVE IMPORTANCE OF NEW COURSES

This section of the questionnaire (Annexure B, Section A-3) requested respondents to rate the importance of the possible introduction of new courses. Processing this set of responses

comprised one phase only, namely, the assessment of the mean scores which were assessed at the 95% confidence level ($\alpha = 0.05$) by means of one sample t-tests and Cohen's *d* statistics as well as ranking based on Bonferroni adjustment of significant p-values. The relative importance of the new courses to be introduced was ranked into five categories as shown in Table 6.7, using the same statistical procedure as previously explained for the ranking categorisation of core courses.

Table 6.7: Introduction of new courses - relative importance

New courses	Relative importance of new courses					
	Ranking	n	95% Conf. Int		Mean	SD
Entrepreneurship	1	29	4.64	4.94	4.79	0.41
Investment Management	1	29	4.53	4.92	4.72	0.53
Project Management	1	29	4.43	4.88	4.66	0.61
Information Technology Governance	1	29	4.39	4.92	4.66	0.72
Information Systems Audit and Control	1	29	4.34	4.90	4.62	0.78
International Business Management	1	29	4.44	4.80	4.62	0.49
Knowledge Management	1	29	4.34	4.83	4.59	0.68
Information Systems Evaluation	1	29	4.27	4.84	4.55	0.78
Business Research	2	29	4.24	4.66	4.45	0.57
Actuarial Science	2	29	3.94	4.47	4.21	0.73
Portfolio Management	2	29	3.91	4.37	4.14	0.64
Risk Management	2	29	3.90	4.31	4.10	0.56
Introduction to Insurance	2	28	3.81	4.34	4.07	0.72
Services Marketing	3	29	3.53	4.26	3.90	1.01
Managerial Economics	3	29	3.29	3.95	3.62	0.90
Personal and Corporate Financial Planning	3	29	3.29	3.89	3.59	0.82
Customer Relations Management	4	28	2.92	3.65	3.29	0.98
Cross-Cultural Management	4	27	2.76	3.68	3.22	1.22
Events Management	5	29	2.37	3.36	2.86	1.36
Sports Management	5	28	2.19	3.39	2.79	1.62
Media Management	5	27	2.10	3.38	2.74	1.70
Tourism Management	5	28	2.07	3.28	2.68	1.63

The most prominent findings from Table 6.7 regarding the relative importance of the possible introduction of new courses into the Commerce Curriculum are:

- Ten of the 22 new courses had mean average scores of greater than 4.2 indicating high levels of importance.

- Entrepreneurship scored the highest mean score of (4.79) and in the same category (ranking 1), that is, the most important new courses which the employers felt should be added to the Commerce curriculum were: Investment Management (mean score of 4.72), Project Management (mean score of 4.66), Information Technology Governance (mean score of 4.66), Information Systems Audit and Control (mean score of 4.62), International Business Management (mean score of 4.62), Knowledge Management (mean score of 4.59), and Information Systems Evaluation (mean score of 4.55).
- All the new courses listed in the ranking categorisation 1 to 3 have mean scores of greater than 3.4, indicating a high importance rating given to all these potential new courses.
- The mean scores of Events Management (mean score of 2.86), Sports Management (mean score of 2.79), Media Management (mean score of 2.74) and Tourism Management (mean score of 2.68) were between 2.6 and 3.4, indicating a neutral importance rating.

Noteworthy mentions for the new courses to be introduced which received higher rankings (ranked in category two) with mean score of above 4.2 (very high importance), included Business Research (mean score of 4.45) and Actuarial Science (mean score of 4.21). However it should be also highlighted that courses such as Customer Relations Management (mean score of 3.29) and Cross-Cultural Management (mean score of 3.22) received surprisingly low scores relative to the other courses and also relative to the role they play in business practice and in South Africa.

Qualitative Data: New Courses

To give effect to the secondary research objective (5), Section 1.4.2. in Chapter One, i.e., *to analyse the quantitative and qualitative data and report on the findings*, four open-ended questions were included in the questionnaire (See Annexure B end of Sections A-1, A-2, A-3, and Section D). The following responses are noteworthy in terms of the qualitative data for the new courses:

Responses to Section A-3, the “possible introduction of other new courses” include:

- “Corporate Governance”
- “Quantitative Methods for Business”
- “Mass Communication and Advertising”
- “E-Commerce Strategies”

6.6 RELATIVE IMPORTANCE OF MANAGEMENT SKILLS AND TRAITS

The purpose of this section is to achieve the research questions 1.5.2 and hypothesis Ho⁴ as stated in Chapter One. In order to do so, the next question in the research instrument (Annexure B, Section B-1 and B-2) invited respondents to indicate the relative importance and the proficiency of Commerce graduates in specific management skills and traits essential in the work environment. Based on intensive literature studies, 43 management skills and traits were identified (refer Chapter 2, Table 2.7). Further, the respondents were requested to indicate the extent to which the Commerce graduates from the selected HEI whom they were exposed to were proficient in these management skills and traits (Annexure B, Section B-2). The findings of this amalgamated question are presented in Table 6.8.

The respondents were requested to provide their opinions of the relative importance rating (1 = unimportant to 5 = important) of the management skills and traits and the proficiency of the Commerce graduates whom they are exposed to in these skills and traits (1 = strongly disagree to 5 = strongly agree), using the Likert five-point interval scale.

Panel 1 of Table 6.8 shows the relative importance mean scores of management skills and traits for required in the work environment and for running a business, while Panel 2 indicates the proficiency of the Commerce graduates whom the respondents are exposed to in these management skills and traits. Panel 3 of Table 6.8 indicates the level of satisfaction of the employers in respect of the proficiency of Commerce graduates in management skills and traits, calculated as the difference between the perceived proficiency (Panel 2) and perceived importance (Panel 1) scores. Similar to core courses, the descriptive data and one-sample matched t-tests were conducted and Cohens *d* statistics calculated as well as Bonferroni adjustment of significant p-values were used in determining the ranking classification of management skills and traits. The relative importance of management skills and traits were all ranked, according to their mean sample score as being equally important into one category of significance (Panel 1), while the proficiency of Commerce graduates in management skills and traits were classified into three categories of significance, in Panel 2. The data in Panel 3 (level of satisfaction) of Table 6.8 are of uttermost importance and greater significance in terms of interpretation than the mean scores of Panel 1 and Panel 2. The interpretation of the mean differences shown in Panel 3 of Table 6.8 is likewise interpreted as was previously done in Section 6.4 for core courses and ranked according to three categories of significance. All the respondents (N = 47) responded to this section (refer to Annexure B, Sections B-1 and B-2).

Table 6.8: Relative importance of and proficiency of Commerce graduates in management skills and traits, and the level of satisfaction.

Skills and Traits	Panel 1: Relative importance of skills and traits				Panel 2: Proficiency in skills and traits				Panel 3: Level of satisfaction			
	Ranking	95% Conf. Interval	Mean	SD	Ranking	95% Conf. Interval	Mean	SD	Ranking	95% Conf. Interval	Mean diff.	SD
Ability to collaborate across cultures	1	4.70 5.05	4.87	0.61	2	3.70 4.13	3.91	0.75	2	-1.22 -0.70	- 0.96	0.91
Negotiating skills	1	4.78 4.97	4.87	0.34	2	3.36 3.75	3.55	0.69	3	-1.57 -1.07	-1.32	0.89
Analytical thinking and problem solving	1	4.73 4.97	4.85	0.42	2	3.53 3.92	3.72	0.68	2	-1.36 -0.89	-1.13	0.82
Business ethics and integrity	1	4.71 5.00	4.85	0.51	2	3.41 3.82	3.62	0.71	3	-1.50 -0.97	-1.23	0.94
Time Management	1	4.68 4.98	4.83	0.52	1	4.08 4.52	4.30	0.78	1	-0.78 -0.29	-0.53	0.86
Entrepreneurial skills	1	4.67 4.95	4.81	0.50	2	3.27 3.80	3.53	0.93	3	-1.57 -0.98	-1.28	1.04
Planning skills	1	4.68 4.94	4.81	0.45	2	3.47 3.93	3.70	0.81	2	-1.36 -0.85	-1.11	0.89
Teamwork and Collaboration	1	4.67 4.95	4.81	0.50	1	4.01 4.42	4.21	0.72	1	-0.82 -0.37	-0.60	0.80
Trustworthiness	1	4.65 4.96	4.81	0.54	2	3.44 3.96	3.70	0.91	2	-1.43 -0.78	-1.11	1.13
Accountability	1	4.67 4.91	4.79	0.41	2	3.49 3.87	3.68	0.66	2	-1.36 -0.85	-1.11	0.89
Holistic (systems) thinking	1	4.65 4.92	4.79	0.46	2	3.41 3.78	3.60	0.65	3	-1.44 -0.94	-1.19	0.88
Sensitivity to business environment	1	4.62 4.96	4.79	0.59	2	3.43 3.88	3.66	0.79	2	-1.45 -0.81	-1.13	1.12
Driving force, motivation and resilience	1	4.61 4.93	4.77	0.56	2	3.37 3.78	3.57	0.71	2	-1.46 -0.92	-1.19	0.95
Pro-activity	1	4.61 4.93	4.77	0.56	2	3.43 3.85	3.64	0.74	2	-1.39 -0.86	-1.13	0.92
Self-confidence and decisiveness	1	4.57 4.97	4.77	0.70	2	3.50 3.86	3.68	0.63	2	-1.38 -0.79	-1.09	1.02
Ability to convey a strong sense of vision	1	4.58 4.91	4.74	0.57	3	3.22 3.59	3.40	0.65	3	-1.62 -1.06	-1.34	0.98
Ability and willingness to learn	1	4.58 4.91	4.74	0.57	2	3.45 3.83	3.64	0.67	2	-1.38 -0.83	-1.11	0.96
Decision making skills	1	4.59 4.90	4.74	0.53	1	3.81 4.23	4.02	0.74	1	-0.97 -0.48	-0.72	0.85
Developing others	1	4.57 4.92	4.74	0.61	2	3.42 3.81	3.62	0.68	2	-1.38 -0.87	-1.13	0.90

Skills and Traits	Panel 1: Relative importance of skills and traits				Panel 2: Proficiency in skills and traits				Panel 3: Level of satisfaction			
	Ranking	95% Conf. Interval	Mean	SD	Ranking	95% Conf. Interval	Mean	SD	Ranking	95% Conf. Interval	Mean diff.	SD
Enquiry and Research skills	1	4.58 4.91	4.74	0.57	2	3.65 4.09	3.87	0.77	1	-1.12 -0.63	-0.87	0.85
Impact and influence on others	1	4.58 4.91	4.74	0.57	2	3.29 3.65	3.47	0.62	2	-1.53 -1.02	-1.28	0.90
Interpersonal (networking) skills	1	4.56 4.93	4.74	0.64	2	3.66 4.21	3.94	0.96	1	-1.11 -0.51	-0.81	1.06
Oral presentations and use of visual aids	1	4.61 4.88	4.74	0.49	2	3.60 4.02	3.81	0.74	2	-1.22 -0.65	-0.94	1.01
Organisational awareness	1	4.57 4.92	4.74	0.61	2	3.46 3.82	3.64	0.64	2	-1.39 -0.83	-1.11	0.98
Social skills and sociability	1	4.56 4.93	4.74	0.64	1	3.97 4.46	4.21	0.86	1	-0.82 -0.24	-0.72	1.02
Stress Management	1	4.58 4.91	4.74	0.57	2	3.35 3.80	3.57	0.71	2	-1.47 -0.87	-1.17	1.05
Diversity Management	1	4.57 4.88	4.72	0.54	2	3.50 3.82	3.66	0.56	2	-1.32 -0.81	-1.06	0.89
Motivating skills	1	4.53 4.92	4.72	0.68	2	3.36 3.75	3.55	0.69	2	-1.45 -0.89	-1.17	0.99
Organising skills	1	4.57 4.88	4.72	0.54	2	3.36 3.75	3.55	0.69	2	-1.45 -0.89	-1.17	0.96
Computer Literacy	1	4.51 4.89	4.70	0.66	1	3.98 4.44	4.21	0.81	1	-0.77 -0.21	-0.49	0.98
Conceptual thinking (big picture)	1	4.50 4.91	4.70	0.72	2	3.44 3.79	3.62	0.61	2	-1.34 -0.83	-1.09	0.88
Creative thinking and initiatives	1	4.53 4.87	4.70	0.59	2	3.45 3.83	3.64	0.67	2	-1.35 -0.78	-1.06	0.99
Emotional stability and self-control	1	4.51 4.90	4.70	0.69	2	3.47 3.89	3.68	0.73	2	-1.31 -0.73	-1.02	1.01
Empathy	1	4.48 4.92	4.70	0.78	2	3.37 3.82	3.60	0.80	2	-1.41 -0.81	-1.11	1.05
Ability to follow and construct logical argument	1	4.47 4.89	4.68	0.73	2	3.43 3.80	3.62	0.64	2	-1.33 -0.79	-1.06	0.94
Controlling skills	1	4.45 4.91	4.68	0.81	2	3.36 3.79	3.57	0.74	2	-1.38 -0.83	-1.11	0.96
Intellectual flexibility and adaptability	1	4.51 4.85	4.68	0.59	2	3.38 3.69	3.53	0.55	2	-1.41 -0.89	-1.15	0.91
Leadership	1	4.46 4.90	4.68	0.78	1	3.98 4.49	4.23	0.89	1	-0.71 -0.19	-0.45	0.90

Skills and Traits	Panel 1: Relative importance of skills and traits				Panel 2: Proficiency in skills and traits				Panel 3: Level of satisfaction						
	Ranking	95% Conf. Interval		Mean	SD	Ranking	95% Conf. Interval		Mean	SD	Ranking	95% Conf. Interval		Mean diff.	SD
Ability to delegate	1	4.45	4.83	4.64	0.67	2	3.41	3.74	3.57	0.58	2	-1.31	-0.82	-1.06	0.84
Ability to act independently	1	4.38	4.90	4.64	0.92	2	3.40	3.87	3.64	0.82	2	-1.32	-0.68	-1.00	1.10
Conflict Management	1	4.38	4.89	4.64	0.90	2	3.28	3.74	3.51	0.80	2	-1.45	-0.80	-1.13	1.13
Interest and studiousness	1	4.44	4.84	4.64	0.70	2	3.41	3.83	3.62	0.74	2	-1.37	-0.68	-1.02	1.21
Ability to apply knowledge to new situations	1	4.40	4.84	4.62	0.77	2	3.29	3.65	3.47	0.62	2	-1.45	-0.85	-1.15	1.04

The most significant findings on relative importance of management skills and traits (Panel 1, Table 6.8) are as follows:

- All the 43 management skills and traits had a mean score rating of greater than 4.61, indicating a high importance rating; hence all the items were ranked into one category of significance. This supports the general assertion that all management skills and traits are relevant and important in the business environment.
- The item '*Ability to collaborate across cultures*' obtained the highest mean score (4.87). This skill was also perceived by Commerce Graduates to be the most important competency for successful job performance. This could again be attributed to South Africa's multi-racial society and the diverse cultures of the country, and the different people one will encounter in the working environment.
- In addition to the above it is interesting to note that, *Business ethics and integrity* (mean score of 4.85), *Trustworthiness* (mean score of 4.81) and *Accountability* (mean score 4.79) were all ranked in the top ten of the most important management skills and traits to possess to be successful in business practice.

The most significant findings on the proficiency of the Commerce graduates from the selected HEI in the management skills and traits (Panel 2, Table 6.8) are as follows:

- The extent to which tuition, primarily received in the Faculty of Commerce at the selected HEI, developed the management skills and traits of Commerce graduates to whom the employers were exposed to were grouped into three ranking categories. This implies that the differences in perception of the proficiency of the Commerce graduates in the management skills and traits in each ranking classification were not statistically significant. In other words, the proficiency of the Commerce graduates in the management skills and traits as listed in each ranking classification were all regarded as being equally important.
- The proficiency of the Commerce graduates in the following management skills and traits was regarded as being excellent (highly satisfied with a mean score greater than 4.2) Time Management (mean score of 4.30), Leadership (mean score of 4.23), Computer Literacy (mean score of 4.21), Social skills and sociability (mean score of 4.21), and Teamwork and collaboration (mean score of 4.21).
- The highest mean score (4.30) was obtained by the item '*Time management*'. This implies that respondents believe that Commerce graduates from the selected HEI are able to balance their life through their work and personal demands accordingly. A very

interesting observation in respect of this item is, it also received the highest mean score (4.47) from the Commerce Graduates in terms of the management skills and traits which they believed to have developed.

- A prominent finding is that the item *Leadership* (mean score of 4.23) received the second highest mean score in terms of proficiency. The selected HEI has a motto of “*where leaders learn*” and it is truly living up to this motto according to the perceptions of the employers.
- All the other management skills and traits, ranked in classifications one to three all have a mean score greater than or equal to 3.4, implying that the respondents were satisfied with the proficiency of the Commerce graduates in these management skills and traits.
- It is interesting to note that “*Ability to convey a strong sense of vision*” (mean score 3.40) was classified the only item of significance in the third category, implying that respondents regarded the proficiency of Commerce graduates in this management skill and trait as being very important to running a business.

With respect to Panel 3 in Table 6.8, matched one-sample pair wise t-tests were performed for Panel 3, “level of satisfaction” and revealed that all difference scores were significant at the 95% confidence level, indicating that the respondents were significantly dissatisfied with the extent to which the Commerce graduates were proficient in the listed management skills and traits.

The most significant findings on levels of satisfaction (differences in perceptions) in respect of the relative importance and proficiency of the Commerce graduates in the management skills and traits (Panel 3, Table 6.8) are as follows:

- All the mean difference scores were negative, implying that the employers’ were not satisfied with the proficiency of Commerce graduates from the selected HEI in management skills and traits relative to their importance ratings; by implication these management skills and traits should be more fully developed through tuition as required by business practice.
- Even though all the mean difference scores were negative, the respondents were least dissatisfied with the proficiency of Commerce graduates in the following management skills and traits, ranked in the first category of significance, namely *Leadership* (mean difference score of -0.45), *Computer Literacy* (mean difference of -0.49), *Social skills and sociability* (mean difference score of -0.53), *Time Management* (mean difference score of

-0.53), *Teamwork and collaboration* (mean difference score of -0.60), *Decision making skills* (mean difference score of -0.72) and *Interpersonal (networking) skills* (mean difference score of -0.81).

- An interesting finding is that, the lowest mean difference score (-0.45) was obtained by the item '*Leadership*' which is the skill that respondents believed the graduates were most proficient in, which means the selected HEI is living up to its motto "*where leaders learn*".
- The respondents were less satisfied (mean difference score of greater than -1.00) with the proficiency of Commerce Graduates from the selected HEI in 32 of the 43 management skills and traits.
- The respondents were most dissatisfied with the Commerce graduates' proficiency in the following management skills and traits, ranked in the third category of significance with mean difference scores between -1.19 and -1.34, namely *Holistic thinking, Business ethics and integrity, Entrepreneurial skills, Impact and influence on others, Negotiating skills and the Ability to convey a strong sense of vision*.
- The skill, '*Ability to collaborate across cultures,*' was ranked first (Panel 1) (mean score of 4.87) in order of importance for successful job performance. It was ranked in the second category (2) in terms of the proficiency of the Commerce graduates in these skills and traits (Panel 2) (mean score of 3.91). Lastly, considering the differences between the respondents' perception of importance and their perception of Commerce graduates' proficiency, this competency was ranked in the second category with a negative (mean difference of -0.96) (Panel 3).

Summated scores for the factors pertaining to management skills and traits

The summated scores for the factors pertaining to management skills and traits based on the secondary research (also refer to Chapter 2, Table 2.7) as guided by previous empirical research factor analyses (Louw, 1999) are shown in Tables 6.9 to 6.11. From Table 6.9 it can be seen that very high relative importance ratings were assigned to all the management skills and traits ranging between a mean score of 4.76 for Conceptual, diagnostic and critical thinking (decision making skills) to a mean score of 4.69 for Knowledge and wisdom. It is also noted that there is a relatively small range of mean sample scores in both the ranking classifications. Conceptual, diagnostic and critical thinking (decision making skills) were regarded as being the most important management skill and trait, supported with a very high importance rating by 87 per cent of respondents. This supports the view that conceptual,

critical thinking and decision making skills and techniques are the hallmark of all aspects of management.

Table 6.9: Importance of factors pertaining to management skills and traits

Factor	Ranking	n	Mean	SD	95% Conf. Interval		Frequency Distribution							
					Low	High	[1.0 to 1.8]		[1.8 to 2.6]		[2.6 to 3.4]		(4.2 to 5.0]	
Conceptual, diagnostic and critical thinking (decision making skills)	1	47	4.76	0.46	4.63	4.90	0	0%	1	2%	5	11%	41	87%
Emotional Intelligence	1	47	4.75	0.50	4.61	4.89	0	0%	3	6%	3	6%	41	87%
Technical and administrative skills	1	47	4.75	0.51	4.60	4.89	0	0%	3	6%	5	11%	39	83%
Interpersonal and communication	1	47	4.74	0.47	4.61	4.88	0	0%	1	2%	5	11%	41	87%
Cognitive intelligence and mental ability	1	47	4.72	0.59	4.55	4.88	0	0%	2	4%	3	6%	41	87%
Knowledge and Wisdom	2	47	4.69	0.58	4.52	4.85	0	0%	3	6%	6	13%	38	81%

In terms of the summated scores pertaining to the proficiency of Commerce graduates' in terms of management skills and traits, shown in Table 6.10 (also refer to Chapter Two, Table 2.7), three ranking categories emerged with a relatively small variation in mean scores, ranging from Technical and administrative skills (mean score of 3.87) to Emotional intelligence (mean score of 3.63). However, none of the mean scores were greater than 4.2 indicating that the respondents were not highly satisfied with the proficiency of Commerce graduates in all the factors pertaining to management skills and traits. Respondents were most satisfied with the Commerce graduates' proficiency in management skills and traits in terms of Technical and administrative skills and least with Emotional intelligence.

Table 6.10: Commerce graduate proficiency factors pertaining to management skills and traits

Factor	Ranking	n	Mean	SD	95% Conf. Interval		Frequency Distribution									
					Low	High	[1.0 to 1.8]		[1.8 to 2.6]		[2.6 to 3.4]		(3.4 to 4.2]		(4.2 to 5.0]	
Technical and administrative skills	1	47	3.87	0.49	3.73	4.01	0	0%	1	2%	6	13%	32	68%	8	17%
Interpersonal and communication	2	47	3.74	0.42	3.63	3.86	0	0%	0	0%	13	28%	26	55%	8	17%
Knowledge and Wisdom	2	47	3.71	0.46	3.58	3.84	0	0%	0	0%	13	28%	24	51%	10	21%
Conceptual, diagnostic, critical thinking (decision making skills)	3	47	3.65	0.46	3.51	3.78	0	0%	0	0%	17	36%	23	49%	7	15%
Cognitive intelligence and mental ability	3	47	3.65	0.53	3.49	3.80	0	0%	0	0%	20	43%	18	38%	9	19%
Emotional Intelligence	3	47	3.63	0.52	3.48	3.78	0	0%	1	2%	20	43%	17	36%	9	19%

The ranking of the differences between the proficiency in and relative importance of management skills and traits (level of satisfaction), as explained previously, is shown in Table 6.11 (also refer to Chapter Two, Table 2.7). Three ranking categories emerged with variation in mean scores, ranging from -1.12 to -0.88, implying that the Commerce graduates' skills and traits required in business practice were not fully met as required in the work environment. Even though the mean difference scores were negative, respondents were the least dissatisfied with the development of Technical and administrative skills (mean difference score of -0.88) and the most dissatisfied with the development of Emotional intelligence with a (mean difference score of -1.12) and Conceptual, diagnostic and critical thinking (mean difference score of -1.12).

Table 6.11: Level of satisfaction with the proficiency of Commerce graduates' in factors pertaining to management skills and traits and the relative importance thereof

Factor	Ranking	n	Mean	SD	95% Conf. Interval		Frequency Distribution									
					Low	High	[-2.0 to -1.2]		[-1.2 to -0.4]		[-0.4 to 0.4]		(0.4 to 1.2)		(1.2 to 2.0)	
Technical and administrative skills	1	47	-0.88	0.64	-1.06	-0.70	15	32%	21	45%	10	21%	1	2%	0	0%
Knowledge and Wisdom	1	47	-0.97	0.79	-1.20	-0.75	26	55%	10	21%	8	17%	2	4%	1	2%
Interpersonal and communication	1	47	-1.00	0.70	-1.20	-0.80	22	47%	13	28%	11	23%	1	2%	0	0%
Cognitive intelligence and mental ability	2	47	-1.07	0.92	-1.34	-0.81	28	60%	7	15%	7	15%	4	9%	1	2%
Emotional Intelligence	3	47	-1.12	0.79	-1.34	-0.89	27	57%	9	19%	10	21%	1	2%	0	0%
Conceptual, diagnostic, critical thinking (decision making skills)	3	47	-1.12	0.73	-1.33	-0.91	29	62%	9	19%	8	17%	1	2%	0	0%

Testing of hypothesis: Relative importance of management skills and traits and the proficiency of Commerce Graduates

In order to determine whether statistically significant differences exist between the relative importance of management skills and traits required in the work environment and the proficiency of Commerce Graduates from the selected HEI in these skills and traits, the null hypothesis H_0^4 was tested using the matched sample pair wise t-tests on the mean differences, as reported in Table 6.12. As mentioned previously the matched sample pair wise t-test provides an indication of whether differences are statistically significant at the (p) while the Cohen's *d* statistic provides an indication of whether the statistically significant differences ($p \leq 0.05$) are also practically significant (Terre Blanche *et al.*, 1999: 341-342).

The second hypothesis in the second set of hypotheses is stated as follows:

- H_0^4 : There are no statistically significant differences between employers' perceptions of the relative importance of management skills and traits as required in the work

environment and the proficiency of Commerce graduates from the selected HEI in these skills and traits.

- Ha⁴: There are statistically significant differences between employers' perception of the relative importance of management skills and traits as required in the work environment and the proficiency of Commerce graduates from the selected HEI in these skills and traits.

Table 6.12: Statistics of testing the second hypothesis in the second set of hypotheses

Skills and Traits	t-value	d.f.	p-value	Cohen's d
Leadership	-3.39	46	.001	0.49
Computer Literacy	-3.44	46	.001	0.50
Social skills and Sociability	-3.58	46	.001	0.52
Time Management	-4.26	46	.000	0.62
Teamwork and Collaboration	-5.12	46	.000	0.75
Decision Making Skills	-5.82	46	.000	0.85
Interpersonal (networking) skills	-5.25	46	.000	0.77
Enquiry and Research skills	-7.04	46	.000	1.03
Oral presentations and use of visual aids	-6.36	46	.000	0.93
Ability to collaborate across cultures	-7.23	46	.000	1.05
Ability to act independently	-6.21	46	.000	0.91
Emotional stability and self-control	-6.93	46	.000	1.01
Interest and studiousness	-5.80	46	.000	0.85
Ability to delegate	-8.64	46	.000	1.26
Ability to follow / construct logical argument	-7.74	46	.000	1.13
Creative thinking and initiatives	-7.39	46	.000	1.08
Diversity Management	-8.15	46	.000	1.19
Conceptual thinking (big picture)	-8.45	46	.000	1.23
Self-confidence and decisiveness	-7.31	46	.000	1.07
Ability and willingness to learn	-7.89	46	.000	1.15
Accountability	-8.52	46	.000	1.24
Controlling skills	-7.89	46	.000	1.15
Empathy	-7.24	46	.000	1.06
Organisational awareness	-7.71	46	.000	1.13
Planning skills	-8.52	46	.000	1.24
Trustworthiness	-6.73	46	.000	0.98
Analytical thinking and problem solving	-9.38	46	.000	1.37
Conflict Management	-6.81	46	.000	0.99
Developing others	-8.59	46	.000	1.25
Pro-activity	-8.37	46	.000	1.22
Sensitivity to business environment	-6.93	46	.000	1.01
Ability to apply knowledge to new situations	-7.56	46	.000	1.10

Skills and Traits	t-value	d.f.	p-value	Cohen's d
Intellectual flexibility and adaptability	-8.67	46	.000	1.26
Motivating skills	-8.14	46	.000	1.19
Organising skills	-8.33	46	.000	1.22
Stress Management	-7.65	46	.000	1.12
Driving force, motivation and resilience	-8.62	46	.000	1.26
Holistic (systems) thinking	-9.33	46	.000	1.36
Business ethics and integrity	-9.02	46	.000	1.32
Entrepreneurial skills	-8.44	46	.000	1.23
Impact and Influence on others	-9.71	46	.000	1.42
Negotiating skills	-10.19	46	.000	1.49
Ability to convey a strong sense of vision	-9.34	46	.000	1.36

From Table 6.12 it is evident that all the mean difference scores were significant at the 95 per cent confidence level ($p \leq 0.05$). Based on this, it can be stated that the null hypothesis H_0^4 is rejected in all instances. This finding implies that respondents were not satisfied with the proficiency of Commerce graduates from the selected HEI in the management skills and traits relative to the importance rating of Commerce graduates.

In terms of Cohen's d statistics, the following practical significance is evident from Table 6.12:

- Medium practically significant ($0.5 \leq d \leq 0.8$) differences were observed for five management skills and traits, namely Computer Literacy ($d = 0.50$), Social skills and sociability ($d = 0.52$), Time Management ($d = 0.62$), Teamwork and Collaboration ($d = 0.75$), and Interpersonal (networking) skills ($d = 0.77$). This implies the "gap" between the overall level of satisfaction of the proficiency of Commerce graduates in these management skills and traits relative to the importance of these abilities as required in the work environment is moderate.
- The remaining 37 management skills and traits, from decision making skills ($d = 0.85$) demonstrate a large effect size ($d > 0.8$). By implication the "gap" between the overall level of satisfaction of the proficiency of Commerce graduates in these management skills and traits relative to the importance of these abilities as required in the work environment is large.

6.7 PERCEPTIONS ON THE PROFILE OF COMMERCE GRADUATES FROM THE SELECTED HEI

Based on a comprehensive analysis of secondary sources pertaining to the profile of Commerce graduates, statements were identified (Louw, 1999: 125-137; Griesel and Parker, 2009: 4-9; and Chapter Three, Section 3.3). These statements have a direct weighting on how the ideal Commerce graduate and the actual Commerce graduate from the selected HEI are perceived by the employers and give effect to objectives 1.5.2 and hypothesis Ho⁵ (refer Chapter One, Sections 1.5.2 and 1.5.4 respectively). Respondents were requested to indicate their level of agreement or disagreement with each of the ten statements as reflected in Table 6.13 in order to ascertain the profile of the Commerce graduate (refer Annexure B, Section C). Respondents indicated their perception of the ideal Commerce graduate, in general (Panel 1 of Table 6.13), and their actual perceptions of the Commerce graduates from the selected HEI employed in their organisation (Panel 2 of Table 6.13). The level of satisfaction (Panel 3 of Table 6.13) is calculated based on the differences between the mean scores of the perceptions of actual Commerce graduates (Panel 2) from the selected HEI and the perceptions of the ideal Commerce graduate (Panel 1), in general. Similar to core courses, the descriptive data and one-sample matched t-tests were conducted and Cohen's *d* statistics calculated as well as Bonferroni adjustment of significant p-values were used in determining the ranking classification of the perceptions of the profile of Commerce graduates. All the items pertaining to the employers' perceptions of the ideal Commerce graduate were ranked into one category of significance, according to their mean sample scores (Panel 1). In Panel 2, the employers' perceptions of the actual Commerce graduates were grouped into four ranking classifications. The interpretation of the mean differences shown in Panel 3 of Table 6.13 is likewise interpreted as was previously done in Section 6.4 for core courses and ranked according to four categories of significance. All the respondents (N = 47) responded to this section (refer to Annexure B, Section C).

Table 6.13: Statements pertaining to the profile of (ideal and actual) Commerce graduates from the selected HEI

Statements	Panel 1: The Ideal Commerce graduate				Panel 2: The Actual Commerce graduate				Panel 3: Level of satisfaction			
	Ranking	95% Conf. Int.	Mean	SD	Ranking	95% Conf. Int.	Mean	SD	Ranking	95% Conf. Int.	Mean diff.	SD
Commerce graduates should be generalists instead of specialists (Panel 1) Selected HEI's Commerce graduates in my organisation are generalists rather than specialists (Panel 2)	1	4.72 5.03	4.87	0.54	1	3.72 4.15	3.94	0.76	2	-1.15 -0.72	-0.94	0.76
Ideally, there should be more liaison between employers and Faculties of Commerce at Universities (Panel 1) Selected HEI's Commerce graduates in my organisation (Panel 2)	1	4.72 4.94	4.83	0.38	4	2.45 3.21	2.83	1.32	4	-2.43 -1.57	-2.00	1.52
Communication including oral and written presentations should be more emphasised in Commerce graduates (Panel 1) Selected HEI's Commerce graduates in my organisation (Panel 2)	1	4.67 4.91	4.79	0.41	1	3.80 4.20	4.00	0.69	1	-1.02 -0.56	-0.79	0.81
Commerce graduates should display a high level of knowledge of the international dimension of business (Panel 1) Selected HEI's Commerce graduates in my organisation (Panel 2)	1	4.67 4.91	4.79	0.41	1	3.83 4.26	4.04	0.75	1	-0.99 -0.50	-0.74	0.85
Commerce graduates should display a high level of knowledge of the external environment (e.g. legal, social, political) (Panel 1). Selected HEI's Commerce graduates in my organisation (Panel 2)	1	4.64 4.89	4.77	0.43	1	3.90 4.39	4.15	0.86	1	-0.88 -0.35	-0.62	0.92
Entrepreneurial (creativity and innovation) skills should be more emphasised in Commerce	1	4.61 4.88	4.74	0.49	3	3.10 3.58	3.34	0.84	3	-1.71 -1.10	-1.40	1.06

Statements	Panel 1: The Ideal Commerce graduate				Panel 2: The Actual Commerce graduate				Panel 3: Level of satisfaction			
	Ranking	95% Conf. Int.	Mean	SD	Ranking	95% Conf. Int.	Mean	SD	Ranking	95% Conf. Int.	Mean diff.	SD
graduates (Panel 1) Selected HEI's Commerce graduates in my organisation (Panel 2)												
More emphasis should be placed on generating vision in Commerce graduates (Panel 1) Selected HEI's Commerce graduates in my organisation (Panel 2)	1	4.57 4.88	4.72	0.54	2	3.25 3.73	3.49	0.83	2	-1.53 -0.93	-1.23	1.05
Leadership and inter-personal skills should be more emphasised in Commerce graduates (Panel 1) Selected HEI's Commerce graduates in my organisation (Panel 2)	1	4.58 4.87	4.72	0.50	1	3.95 4.39	4.17	0.76	1	-0.78 -0.32	-0.55	0.80
A Commerce graduate should display knowledge that is integrated across functional areas (Panel 1) Selected HEI's Commerce graduates in my organisation (Panel 2)	1	4.51 4.89	4.70	0.66	1	3.85 4.28	4.06	0.76	1	-0.90 -0.38	-0.64	0.92
Quantitative skills of Commerce graduates should be more emphasised (Panel 1) Selected HEI's Commerce graduates in my organisation (Panel 2)	1	4.56 4.85	4.70	0.51	2	3.45 3.95	3.70	0.88	2	-1.33 -0.67	-1.00	1.16

The most significant findings on the statements pertaining to the profile of the ideal Commerce graduate (Panel 1, Table 6.13) are as follows:

- There were small differences in mean scores; the highest mean score of 4.87 was for ‘*Commerce graduates should be generalists instead of specialists*’ and the lowest mean score of 4.70 for ‘*Quantitative skills of Commerce graduates should be more emphasised*’.
- All the statements pertaining to the ideal Commerce graduate received high mean scores of above 4.69 and were all ranked in one category of significance. This implies that respondents more than agreed and supported the statements regarding the profile of the ideal Commerce graduate, with lessor emphasis on the importance of quantitative skills. All the statements were regarded as being of equal importance in this category.

Of particular interest, the statement ‘*Commerce graduates should be generalists instead of specialists*’ received the highest mean score of 4.87. This finding is very significant for the Faculty of Commerce of the selected HEI as there has been on-going debate internally and externally about whether to introduce specialised degrees such as B.Com (Marketing) instead of the more general B.Com (Management and Economics) for example.

Furthermore, the summated score (average mean) for the profile of the ideal Commerce graduate is 4.76, indicating that all the statements, on average, were very highly regarded. This finding is supported by 91 per cent of the respondents.

The most significant findings on the statements pertaining to the profile of the actual Commerce graduate (Panel 2, Table 6.13) are as follows:

- The mean scores for the statements on the profile of the actual Commerce graduate ranged from ‘*There is adequate liaison between my organisation and the Faculty of Commerce at the selected HEI*’ with a mean score of 2.83 to a mean score of 4.17 for ‘*Commerce graduates in my organisation display adequate leadership and interpersonal skills*’. Eight of the ten statements on the actual Commerce graduates obtained mean scores of between 3.4 and 4.17, implying that the respondents were of the opinion that the profile, as per the statements in Table 6.13, of the Commerce graduates from the selected HEI were highly regarded.

- The statement *‘Commerce graduates from the selected HEI in my organisation display adequate leadership and interpersonal skills’* obtained the highest mean score of 4.17.
- In addition to the above mentioned statement, the following statements were also ranked in the first category namely, *“In my organisation: Commerce graduates from the selected HEI display: an adequate level of knowledge of the external environment (e.g legal, political, social)(mean score of 4.15), knowledge that is integrated across functional areas (mean score of 4.06), an adequate level of knowledge of the international dimension of business (mean score of 4.04), adequate communication skills including oral and presentation skills (mean score of 4.00), and Commerce graduates from the selected HEI in my organisation are generalists rather than specialists (mean score of 3.94).*
- The statement *“Commerce graduates from the selected HEI in my organisation display adequate entrepreneurial (creativity and innovation) skills”* received the second lowest mean score of 3.34, which implies respondents were neutral about the statement. The Faculty of Commerce at the selected HEI should therefore focus on improving entrepreneurial skills through, for instance, integrating some aspects of the postgraduate diploma in enterprise management into the undergraduate curriculum.
- Of particular concern however is the statement *‘There is adequate liaison between my organisation and the Faculty of Commerce at the selected HEI’* which received the lowest mean score of 2.83, ranked in the fourth category. This implies that business practice are neutral in terms of co-operation and contacting between them and the Faculty of Commerce at the selected HEI.

In addition, the summated score (average mean) for the profile of the actual Commerce graduate employed in the respondent organisations is 3.77, indicating that, on average, all the statements were reasonably regarded. This finding is only supported by 57 per cent of the respondents. Twenty three (23) per cent of the respondents were neutral in their ratings with frequency distributions between 2.6 and 3.4.

The most significant findings on the statements pertaining to the profile of the Commerce graduates (Level of Satisfaction – actual minus ideal) (Panel 3, Table 6.13) are as follows:

- All the mean scores were negative indicating that the respondents were not very satisfied with the overall profile of the Commerce graduate, as determined by the differences in perception of the actual and ideal Commerce graduates. However three items had mean differences less than or equal to -0.64 implying that respondents were least dissatisfied in these items. These items are leadership and interpersonal skills should be more emphasised in Commerce graduates (mean difference score of -0.55), Commerce graduates should have a high level of knowledge of the external environment (mean difference score of -0.62) and a commerce graduate should display knowledge that is integrated across functional areas (mean difference score of -0.64).
- The respondents were least satisfied with four of the ten statements, with mean difference scores of -1.00 and greater. These statements are '*Quantitative skills of Commerce graduate should be more emphasised*' (mean difference score of -1.00), '*More emphasis should be placed on generating vision in Commerce graduates*' (mean difference score of -1.23), '*Entrepreneurial (creativity and innovation) skills should be more emphasised in Commerce graduates*' (mean difference score of -1.40) and '*Ideally, there should be more liaison between employers and Faculties of Commerce at Universities*' (mean difference score of -2.00).
- The statement '*Ideally, there should be more liaison between employers and Faculties of Commerce at Universities*' had the highest 'gap' or mean difference score of -2.00, and this should be a cause of concern for both employers and the Faculty of Commerce at the selected HEI.

Furthermore, the summated score (average mean) for the profile on the level of satisfaction with the actual versus the ideal Commerce graduate is -0.99, indicating that employers were not satisfied with the overall profile of the actual Commerce graduate from the selected HEI relative to their perception of the ideal Commerce graduate, in terms of the statements as shown in Table 6.13.

Testing of hypothesis: Profile of Commerce graduate (Ideal and Actual Commerce Graduate)

In order to determine whether statistically significant differences exist between the employers' perceptions of the Ideal Commerce Graduate and the Actual Commerce Graduate, the null hypothesis H_0^5 was tested using matched sample pair wise t-tests on the mean differences and the Cohen's d statistic were calculated, shown in Table 6.14.

The third hypothesis in the second set of hypotheses is stated as follows:

- H_0^5 : There are no statistically significant differences between the employers' perception of the ideal Commerce graduate and the actual Commerce graduate from the selected HEI.
- H_a^5 : There are statistically significant differences between the employers' perception of the ideal Commerce graduate and the actual Commerce graduate from the selected HEI'.

Table 6.14: Statistics of testing the third hypothesis in the second set of hypotheses

Statement	t-value	d.f.	p-value	Cohen's d
Leadership and inter-personal skills should be more emphasised in Commerce graduates	-4.73	46	.000	0.69
Commerce graduates should display a high level of knowledge of the external (e.g. legal, social, political)	-4.59	46	.000	0.67
A Commerce graduate should display knowledge that is integrated across functional areas	-4.76	46	.000	0.69
Commerce graduates should display a high level of knowledge of the international dimension of business	-6.03	46	.000	0.88
Communication including oral and written presentations should be more emphasised in Commerce graduates	-6.70	46	.000	0.98
Commerce graduates should be generalists instead of specialists	-8.41	46	.000	1.23
Quantitative skills of Commerce graduates should be more emphasised	-5.91	46	.000	0.86
More emphasis should be placed on generating vision in Commerce graduates	-8.08	46	.000	1.18
Entrepreneurial (creativity and innovation skills should be more emphasised in Commerce graduates	-9.11	46	.000	1.33
Ideally, there should be more liaison between employers and Faculties of Commerce at Universities	-9.03	46	.000	1.32

From Table 6.14 it is evident that all the mean difference scores were significant at the 95 per cent confidence level ($p \leq 0.05$). Based on this finding, it can be concluded that the null hypothesis H_0^5 is rejected in all instances. This finding implies that respondents were not satisfied with the Profile of the Actual Commerce graduate employed in their organisation from the selected HEI compared to their perception of the Ideal Commerce graduate.

In terms of Cohen's d statistics, the following practical significance is evident from Table 6.14:

- All statements presented a Cohen's d statistic above 0.5, implying that all differences are significant.
- Medium practically significant ($0.5 \leq d \leq 0.8$) differences were observed for three statements, namely '*Leadership and Interpersonal skills should be more emphasised in Commerce Graduates*' ($d = 0.69$), '*Commerce Graduates should display high knowledge of the external environment*' ($d = 0.67$), and '*A Commerce graduate should display knowledge that is integrated across functional areas*' ($d = 0.69$). This implies that the "gap" between the overall satisfactions with the Actual Commerce graduates versus the Ideal Commerce graduates is moderate.
- Large practically significant ($d > 0.8$) differences were observed for the remaining seven statements which indicate that the differences in mean scores matter to a large extent to the employers for the relevant statements.

6.8 FINDINGS: EMPLOYER RECOMMENDATIONS

Responses to the Open-ended question seeking the opinions and recommendations of respondents toward improving the education and development of Commerce graduates at the selected HEI can be summarised as follows:

- As with most research regarding education and business, the **practical theme** was dominant in most responses, with comments such as "the degrees from most Universities in SA are too technical and theoretical" and "while the corporate world does value the degree, the work we do often just uses the theory we learnt as a reference, but it is the practical experience that helps the most in my day-to-day job" and "combine learning with real world issues using current business publications like Finweek and Financial Mail as part of the learning process."

- Most respondents also advocated that **guest lecturers** from industry be invited to lecture with responses such as “Get in guest lecturers from the particular industries being studied, in order to get more current case studies and real life examples” and “invite business leaders and speakers to give lectures on career development and the value of the Commerce degree”.
- **Engaging the Commerce Alumni** from the selected HEI was also suggested in several responses such as “Discussions with local and international Commerce Alumni on their views and experiences and the weight of their degrees in the business environment” and “feedback and opinions from the Commerce graduates from Rhodes University will also be invaluable towards the development of the future Commerce graduate”.
- Respondents also encouraged more of an **international business** focus – “the global business world is becoming more relevant and connected in every aspect and students need to learn how to operate within it” and “establish a relationship / partnership with a respected, international business school.”
- The **quality of lecturers** was mentioned by a few respondents with suggestions of having stringent recruitment and selection, in the same vein, respondents also highlighted on the **quality of students** who are admitted into the Faculty. They emphasised that there should be no compromise in admission requirements and standards.
- Some specific responses such as “the **accounting department** should make use of modern up to date accounting software packages to be relevant and prepare the graduate for their professions”.

6.9 SUMMARY

The purpose of this chapter was to assess the competency and profile of the Commerce graduates from a prominent HEI in the Eastern Cape of South Africa by canvassing the opinions and perceptions of employers regarding management competencies, as well as determining the profile of the ideal and actual Commerce graduate. Respondents’ perceptions are based on their experience of Commerce graduates in general as well as those employed from the selected HEI by the respondents’ organisations. The empirical findings presented in this chapter are based on the research questions and relevant hypotheses stated in Chapter One, Sections 1.5.2 and 1.5.4 (statements in the research instrument Annexure B). The findings in this chapter pertain to aspects concerning core courses, new courses, management

skills and traits and the profile of the ideal and actual Commerce graduate grounded in the secondary sources dealt with in Chapters Two and Three. The main findings are summarised accordingly, below:

6.9.1 Findings: Core courses

Even though detailed findings pertaining to employers' perceptions of core courses have been provided in Section 6.4, the main findings can be summarised as follows:

- Almost all (18 of the 19) courses had a mean score of greater than 4.37 indicating a very high importance rating even though courses have been ranked in four different categories.
- Accounting (mean score of 4.91), Economics (mean score of 4.83) and Strategic Management (mean score of 4.77) were ranked the most important by the employers and were ranked in the first category.
- Of the 19 courses, the perceived proficiency of Commerce Graduates in nine courses had a mean score of greater than 4.30 indicating a very high rating. In order of proficiency, these courses included Legal theory, Accounting, Economics, Information Systems, Human Resource Management, Strategic Management, Computer Science, Taxation and Auditing.
- All mean difference scores were negative; except for Philosophy (mean difference of 0.13) and Legal Theory (mean difference of 0.04) were the only scores with positive mean scores. A positive score means respondents were satisfied with the proficiency of the graduates to some extent, whilst, negative mean scores imply that respondents were not satisfied, relative to the importance in core courses, with the knowledge proficiency of the Commerce graduates from the selected HEI they were exposed to. It should be noted that Philosophy had a low importance rating by Commerce graduates, as reported in Section 5.5 of Chapter Five.
- Respondents indicated the following "other" courses as being important in business practice namely, "Project Management", "Enterprise Management", "Financial Markets" and "Industrial Sociology".

6.9.2 Findings: New courses

- The introduction of the following new courses are deemed most important, namely, Entrepreneurship, Investment Management, Project Management, Information

Technology Governance, Information Systems Audit and Control, International Business Management, Knowledge Management and Information Systems Evaluation.

6.9.3 Findings: Management skills and traits

Even though detailed findings pertaining to management skills and traits have been provided in Section 6.5, the main findings can be summarised as follows:

- All the 43 management skills and traits had a mean score rating greater than 4.61, indicating a high importance rating, hence all the items were ranked into one category of significance. This supports the general assertion that all management skills and traits are relevant and important in the business environment.
- The item '*Ability to collaborate across cultures*' obtained the highest mean score (4.87). This skill was also perceived by Commerce graduates to be the most important competency for successful job performance. This could again be attributed to South Africa's multi-racial society and the diverse cultures of the country, and the different people encountered in the work environment.
- The proficiency of the Commerce graduates in the following management skills and traits was regarded excellent (highly satisfied with a mean score greater than 4.2). Time Management, Leadership, Computer Literacy, Social skills and Sociability, Teamwork and collaboration.
- A very prominent finding is that the item *Leadership* (mean score of 4.23) received the second highest mean score in terms of proficiency. The selected HEI has a maxim of "*where leaders learn*" and it is truly living up to this motto according to the perceptions of the employers.
- All the mean difference scores were negative, implying that the employers were not satisfied with the proficiency of Commerce graduates from the selected HEI in management skills and traits relative to their importance ratings. By implication these management skills and traits should be more fully developed through tuition as required by business practice.

6.9.4 Findings: Profile of Ideal versus Commerce graduate

Even though detailed findings pertaining to the profile of the Ideal versus Actual Commerce graduates have been provided in Section 6.7, the main findings can be summarised as follows:

- The summated score (average mean) for the profile of the ideal Commerce graduate is 4.76, indicating that, on average, all the statements were very highly regarded. This finding is supported by ninety one (91) per cent of the respondents.
- Of particular interest pertaining to the ideal Commerce graduate, the statement *‘Commerce graduates should be generalists instead of specialists’* received the highest mean score of 4.87. This finding is significant for the Faculty of Commerce of the selected HEI as there has been on-going debate internally and externally about whether to introduce specialised degrees such as B.Com (Marketing) instead of the more general B.Com (Management and Economics) for example.
- The summated score (average mean) for the profile of the actual Commerce graduate employed in the respondent organisations is 3.77, indicates that all the statements, on average, were reasonably regarded.
- Of particular concern in respect of the perception of the actual Commerce graduate is the statement *‘There is adequate liaison between my organisation and the Faculty of Commerce at the selected HEI’* that received the lowest mean score of 2.83 ranked in the fourth category. This implies that business practice feel neutral about the co-operation and contact between them and the Faculty of Commerce at the selected HEI.
- All the mean scores were negative indicating that the respondents were not very satisfied with the overall profile of the Commerce graduate, as determined by the differences in perceptions of the ideal and actual Commerce graduates. However three items had mean differences less than or equal to -0.64 implying that respondents were least dissatisfied in these items. These items are leadership and interpersonal skills should be more emphasised in Commerce graduates, Commerce graduates should have high levels of knowledge of the external environment, and a commerce graduate should display knowledge that is integrated across functional areas.

6.9.5 Findings: Employer recommendations

The main recommendations and encouragement provided by Employers towards the development of Commerce graduates include:

- The **practical theme** – provide greater contact and experience with practice, which was dominant in most responses together with inviting **guest lecturers** from business practice.

- **Engage the Commerce Alumni** from the selected HEI on their views and experiences.
- Encourage more of an **international business** focus, and
- Strive for excellence in terms of the **quality of lecturers** and **students**.

This chapter is concluded by summarising the results of the tested hypotheses (second set of hypotheses pertaining to employers of Commerce graduates)

Core Courses

First hypothesis in second set of hypotheses is stated as follows:

- H_o^3 : There are no statistically significant differences between employers' perception of the relative importance of core courses for running a business and the proficiency of Commerce graduates in these core courses from the selected HEI in these courses.
- *Hypothesis H_o^3 was rejected in all instances except for Philosophy, Legal Theory, Taxation, Information Systems, and Computer Science.* This implies that respondents were satisfied with the proficiency of Commerce graduates in these mentioned exceptions.
- Large practically significant differences ($d > 0.8$) were observed for Financial Management, Commercial Law, Statistics and Marketing. This implies the "gap" between the overall level of satisfaction with the proficiency of Commerce graduates in these courses relative to the importance of these courses for running a business is large.

Management Skills and traits

Second hypothesis in the second set of hypotheses is stated as follows:

- H_o^4 : There are no statistically significant differences between employers' perceptions of the relative importance of management skills and traits as required in the work environment and the proficiency of Commerce graduates from the selected HEI in these skills and traits.
- Based on the findings, it can be concluded that *hypothesis H_o^4 is rejected in all instances.* This finding implies that respondents were not satisfied with the extent to which Commerce Graduates from the selected HEI are proficient in the management skills and traits relative to the importance rating.
- All items have Cohen's d statistics above 0.2, implying that all differences are practically significant.

Ideal Commerce Graduate and Actual Commerce Graduate

Third hypothesis in the second set of hypotheses is stated as follows:

- H_0^5 : There are no statistically significant differences between the employers' perception of the ideal Commerce graduate and the actual Commerce graduate from the selected HEI.
- Based on the findings, it can be concluded *that hypothesis H_0^5 is rejected in all instances*. By implication respondents were *not satisfied with the Profile of the Actual Commerce graduate* employed in their organisation from the selected HEI compared with their perception of the Ideal Commerce graduate.
- All statements have Cohen's d statistic above 0.5, implying that all differences are significant. Medium practically significant differences ($0.5 \leq d \leq 0.8$) were observed for three statements, namely '*Leadership and Interpersonal skills should be more emphasised in Commerce Graduates*', '*Commerce Graduates should display high knowledge of the external environment*', and '*A Commerce graduate should display knowledge that is integrated across functional areas*'. This implies that the "gap" between the overall satisfactions with the Actual Commerce graduates versus the Ideal Commerce graduates is moderate. Large practically significant ($d > 0.8$) differences were observed for the remaining seven statements which indicate that the differences in mean scores matter to a large extent to the employers for the relevant statements.

A summation of the employer findings and *conclusions will be given in the final chapter* of this thesis. The findings pertaining to the Commerce graduate versus employers' perceptions will be discussed in Chapter 7.

CHAPTER 7

FINDINGS OF COMMERCE GRADUATES' VERSUS EMPLOYERS' PERCEPTIONS

7.1 INTRODUCTION

The primary purpose of this chapter is to compare and contrast the opinions of Commerce graduates (Alumni) from a selected HEI (refer Chapter 5) and Employers of these Commerce graduates (refer Chapter 6) from the selected HEI. In doing so, effect will be given to the research questions and hypothesis pertaining to the comparison between the Commerce graduates (Alumni) and employers as stated in Section 1.5.3 and Section 1.5.4 of Chapter One.

In Section 7.2 of this chapter the Commerce graduates' and employers' perceptions relating to the relative importance of core courses as required for successful job performance will be presented as well as the findings pertaining to the null hypothesis $H_0^{6.1}$. The findings pertaining to the relative importance of possible introduction of new courses and findings pertaining to the null hypothesis $H_0^{6.2}$ will be discussed in Section 7.3. In Sections 7.4 and 7.5 the findings on the relative importance of management skills and traits and the extent to which the tuition received at the selected HEI developed these abilities, in other words the proficiency of Commerce Graduates, will be discussed as well as the findings of the null hypotheses $H_0^{6.3}$ and $H_0^{6.4}$. The chapter is concluded in Section 7.6.

7.2 CORE COURSES

In order to achieve the research questions posed in Section 1.5.3 and to test hypothesis $H_0^{6.1}$ (refer Chapter 1, Sections 1.5.3 and 1.5.4) the 19 core courses that were considered in the Commerce graduate survey will be used in this section, and for the employer survey for empirical purposes, (described in Chapter 5, Section 5.4, and Chapter 6, Section 6.4) will be used in this section. The amalgamated responses pertaining to the core courses are reflected in Table 7.1. Panel 1 of Table 7.1 shows the Commerce graduate (Alumni) respondents' mean scores, while Panel 2 shows the employer respondents' mean scores of the relative importance of core courses. To establish the significance of the differences in perceptions between the two groups of respondents, the differences between the mean scores (Panel 1 minus Panel 2) were calculated, as shown in Panel 3. The ranking categories and 95% confidence intervals, as shown in Table 7.1, are based on the statistics for the relative importance of core courses as provided in Chapter 5 and Chapter 6.

Table 7.1: Differences between Commerce graduate and employer perceptions of the relative importance of core courses

Core courses	Panel 1: Commerce graduates' (Alumni) perceptions (n = 231)				Panel 2: Employers' perceptions (n = 47)				Panel 3: Differences in perceptions	
	Ranking	95% Conf. Interval	Mean	SD	Ranking	95% Conf. Interval	Mean	SD	Mean difference	SD
Accounting	1	4.79 4.94	4.86	0.58	1	4.86 4.97	4.91	0.41	-0.05	0.17
Economics	1	4.78 4.89	4.84	0.44	1	4.77 4.88	4.83	0.43	0.01	0.00
Financial Management	1	4.71 4.86	4.78	0.59	2	4.59 4.77	4.68	0.73	0.10	-0.13
Human Resource Management	1	4.67 4.84	4.75	0.67	2	4.65 4.80	4.72	0.58	0.03	0.09
Strategic Management	1	4.67 4.83	4.75	0.62	1	4.69 4.84	4.77	0.56	-0.02	0.06
Information Systems	2	4.65 4.81	4.73	0.62	2	4.59 4.77	4.68	0.69	0.05	-0.07
Marketing Management	2	4.59 4.78	4.68	0.74	2	4.60 4.77	4.68	0.73	0.00	0.08
Commercial Law	2	4.59 4.77	4.68	0.72	3	4.58 4.78	4.68	0.75	0.00	-0.04
Legal Theory	2	4.56 4.78	4.67	0.88	2	4.61 4.80	4.70	0.75	-0.03	0.13
Auditing	2	4.53 4.74	4.64	0.84	2	4.62 4.78	4.70	0.62	-0.07	0.22
Computer Science	3	4.49 4.69	4.59	0.76	2	4.51 4.72	4.62	0.82	-0.03	-0.06
Theory of Finance	3	4.50 4.67	4.58	0.67	2	4.64 4.81	4.72	0.58	-0.14	0.02
Taxation	3	4.43 4.65	4.54	0.86	2	4.44 4.66	4.55	0.85	-0.01	0.00
Ethics	3	4.43 4.62	4.53	0.74	2	4.58 4.74	4.66	0.64	-0.13	0.10
Statistics	3	4.38 4.58	4.48	0.79	2	4.56 4.76	4.66	0.64	-0.18	-0.02
Management Accounting	4	4.31 4.53	4.42	0.88	2	4.52 4.71	4.62	0.74	-0.20	0.14
Psychology	4	4.26 4.51	4.39	0.97	3	4.29 4.47	4.38	0.71	0.01	0.26
Mathematics	5	3.71 4.00	3.85	1.15	2	4.47 4.68	4.57	0.80	-0.72	0.35
Philosophy	6	2.23 2.54	2.39	1.23	4	2.90 3.23	3.06	1.28	-0.68	-0.04

The most prominent findings for Panels 1 and 2 of Table 7.1, based on each respondent group's perceptions, were discussed in Sections 5.4 and 6.4 of Chapters 5 and 6 respectively. However the following similarities evident from the views of the Commerce graduates and employers in respect of the core courses are highlighted:

- Panel 1 (Commerce graduates' perceptions) shows that Accounting obtained the highest mean score of 4.86, Economics obtained the second highest mean score of 4.84, while the Management subjects, Financial Management (mean score of 4.78), Human Resource Management (mean score of 4.75) and Strategic Management (mean score of 4.75) had the 3rd, 4th and 5th highest mean scores and were ranked in the number one category.
- It should be noted that all the courses were regarded as being very important (mean scores of 4.39 and greater) by the Commerce graduates, except for Mathematics and Philosophy.
- Panel 2 (Employers' perceptions) shows that Accounting obtained the highest mean score of 4.91, Economics obtained the second highest mean score of 4.83, and Strategic Management (mean score of 4.77) and Human Resource Management (mean score of 4.72) obtained the 3rd and 4th highest mean scores.
- It should be noted that all the courses were regarded as being very important (mean scores of 4.38 and greater) by the employers, except for Philosophy.
- Philosophy was ranked last by both groups of respondents with (low relative importance rating by Commerce graduates) mean score of 2.39, Panel 1) and a neutral rating by the employers (mean score of 3.06 for Panel 2).

In terms of Panel 3, Table 7.1, a positive mean difference means that the particular core course was perceived to be of greater importance by the Commerce graduates than by the employers. In the same vein, a negative mean difference score means that the employers perceived the particular core course to be more important than the Commerce graduates.

Panel 3 of Table 7.1, based on each respondent group's perceptions, can therefore be interpreted as follows:

- Twelve of the nineteen courses had negative mean differences, implying that employers perceived these core courses to be more important than the Commerce graduates. Besides Mathematics and Philosophy it is interesting to note that the employers perceived the following courses to be relatively more important than the Commerce graduates, namely

Management Accounting (mean difference score of -0.20), Statistics (mean difference score of -0.18), Theory of Finance (mean difference score of -0.14), Ethics (mean difference score of -0.13), Auditing (mean difference score of -0.07), Accounting (mean difference score of -0.05), Legal Theory (mean difference score of -0.03), Computer Science (mean difference score of -0.03), Strategic Management (mean difference score of -0.20) and Taxation (mean difference score of -0.01)

- Five of the nineteen core courses had positive mean differences, implying that Commerce graduates perceived these core courses to be more important than the employers. These include Financial management (mean difference score of 0.10), Information Systems (mean difference score of 0.05), Human Resource Management (mean difference score of 0.03), Economics and Psychology (mean difference score of 0.01, respectively)
- Marketing Management and Commercial Law were regarded as being equally important by both the Commerce graduates' and employers (mean difference score of 0.00).

Testing of hypothesis pertaining to the comparison between Commerce graduates and employers in terms of core courses

In order to determine whether statistically significant differences exist between the Commerce graduates' and employers' perceptions' relating to the importance of core courses for running a business, the null hypothesis $H_0^{6.1}$ was tested using independent t-tests where one group was compared with another and inferences were made about the two groups of respondents and where statistically significant ($p < 0.05$) differences were observed, Cohen's d statistics were calculated to determine whether the differences are practically significant ($d > 0.20$). It was not necessary to make Bonferroni adjustments as each mean score was used in one comparison only, namely a comparison of mean scores between the two groups of respondents pertaining to the relative importance of each core course. As reported earlier, the independent t-tests provide an indication of whether differences are statistically significant for the sampled populations at $\alpha = 0.05$ level while the Cohen's d statistic provides an indication of whether the statistically significant differences are also practically significant. (Terre Blanche *et al.*, 1999: 341-342). The interpretation levels for the Cohen's d statistic used in this study were: small effect when $0.2 < d < 0.5$; medium effect when $0.5 < d < 0.8$; and large effect when $d > 0.8$. The statistics pertaining to these tests are provided in Table 7.2.

The first hypothesis in the third set of hypotheses pertaining to the comparison between Commerce graduates (alumni) and employers of Commerce graduates from the selected HEI, is stated as follows:

- $H_0^{6.1}$: There are no statistically significant differences between the Commerce graduates' and employers' perceptions' relating to the importance of core courses for running a business.
- $H_a^{6.1}$: There are statistically significant differences between the Commerce graduates' and employers' perceptions' relating to the importance of core courses for running a business.

From Table 7.2 it is evident that these t-tests revealed that none of the mean difference scores, for the sampled populations, were significant at the 95 per cent confidence level ($\alpha = 0.05$), except for Philosophy (p-value = 0.001) and Mathematics (p-value < 0.0005). Based on this finding, it can be concluded that the null hypothesis $H_0^{6.1}$ is not rejected except for Philosophy and Mathematics. This implies that there were no statistically significant differences between the Commerce graduates' and employers' perceptions', as sampled populations, relating to the importance of core courses for running a business, except for Philosophy and Mathematics. In the case of Philosophy and Mathematics the Cohen's *d* estimates were between 0.5 and 0.8 and given the negative difference between the relevant mean scores, it implies that the employers regard these two courses as being slightly more important than the Commerce graduates. It should, however, be noted that both the respondent groups did not regard Philosophy as being very important, the Commerce graduate mean score for Philosophy was low at 2.38 and neutral importance by the employers with a mean score of 3.06.

Table 7.2: Statistics for testing the hypothesis ^{6.1}

Courses	t-value	p-value (df=276)	Cohen's d
Financial Management	1.04	.300	n.a.
Information Systems	0.46	.649	n.a.
Human Resource Management	0.28	.776	n.a.
Economics	0.08	.935	n.a.
Marketing	0.03	.979	n.a.
Psychology	0.02	.988	n.a.
Commercial Law	-0.01	.992	n.a.
Taxation	-0.09	.930	n.a.
Strategic Management	-0.18	.861	n.a.
Computer Science	-0.23	.819	n.a.
Legal Theory	-0.23	.821	n.a.
Accounting	-0.60	.548	n.a.
Auditing	-0.51	.611	n.a.
Ethics	-1.14	.257	n.a.
Theory of Finance	-1.30	.195	n.a.
Statistics	-1.41	.160	n.a.
Management Accounting	-1.43	.152	n.a.
Philosophy	-3.42	.001	0.55 Moderate
Mathematics	-4.10	.000	0.66 Moderate

7.3 NEW COURSES

In order to achieve the research questions posed in Chapter 1, Section 1.5.3 and to test hypothesis Ho^{6.2} (refer Chapter 1, Sections 1.5.3 and 1.5.4), 22 new courses that were used for the Commerce graduate survey (Alumni) and the employer survey for empirical purposes, as described in Chapter 5 (Section 5.5) and Chapter 6 (Section 6.5) will be used in this section. The amalgamated responses pertaining to the new courses are reflected in Table 7.3. Panel 1 of Table 7.3 shows the Commerce graduate respondents' mean scores, while Panel 2 shows the employer respondents' mean scores of the relative importance of new courses. To establish the significance of the differences in perceptions between the two groups of respondents, the differences between the mean scores (Panel 1 minus Panel 2) were calculated, as shown in Panel 3. The ranking categories and 95% confidence intervals, as shown in Table 7.3, are based on the statistics for the relative importance of new courses as provided in Chapters 5 and 6.

Table 7.3: Differences between the Commerce graduate and employer perceptions on the relative importance of new courses

New Courses	Panel 1: Commerce graduates' (Alumni) Perceptions (n = 145-158)				Panel 2: Employers' perceptions (n = 27-29)				Panel 3: Differences in perception	
	Ranking	95% Conf. Interval	Mean	SD	Ranking	95% Conf. Interval	Mean	SD	Mean Diff.	SD
Project Management	1	4.77 4.91	4.84	0.48	1	4.43 4.88	4.66	0.61	0.18	-0.14
Information Systems Evaluation	1	4.69 4.87	4.78	0.54	1	4.27 4.84	4.55	0.78	0.23	-0.24
Entrepreneurship	1	4.67 4.87	4.77	0.64	1	4.64 4.94	4.79	0.48	-0.02	0.23
Information Systems Audit and Control	1	4.64 4.86	4.75	0.67	1	4.34 4.90	4.62	0.78	0.13	-0.10
Information Technology Governance	2	4.65 4.85	4.75	0.62	1	4.39 4.92	4.66	0.72	0.09	-0.10
Knowledge Management	2	4.58 4.81	4.69	0.71	1	4.34 4.83	4.59	0.68	0.11	0.03
International Business Management	2	4.53 4.73	4.63	0.64	1	4.44 4.80	4.62	0.49	0.01	0.14
Investment Management	3	4.43 4.63	4.53	0.65	1	4.53 4.92	4.72	0.53	-0.19	0.13
Business Research	3	4.28 4.54	4.41	0.81	2	4.24 4.66	4.45	0.57	-0.04	0.23
Services Marketing	4	4.05 4.36	4.21	0.96	3	3.53 4.26	3.90	1.01	0.31	-0.05
Portfolio Management	4	4.05 4.29	4.17	0.76	2	3.91 4.37	4.14	0.64	0.04	0.12
Actuarial Science	4	3.07 4.18	4.07	0.65	2	3.94 4.47	4.21	0.73	-0.13	-0.07
Risk Management	5	3.73 4.00	3.86	0.87	2	3.90 4.31	4.10	0.56	-0.24	0.31
Introduction to Insurance	5	3.65 3.91	3.78	0.81	2	3.81 4.34	4.07	0.72	-0.29	0.10
Personal and Corporate Financial Planning	6	3.22 3.47	3.35	0.79	3	3.29 3.89	3.59	0.82	-0.24	-0.03
Customer Relations Management	7	2.94 3.32	3.13	1.20	4	2.92 3.65	3.29	0.98	-0.15	0.23
Events Management	7	2.88 3.22	3.05	1.08	5	2.37 3.36	2.86	1.36	0.19	-0.28
Managerial Economics	7	2.79 3.06	2.93	0.85	3	3.29 3.95	3.62	0.90	-0.69	-0.05

New Courses	Panel 1: Commerce graduates' (Alumni) Perceptions (n = 145-158)				Panel 2: Employers' perceptions (n = 27-29)				Panel 3: Differences in perception	
	Ranking	95% Conf. Interval	Mean	SD	Ranking	95% Conf. Interval	Mean	SD	Mean Diff.	SD
Cross-Cultural Management	8	2.39 2.78	2.58	1.22	4	2.76 3.68	3.22	1.22	-0.64	0.00
Sports Management	9	1.73 2.19	1.96	1.41	5	2.19 3.39	2.79	1.62	-0.83	-0.20
Media Management	9	1.70 2.12	1.91	1.31	5	2.10 3.38	2.74	1.70	-0.83	-0.39
Tourism Management	9	1.58 2.00	1.79	1.29	5	2.07 3.28	2.68	1.63	-0.89	-0.35

In terms of Panel 3, Table 7.3, a positive mean difference means that the particular new course was perceived to be of greater importance by the Commerce graduates than by the employers. In the same vein, a negative mean difference score means that the employers perceived the particular new course to be more important than the Commerce graduates. The implication of the mean difference should, however, be interpreted by considering the mean scores. New courses with mean scores of 2.6 and less are thus regarded as less important by the respondents.

Panel 3 of Table 7.3, based on each respondents group's perceptions, can therefore be interpreted as follows:

- Thirteen of the twenty-two new courses had negative mean differences, implying that employers perceived these new courses to be more important than the Commerce graduates. It should be noted within this context that Cross-cultural, Sports, Media and Tourism management were regarded as being of low importance by the Commerce graduates with mean scores of 2.6 and less.
- Nine of the twenty-two new courses, namely, Portfolio Management, Project Management, Events Management, Knowledge Management, Information Systems Audit and Control, Information Systems Evaluation, Information Technology Governance, International Business Management and Services Marketing had positive mean differences, implying that Commerce graduates' perceived these new courses to be more important than the employers.

Testing of hypothesis pertaining to the comparison between Commerce graduates and employers in terms of new courses

In order to determine whether statistically significant differences exist between the Commerce graduates and employers perceptions relating to the importance of new courses required in the work environment, the null hypothesis $H_0^{6.2}$ was tested using independent t-tests where one group was compared with another group and inferences were made about the two groups of respondents where statistically significant ($p < 0.05$) differences were observed, Cohen's d statistics were calculated to determine whether the differences are practically significant ($d > 0.20$). The statistics pertaining to these tests are provided in Table 7.4. The same statistical analysis procedure that was followed for the importance of core courses, highlighted in Section 7.2 in this chapter, was followed for the statistical testing for the stated hypothesis pertaining to the introduction of new courses.

Table 7.4: Statistics for testing the hypothesis ^{6.2}

New Courses	t-value	d.f.	p-value	Cohen's <i>d</i>	Effect
Investment Management	-1.83	185	.069	n.a.	
Managerial Economics	-4.97	177	.000	1.01	Large
Personal and Corporate Finance	-1.83	179	.069	n.a.	
Portfolio Management	0.30	182	.766	n.a.	
Project Management	2.25	183	.026	0.45	Small
Actuarial Science	-1.24	178	.218	n.a.	
Insurance	-2.19	178	.030	0.45	Small
Risk Management	-1.78	180	.076	n.a.	
Events Management	1.03	181	.305	n.a.	
Knowledge Management	0.93	177	.353	n.a.	
Information Systems Audit and Control	1.15	179	.253	n.a.	
Information Systems Evaluation	2.40	177	.018	0.49	Small
Information Tech Governance	0.89	178	.373	n.a.	
Customer Relations Management	-0.80	179	.425	n.a.	
Business Research	-0.31	181	.758	n.a.	
Entrepreneurship	-0.20	181	.839	n.a.	
International Business Management	0.11	179	.914	n.a.	
Services Marketing	1.96	178	.052	n.a.	
Sports Management	-3.48	175	.001	0.72	Moderate
Tourism Management	-4.05	171	.000	0.84	Large
Media Management	-3.64	173	.000	0.76	Moderate
Cross- Cultural Management	-3.15	174	.002	0.66	Moderate

The second hypothesis in the third set of hypotheses pertaining to the comparison between Commerce graduates (alumni) and employers of Commerce graduates from the selected HEI is stated as follows:

- $H_0^{6.2}$: There are no statistically significant differences between the Commerce graduates' and employers' perceptions relating to the importance of possible new courses for running a business.
- $H_a^{6.2}$: There are statistically significant differences between the Commerce graduates' and employers' perceptions relating to the importance of possible new courses for running a business.

From Table 7.4 it is evident that these tests revealed that the mean difference scores, for the sampled populations, were not significant at the 95 per cent confidence level (p

0.05), except for Cross Cultural Management (p-value = 0.002), Media Management (p-value = 0.0005), Tourism Management (p-value = 0.0005), Sports Management (p-value = 0.0005), Information Systems Evaluation (p-value = 0.018), Introduction to Insurance (p-value = 0.030), Project Management (p-value = 0.026), and Managerial Economics (p-value = 0.0005). Based on this finding, it can be concluded that null hypothesis $H_0^{6.2}$ is not rejected except for the following eight new courses Cross Cultural Management, Media Management, Tourism Management, Sports Management, Information Systems Evaluation, and Introduction to Insurance, Project Management and Managerial Economics. It should, however, be noted that even though there were statistically significant differences in perceptions between the two respondent groups in the aforementioned eight new courses, the Commerce graduates regarded the following four new courses, namely Cross-cultural, Sports, Media and Tourism Management (with mean scores of 2.6 and less) as being of low importance.

The findings in this section imply that there were no statistically significant differences between the Commerce graduates' and employers' perceptions, as sampled populations, relating to the importance of the remaining 14 new courses for running a business. In the case of Project Management, Introduction to Insurance and Information Technology Governance, the Cohen's d statistics were between 0.2 and 0.5, implying that the employers regard these three new courses as being slightly more important than the Commerce graduates, even though the introduction of Cross-cultural, Sports and Media Management were regarded as being moderately more important by the employers (medium effect when $0.5 < d < 0.8$).

It should be noted that the employer respondent mean scores for Sports and Media Management (2.79 and 2.74 respectively) are regarded as being neutral and of low importance by the Commerce graduates with mean scores of 1.96 and 1.91. In the case of Managerial Economics and Tourism Management the Cohen's d estimates were large (when $d > 0.8$), implying that the employers regard these three new courses as being much more important than the Commerce graduates. However, it should be noted that neither group regarded Tourism Management as being important. The Commerce graduate mean of 1.79 is in the "very low" range (1.0 - 1.8) whilst the employer mean is in the neutral range between 2.6 and 3.4. It should also be noted that the Commerce

graduates regarded Managerial Economics as being in the neutral range with a mean score of 2.93.

7.4 RELATIVE IMPORTANCE OF MANAGEMENT SKILLS AND TRAITS

In order to achieve the research questions posed in Chapter 1, Section 1.5.3 and hypothesis Ho^{6.3} as stated in Chapter 1, Section 1.5.4, a comparison of the perceptions of the Commerce graduates and employers in respect of the relative importance of management skills and traits is done in this section. The 43 management skills and traits that were used for the Commerce graduate survey and the employer survey for empirical purposes, as described in Chapter 5 (Section 5.6) and Chapter 6 (Section 6.6), respectively, were used for comparison purposes. The merged responses pertaining to the relative importance of the management skills and traits are reflected in Table 7.5. Panel 1 of Table 7.5 shows the Commerce graduate respondents' mean scores, while Panel 2 shows the employer respondents' mean scores of the relative importance of the management skills and traits as required in the work place.

The ranking categories and 95% confidence intervals, as shown in Panels 1 and 2 in Table 7.5, were reported and discussed in Chapters 5 and 6. The differences in Panel 3 in Table 7.5 were calculated by subtracting the relevant employer value from the Commerce graduate (Alumni) value, for example for the first skill/trait *Ability to collaborate across cultures* the mean difference of 0.03 was calculated as 4.90 minus 4.87 and the standard deviation (SD) difference of -0.16 as 0.46 minus 0.61 rounded to two decimals.

Table 7.5: Differences between Commerce graduate and employer perceptions of the relative importance of management skills and traits

Skills and Traits	Panel 1: Commerce graduates' (Alumni) perceptions (n = 231)				Panel 2: Employers' perceptions (n = 47)				Panel 3: Differences in perceptions	
	Ranking	95% Conf. Interval	Mean	SD	Ranking	95% Conf. Interval	Mean	SD	Mean Diff.	SD
Ability to collaborate across cultures	1	4.85 4.96	4.90	0.46	1	4.70 5.05	4.87	0.61	0.03	-0.16
Time Management	2	4.70 4.83	4.77	0.50	1	4.68 4.98	4.83	0.52	-0.06	-0.02
Leadership	2	4.68 4.83	4.76	0.57	1	4.46 4.90	4.68	0.78	0.08	-0.21
Planning Skills	2	4.69 4.82	4.75	0.50	1	4.68 4.94	4.81	0.45	-0.06	0.05
Stress Management	2	4.68 4.82	4.75	0.57	1	4.58 4.91	4.74	0.57	0.00	0.00
Teamwork and Collaboration	2	4.67 4.81	4.74	0.54	1	4.67 4.95	4.81	0.50	-0.06	0.05
Developing others	2	4.67 4.81	4.74	0.54	1	4.57 4.92	4.74	0.58	-0.01	-0.07
Ability and willingness to learn	2	4.66 4.80	4.73	0.52	1	4.58 4.91	4.74	0.57	-0.01	-0.04
Social skills and sociability	2	4.65 4.81	4.73	0.61	1	4.56 4.93	4.74	0.64	-0.02	-0.03
Business ethics and integrity	2	4.66 4.79	4.72	0.51	1	4.71 5.00	4.85	0.51	-0.13	0.00
Decision making skills	2	4.65 4.80	4.72	0.58	1	4.59 4.90	4.74	0.53	-0.02	0.05
Analytical thinking and problem solving	2	4.65 4.78	4.71	0.53	1	4.73 4.97	4.85	0.42	-0.14	0.12
Organising skills	2	4.64 4.78	4.71	0.55	1	4.57 4.88	4.72	0.54	-0.01	0.01
Ability to act independently	2	4.64 4.78	4.71	0.53	1	4.38 4.90	4.64	0.92	0.07	-0.39
Oral presentations and use of visual aids	2	4.64 4.78	4.71	0.53	1	4.61 4.88	4.74	0.49	-0.03	0.05
Creative thinking and initiatives	2	4.64 4.78	4.71	0.54	1	4.53 4.87	4.70	0.59	0.00	-0.04
Interpersonal (networking) skills	2	4.63 4.78	4.71	0.55	1	4.56 4.93	4.74	0.64	-0.04	-0.09
Pro-activity	2	4.63 4.78	4.70	0.58	1	4.61 4.93	4.77	0.56	-0.06	0.02
Accountability	2	4.63 4.77	4.70	0.54	1	4.67 4.91	4.79	0.41	-0.09	0.13

Skills and Traits	Panel 1: Commerce graduates' (Alumni) perceptions (n = 231)				Panel 2: Employers' perceptions (n = 47)				Panel 3: Differences in perceptions	
	Ranking	95% Conf. Interval	Mean	SD	Ranking	95% Conf. Interval	Mean	SD	Mean Diff.	SD
Impact and influence on others	2	4.62 4.78	4.70	0.61	1	4.58 4.91	4.74	0.57	-0.05	0.04
Computer literacy	2	4.63 4.76	4.69	0.52	1	4.51 4.89	4.70	0.66	-0.01	-0.13
Intellectual flexibility and adaptability	2	4.61 4.77	4.69	0.62	1	4.51 4.85	4.68	0.59	0.01	0.03
Self-confidence and decisiveness	2	4.61 4.77	4.69	0.60	1	4.57 4.97	4.77	0.70	-0.08	-0.10
Driving force, motivation and resilience	2	4.61 4.76	4.68	0.59	1	4.61 4.93	4.77	0.56	-0.08	0.03
Trustworthiness	2	4.60 4.77	4.68	0.66	1	4.65 4.96	4.81	0.54	-0.12	0.12
Diversity Management	2	4.60 4.76	4.68	0.64	1	4.57 4.88	4.72	0.54	-0.04	0.10
Holistic (systems) thinking	2	4.60 4.75	4.68	0.59	1	4.65 4.92	4.79	0.46	-0.11	0.13
Conceptual thinking (big picture)	2	4.60 4.74	4.67	0.57	1	4.50 4.91	4.70	0.72	-0.03	-0.15
Organisational awareness	2	4.59 4.75	4.67	0.63	1	4.56 4.93	4.74	0.64	-0.08	0.02
Sensitivity to business environment	2	4.58 4.75	4.67	0.64	1	4.62 4.96	4.72	0.58	-0.12	0.06
Ability to follow and construct logical argument	2	4.59 4.74	4.66	0.59	1	4.47 4.89	4.68	0.73	-0.02	-0.14
Emotional stability and self-control	3	4.59 4.74	4.66	0.58	1	4.51 4.90	4.70	0.69	-0.04	-0.11
Conflict Management	3	4.58 4.73	4.66	0.57	1	4.38 4.89	4.64	0.90	0.02	-0.33
Negotiating skills	3	4.58 4.73	4.66	0.60	1	4.78 4.97	4.87	0.34	-0.21	0.26
Interest and studiousness	3	4.57 4.74	4.65	0.63	1	4.44 4.84	4.64	0.70	0.02	-0.07
Motivating skills	3	4.57 4.74	4.65	0.64	1	4.53 4.92	4.72	0.68	-0.07	-0.04
Enquiry and research skills	3	4.56 4.73	4.65	0.66	1	4.58 4.91	4.74	0.54	-0.10	0.09
Ability to apply knowledge to new situations	3	4.55 4.70	4.63	0.57	1	4.40 4.84	4.62	0.77	0.01	-0.19
Ability to convey a strong sense of vision	3	4.51 4.68	4.60	0.66	1	4.58 4.91	4.74	0.57	-0.15	0.09
Controlling skills	3	4.50 4.70	4.60	0.76	1	4.45 4.91	4.68	0.81	-0.08	-0.05

Skills and Traits	Panel 1: Commerce graduates' (Alumni) perceptions (n = 231)				Panel 2: Employers' perceptions (n = 47)				Panel 3: Differences in perceptions			
	Ranking	95% Conf. Interval		Mean	SD	Ranking	95% Conf. Interval		Mean	SD	Mean Diff.	SD
Ability to delegate	3	4.51	4.67	4.59	0.62	1	4.45	4.83	4.64	0.67	-0.05	-0.05
Entrepreneurial skills	3	4.50	4.69	4.59	0.75	1	4.67	4.95	4.81	0.50	-0.22	0.25
Empathy	3	4.49	4.67	4.58	0.70	1	4.48	4.92	4.70	0.78	-0.12	-0.07

The most prominent findings of Panels 1 and 2 of Table 7.5, based on each respondent group's perceptions, were discussed in Sections 5.6 and 6.6 of Chapters 5 and 6 respectively. However the following similarities construed from the views of the Commerce graduates and employers in respect of the management skills and traits are highlighted:

All 43 skills and traits received very high mean scores from both groups of respondents as can be seen from Panels 1 and 2. The range of mean scores was relatively small (for instance, in Panel 1 '*Ability to collaborate across cultures*' had the highest mean score of 4.90 and '*Empathy*' had the lowest mean score of 4.58). In Panel 2 '*Ability to collaborate across cultures*' also had the highest mean of 4.87 and '*Ability to apply knowledge to new situations*' had the lowest mean score of 4.62. This signifies a strong endorsement and support from both respondents on the listed skills and traits in the research instruments, as well as highlighting the importance of these skills and traits in the work environment. Other main findings include:

- The Commerce graduates (Panel 1) regarded the following skills and traits (mean values of above 4.72) to be the most important; *Ability to collaborate across cultures*, *Time Management*, *Leadership*, *Planning Skills*, *Stress Management*, *Teamwork and Collaboration*, *Developing others*, *Ability and willingness to learn*, and *Social skills and sociability*. *The courses indicated in italics are the ones which received high ratings from both sets of respondents.*
- The employers (Panel 2) regarded the following skills and traits (mean values of above 4.79) to be the most important; *Ability to collaborate across cultures*, *Negotiating skills*, *Analytical thinking and Problem solving*, *Business ethics and integrity*, *Time Management*, *Entrepreneurial skills*, *Planning skills*, *Teamwork and Collaboration*, *Trustworthiness* and *Accountability*. *The courses indicated in italics are the ones which received high ratings from both sets of respondents.*

In terms of Panel 3 of Table 7.5, a positive mean difference means that the relative importance of a particular skill or trait was perceived to be of greater importance by the Commerce graduates than by the employers. In the same vein, a negative mean difference score means that the employers perceived the particular skill or trait to be more important than that of the Commerce graduates.

Panel 3 of Table 7.5, based on each respondent group's perceptions, can therefore be interpreted as follows:

- Thirty four of the forty three skills and traits presented negative mean differences, implying that employers perceived these skills and traits to be more important than the Commerce graduates.
- Nine of the forty three skills and traits had positive mean differences, implying that Commerce graduates perceived these skills and traits to be more important than the employers, namely, *Leadership* (mean difference of 0.08), *Ability to act independently* (mean difference of 0.07), *Ability to collaborate across cultures* (mean difference of 0.03), *Conflict Management* (mean difference score of 0.02), *Interest and studiousness* (mean difference score of 0.02), *Ability to apply knowledge to new situations* (mean difference score of 0.01), *Intellectual flexibility and adaptability* (mean difference score of 0.01), *Stress Management* (mean difference score of 0.00) and *Creative thinking and initiatives* (mean difference score of 0.00)
- Three skills and traits presented mean difference scores of 0.15 and greater, indicating that the differences in relative importance rating were, even though highly important to both the respondent groups, more highly regarded by the employers than the Commerce graduates. These included: *Ability to convey a strong sense of vision; Negotiating skills; and Entrepreneurial skills.*

Testing of hypothesis pertaining to the comparison between Commerce graduates and employers in terms of relative importance of management skills and traits

In order to determine whether statistically significant differences exist between the Commerce graduates' and employers' perceptions relating to the importance of management skills and traits as required in the work environment, the null hypothesis $H_0^{6.3}$ was tested using independent t-tests where one group was compared with another group and inferences were made about the two groups of respondents and where statistically significant ($p = 0.05$) differences were observed, as well as Cohen's d statistics calculated to determine whether the differences are practically significant (≤ 0.20). The statistics pertaining to these tests are provided in Table 7.6. The same statistical analysis procedure for testing the stated hypothesis was followed as stated in Section 7.2.

Table 7.6: Statistics for testing the hypothesis ^{6.3}

Skills and Traits	t-value	p-value (df=276)	Cohen's d
Leadership	0.79	.432	n.a.
Ability to act independently	0.73	.467	n.a.
Ability to collaborate across cultures	0.42	.677	n.a.
Conflict Management	0.19	.846	n.a.
Interest and studiousness	0.15	.882	n.a.
Ability to apply knowledge to new situations	0.11	.913	n.a.
Intellectual flexibility and adaptability	0.08	.940	n.a.
Stress Management	0.05	.963	n.a.
Creative thinking and initiatives	0.04	.968	n.a.
Developing others	-0.10	.921	n.a.
Organising skills	-0.10	.917	n.a.
Computer Literacy	-0.11	.914	n.a.
Ability and willingness to learn	-0.15	.878	n.a.
Social skills and sociability	-0.18	.860	n.a.
Ability to follow and construct logical argument	-0.19	.851	n.a.
Decision making skills	-0.24	.813	n.a.
Conceptual thinking (big picture)	-0.33	.745	n.a.
Oral presentations and use of visual aids	-0.41	.681	n.a.
Interpersonal (networking) skills	-0.43	.668	n.a.
Emotional stability and self-control	-0.41	.679	n.a.
Diversity Management	-0.44	.662	n.a.
Ability to delegate	-0.45	.656	n.a.
Impact and Influence on others	-0.49	.624	n.a.
Planning skills	-0.71	.481	n.a.
Time Management	-0.79	.431	n.a.
Teamwork and Collaboration	-0.75	.456	n.a.
Pro-activity	-0.70	.487	n.a.
Motivating skills	-0.67	.502	n.a.
Self-confidence and decisiveness	-0.79	.430	n.a.
Organisational awareness	-0.78	.437	n.a.
Driving force, motivation and resilience	-0.88	.382	n.a.
Controlling skills	-0.68	.499	n.a.
Accountability	-1.08	.279	n.a.
Enquiry and Research skills	-0.97	.333	n.a.
Holistic (systems) thinking	-1.22	.223	n.a.
Sensitivity to business environment	-1.19	.236	n.a.
Empathy	-1.06	.289	n.a.
Trustworthiness	-1.22	.225	n.a.
Business ethics and integrity	-1.57	.119	n.a.
Analytical thinking and problem solving	-1.66	.098	n.a.
Ability to convey a strong sense of vision	-1.43	.154	n.a.
Negotiating skills	-2.38	.018	0.38 small
Entrepreneurial skills	-1.90	.059	n.a.

The third set of hypotheses pertaining to the comparison between Commerce graduates (alumni) and employers of Commerce graduates from the selected HEI is stated as follows:

- $H_0^{6.3}$: There are no statistically significant differences between the Commerce graduates' and employers' perceptions relating to the importance of management skills and traits required in the work environment.
- $H_a^{6.3}$: There are statistically significant differences between the Commerce graduates' and employers' perceptions relating to the importance of management skills and traits required in the work environment.

From Table 7.6 it is evident that these tests revealed that none of the mean difference scores were significant at the 95 per cent confidence level ($\alpha = 0.05$), except for negotiating skills. Based on this finding, it can be concluded that the null hypothesis $H_0^{6.3}$ is not rejected except for negotiating skills. This implies that there were no statistically significant differences between the Commerce Graduates' and employers' perceptions, as sampled populations, relating to the importance of management skills and traits required in the work environment, except in the case of negotiating skills. In the case of negotiation skills the Cohen's d statistics in the 0.2 to 0.5 interval and the negative mean difference, implies that the employers regard this skill as being slightly more important than the Commerce graduates.

To further ascertain the level of independence and strength of association between the variables (commerce graduates and employers) in respect of the factor classifications pertaining to management skills and traits the Chi-square test and Cramér's V post-tests were performed. In the following section these findings are presented.

Chi-square test and Cramer's V post-test findings on the importance of management skills and traits according to factor classifications.

The purpose of this section is to confirm the level of independence (*Chi-square*) and strength of association (Cramér's V) between the Commerce graduate and employer perceptions on the importance of management skills and traits according to the factor classifications. As indicated previously in Chapter 2, Table 2.7, the relevant factor classifications include: *Technical and administrative skills; Interpersonal and communication skills; Conceptual, diagnostic and critical thinking (decision making skills; Cognitive intelligence and mental ability; and Emotional intelligence; and Knowledge and wisdom.* As mentioned in Chapter 4, Section 4.9, the χ^2 test measures the independence (alignment) between two sets of

frequency measures (Commerce graduates and employers) and indicates whether there is a significant relationship between variables, but it does not indicate how significant and important these relationships are (Terre Blanche *et al.*, 1999: 340-352). Consequently, the Cramér's *V* is a post-test used to indicate the strength of association after the Chi-square test has determined the statistical significant relationship (Terre Blanche *et al.*, 1999: 340-352).

The following findings pertaining to the factor classifications on the importance of management skills and traits indicate that there were levels of independence (*Chi-square*) between the Commerce graduates' and employers' perceptions (no statistically significant results were found ($p \leq 0.05$) and no levels of association (Cramer's *V*). For the sake of brevity only the main findings are reported below while the contingency tables have been included in Appendix C.

- Technical and administrative skills - (Chi^2 (d.f. = 2, n = 278) = 1.28; p = .527).
- Interpersonal and communication skills – Chi^2 (d.f. = 3, n = 278) = 1.01; p = .800).
- Conceptual, diagnostic and critical thinking (decision making skills) - (Chi^2 (d.f. = 3, n = 278) = 1.62; p = .656).
- Cognitive intelligence and mental ability - (Chi^2 (d.f. = 3, n = 278) = 2.76; p = .430).
- Emotional intelligence - (Chi^2 (d.f. = 2, n = 278) = 4.19; p = .123).
- Knowledge and wisdom - (Chi^2 (d.f. = 3, n = 278) = 3.73; p = .293).

7.5 PROFICIENCY OF COMMERCE GRADUATES IN MANAGEMENT SKILLS AND TRAITS

In order to achieve the research questions posed in Chapter 1, Section 1.5.3 and hypothesis Ho^{6.4} stated in Chapter 1, Section 1.5.4 a comparison of the perceptions of the Commerce graduates and employers in terms of proficiency of Commerce Graduates (Alumni) in management skills and traits will be done. The 43 management skills and traits that were used for the Commerce graduate survey and the employer survey for empirical purposes, as described in Chapter 5 (Section 5.6) and Chapter 6 (Section 6.6) will be used for comparison purposes in this section. The merged responses pertaining to the proficiency of Commerce graduates in management skills and traits as well as the extent to which formal tuition at the selected HEI developed these abilities are reflected in Table 7.7. Panel 1 of Table 7.7 shows the Commerce graduate respondents' mean scores in terms of the extent to which formal

tuition developed the selected management skills and traits - referred to as development. Panel 2 shows the employer respondents' mean scores of the Commerce graduate's proficiency in management skills and traits. The ranking categories and 95% confidence intervals shown in Panels 1 and 2 in Table 7.7 were reported and discussed in Chapters 5 and 6. The differences in Panel 3 in Table 7.7 were calculated by subtracting the relevant employer value from the Commerce graduate (Alumni) value, as was previously explained in Section 7.4.

Table 7.7: Differences between Commerce graduate and employer perceptions on the development and proficiency of management skills and traits

Skills and Traits	Panel 1: Commerce graduates' (Alumni) perceptions (n =231)				Panel 2: Employers perceptions' (n = 47)				Panel 3: Differences in perceptions	
	Ranking	95% Conf. Interval	Mean	SD	Ranking	95% Conf. Interval	Mean	SD	Mean diff.	SD
Time Management	1	4.38 4.56	4.47	0.70	1	4.08 4.52	4.30	0.78	0.17	-0.08
Computer Literacy	1	4.36 4.53	4.45	0.69	1	3.98 4.44	4.21	0.81	0.23	-0.12
Social skills and sociability	1	4.36 4.54	4.45	0.69	1	3.97 4.46	4.21	0.86	0.23	-0.12
Teamwork and Collaboration	1	4.33 4.50	4.42	0.66	1	4.01 4.42	4.21	0.72	0.20	-0.06
Leadership	1	4.30 4.48	4.39	0.71	1	3.98 4.49	4.23	0.89	0.16	-0.18
Ability to collaborate across cultures	2	4.07 4.31	4.19	0.92	2	3.70 4.13	3.91	0.75	0.28	0.17
Decision making skills	2	4.09 4.29	4.19	0.78	1	3.81 4.23	4.02	0.74	0.17	0.04
Interpersonal (networking) skills	2	4.08 4.27	4.18	0.73	2	3.66 4.21	3.94	0.96	0.24	-0.23
Oral presentations and use of visual aids	2	4.02 4.21	4.12	0.73	2	3.60 4.02	3.81	0.74	0.31	-0.01
Accountability	2	4.01 4.21	4.11	0.75	2	3.49 3.87	3.68	0.66	0.43	0.09
Ability to act independently	2	3.97 4.17	4.07	0.75	2	3.40 3.87	3.64	0.82	0.43	-0.07
Interest and studiousness	2	3.96 4.14	4.05	0.71	2	3.41 3.83	3.62	0.74	0.43	-0.02
Ability to follow and construct logical arguments	2	3.94 4.14	4.04	0.78	2	3.43 3.80	3.62	0.64	0.43	0.14
Ability and willingness to learn	2	3.94 4.14	4.04	0.77	2	3.45 3.83	3.64	0.67	0.40	0.10
Planning skills	2	3.95 4.13	4.04	0.70	2	3.47 3.93	3.70	0.81	0.34	-0.10
Self-confidence and decisiveness	2	3.94 4.14	4.04	0.78	2	3.50 3.86	3.68	0.63	0.36	0.15
Organising skills	2	3.94 4.12	4.03	0.71	2	3.36 3.75	3.55	0.69	0.48	0.02
Analytical thinking and problem solving	3	3.93 4.11	4.02	0.69	2	3.53 3.92	3.72	0.68	0.29	0.00

Skills and Traits	Panel 1: Commerce graduates' (Alumni) perceptions (n =231)				Panel 2: Employers perceptions' (n = 47)				Panel 3: Differences in perceptions	
	Ranking	95% Conf. Interval	Mean	SD	Ranking	95% Conf. Interval	Mean	SD	Mean diff.	SD
Business ethics and integrity	3	3.92 4.11	4.01	0.75	2	3.41 3.82	3.62	0.71	0.40	0.04
Ability to apply knowledge to new situations	3	3.92 4.08	4.00	0.65	2	3.29 3.65	3.47	0.62	0.53	0.03
Intellectual flexibility and adaptability	3	3.89 4.08	3.99	0.72	2	3.38 3.69	3.53	0.55	0.46	0.17
Driving force, motivation and resilience	3	3.87 4.06	3.97	0.76	2	3.37 3.78	3.57	0.71	0.39	0.05
Motivating skills	3	3.86 4.06	3.96	0.75	2	3.36 3.75	3.55	0.69	0.41	0.06
Pro-activity	3	3.86 4.06	3.96	0.76	2	3.43 3.85	3.64	0.74	0.32	0.05
Sensitivity to business environment	3	3.86 4.07	3.96	0.81	2	3.43 3.88	3.66	0.79	0.30	0.03
Organisational awareness	3	3.86 4.06	3.96	0.78	2	3.46 3.82	3.64	0.64	0.32	0.14
Stress Management	3	3.85 4.05	3.95	0.79	2	3.35 3.80	3.57	0.71	0.38	0.01
Impact and Influence on others	3	3.85 4.05	3.95	0.77	2	3.29 3.65	3.47	0.62	0.48	0.15
Emotional stability and self-control	3	3.83 4.04	3.94	0.82	2	3.47 3.89	3.68	0.73	0.25	0.10
Ability to delegate	3	3.84 4.02	3.93	0.71	2	3.41 3.74	3.57	0.58	0.36	0.13
Conceptual thinking (big picture)	3	3.83 4.02	3.93	0.73	2	3.44 3.79	3.62	0.61	0.31	0.12
Diversity Management	3	3.82 4.03	3.93	0.80	2	3.50 3.82	3.66	0.56	0.27	0.24
Negotiating skills	3	3.81 4.02	3.91	0.84	2	3.36 3.75	3.55	0.69	0.36	0.15
Creative thinking and initiatives	3	3.80 4.00	3.90	0.80	2	3.45 3.83	3.64	0.67	0.26	0.13
Developing others	3	3.80 3.99	3.90	0.76	2	3.42 3.81	3.62	0.68	0.28	0.08
Holistic (systems) thinking	3	3.79 3.99	3.89	0.77	2	3.41 3.78	3.60	0.65	0.29	0.12
Controlling skills	3	3.76 3.99	3.87	0.87	2	3.36 3.79	3.57	0.74	0.30	0.12
Conflict Management	3	3.76 3.97	3.87	0.79	2	3.28 3.74	3.51	0.80	0.36	-0.02
Enquiry and Research skills	4	3.73 3.94	3.84	0.83	2	3.65 4.09	3.87	0.77	-0.04	0.06

Skills and Traits	Panel 1: Commerce graduates' (Alumni) perceptions (n =231)				Panel 2: Employers perceptions' (n = 47)				Panel 3: Differences in perceptions			
	Ranking	95% Conf. Interval		Mean	SD	Ranking	95% Conf. Interval		Mean	SD	Mean diff.	SD
Ability to convey a strong sense of vision	4	3.73	3.91	3.82	0.72	3	3.22	3.59	3.40	0.65	0.42	0.07
Empathy	5	3.59	3.82	3.70	0.90	2	3.37	3.82	3.60	0.80	0.11	0.10
Entrepreneurial skills	5	3.41	3.69	3.55	1.07	2	3.27	3.80	3.53	0.93	0.02	0.14
Trustworthiness	5	3.32	3.62	3.47	1.16	2	3.44	3.96	3.70	0.91	-0.23	0.25

The most prominent findings of Panels 1 and 2 of Table 7, based on each respondent group's perceptions, can be interpreted as follow:

All 43 skills and traits received very high mean scores from both groups of respondents as can be seen from Panels 1 and 2. The range of mean scores was relatively small with a mean variation of 0.10 (for instance, in Panel 1 '*Time Management*' had the highest mean score of 4.47 and '*Trustworthiness*' had the lowest mean score of 3.47. In Panel 2 '*Time Management*' also had the highest mean of 4.30 and '*Ability to convey a strong sense of vision*' had the lowest mean score of 3.40 – a mean variation of 0.90. This signifies a strong endorsement and support of the Commerce Graduates from the selected HEI in these management skills and traits. More specifically the following findings are evident:

- The Commerce graduates (Panel 1) regarded the following skills and traits (mean values of 4.39 and greater) more important to develop, namely, *Time Management, Computer Literacy, Social skills and sociability, Teamwork and collaboration, and Leadership*.
- Interestingly, the employers (Panel 2) considered that the Commerce graduates had high levels of proficiency in the following skills and traits (mean values of 4.02 and greater) namely, *Time Management, Leadership, Computer Literacy, Social skills and sociability, Teamwork and Collaboration and Decision making skills*. Besides decision-making skills, the employers regarded these skills and traits mentioned as being of equal importance to the Commerce graduates'.

In terms of Panel 3, Table 7.7, a positive mean difference suggests that Commerce graduates believed they were more proficient in that particular skill and trait than the employers did. In the same vein, a negative mean difference score proposes that the employers believed the Commerce Graduates were more proficient in the particular skill and trait than they themselves believed.

Based on each respondent group's perceptions, panel 3 of Table 7.7 can be interpreted as follows:

- Two of the forty three skills and traits presented negative mean differences, namely, *Enquiry and research skills* and *Trustworthiness*, implying that employers believed the Commerce graduates were more proficient in that particular skill and trait than they themselves believed.

- Forty one of the forty three skills and traits had positive mean differences, implying that Commerce graduates believed they were more proficient in that particular skill and trait than employers did.

Testing of hypothesis pertaining to the comparison between Commerce graduates’ and employers’ perceptions of the proficiency in management skills and traits

In order to determine whether statistically significant differences exist between the Commerce graduates’ and employers’ perceptions relating to the proficiency of Commerce graduates in management skills and traits as required in the work environment, the null hypothesis H_0 ^{6.4} was tested by means of independent t-tests where one group was compared with another group and inferences made about the two groups of respondents and where statistically significant (α 0.05) differences were observed, Cohen’s d statistics were calculated to determine whether the differences are practically significant ($d \leq 0.20$). The statistics pertaining to these tests are provided in Table 7.8. The same statistical analysis procedure for testing the stated hypothesis was followed as highlighted in Section 7.2 in this chapter.

Table 7.8: Statistics for testing the hypothesis^{6.4}

Skills and Traits	t-value	p-value (df=276)	Cohen's d	
Ability to apply knowledge to new situations	5.13	.000	0.82	Large
Impact and influence on others	4.03	.000	0.64	Moderate
Organising skills	4.24	.000	0.68	Moderate
Intellectual flexibility and adaptability	4.10	.000	0.66	Moderate
Interest and studiousness	3.78	.000	0.61	Moderate
Ability to act independently	3.54	.000	0.57	Moderate
Accountability	3.62	.000	0.58	Moderate
Ability to follow and construct logic	3.49	.001	0.56	Moderate
Ability to convey a strong sense of vision	3.71	.000	0.59	Moderate
Motivating skills	3.45	.001	0.55	Moderate
Ability and willingness to learn	3.34	.001	0.53	Moderate
Business ethics and integrity	3.33	.001	0.53	Moderate
Driving force, motivation and resilience	3.24	.001	0.52	Moderate
Stress Management	3.01	.003	0.48	Small
Self-Confidence and decisiveness	3.00	.003	0.48	Small

Skills and Traits	t-value	p-value (df=276)	Cohen's d	
Negotiating skills	2.76	.006	0.44	Small
Ability to delegate	3.21	.001	0.51	Moderate
Conflict Management	2.81	.005	0.45	Small
Planning skills	2.96	.003	0.47	Small
Pro-activity	2.59	.010	0.41	Small
Organisational awareness	2.61	.010	0.42	Small
Conceptual thinking (big picture)	2.71	.007	0.43	Small
Oral presentations and use of visual aids	2.64	.009	0.42	Small
Sensitivity to business environment	2.33	.021	0.37	Small
Controlling skills	2.21	.028	0.35	Small
Analytical thinking and problem solving	2.68	.008	0.43	Small
Holistic (systems) thinking	2.42	.016	0.39	Small
Developing others	2.33	.021	0.37	Small
Ability to collaborate across cultures	1.93	.054	n.a.	
Diversity Management	2.17	.031	0.35	Small
Creative thinking and initiatives	2.09	.038	0.33	Small
Emotional stability and self-control	1.97	.050	0.31	Small
Interpersonal (networking) skills	1.94	.053	n.a.	
Computer Literacy	2.05	.041	0.33	Small
Social skills and sociability	2.01	.045	0.32	Small
Teamwork and collaboration	1.89	.060	n.a.	
Time Management	1.48	.140	n.a.	
Decision making skills	1.37	.172	n.a.	
Leadership	1.30	.193	n.a.	
Empathy	0.75	.456	n.a.	
Entrepreneurial skills	0.11	.915	n.a.	
Enquiry and research skills	-0.28	.780	n.a.	
Trustworthiness	-1.31	.191	n.a.	

The fourth hypothesis in the third set of hypotheses pertaining to the comparison between Commerce graduates (alumni) and employers of Commerce graduates from the selected HEI is stated as follows:

- Ho^{6.4}: There are no statistically significant differences between the Commerce graduates' and employers' perceptions relating to the proficiency of Commerce graduates in management skills and traits

- Ho^{6.4}: There are statistically significant differences between the Commerce graduates' and employers' perceptions' relating to the proficiency of Commerce graduates in management skills and traits

From Table 7.8 it is evident that these tests revealed that the mean difference scores for the proficiency of Commerce graduates in 33 of the management skills and traits were significant at the 95 per cent confidence level ($\alpha = 0.05$), with the exception of *Ability to collaborate across cultures*' (p-value = 0.054), *Interpersonal (networking) skills* (p-value = 0.053), *Teamwork and collaboration* (p-value = 0.060), *Time management* (p-value = 0.140), *Decision making skills* (p-value = 0.172), *Leadership* (p-value = 0.193), *Empathy* (p-value = 0.456), *Entrepreneurial skills* (p-value = 0.915), *Enquiry and research skills* (p-value = 0.780), and *Trustworthiness* (p-value = 0.191). Based on this finding, it can be concluded that the null hypothesis Ho^{6.4} is rejected in all instances except for the proficiency of Commerce graduates in the ten management skills and traits listed above. This implies that there were statistically significant differences between the Commerce Graduates' and employers' perceptions relating to the proficiency of Commerce graduates in terms of 33 of the management skills and traits.

In the case of the *Ability to apply knowledge to new situations* the Cohen's *d* ($d = 0.82$) has a large effect, implying that the Commerce graduates (Alumni) perceived their level of proficiency in this regard to be more developed than the perception of employers. By implication employers would prefer that this ability be further developed. A moderated Cohen's *d* ($0.5 \leq d \leq 0.8$) effect is relevant to the following management skills and traits, namely *Impact and influence on others*, *Organising skills*, *Intellectual flexibility and adaptability skills*, *Interest and studiousness*, *Ability to act independently*, *Accountability*, *Ability to follow and construct logic*, *Ability to convey a strong sense of vision*, *Motivating skills*, *Ability and willingness to learn*, *Business ethics and integrity*, *Driving force, motivation and resilience* and the *Ability to delegate*. In each of these cases, the Commerce graduates (Alumni) perceived their level of proficiency to be more developed than the perception of employers. A small Cohen's *d* ($0.2 \leq d \leq 0.5$) effect is relevant to the following management skills and traits, namely *Stress Management*, *Self-Confidence and decisiveness*, *Negotiating skills*, *Conflict management*, *Planning skills*, *Pro-activity*, *Organisational awareness*, *Conceptual thinking (big picture)*, *Oral presentations and use of visual aids*, *Sensitivity to business environment*, *Controlling skills*, *Analytical thinking and problem*

solving, Holistic (systems thinking), Developing others, Diversity management, Creative thinking and initiatives, emotional stability and self-control, Computer literacy, and Social skills and sociability. In each of these cases, the Commerce graduates (Alumni) perceived their level of proficiency to be more developed than the perception of employers.

To further ascertain the level of independence and strength of association between the variables (commerce graduates and employers) with regard to the proficiency of Commerce graduates according to the factor classifications of management skills and traits the Chi-square test and Cramér's *V* post-tests were performed. In the following section these findings are presented.

Chi-square test and Cramér's *V* post-tests findings on the proficiency of Commerce graduates' management skills and traits according to factor classifications

The purpose of this section is to confirm the level of independence (*Chi-square*) and strength of association (Cramér's *V*) between the Commerce graduate' and employers' perceptions on the proficiency of Commerce graduates in management skills and traits according to the following factor classifications namely *Technical and administrative skills; Interpersonal and communication skills; Conceptual, diagnostic and critical thinking (decision making skills; Cognitive intelligence and mental ability; and Emotional intelligence; and Knowledge and wisdom* (refer Chapter 2, Table 2.7).

As shown below, it was found that there were levels of dependence (*Chi-square*) between Commerce graduates' and employers' perceptions in respect of the proficiency of Commerce graduates with respect to the management skills and traits classification with significant *p*-values ($p \leq 0.05$) in all instances. In terms of the Cramér's *V* post-test there were levels of small associations in all instances, except for *Knowledge and wisdom* which had a moderate level of association. For the sake of brevity only the main findings are reported below while the contingency tables have been included in Appendix C.

- Technical and administrative skills - (Chi^2 (d.f. = 4, $n = 278$) = 16.98; $p = .002$; $V = 0.25$ *Small*)).
- Interpersonal and communication skills - (Chi^2 (d.f. = 3, $n = 278$) = 21.76; $p < .0005$; $V = 0.28$ *Small*)).
- Conceptual, diagnostic and critical thinking (decision making skills) - (Chi^2 (d.f. = 4, $n = 278$) = 12.34; $p = .015$; $V = 0.21$ *Small*)).

- Cognitive intelligence and mental ability - (Chi^2 (d.f. = 4, n = 278) = 22.54; $p < .0005$; $V = 0.28$ *Small*)).
- Emotional intelligence - (Chi^2 (d.f. = 4, n = 278) = 18.31; $p = .001$; $V = 0.26$ *Small*)).
- Knowledge and wisdom - (Chi^2 (d.f. = 3, n = 278) = 24.75; $p < .0005$; $V = 0.30$ *Medium*)).

To further ascertain the level of independence and strength of association between the variables (Commerce graduates and employers) with regard to the level of satisfaction (relative importance minus proficiency) of Commerce graduates according to the factor classifications of management skills and traits the Chi-square test and Cramér's V post-tests were performed. In the next section these findings are presented.

Chi-square test and Cramér's V post-test findings on the level of satisfaction (relative importance minus proficiency) of Commerce graduates management skills and traits according to factor classifications

As shown below, it was found that there were levels of dependence (*Chi-square*) between Commerce graduates' and employer' perceptions in terms of the level of satisfaction with the proficiency of Commerce graduates in management skills and traits relative to the importance ratings. Significant p -values ($p \leq 0.05$) were attained in the management skills and traits factor classifications. In terms of the Cramér's V post-test there were levels of small associations in all instances. For the sake of brevity only the main findings are reported below while the contingency tables have been included in Appendix C.

- Technical and administrative skills - (Chi^2 (d.f. = 3, n = 278) = 19.77; $p < .0005$; $V = 0.27$ *Small*)).
- Interpersonal and communication - (Chi^2 (d.f. = 3, n = 278) = 21.76; $p < .0005$; $V = 0.28$ *Small*)).
- Conceptual, diagnostic and critical thinking (decision making skills) - (Chi^2 (d.f. = 3, n = 278) = 18.95; $p < .0005$; $V = 0.26$ *Small*)).
- Cognitive intelligence and mental ability - (Chi^2 (d.f. = 2, n = 278) = 13.60; $p = .001$; $V = 0.22$ *Small*)).
- Emotional intelligence - (Chi^2 (d.f. = 3, n = 278) = 21.73; $p < .0005$; $V = 0.28$ *Small*)).
- Knowledge and wisdom - (Chi^2 (d.f. = 2, n = 278) = 15.53; $p < .0005$; $V = 0.24$ *Small*)).

In conclusion, the Chi-square tests and Cramér's V provided useful insights into the level of independence and strength of associations between the variables. In terms of the level of

independence only the relative importance factor classifications had levels of independence and no levels of association as reported in section 7.4. There were however levels of dependence and small associations between all factor classifications pertaining to the proficiency of Commerce Graduates and the level of satisfaction except in one instance the proficiency of Commerce graduates in terms of the knowledge and wisdom factor classifications which had moderate levels of association.

7.6 SUMMARY

The purpose of this chapter was to realise the research questions and hypotheses pertaining to the comparison between the Commerce Graduates and Employers as stated in Sections 1.5.3 and 1.5.4 of Chapter One, in respect of the relative importance of core courses, the possible introduction of new courses, the relative importance of management skills and traits in the work environment and the proficiency of Commerce Graduates in these management skills and traits as required in the work environment (refer to Annexures A and B, Sections A and B).

The summary of findings with regard to the Commerce graduates and employers are as follows:

7.6.1 Findings: Importance of core courses

- The courses were ranked very similarly by both sets of respondents, though in twelve of the nineteen courses the employers' mean scores were generally higher than those of Commerce graduates.
- All the core courses were regarded as being of high importance by both respondents, giving implicit support to the generalists approach instead of specialists approach.
- Philosophy was ranked last by both groups of respondents which could be attributed to the fact that few of the respondents had prior exposure to the course as it is not in the 'traditional' commerce curriculum, but can be selected by Commerce students.

7.6.2 Findings: Importance of and proficiency in management skills and traits

- Both Commerce graduates and employers ranked *Ability to collaborate across cultures, Time Management, Planning Skills, Teamwork and Collaboration, Business ethics and integrity* very highly in terms of importance.

- Generally both sets of respondents ranked all the management skills and traits very highly, although, thirty four of the forty three skills and traits were regarded as being more important by the employers than the Commerce Graduates.
- The Commerce graduates regarded the following skills and traits (mean values of above 4.39) to be *developed the most*; *Time Management, Computer Literacy, Social skills and sociability, Teamwork and Collaboration, and Leadership*.
- Forty one of the forty three skills and traits had positive mean differences, implying that Commerce graduates believed they were more proficient in that particular management skill and trait than Employers did.

7.6.3 Findings: hypotheses

- $H_o^{6.1}$: There are no statistically significant differences between the Commerce graduates' and employers' perceptions relating to the importance of core courses for running a business.
- $H_a^{6.1}$: There are statistically significant differences between the Commerce graduates' and employers' perceptions relating to the importance of core courses for running a business.

The t-tests revealed that none of the mean difference scores, for the sampled populations, were significant at the 95 per cent confidence level ($\alpha = 0.05$), except for Philosophy (p-value = 0.001) and Mathematics (p-value ≤ 0.005). Based on this finding, it can be concluded that the null hypothesis $H_o^{6.1}$ is not rejected except for Philosophy and Mathematics. This implies that there were no statistically significant differences between the Commerce graduates' and employers' perceptions, as sampled populations, relating to the importance of core courses for running a business, except for Philosophy and Mathematics. In the case of Philosophy and Mathematics the Cohen's *d* statistics were between 0.5 and 0.8, and given the negative difference between the relevant mean scores, it implies that the employers regard these two courses as being moderately more important than the Commerce graduates do. It should, however, be noted that both the respondent groups did not regard Philosophy as being very important, the Commerce graduates' mean score for Philosophy was low at 2.38 and neutral importance by the employers with a mean score of 3.06.

- $H_o^{6.2}$: There are no statistically significant differences between the Commerce graduates' and employers' perceptions relating to the importance of possible new courses for running a business.

- $H_a^{6.2}$: There are statistically significant differences between the Commerce graduates' and employers' perceptions relating to the importance of possible new courses for running a business.

The t-tests revealed that the mean difference scores, for the sampled populations, were not significant at the 95 per cent confidence level ($\alpha = 0.05$), except for Cross Cultural Management (p-value = 0.002), Media Management (p-value = 0.0005), Tourism Management (p-value = 0.0005), Sports Management (p-value = 0.001), Information Systems Evaluation (p-value = 0.018), Introduction to Insurance (p-value = 0.030), Project Management (p-value = 0.026), and Managerial Economics (p-value = 0.0005). Based on this finding, it can be concluded that null hypothesis $H_o^{6.2}$ is not rejected except for the following eight new courses, i.e.: Cross Cultural Management, Media Management, Tourism Management, Sports Management, Information Systems Evaluation, Introduction to Insurance, Project Management and Managerial Economics. In the case of Project Management, Introduction to Insurance and Information Technology Governance the Cohen's d statistics were small (less than 0.5), implying that the employers regard these three new courses as being slightly more important than the Commerce graduates do. Even though the introduction of Cross-cultural, Sport and Media Management were regarded as being moderately more important by the employers (medium effect when $0.5 < d < 0.8$), it should be noted that the employer respondent mean scores for Sports and Media Management (2.79 and 2.74 respectively) are regarded as being neutral and of low importance by the Commerce graduates with mean scores of 1.96 and 1.91. In the case of Managerial Economics and Tourism Management the Cohen's d statistics were large ($d > 0.8$), implying that the employers regard these two new courses as being much more important than the Commerce graduates. However, it should be noted that neither group regarded Tourism Management as being important. The Commerce graduate mean of 1.79 is in the "very low" range (1.0 - 1.8) whilst the employer mean is in the neutral range between 2.6 and 3.4. It should also be noted that the Commerce graduates regarded Managerial Economics as being in the neutral range with a mean score of 2.93.

- $H_o^{6.3}$: There are no statistically significant differences between the Commerce graduates' and employers' perceptions relating to the importance of management skills and traits required in the work environment.

- $H_a^{6.3}$: There are statistically significant differences between the Commerce graduates' and employers' perceptions relating to the importance of management skills and traits required in the work environment.

The t-tests revealed that none of the mean difference scores were significant at the 95 per cent confidence level ($\alpha = 0.05$) except for negotiating skills. Based on this finding, it can be concluded that null hypothesis $H_o^{6.3}$ is not rejected except for negotiating skills. This implies that there were no statistically significant differences between the Commerce Graduates' and employers' perceptions, as sampled populations relating to the importance of management skills and traits required in the work environment, except in the case of negotiating skills. In the case of negotiation skills the Cohen's *d* statistics was small (less than 0.5) and given the negative difference between the relevant mean scores, it implies that the employers regard this skill as being slightly more important than the Commerce graduates do.

Chi-square tests and Cramér's *V* post-test findings on the importance of management skills and traits according to the factor classifications indicated that there were levels of independence (*Chi-square*) between the Commerce graduates' and employers' perceptions and no levels of association (Cramer's *V*).

- $H_o^{6.4}$: There are no statistically significant differences between the Commerce graduates' and employers' perceptions relating to the proficiency of Commerce graduates in management skills and traits
- $H_o^{6.4}$: There are statistically significant differences between the Commerce graduates' and employers' perceptions relating to the proficiency of Commerce graduates in management skills and traits

The t-tests revealed that the mean difference scores for the proficiency of Commerce graduates in 33 of the management skills and traits were significant at the 95 per cent confidence level ($\alpha = 0.05$), with the exception of *Ability to collaborate across cultures'* (p-value = 0.054), *Interpersonal (networking) skills* (p-value = 0.053), *Teamwork and collaboration* (p-value = 0.060), *Time management* (p-value = 0.140), *Decision making skills* (p-value = 0.172), *Leadership* (p-value = 0.193), *Empathy* (p-value = 0.456), *Entrepreneurial skills* (p-value = 0.915), *Enquiry and research skills* (p-value = 0.780), and *Trustworthiness* (p-value = 0.191). Based on this finding, it can be concluded that null

hypothesis $H_0^{6.4}$ is rejected in all instances except for the proficiency of Commerce graduates in the ten above listed management skills and traits. This suggests that there were statistically significant differences between the Commerce Graduates' and employers' perceptions relating to the proficiency of Commerce graduates in terms of 33 of the management skills and traits.

In the case of the *Ability to apply knowledge to new situations* the Cohen's d statistic ($d = 0.82$) has a large effect, implying that the Commerce graduates (Alumni) perceived their level of proficiency in this regard to be more advanced than the perception of employers. By implication employers would prefer that this ability be further developed. A moderated Cohen's d ($0.5 \leq d \leq 0.8$) effect is relevant to the following management skills and traits, namely *Impact and influence on others, Organising skills, Intellectual flexibility and adaptability skills, Interest and studiousness, Ability to act independently, Accountability, Ability to follow and construct logic, Ability to convey a strong sense of vision, Motivating skills, Ability and willingness to learn, Business ethics and integrity, Driving force, motivation and resilience, Ability to delegate*. In each of these cases, the Commerce graduates (Alumni) perceived their level of proficiency to be more developed than the perception held by employers. A small Cohen's d ($0.2 \leq d \leq 0.5$) effect is relevant to the following management skills and traits, namely *Stress Management, Self-Confidence and decisiveness, Negotiating skills, Conflict management, Planning skills, Pro-activity, Organisational awareness, Conceptual thinking (big picture), Oral presentations and use of visual aids, Sensitivity to business environment, Controlling skills, Analytical thinking and problem solving, Holistic (systems thinking), Developing others, Diversity management, Creative thinking and initiatives, emotional stability and self-control, Computer literacy, and Social skills and sociability*. In each of these cases, the Commerce graduates (Alumni) perceived their level of proficiency to be more developed than the perception of employers.

Chi-square test and Cramér's V post-test findings indicated that there were levels of dependence (*Chi-square*) between Commerce graduates' and employers' perceptions in respect of the proficiency of Commerce graduates according to the management skills and traits classification with significant p-values in all instances. In terms of the Cramér's V post-test there were levels of small associations in all instances, except for Knowledge and wisdom which had a moderate level of association.

Chi-square test and Cramér's *V* post-test findings indicated that there were levels of dependence (*Chi-square*) between Commerce graduates' and employers' perceptions in respect of the level of satisfaction with the proficiency of Commerce graduate in management skills and traits relative to the importance ratings. Significant p-values were attained in the management skills and traits factor classifications. In terms of the Cramér's *V* post-test there were levels of small associations in all instances.

A summation of the Commerce graduate and employer findings and ***conclusions will be given in the final chapter of*** this thesis. The final and next Chapter 8 will conclude this thesis with an overview of the Summary, Conclusions and Recommendations.

CHAPTER 8

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

8.1 OVERVIEW OF THE STUDY

As previously mentioned, the role of higher education in developing human capital and contributing to economic growth, competitive advantage and societal progress of any country has been well documented. Renewed attention on the development of skills required by the South African economy and the role of higher educational institutions in developing the required skills, has been the focal point of the Joint Initiative for Priority Skills Acquisition (JIPSA) (Griesel & Parker, 2009: 2).

Business owners, managers, entrepreneurs and leaders in Commerce have to be appropriately educated which would enable them, through their intellectual skills and community sensitive values, to lead future transformation processes (Louw, 1999: 3). In pursuance of being appropriately educated, individuals enrol at Higher Education Institutions (HEIs) whose primary responsibility is to provide human and intellectual capital to meet business and societal needs, in general. Accordingly, it is expected that higher educational institutions would proactively contend with the skills needs of the South African economy by addressing the identified skills gaps through “research, knowledge generation and innovation” (Griesel & Parker, 2009: 3). However, the Commerce graduates, have been subject to much praise and criticism, in South Africa and internationally.

The problem statement of this research was therefore vested in the continuum of praise and criticisms of Commerce graduates and the Commerce curriculum, the reported imbalances between HEIs and the needs of the labour market. Against the background of continued criticism of Commerce Graduates and the groundswell censure against the Commerce curriculum, the management skills and traits they possess and the role of HEI’s in developing management competencies which ensure successful job performance and growth, the main purpose of this research is to contribute to the body of knowledge pertaining to Commerce and Business education, *inter alia* by amalgamating and authenticating the opinions and perceptions of Commerce graduates and employers of these Commerce graduates from a selected HEI.

The primary research objective of this study was therefore to obtain the opinions and expectations of Commerce graduates and Commerce Graduate Employers on the overall perception of Commerce graduates produced by a prominent HEI in the Eastern Cape Province. An in-depth theoretical study and previous research by Louw (1999) and Roos (2008), provided the framework for the research instruments. The outcomes of the study will provide useful data to inform debate and engagement within the HEI and industry, and further, to establish an empirical benchmark against which to conduct periodic future reviews.

A brief chapter-by-chapter overview will now be presented below highlighting the purpose and structure of each chapter. The preamble of the study was **Chapter One**, which provided background as well as the purpose of the research. The problem statement, research questions and hypotheses were formulated in this chapter. The secondary and primary sources used as well as the demarcation of the field of this study and prior research were also discussed in this chapter.

The analysis of secondary sources pertaining to management competencies was provided in **Chapter Two**. In particular, the scope of management activity, management tasks and roles, a discourse on management competencies (including knowledge, skills and traits) was given. Management competencies, for the purposes of this research, are viewed as a combination of knowledge derived from the body of management knowledge presented as core courses in HEIs, as well as the skills and traits which are developed in these courses for successful job performance. The subsequent sections of the chapter focused on the higher order meta-competencies, emotional intelligence, knowledge and wisdom and work integrated learning skills and traits. The secondary sources discussed in Chapter Two provided additional insight by contributing statements pertaining to knowledge and wisdom into both the research instruments (Annexures A and B).

In **Chapter Three**, the second chapter dedicated to secondary sources, the chapter focused on understanding graduate and employer expectations and quality perspectives of the process and output component of higher education, quality challenges in higher education and outcomes of studies in the Commerce Field. Process refers to the quality perceptions pertaining to the programmes offered and the structure of curricula at HEIs which includes methods of instruction, lectures and lecturers, role of learning, competency development.

Output refers to the employer expectations and graduate perceptions which were discussed in this Chapter. The quality challenges in HEIs which included the structure of the curriculum, the value of the higher education qualification and the generalist versus specialist debate were also discussed. Based on the evidence from the secondary sources, statements pertaining to the quality perceptions of the Commerce curriculum could be identified and included in the research instruments (See Annexure A, Sections C and D, and Annexure B, Section C).

The research design and methodology adopted for this research was explained and motivated in **Chapter Four**. The research paradigms, sampling process, data collection, measurement scales of relevant data, the structure of the research instruments, validity, reliability and generalizability, were discussed in full. Furthermore, the data analysis and ethical considerations and summary were also presented. Within the context of this study, positivism was considered to be the most appropriate research paradigm mainly due to the nature of the quantitative data, testing of hypotheses, use of large samples and the potential of generalisation.

Two independent empirical surveys, aimed at two population strata, were administered by means of online questionnaires conducted under the auspices of the Department of Management in the Faculty of Commerce in association with the Development and Alumni Relations Division of the selected HEI (alumni survey) and the Career Centre of the selected HEI (employer survey). The research instruments were subject to pilot testing. The two independent surveys were used to canvass the opinions and perceptions of two population strata namely:

- The Commerce graduates with known email addresses (N = 1 870) from the alumni database at the Development and Alumni Relations Division of the selected HEI (alumni survey). A total of 231 usable questionnaires were received from the Commerce Graduates.
- The employers of Commerce Graduates from the selected HEIs Career Centre database with known email addresses (N = 85) (employer survey). A total of 47 usable questionnaires were received from the employers.

All the questions in both the questionnaires (Annexures A and B), except those in Section E for the Commerce Graduate (Alumni) questionnaire and in Section D for the Employer questionnaire, were carefully phrased statements and/or questions to which respondents had

to respond by a means of a continuous Likert five-point scale. To give effect to the research questions and hypotheses, as stated in Chapter One, Sections 1.5.1, 1.5.2, 1.5.3 and 1.5.4, use was made of MS excel to calculate descriptive statistics such as mean values, standard deviations and frequency distributions. It was deemed not necessary to perform a factor analysis for the research instruments as these had already been confirmed in previous research by Louw (1999) and Roos (2008) and also because the Cronbach's alpha coefficients for this research were regarded as being good to excellent. Inferential statistical analysis used in this research included one sample-t tests, pair-wise t-tests, independent t-tests, Cohen's *d* post-test and χ^2 test with Cramér's *V* post-test.

The empirical findings of the two surveys were presented in Chapters Five (Commerce Graduates) and Chapter Six (Employers), whilst Chapter Seven presented a comparison of the opinions and perceptions of the Commerce Graduates and employers of Commerce graduates.

In **Chapter Five**, the empirical findings of the Commerce graduate (alumni) perceptions were presented. These findings pertained to the importance and quality of tuition of core courses; importance and quality of tuition in management skills and traits; outcome of studies in the Faculty of Commerce at the selected HEI; and perceptions of overall experience as a student in the Faculty of Commerce. The main findings of this chapter were summarised in Section 5.10 of Chapter 5.

Chapter Six focused on the empirical findings of the Employers of the Commerce Graduates from the selected HEI. These findings pertained to the importance and proficiency of Commerce graduates in the core courses; importance and proficiency of Commerce graduates in management skills and traits; and perceptions of employers on the profile of ideal and actual Commerce graduates whom they are exposed to. Section 6.9 of Chapter 6 provided a summary of the main findings of this chapter.

A comparison of the empirical findings pertaining to the Commerce graduates and the empirical findings of the Employers of the Commerce graduates from the selected HEI are presented in **Chapter Seven**. The main findings of this chapter were summarised in Section 7.6 of this chapter.

8.2 CONCLUSIONS AND RECOMMENDATIONS

The foremost summaries in respect of the theoretical base on the perceptions of Commerce graduates from the selected HEI are highlighted in the following sections of the chapters listed below:

- Section 2.6 of Chapter 2 (a discourse on management competencies)
- Section 3.5 of Chapter 3 (quality perspectives pertaining to higher educational institutions)

The important summaries in terms of the empirical findings pertaining to the perceptions of Commerce graduates from the selected HEI are highlighted in the following sections of these chapters:

- Section 5.10 of Chapter 5 (empirical findings of Commerce graduates' perceptions)
- Section 6.9 of Chapter 6 (empirical findings of employers' perceptions)
- Section 7.6 of Chapter 7 (comparison of perceptions of Commerce graduates and perceptions of employers).

As has been the norm in the current study, any discussion follows the logic of the structure of the questionnaires, therefore, the conclusions and recommendations of this study will be highlighted in the following order, namely, core courses, new courses, management skills and traits, outcome of studies in the Faculty of Commerce, perception on overall experience as a student in the Faculty of Commerce and perceptions on profile of Commerce students in the Faculty of Commerce at the selected HEI and in general.

8.2.1 Core and new courses

- It must be noted that the low ratings of Philosophy, in terms of relative importance by both the Commerce graduates and employers may have been due to a lack of prior exposure to the course.
- Both graduates and employers assigned high relative importance scores to seventeen of the nineteen core courses. This can be interpreted as supporting the multi-functionary interdisciplinary approach to the Commerce curriculum. Louw (1999: 18) supported this interpretation by stating that “even though the body of management knowledge or content of management is functionally organised for analytical purposes, it should be noted that in practice a holistic, integrated, cross-functional perspective is required.” Bowden and

Marton (1998: 94-95) further argued that "...the curriculum for any university programme needs to be developed around the idea that students are being prepared for a future which is largely unknown... If you do not know what the future situation will be, then teach students some fundamental skills which they can apply to any situation". This argument favours the multi-functionary interdisciplinary approach in higher education.

- In terms of Ho¹ Commerce graduates (Alumni) were dissatisfied with the quality of tuition they had received in all the core courses, at the selected HEI, relative to the importance of these courses for successful job performance, except for Mathematics and Philosophy.
- The Commerce graduates were satisfied with the quality of tuition they had received in only one of the nineteen core courses, namely, *Philosophy* (refer to Table 5.5 of Chapter 5). However, as previously explained it should be noted that only 12 respondents responded to the quality of tuition received in Philosophy. This is possibly due to the fact that it is offered outside the general Commerce curriculum; hence most respondents did not take the subject. The employers of the Commerce graduates were satisfied with the proficiency of the Commerce graduates in only two of the nineteen courses, namely *Philosophy and Legal Theory* (refer to Table 6.5 of Chapter 6). These findings are a cause for concern and warrant further investigation by the selected HEI. Furthermore, according to Ho³ the employers were not satisfied with the Commerce graduates' proficiency, relative to the importance of core courses for running a business except in the following courses: *Philosophy, Legal Theory, Taxation, Information Systems, and Computer Science*.
- There were no statistically significant differences (Ho^{6.1}) between the Commerce graduates' and employers' perceptions, as sampled populations, relating to the importance of core courses for running a business, except for *Philosophy and Mathematics*. The employers regard these two courses as being moderately more important than the Commerce graduates do.
- In terms of possible introduction of new courses there were similarities evident in terms of high ratings in the Commerce Graduates and employers' findings (see Table 7.3 of Chapter7):
 - Project Management
 - Information Systems Evaluation
 - Entrepreneurship
 - Information Systems Audit and Control

- Information Technology Governance
- Knowledge Management
- International Business Management
- Investment Management; and
- Business Research
- There are no statistically significant differences ($H_0^{6,2}$) between the Commerce graduates' and employers' perceptions relating to the importance of possible new courses for running a business, except in the case of the following eight new courses Cross Cultural Management, Media Management, Tourism Management, Sports Management, Information Systems Evaluation, and Introduction to Insurance, Project Management and Managerial Economics.

In light of these findings the selected HEI should find a way of introducing the above-mentioned courses to further enhance the commerce qualification and better equip future Commerce graduates from the selected HEI. These courses are relevant in the contemporary business environment and also for the Commerce curriculum to stay relevant and significant in the future.

8.2.2 Management skills and traits

- The Commerce graduates and employers allocated all the 43 skills and traits very high importance mean scores (see Table 7.5 of Chapter 7). This signifies a strong endorsement and support from both respondents on the listed skills and traits in the research instruments, as well as highlighting the importance of these skills and traits in the work environment. This finding also further supports the generalist approach in the generalists versus specialists debate (refer to section 3.4.1 of Chapter 3). Celsi and Wolfinbarger (2001: 308) supported this finding and recommended that business schools devote efforts to generalisation (cross-functional integration) and cede skill based training to alternative or ancillary venues. Griesel and Parker (2009: 6) also stated that subject-specific knowledge is not the primary determinant of suitability for employment in most graduate recruitment, the main exceptions being medicine and engineering. Graduate recruiters want a raft of other skills in addition to a first degree and these override the degree specialisation in many areas.
- In terms of H_0^2 the Commerce graduates were not satisfied with the extent to which their management skills and traits had been developed through tuition (refer to Table 5.8 in

Chapter 5). The employers were also not satisfied with the proficiency of the Commerce graduates in all the management skills and traits listed in Table 6.8 of Chapter 6. These findings should be investigated further by the selected HEI and are a cause for great concern. This finding is supported by Ho⁴ indicating that the employer respondents were not satisfied with the extent to which Commerce Graduates from the selected HEI are proficient in the management skills and traits relative to the importance rating.

- In terms of the ranking of the differences between the development of and relative importance of management skills and traits (level of satisfaction) according to factor classifications, explained previously and shown in Table 5.11 of Chapter 5 (also refer to Chapter 2, Table 2.7). All the factor classifications namely, Technical and administrative skills, Knowledge and wisdom, Interpersonal and communication, and cognitive intelligence and mental ability, Conceptual, diagnostic and critical thinking (decision making) and Emotional Intelligence had mean difference scores, implying that the Commerce graduates' skills and traits required in business practice were not fully developed through the tuition they had received, primarily in the Faculty of Commerce, at the selected HEI according to the Commerce graduates themselves.
- In respect of the ranking of the differences between the proficiency and relative importance of management skills and traits (level of satisfaction) according to factor classifications, as explained previously, is shown in Table 6.11 of Chapter 6 (also refer to Chapter 2, Table 2.7). All the factor classifications namely, Technical and administrative skills, Knowledge and wisdom, Interpersonal and communication, and Cognitive intelligence and mental ability, Conceptual, diagnostic and critical thinking (decision making) and Emotional Intelligence had mean difference scores, implying that the Commerce graduates' skills and traits required in business practice were not fully proficient as required in the work environment according to the employers of the Commerce graduates.
- There were no statistically significant differences (Ho^{6.3}) between the Commerce Graduates' and employers' perceptions, as sampled populations, relating to the importance of management skills and traits required in the work environment, except in the case of *negotiating skills*.
- There were statistically significant differences (Ho^{6.4}) between the Commerce Graduates' and employers' perceptions relating to the proficiency of Commerce graduates in terms of 33 of the management skills and traits.

8.2.3 Outcome of studies in the Faculty of Commerce

- There were small differences in the mean scores of the eleven items. The summated score (average mean) for the outcome of graduates' studies in the Faculty of Commerce at the selected HEI was also above 4.2, indicating that all the outcomes, on average, were very highly regarded. The highest mean score was for the item "*Studying in the Faculty of Commerce contributed to an increase in my knowledge and abilities.*" The overall goal of education is to contribute to an increase in one's knowledge and abilities, and it is important to highlight that this item received the highest mean score. It is worth mentioning that the outcome "*provided me with an opportunity for the practical application of material learnt*" was ranked last in the 3rd ranking category. This implies that Faculty of Commerce at the selected HEI should consider providing more opportunities for students to apply their theoretical knowledge. This is highlighted by Amey and Reesor, (2002: 30) who stated that there is growing concern among many graduates that curricula at HEIs are not adequately preparing them to face the changing demands of the working environment. Amey and Reesor (2002: 32) further stated that new graduates may be knowledgeable about theory and research, but many are not appropriately skilled in their ability to apply this theory and research to everyday practice.
- The findings of this section provided further insights to support the multi-functionary interdisciplinary approach, the practical aspect through providing the opportunity for the practical application of material learnt, the emphasis on teamwork, the impact of different cultures and attitudes, and the challenges of globalisation.

8.2.4 Overall perceived experience of Commerce graduates in the Faculty of Commerce

- The item '*My Commerce degree was worth its cost in time, tuition and opportunity cost*' received the highest mean score. This item is important to the HEI especially in giving back value and satisfaction to its main stakeholders, the students, and also for retention of students to become post-graduates as well as referring prospective students. In addition, this item is important as stakeholders within Higher Education continue to criticise the value of the Commerce degree and the quality of Commerce graduates within Higher Education as a whole. At a time when institutional demographics are changing and student enrolments are continuing to increase in South Africa, students entering HEIs are displaying greater and more complex needs than ever before (Kraak and Press, 2008: 17)

it is therefore, worthy that the students believe that the degree was worth its time, tuition and opportunity costs implying that the HEI is meeting the contemporary students' needs.

- Equally noteworthy is the second highly ranked items '*The overall quality of lecturing in the Faculty of Commerce was excellent*', '*Assignments were relevant within the total framework of the Commerce degree*' and '*I would urge my friends and colleagues to take the same degree at Rhodes University*' which are all statements of critical importance in terms of invaluable feedback to the selected HEI's Faculty of Commerce.
- There were four classifications in terms of the 24 statements (refer to Table 3.6 of Chapter 3), namely Quality of lectures and lecturers, Overall quality of the Faculty of Commerce, Quality of the HEI's Commerce qualification, and Exposure to skills development. It is noteworthy to highlight with respect to the Quality of lectures and lecturers the scores were all high except for the following statement '*The lecturers compromised teaching in order to pursue their own research interests*'. Forty six (46) per cent of the respondents disagreed with this statement, two per cent of the respondents were neutral while 52 per cent (52%) of the respondents agreed with this statement. This finding should be of interest to the Faculty of Commerce.
- Finally, the summated score (average mean) for the perceived experience of Commerce graduates as students in the Faculty of Commerce at the selected HEI was 4.02, indicating that all the experiences, on average, were very highly regarded. This finding is supported by 91 per cent of the respondents. This implies that to a greater extent the selected HEI was meeting the expectations of its Commerce graduates. This is also supported by Harvey's (2000: 9) empowering learners' process. Empowering learners is a phrase that is growing in academic debates about the future of higher education and the expectations of graduates (Harvey, 2000: 9). According to Harvey (2000: 11-12), there are several processes for learner empowerment, including, choice within the curriculum; *feedback from learners designed to monitor service provision and the learning experience; representation of learners on decision-making bodies; and the development of a critical, transformative approach to learning*. These, according to (Harvey, 2000: 11-12), are some of the processes which affect graduate expectations and play a part in their perceptions of their university experiences, their curriculum and the expected outcomes.

8.2.5 Profile of the Commerce Graduate

- All the statements pertaining to the *ideal Commerce graduate* received very high mean scores. This implies that respondents more than agreed and supported the statements

regarding the profile of the ideal Commerce graduate. However, none of the statements on the *actual Commerce graduate* obtained mean scores of above 4.2 as previously reported. However, eight of the ten statements obtained mean scores of above 3.4, implying that the statements still obtained high ratings.

- Of particular interest, the statement '*Commerce graduates should be generalists instead of specialists*' received the highest mean score of all the statements. This finding is very significant for the Faculty of Commerce of the selected HEI as there has been on-going debate internally and externally about whether to introduce specialised degrees such as B.Com (Marketing) instead of the more general B.Com (Management and Economics) for example.
- Of particular concern however is the statement '*There is adequate liaison between my organisation and the Faculty of Commerce at the selected HEI*' which received the lowest mean score. This is a cause of concern for the HEI as the most obvious form of employer engagement with HEIs is through the recruitment of graduates. More significant levels of engagement involve situations in which employers contribute to the learning process in educational institutions such as funding, work placements, setting standards, assisting with course design, assisting with assessment, involvement in/contribution to teaching, lecturing or workshops, and releasing staff for workforce development activities (Anderson and Kosarek, 1997: 26; Prague Declaration, 2009: 41). The Faculty of Commerce at the selected HEI should aim to improve the liaisons with employers and aim to maximise these relationships which are mutually beneficial.
- In terms of Ho⁵ employer respondents were *not satisfied with the Profile of the Actual Commerce graduate* employed in their organisation from the selected HEI compared with their perception of the Ideal Commerce graduate.

The selected HEI falls short in terms of producing the ideal Commerce graduate as the employers were not very satisfied with the profile of the actual Commerce graduate from the selected HEI (refer to section 6.7 of Chapter 6). The Faculty of Commerce at the selected HEI should engage with stakeholders in order to obtain further views and input towards producing the ideal Commerce graduate.

8.3 CONTRIBUTIONS OF THIS STUDY

The above sections presented the most prominent empirical findings of the research. This section will now present the most outstanding contributions of this research which are summarised as follows:

- This research was a pilot study pertaining to Commerce Graduates and employers of Commerce graduates from a selected HEI with the groundwork for this type of study having been done through the seminal work by Louw (1999).
- The research instruments, as stated before were replicated (with modifications and adaptations since the study went beyond the previous research) from the seminal study by Louw (1999) (graduate (alumni) and employer) and Roos (2008) (graduate), where the research instruments demonstrated acceptable levels of construct and discriminant validity and reliability.
- The secondary sources discussed in Chapters 2 and 3, presented key theoretical bases and made important contributions to this research. Chapter 2 presented a discourse on the contextualisation of the concept management, the scope of management activity, tasks and roles, management competencies and work integrated learning skills. A further contribution in Chapter 2 is Table 2.6 listing the key traits identified in traits studies and the Knowledge and Wisdom classification criterion in Table 2.7.
- In Chapter 3 the quality perspectives pertaining to HEIs are outlined and discussed. The focus of this chapter was on the process and output components of educational programmes offered at Higher Education Institutions in general and with reference to the Commerce and Business related field. This discussion can be seen as a contribution to the quality perceptions and the body of business management education.
- The empirical findings reported in Chapters 5, 6 and 7 on core courses, new courses, management skills and traits, the outcome of studies in the Faculty of Commerce, the overall experience of the Commerce graduate of studying in the Faculty of Commerce, and the profile of the Commerce graduate are believed to be invaluable contributions to the body of knowledge in respect of the Commerce degree.

8.4 RECOMMENDATIONS FOR FUTURE RESEARCH

The following recommendations for **future research** are put forward based on the outcome of this research and regarding, management education, relative importance of core courses and management skills and traits:

- It is recommended that the Faculty of Commerce at the selected HEI share the findings of this study with other faculties in order to replicate the research, focusing on the other faculties and employers of their graduates.
- Further research is warranted in this area to better identify which management skills and traits may be lacking in each particular department of the Faculty of Commerce at the selected HEI.
- An exploratory study on how the level of engagement between HEIs and employers impacts on the development of management skills and traits in HEIs.
- Further research on how the addition of potential new courses would add value to the Commerce curriculum and Commerce degree.
- Further research on how the overall perceived experience as a student in a specific faculty impacts on the development and proficiency of management skills and traits required for successful job performance.
- A replication of the study, focusing on larger samples from alumni and employers and two or more HEIs in South Africa.
- Further research investigating in which functional areas of management are Commerce graduates from the selected HEI mostly employed in the work environment.
- In the same vein research on the preferred areas of graduate recruitment of employers of Commerce graduates, for example do employers prefer graduates with an undergraduate degree or with a postgraduate qualification such as honours or masters?
- The B.Com foundation course appeared in some of the qualitative data findings and it would be interesting to research the role of the B.Com foundation course in the development of management skills and traits of the graduates from the selected HEI.
- Research on how Commerce graduates who had prior work internships during the course of their studies develop the necessary management skills and traits in comparison to Commerce graduates who have no prior exposure to the work environment.
- Research on how prior entry qualifications for a certain degree impact on the performance and proficiency of graduates in the core courses offered in the relevant faculty.
- With reference to the selected HEI in this study, it would be of interest to conduct a study which explores how the geographical location of an HEI impacts the engagement between HEIs and business.

From the above mentioned recommendations for future research it is clear that the potential for research in management education and related domains is infinite.

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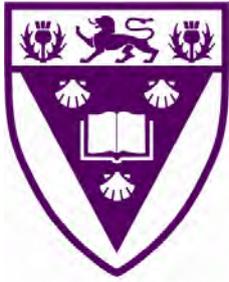
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ANNEXURE A

ALUMNI QUESTIONNAIRE



RHODES UNIVERSITY

DEPARTMENT OF MANAGEMENT

Where leaders learn

Tel: (046) 603 8736 – Fax: (046) 603 8913- email: l.louw@ru.ac.za

Dear Rhodian

The Faculty of Commerce at Rhodes University continuously strives to offer high quality academic programs. With this clear intent, the Faculty is approaching you as an alumnus of Rhodes University to obtain your views and perceptions on some dimensions of university education in order to ascertain what the profile of a Commerce graduate should be.

We request you to share your experience as Rhodes Commerce graduates with us. In the final analysis, your opinions will contribute to the enhancement of management education at Rhodes University and in South Africa. The questionnaire should not take longer than 20 - 30 minutes to complete. There is no right or wrong answer, only your opinions are important. Please complete the questionnaire below that has been compiled to gauge your opinions in this regard. The structure of the questionnaire is as follows:

Section A-1 – Relative importance of courses

Section A-2 – Possible introduction of new courses

Section B – Relative importance of management skills and traits

Section C – Outcomes of studies in the Faculty of Commerce

Section D - Perception on overall experience as a student in the Faculty of Commerce

Section E – Biographical information and open question

Please note that your participation in this survey is voluntary, completely anonymous and no confidential information is required. All the data will be used for research purposes only and

the privacy and confidentiality of your opinion will be respected. Once the research has been conducted the data will be handed to the research supervisor, Professor L. Louw, for private storage. The research has been approved by the Faculty of Commerce Higher Degrees Committee and the Department of Management Human Ethics Committee. Furthermore, it is supported by the Rhodes University Career Centre.

Please complete the questionnaire and submit electronically by September 2010. **Thank you for sharing your views on these important issues with us.**

A.C.M. Webb (Prof)
Dean: Faculty of Commerce

L. Louw (Prof)
Research Supervisor
Head: Department of Management



SECTION A-1: RELATIVE IMPORTANCE OF COURSES

Listed below are number courses that form the foundation of the Rhodes University Commerce program mix namely: Bachelor of Commerce (General), Bachelor of Commerce (Accounting), Bachelor of Commerce (Law), Bachelor of Commerce (Inter-Faculty), Bachelor of Economics, and Bachelor of Business Science.

The purpose of this section is to assess the relative importance of the courses in the working environment and in your career development as well as to establish the quality of tuition at Rhodes University for Commerce graduates.

In your opinion, please indicate the **relative importance in the working environment** of each of the following courses in your chosen career, in the **first column** (1 = unimportant to 5 = very important). In the **second column**, please indicate the **quality of tuition** that you were exposed to at Rhodes University (1= poor to 5 = excellent. If a specific course was not part of your curriculum, please mark N/A (not applicable).

<u>COURSES</u>		Relative Importance						Quality of Tuition					
		Unimportant	Somewhat unimportant	Neutral or no opinion	Somewhat important	Important	Not Applicable	Poor	Somewhat poor	Neutral or no opinion	Good	Excellent	Not Applicable
1	Accounting	1	2	3	4	5	N/A	1	2	3	4	5	N/A
2	Auditing	1	2	3	4	5	N/A	1	2	3	4	5	N/A
3	Ethics	1	2	3	4	5	N/A	1	2	3	4	5	N/A
4	Management Accounting	1	2	3	4	5	N/A	1	2	3	4	5	N/A
5	Taxation	1	2	3	4	5	N/A	1	2	3	4	5	N/A
6	Financial Management	1	2	3	4	5	N/A	1	2	3	4	5	N/A

<u>COURSES</u>	Relative Importance							Quality of Tuition					
	Unimportant	Somewhat unimportant	Neutral or no opinion	Somewhat important	Important	Not Applicable		Poor	Somewhat poor	Neutral or no opinion	Good	Excellent	Not Applicable
7	Marketing Management	1	2	3	4	5	N/A	1	2	3	4	5	N/A
8	Human Resource Management	1	2	3	4	5	N/A	1	2	3	4	5	N/A
9	Strategic Management	1	2	3	4	5	N/A	1	2	3	4	5	N/A
10	Economics	1	2	3	4	5	N/A	1	2	3	4	5	N/A
11	Information Systems	1	2	3	4	5	N/A	1	2	3	4	5	N/A
12	Computer Science	1	2	3	4	5	N/A	1	2	3	4	5	N/A
13	Mathematics	1	2	3	4	5	N/A	1	2	3	4	5	N/A
14	Statistics	1	2	3	4	5	N/A	1	2	3	4	5	N/A
15	Theory of Finance	1	2	3	4	5	N/A	1	2	3	4	5	N/A
16	Commercial Law	1	2	3	4	5	N/A	1	2	3	4	5	N/A
17	Legal Theory	1	2	3	4	5	N/A	1	2	3	4	5	N/A
18	Philosophy	1	2	3	4	5	N/A	1	2	3	4	5	N/A
19	Psychology	1	2	3	4	5	N/A	1	2	3	4	5	N/A

SECTION A-2: POSSIBLE INTRODUCTION OF NEW COURSES

Please rate the importance of the following possible new courses to the commerce curriculum in order to better equip commerce graduates before entering the workplace (1 = unimportant to 5 = important, N/A = not applicable). If there are **other** courses not listed and which you view as important and relevant please specify in the row at the end of this table.

<u>POSSIBLE NEW COURSES</u>		Level of Importance				
		Unimportant	Unimportant Somewhat	Neutral or no opinion	Somewhat Important	Important
1	Investment Management	1	2	3	4	5
2	Managerial Economics	1	2	3	4	5
3	Personal and Corporate Financial Planning	1	2	3	4	5
4	Portfolio Management	1	2	3	4	5
5	Actuarial Science	1	2	3	4	5
6	Introduction to Insurance	1	2	3	4	5
7	Risk Management	1	2	3	4	5
8	Project Management	1	2	3	4	5
9	Events Management	1	2	3	4	5
10	Knowledge Management	1	2	3	4	5
11	Information Systems Audit and Control	1	2	3	4	5
12	Information Systems Evaluation	1	2	3	4	5
13	Information Technology Governance	1	2	3	4	5
14	Customer Relations Management	1	2	3	4	5

<u>POSSIBLE NEW COURSES</u>		Level of Importance				
		Unimportant	Somewhat Unimportant	Neutral or no opinion	Somewhat Important	Important
15	Business Research	1	2	3	4	5
16	Entrepreneurship	1	2	3	4	5
17	International Business Management	1	2	3	4	5
18	Services Marketing	1	2	3	4	5
19	Sports Management	1	2	3	4	5
20	Tourism Management	1	2	3	4	5
21	Media Management	1	2	3	4	5
22	Cross-Cultural Management	1	2	3	4	5
23	Other Languages besides English: Please specify					
24	Other Courses: Please specify					

SECTION B: RELATIVE IMPORTANCE OF MANAGEMENT SKILLS AND TRAITS

The first objective of this section is to assess the **relative importance of skills and traits in the work environment**. Skills can be seen as abilities related to performance that are not necessary inborn, in other words, they can be developed. Traits can be defined as general dispositions to behave or respond in a certain way, for example, self-confidence, self-control and resistance to stress. In your opinion please indicate the **relative importance** of each of the following skills and traits which are essential to successful job performance (1 = unimportant to 5 = important) **in the first column**.

The second objective of this section is to determine the extent to which you agree that **your tuition developed these abilities**. Please indicate the extent to which you agree that formal tuition received at Rhodes University **developed** the following skills and traits (1= strongly disagree to 5 = strongly agree) **in the second column**.

<u>MANAGEMENT SKILLS / TRAITS</u>		Relative Importance					Development				
		Unimportant	Somewhat unimportant	Neutral or no opinion	Somewhat important	Important	Complete disagreement	Disagreement	Neutral or no opinion	Agreement	Complete agreement
1	Ability to collaborate across cultures	1	2	3	4	5	1	2	3	4	5
2	Ability to convey a strong sense of vision	1	2	3	4	5	1	2	3	4	5
3	Ability to delegate	1	2	3	4	5	1	2	3	4	5
4	Ability to apply knowledge to new situations	1	2	3	4	5	1	2	3	4	5
5	Ability to act independently	1	2	3	4	5	1	2	3	4	5
6	Ability to follow and construct logical argument	1	2	3	4	5	1	2	3	4	5
7	Ability and willingness to learn	1	2	3	4	5	1	2	3	4	5
8	Accountability	1	2	3	4	5	1	2	3	4	5
9	Analytical thinking and problem solving	1	2	3	4	5	1	2	3	4	5

<u>MANAGEMENT SKILLS / TRAITS</u>		Relative Importance					Development				
		Unimportant	Somewhat unimportant	Neutral or no opinion	Somewhat important	Important	Complete disagreement	Disagreement	Neutral or no opinion	Agreement	Complete agreement
10	Business ethics and integrity	1	2	3	4	5	1	2	3	4	5
11	Computer Literacy	1	2	3	4	5	1	2	3	4	5
12	Conceptual thinking (big picture)	1	2	3	4	5	1	2	3	4	5
13	Conflict Management	1	2	3	4	5	1	2	3	4	5
14	Controlling skills	1	2	3	4	5	1	2	3	4	5
15	Creative thinking and initiatives	1	2	3	4	5	1	2	3	4	5
16	Decision making skills	1	2	3	4	5	1	2	3	4	5
17	Developing others	1	2	3	4	5	1	2	3	4	5
18	Diversity management	1	2	3	4	5	1	2	3	4	5
19	Driving force, motivation and resilience	1	2	3	4	5	1	2	3	4	5
20	Emotional stability and self-control	1	2	3	4	5	1	2	3	4	5
21	Empathy	1	2	3	4	5	1	2	3	4	5
22	Enquiry and research skills	1	2	3	4	5	1	2	3	4	5
23	Entrepreneurial skills	1	2	3	4	5	1	2	3	4	5
24	Holistic (systems) thinking	1	2	3	4	5	1	2	3	4	5
25	Impact and Influence on others	1	2	3	4	5	1	2	3	4	5
26	Intellectual flexibility and adaptability	1	2	3	4	5	1	2	3	4	5

<u>MANAGEMENT SKILLS / TRAITS</u>		Relative Importance					Development				
		Unimportant	Somewhat unimportant	Neutral or no opinion	Somewhat important	Important	Complete disagreement	Disagreement	Neutral or no opinion	Agreement	Complete agreement
27	Interest and studiousness	1	2	3	4	5	1	2	3	4	5
28	Interpersonal (networking) skills	1	2	3	4	5	1	2	3	4	5
29	Leadership	1	2	3	4	5	1	2	3	4	5
30	Motivating skills	1	2	3	4	5	1	2	3	4	5
31	Negotiating skills	1	2	3	4	5	1	2	3	4	5
32	Oral presentations and use of visual aids	1	2	3	4	5	1	2	3	4	5
33	Organisational awareness	1	2	3	4	5	1	2	3	4	5
34	Organising skills	1	2	3	4	5	1	2	3	4	5
35	Planning skills	1	2	3	4	5	1	2	3	4	5
36	Pro-activity	1	2	3	4	5	1	2	3	4	5
37	Self confidence and decisiveness	1	2	3	4	5	1	2	3	4	5
38	Sensitivity to business environment	1	2	3	4	5	1	2	3	4	5
39	Social skills and sociability	1	2	3	4	5	1	2	3	4	5
40	Stress management	1	2	3	4	5	1	2	3	4	5
41	Teamwork and collaboration	1	2	3	4	5	1	2	3	4	5
42	Time management	1	2	3	4	5	1	2	3	4	5
43	Trustworthiness	1	2	3	4	5	1	2	3	4	5

SECTION C: OUTCOME OF STUDIES IN THE FACULTY OF COMMERCE

This section deals with **certain outcomes of your studies in the Faculty of Commerce**. In your opinion, please indicate your level of agreement, or disagreement, with each of the following statements regarding your **tuition** at Rhodes University (1 = complete disagreement to 5 = complete agreement).

<u>STUDYING IN THE FACULTY OF COMMERCE</u>		Level of Agreement				
		Strongly disagree	Disagree	Neutral or no opinion	Agree	Strongly agree
1	contributed to an increase in my knowledge and abilities	1	2	3	4	5
2	enhanced my insight and comprehension of the business world	1	2	3	4	5
3	provided me with an opportunity for the practical application of material learnt	1	2	3	4	5
4	Provided me with the ability to analyse study material, identify its elements, and to integrate them	1	2	3	4	5
5	developed my ability to identify the relationship between elements, concepts and theories and to integrate them into a new holistic framework	1	2	3	4	5
6	developed my ability to deal with and respond to the needs of others	1	2	3	4	5
7	developed my ability to assess learning material in terms of specific criteria, i.e. the ability to judge logical consistency of study material or to determine the pros and cons of a theory	1	2	3	4	5
8	equipped me in coping with different cultures and attitudes and the challenges of globalisation	1	2	3	4	5
9	cultivated diversity by placing greater emphasis on teamwork	1	2	3	4	5
10	enabled me to test theory in new experiences	1	2	3	4	5
11	developed my ability to formulate general theory from learning experiences	1	2	3	4	5

SECTION D: PERCEPTION ON OVERALL EXPERIENCE AS A STUDENT IN THE FACULTY OF COMMERCE

The purpose of this section is to canvass your opinions on the **perceived overall experience as a student in the Faculty of Commerce** at Rhodes University.

Please indicate the extent to which you agree with the following statements (1 = strongly disagree to 5 = strongly agree).

<u>PERCEPTION ON OVERALL EXPERIENCE AS A STUDENT IN THE FACULTY OF COMMERCE</u>		Level of Agreement				
		Strongly disagree	Disagree	Neutral or no opinion	Agree	Strongly agree
1	The overall quality of lecturing in the Faculty of Commerce was excellent	1	2	3	4	5
2	A Commerce degree enabled me to deal with information technology and other analytical tools	1	2	3	4	5
3	Studying in the Faculty of Commerce provided me with numerous ways of analytical thinking and problem solving	1	2	3	4	5
4	The responsiveness of the lecturers to students' concerns and opinions was outstanding	1	2	3	4	5
5	The responsiveness of the Faculty of Commerce in providing relevant new courses was without delay	1	2	3	4	5
6	Excellent opportunities were afforded to me either in class or in extracurricular activities to nurture and improve my skills in leading others	1	2	3	4	5
7	The quality of guest lecturers (including visiting professors) was outstanding	1	2	3	4	5
8	My lecturers were at the leading edge of knowledge in their fields	1	2	3	4	5
9	The lecturing staff were available for informal discussions when classes were not in session	1	2	3	4	5
10	The coursework was integrated as opposed to being taught as a cluster of loosely related topics	1	2	3	4	5
11	The material presented in class for discussion and review was relevant	1	2	3	4	5
12	The lecturers compromised teaching in order to pursue their own research and personal interests	1	2	3	4	5

<u>PERCEPTION ON OVERALL EXPERIENCE AS A STUDENT IN THE FACULTY OF COMMERCE</u>		Level of Agreement				
		Strongly disagree	Disagree	Neutral or no opinion	Agree	Strongly agree
13	Practical information was provided during the degree that was relevant for my first job	1	2	3	4	5
14	My classmates emphasised individual achievement at the expense of teamwork	1	2	3	4	5
15	I would urge my friends and colleagues to take the same degree at Rhodes University	1	2	3	4	5
16	The value of the commerce qualification is overrated	1	2	3	4	5
17	My commerce degree fulfilled my expectations of what a relevant degree should be	1	2	3	4	5
18	Analytical skills were adequately stressed in the curriculum	1	2	3	4	5
19	Interpersonal skills were adequately stressed in the curriculum	1	2	3	4	5
20	Assigned work and readings were so excessive that it impeded learning	1	2	3	4	5
21	Overall the content of courses was too theoretical in nature	1	2	3	4	5
22	The calibre of my classmates enhanced the learning process	1	2	3	4	5
23	Assignments were relevant within the total framework of the Commerce degree	1	2	3	4	5
24	My Commerce degree was worth its cost in time, tuition and opportunity cost	1	2	3	4	5

SECTION E: BIOGRAPHICAL INFORMATION

1 QUALIFICATIONS:

Please indicate which degree (s) you obtained, and year of graduation (e.g. 1999). Also indicate which were your first, second, third and fourth degrees/diplomas.

	Name of Degree		Year
1	Bachelor of Accounting		
2	Bachelor of Commerce (General)		
3	Bachelor of Commerce (Accounting)		
4	Bachelor of Commerce (Inter-Faculty)		
5	Bachelor of Commerce (Law)		
6	Bachelor of Business Science		
7	Bachelor of Economics		
8	Bachelor of Commerce with honours		
9	Bachelor of Economics with honours		
10	Master of Commerce		
11	Postgraduate Diploma in Accountancy		
12	Postgraduate Diploma in Enterprise Management		
13	Postgraduate Diploma in Taxation		
14	PHD		

2 **JOB DESIGNATION**

Please indicate which one of the following describes your job designation the best.

	Job designation	
1	Academic (Professor/Lecturer)	
2	Business Analyst	
3	Business Development Manager	
4	Consultant	
6	Corporate Communication Manager	
7	Environmental Sector	
8	Financial Manager	
9	Human Resource Manager	
10	Insurance Broker / Financial Consultant	
11	Legal Advisor / Advocate	
12	Managing Director	
13	Marketing / Sales Manager	
14	Middle level / Divisional Manager	
15	Production / Operations Manager	
16	Project Manager	
17	Purchasing / Logistics Manager	
18	Quantitative Surveyor	
19	Systems / Computer Analyst	
20	Take over family business	
21	Other: Please specify	

3. EMPLOYER

Please indicate which one of the employment possibilities is applicable to you.

	Employment possibilities	
1	I am self-employed in my own business	
2	I am employed by a public corporation or government authority	
3	I am employed by a private firm in the private sector	
4	I am employed by an educational institution	
5	I am not in the labour market e.g. student, housewife, retired	
6	Other (Please specify)	

Please state any recommendations you would make towards the education and development of Commerce graduates at Rhodes University.

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Please indicate whether you are in agreement with the following research ethics statements by making a cross in the box provided.

1. I hereby certify that the information in this document is correct to the best of my knowledge.

2. I hereby give consent to the researchers to use the information contained in this document for the purpose of completing their research project, and that I will not be identified and my personal results will be kept confidential.

3. I understood the purpose of the research and my involvement in it.

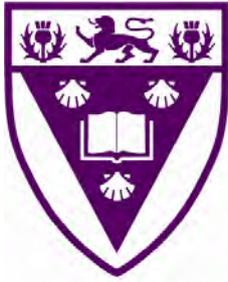
4. My participation in this survey is voluntary and I understood that I could withdraw from the research at any stage.

5. Based on the above, I hereby agree to participate in this survey

THANK YOU FOR YOUR PARTICIPATION!

ANNEXURE B

EMPLOYER QUESTIONNAIRE



RHODES UNIVERSITY

DEPARTMENT OF MANAGEMENT

Where leaders learn

Tel: (046) 603 8736 – Fax: (046) 603 8913- email: l.louw@ru.ac.za

Dear Participant

The purpose of this research is to obtain the opinions and perceptions of employers with regard the competency profile of Rhodes University Commerce graduates. The Department of Management and Rhodes University Career Centre are sensitive to changes in the academic and business environments, continuously striving to improve the contents and offering of courses and the development of management skills and abilities as required by the needs of stakeholders.

We request you to share your experience of Rhodes Commerce graduates with us. In the final analysis, your opinions will contribute to the enhancement of management education at Rhodes University and in South Africa. The questionnaire should not take longer than 20 - 30 minutes to complete. There are no right or wrong answers, only your opinions are important. Please complete the questionnaire below that has been compiled to gauge your opinions in this regard. The structure of the questionnaire is as follows:

- Section A-1** – Relative importance of courses
- Section A-2** – Possible introduction of new courses
- Section B** – Relative importance of management skills and traits
- Section C** – Statements pertaining to the Commerce graduate
- Section D** – Biographical information and open question

Please note that your participation in this survey is voluntary, completely anonymous and no confidential information is required. All the data will be used for research purposes only and the privacy and confidentiality of your opinion will be respected. Once the research has been conducted the data will be handed to the research supervisor, Professor L. Louw, for private storage. The research has been approved by the Faculty of Commerce Higher Degrees Committee and the Department of Management Human Ethics Committee. Furthermore, it is supported the Rhodes University Career Centre.

Please complete the questionnaire and submit electronically by September 2010. The success of this project depends on your co-operation and a copy of the findings will be forwarded to you, upon request. **Thank you for sharing your views on these important issues with us.**

L. Louw (Prof)
Research Supervisor
Head: Department of Management

J. Kietzmann (Mr)
Head: Career Centre



SECTION A-1: RELATIVE IMPORTANCE OF COURSES

A number of courses which are generally accepted as background knowledge for commerce graduates and business managers are listed below. In your opinion, please indicate the **relative importance in the working environment** of each of the following courses for running an organisation / business and job performance (1 = unimportant to 5 = very important) in the **first column**. In the **second column** indicate your perception of the **proficiency of Rhodes University Commerce Graduates** in the courses (1 = poor to 5 = excellent).

<u>COURSES</u>		Relative Importance						Proficiency of RU Commerce Graduates					
		Unimportant	Somewhat unimportant	Neutral or no opinion	Somewhat important	Important	Not Applicable	Poor	Somewhat poor	Neutral or no opinion	Good	Excellent	Not Applicable
1	Accounting	1	2	3	4	5	N/A	1	2	3	4	5	N/A
2	Auditing	1	2	3	4	5	N/A	1	2	3	4	5	N/A
3	Ethics	1	2	3	4	5	N/A	1	2	3	4	5	N/A
4	Management Accounting	1	2	3	4	5	N/A	1	2	3	4	5	N/A
5	Taxation	1	2	3	4	5	N/A	1	2	3	4	5	N/A
6	Financial Management	1	2	3	4	5	N/A	1	2	3	4	5	N/A
7	Marketing Management	1	2	3	4	5	N/A	1	2	3	4	5	N/
8	Human Resource Management	1	2	3	4	5	N/A	1	2	3	4	5	N/A

<u>COURSES</u>		Relative Importance						Proficiency of RU Commerce Graduates					
		Unimportant	Somewhat unimportant	Neutral or no opinion	Somewhat important	Important	Not Applicable	Poor	Somewhat poor	Neutral or no opinion	Good	Excellent	Not Applicable
9	Strategic Management	1	2	3	4	5	N/A	1	2	3	4	5	N/A
10	Economics	1	2	3	4	5	N/A	1	2	3	4	5	N/A
11	Information Systems	1	2	3	4	5	N/A	1	2	3	4	5	N/A
12	Computer Science	1	2	3	4	5	N/A	1	2	3	4	5	N/A
13	Mathematics	1	2	3	4	5	N/A	1	2	3	4	5	N/A
14	Statistics	1	2	3	4	5	N/A	1	2	3	4	5	N/A
15	Theory of Finance	1	2	3	4	5	N/A	1	2	3	4	5	N/A
16	Commercial Law	1	2	3	4	5	N/A	1	2	3	4	5	N/A
17	Legal Theory	1	2	3	4	5	N/A	1	2	3	4	5	N/A
18	Philosophy	1	2	3	4	5	N/A	1	2	3	4	5	N/A
19	Psychology	1	2	3	4	5	N/A	1	2	3	4	5	N/A

SECTION A-2: POSSIBLE INTRODUCTION OF NEW COURSES

Please rate the importance of the following possible new courses to the commerce curriculum in order to better equip commerce graduates before entering the workplace (1 = unimportant to 5 = important, N/A = not applicable). If there are **other** courses not listed and which you view as important and relevant please specify in row at the end of this table.

<u>POSSIBLE NEW COURSES</u>		Level of Importance				
		Unimportant	Unimportant Somewhat	Neutral or no opinion	Somewhat Important	Important
1	Investment Management	1	2	3	4	5
2	Managerial Economics	1	2	3	4	5
3	Personal and Corporate Financial Planning	1	2	3	4	5
4	Portfolio Management	1	2	3	4	5
5	Actuarial Science	1	2	3	4	5
6	Introduction to Insurance	1	2	3	4	5
7	Risk Management	1	2	3	4	5
8	Project Management	1	2	3	4	5
9	Knowledge Management	1	2	3	4	5
10	Information Systems Audit and Control	1	2	3	4	5
11	Information Systems Evaluation	1	2	3	4	5
12	Information Technology Governance	1	2	3	4	5
13	Events Management	1	2	3	4	5
14	Customer Relations Management	1	2	3	4	5

<u>POSSIBLE NEW COURSES</u>		Level of Importance				
		Unimportant	Somewhat Unimportant	Neutral or no opinion	Somewhat Important	Important
15	Business Research	1	2	3	4	5
16	Entrepreneurship	1	2	3	4	5
17	International Business Management	1	2	3	4	5
18	Services Marketing	1	2	3	4	5
19	Sports Management	1	2	3	4	5
20	Tourism Management	1	2	3	4	5
21	Media Management	1	2	3	4	5
22	Cross-Cultural Management	1	2	3	4	5
23	Other Language besides English: Please specify and rate	1	2	3	4	5
24	Other Courses: Please specify and rate	1	2	3	4	5

SECTION B: RELATIVE IMPORTANCE OF MANAGEMENT SKILLS AND TRAITS

Skills can be seen as abilities related to performance that are not necessary inborn, in other words, they can be developed. In practice, however, there is an overlap between the identified skills and the appropriate mix of skills required, depends on the manager’s level, tasks and responsibilities. Traits are defined as general dispositions to behave or respond in a certain way, for example, self-confidence, self-control, and resistance to stress. The objective of this section is to assess the relative importance of skills and traits in the work environment as well as determining the extent to which you agree that commerce graduates are proficient in these abilities. In your opinion, please indicate in the **first column** the **relative importance of each of the following skills and traits to your organization** (1 = unimportant to 5 = important). In the **second column** please indicate your assessment of **Rhodes University Commerce graduates’ proficiency in these abilities** (1 = poor to 5 = excellent).

<u>MANAGEMENT SKILLS / TRAITS</u>		Relative Importance					Proficiency of RU Commerce Graduates				
		Unimportant	Somewhat unimportant	Neutral or no opinion	Somewhat important	Important	Complete disagreement	Disagreement	Neutral or no opinion	Agreement	Complete agreement
1	Ability to collaborate across cultures	1	2	3	4	5	1	2	3	4	5
2	Ability to convey a strong sense of vision	1	2	3	4	5	1	2	3	4	5
3	Ability to delegate	1	2	3	4	5	1	2	3	4	5
4	Ability to apply knowledge to new situations	1	2	3	4	5	1	2	3	4	5
5	Ability to act independently	1	2	3	4	5	1	2	3	4	5
6	Ability to follow and construct logical argument	1	2	3	4	5	1	2	3	4	5
7	Ability and willingness to learn	1	2	3	4	5	1	2	3	4	5

<u>MANAGEMENT SKILLS / TRAITS</u>		Relative Importance					Proficiency of RU Commerce Graduates				
		Unimportant	Somewhat unimportant	Neutral or no opinion	Somewhat important	Important	Complete disagreement	Disagreement	Neutral or no opinion	Agreement	Complete agreement
8	Accountability	1	2	3	4	5	1	2	3	4	5
9	Analytical thinking and problem solving	1	2	3	4	5	1	2	3	4	5
10	Business ethics and integrity	1	2	3	4	5	1	2	3	4	5
11	Computer Literacy	1	2	3	4	5	1	2	3	4	5
12	Conceptual thinking (big picture)	1	2	3	4	5	1	2	3	4	5
13	Conflict Management	1	2	3	4	5	1	2	3	4	5
14	Controlling skills	1	2	3	4	5	1	2	3	4	5
15	Creative thinking and initiatives	1	2	3	4	5	1	2	3	4	5
16	Decision making skills	1	2	3	4	5	1	2	3	4	5
17	Developing others	1	2	3	4	5	1	2	3	4	5
18	Diversity management	1	2	3	4	5	1	2	3	4	5
19	Driving force, motivation and resilience	1	2	3	4	5	1	2	3	4	5
20	Emotional stability and self-control	1	2	3	4	5	1	2	3	4	5
21	Empathy	1	2	3	4	5	1	2	3	4	5
22	Enquiry and research skills	1	2	3	4	5	1	2	3	4	5
23	Entrepreneurial skills	1	2	3	4	5	1	2	3	4	5
24	Holistic (systems) thinking	1	2	3	4	5	1	2	3	4	5

<u>MANAGEMENT SKILLS / TRAITS</u>		Relative Importance					Proficiency of RU Commerce Graduates				
		Unimportant	Somewhat unimportant	Neutral or no opinion	Somewhat important	Important	Complete disagreement	Disagreement	Neutral or no opinion	Agreement	Complete agreement
25	Impact and Influence on others	1	2	3	4	5	1	2	3	4	5
26	Intellectual flexibility and adaptability	1	2	3	4	5	1	2	3	4	5
27	Interest and studiousness	1	2	3	4	5	1	2	3	4	5
28	Interpersonal (networking) skills	1	2	3	4	5	1	2	3	4	5
29	Leadership	1	2	3	4	5	1	2	3	4	5
30	Motivating skills	1	2	3	4	5	1	2	3	4	5
31	Negotiating skills	1	2	3	4	5	1	2	3	4	5
32	Oral presentations and use of visual aids	1	2	3	4	5	1	2	3	4	5
33	Organisational awareness	1	2	3	4	5	1	2	3	4	5
34	Organising skills	1	2	3	4	5	1	2	3	4	5
35	Planning skills	1	2	3	4	5	1	2	3	4	5
36	Pro-activity	1	2	3	4	5	1	2	3	4	5
37	Self confidence and decisiveness	1	2	3	4	5	1	2	3	4	5
38	Sensitivity to business environment	1	2	3	4	5	1	2	3	4	5
39	Social skills and sociability	1	2	3	4	5	1	2	3	4	5
40	Stress management	1	2	3	4	5	1	2	3	4	5
41	Teamwork and collaboration	1	2	3	4	5	1	2	3	4	5

<u>MANAGEMENT SKILLS / TRAITS</u>		Relative Importance					Proficiency of RU Commerce Graduates				
		Unimportant	Somewhat unimportant	Neutral or no opinion	Somewhat important	Important	Complete disagreement	Disagreement	Neutral or no opinion	Agreement	Complete agreement
42	Time management	1	2	3	4	5	1	2	3	4	5
43	Trustworthiness	1	2	3	4	5	1	2	3	4	5

SECTION C: STATEMENTS PERTAINING TO THE COMMERCE GRADUATE AND THE RHODES UNIVERSITY COMMERCE GRADUATE

The following statements pertain to the **Rhodes University (RU) Commerce graduate and Commerce graduates in general**. In your opinion, please indicate your level of agreement, or disagreement, with each of the following statements (1 = complete disagreement to 5 = complete agreement). **In row A**, indicate your perception of the **ideal Commerce graduate**. **In row B**, indicate your **actual perception** of the Rhodes University Commerce graduate.

STATEMENTS A= Ideal Commerce graduate B= Actual RU Commerce graduate		Level of Agreement				
		Strongly disagree	Disagree	Neutral or no opinion	Agree	Strongly agree
A	Commerce graduates should be generalists instead of specialists	1	2	3	4	5
B	RU Commerce graduates in my organisation are generalists rather than specialists	1	2	3	4	5
A	More emphasis should be placed on generating vision in Commerce graduates	1	2	3	4	5
B	In my organisation the RU Commerce graduates display adequate vision	1	2	3	4	5
A	A commerce graduate should display knowledge that is integrated across functional areas	1	2	3	4	5
B	RU Commerce graduates in my organisation display a knowledge that is integrated across functional areas	1	2	3	4	5
A	Quantitative skills of Commerce graduates should be more emphasized	1	2	3	4	5
B	RU Commerce graduates in my organisation display adequate quantitative skills	1	2	3	4	5
A	Leadership and inter-personal skills should be more emphasised in Commerce graduates	1	2	3	4	5
B	RU Commerce graduates in my organisation display adequate leadership and interpersonal skills	1	2	3	4	5

STATEMENTS A= Ideal Commerce graduate B= Actual RU Commerce graduate		Level of Agreement				
		Strongly disagree	Disagree	Neutral or no opinion	Agree	Neutral or no opinion
A	Communication including oral and written presentations should be more emphasised in Commerce graduates	1	3	3	4	5
B	RU Commerce graduates in my organisation display adequate communication skills including oral and written presentations.	1	2	3	4	5
A	Entrepreneurial (creativity and innovation) skills should be more emphasised in Commerce graduates	1	2	3	4	5
B	RU Commerce graduates in my organisation display adequate entrepreneurial (creativity and innovation) skills	1	2	3	4	5
A	Commerce graduates should display a high level of knowledge of the external (e.g. legal, social, political) environment	1	2	3	4	5
B	In my organisation, RU Commerce graduates display an adequate level of knowledge of the external environment	1	2	3	4	5
A	Commerce graduates should display a high level of knowledge of the international dimension of business	1	2	3	4	5
B	In my organisation, RU Commerce graduates display an adequate level of knowledge of the international dimension of business	1	2	3	4	5
A	Ideally, there should be more liaisons between employers and Faculties of Commerce at Universities.	1	2	3	4	5
B	There is adequate liaison between my organisation and the Faculty of Commerce at Rhodes University	1	2	3	4	5

SECTION D: BIOGRAPHICAL INFORMATION

1. Please indicate:

1	The name of your Organisation	
2	Your position in the Organisation	

2. Please classify your organisation in terms of the major industry group / employment sector by making a cross in the relevant category.

1	Services (including Financial)	
2	Manufacturing	
3	Mining	
4	Construction	
5	Wholesale and retail	
6	Transport	
7	ICT	

3. Please indicate, by means of a cross, your organisation's current focus in graduate recruitment. More than one category can be selected.

1	Undergraduate Degree	
2	Undergraduate Diploma	
3	BTech Degree	
4	Four year Professional Degree	
5	Honours Degree	
6	Post-graduate Diploma	
7	Masters	
8	PHD	
9	Other (please specify):	

4. Please indicate, by means of a cross your preferred areas of recruitment.

1	Commerce / Business and Management	
2	Humanities	
3	Law	
4	Science and Technology	
5	Education	
6	Social Sciences	
7	Engineering	
8	Other (please specify):	

Please state any recommendations you would make towards the development of the ideal Commerce Graduate at Rhodes University.

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Please indicate whether you are in agreement with the following research ethics statements by making a cross in the box provided.

6. I hereby certify that the information in this document is correct to the best of my knowledge.

7. I hereby give consent to the researchers to use the information contained in this document for the purpose of completing their research project, and that I will not be identified and my personal results will be kept confidential.

8. I understood the purpose of the research and my involvement in it.

9. My participation in this survey is voluntary and I understood that I could withdraw from the research at any stage.

10. Based on the above, I hereby agree to participate in this survey.

THANK YOU FOR YOUR PARTICIPATION!

ANNEXURE C- CHI SQUARE AND CRAMER'S V STATISTICS

Technical and administrative skills - Importance by Alumni / Employers

	[2.6 to 3.4]		(3.4 to 4.2)		(4.2 to 5.0)		Total	
Alumni	7	3%	27	12%	197	85%	231	100%
Employers	3	6%	5	11%	39	83%	47	100%
Total	10	4%	32	12%	236	85%	278	100%

(Chi²(d.f. = 2, n = 278) = 1.28; p = .527).

Interpersonal and communication - Importance by Alumni / Employers

	[1.8 to 2.6)		[2.6 to 3.4]		(3.4 to 4.2)		(4.2 to 5.0)		Total	
Alumni	2	1%	2	1%	23	10%	204	88%	231	100%
Employers	0	0%	1	2%	5	11%	41	87%	47	100%
Total	2	1%	3	1%	28	10%	245	88%	278	100%

(Chi²(d.f. = 3, n = 278) = 1.01; p = 800).

Conceptual, diagnostic and critical thinking (decision making skills) Importance by Alumni / Employers

	[1.8 to 2.6)		[2.6 to 3.4]		(3.4 to 4.2)		(4.2 to 5.0)		Total	
Alumni	2	1%	2	1%	35	15%	192	83%	231	100%
Employers	0	0%	1	2%	5	11%	41	87%	47	100%
Total	2	1%	3	1%	40	14%	233	84%	278	100%

Cognitive intelligence and mental ability - Importance by Alumni / Employers

	[1.8 to 2.6)		[2.6 to 3.4]		(3.4 to 4.2)		(4.2 to 5.0)		Total	
Alumni	2	1%	4	2%	27	12%	198	86%	231	100%
Employers	1	2%	2	4%	3	6%	41	87%	47	100%
Total	3	1%	6	2%	30	11%	239	86%	278	100%

(Chi²(d.f. = 3, n = 278) = 2.76; p = .430).

Emotional Intelligence - Importance by Alumni / Employers

	[2.6 to 3.4]		(3.4 to 4.2)		(4.2 to 5.0)		Total	
Alumni	5	2%	32	14%	194	84%	231	100%
Employers	3	6%	3	6%	41	87%	47	100%
Total	8	3%	35	13%	235	85%	278	100%

(Chi²(d.f. = 2, n = 278) = 4.19; p = .123).

Knowledge and Wisdom – Importance by Alumni / Employers

	[1.8 to 2.6)		[2.6 to 3.4]		(3.4 to 4.2)		(4.2 to 5.0]		Total	
Alumni	1	0%	4	2%	27	12%	199	86%	231	100%
Employers	0	0%	3	6%	6	13%	38	81%	47	100%
Total	1	0%	7	3%	33	12%	237	85%	278	100%

(Chi²(d.f. = 3, n = 278) = 3.73; p = .293).

Technical and Administrative skills –Development by Alumni / Employers

	[1.0 to 1.8)		[1.8 to 2.6)		[2.6 to 3.4]		(3.4 to 4.2)		(4.2 to 5.0]		Total	
Alumni	1	0%	0	0%	13	6%	133	58%	84	36%	231	100%
Employers	0	0%	1	2%	6	13%	32	68%	8	17%	47	100%
Total	1	0%	1	0%	19	7%	165	59%	92	33%	278	100%

(Chi²(d.f. = 4, n = 278) = 16.98; p = .002; V = 0.25 Small).

Conceptual, diagnostic and critical thinking (decision making skills) – Development by Alumni / Employers

	[1.0 to 1.8)		[1.8 to 2.6)		[2.6 to 3.4]		(3.4 to 4.2)		(4.2 to 5.0]		Total	
Alumni	1	0%	2	1%	43	19%	99	43%	86	37%	231	100%
Employers	0	0%	0	0%	17	36%	23	49%	7	15%	47	100%
Total	1	0%	2	1%	60	22%	122	44%	93	33%	278	100%

(Chi²(d.f. = 4, n = 278) = 12.34; p = .015; V = 0.21 Small).

Cognitive Intelligence and mental ability – Development by Alumni / Employers

	[1.0 to 1.8)	[1.8 to 2.6)	[2.6 to 3.4]	(3.4 to 4.2]	(4.2 to 5.0]	Total
Alumni	1 0%	2 1%	34 15%	100 43%	94 41%	231 100%
Employers	0 0%	0 0%	20 43%	18 38%	9 19%	47 100%
Total	1 0%	2 1%	54 19%	118 42%	103 37%	278 100%

(Chi²(d.f. = 4, n = 278) = 22.54; p < .0005; V = 0.28 Small).

Emotional Intelligence- Development by Alumni / Employers

	[1.0 to 1.8)	[1.8 to 2.6)	[2.6 to 3.4]	(3.4 to 4.2]	(4.2 to 5.0]	Total
Alumni	1 0%	2 1%	42 18%	112 48%	74 32%	231 100%
Employers	0 0%	1 2%	20 43%	17 36%	9 19%	47 100%
Total	1 0%	3 1%	62 22%	129 46%	83 30%	278 100%

(Chi²(d.f. = 4, n = 278) = 18.31; p = .001; V = 0.26 Small).

Knowledge and Wisdom – Development by Alumni / Employers

	[1.8 to 2.6)	[2.6 to 3.4]	(3.4 to 4.2]	(4.2 to 5.0]	Total
Alumni	1 0%	17 7%	97 42%	116 50%	231 100%
Employers	0 0%	13 28%	24 51%	10 21%	47 100%
Total	1 0%	30 11%	121 44%	126 45%	278 100%

(Chi²(d.f. = 3, n = 278) = 24.75; p < .0005; V = 0.30 Medium).

Technical and administrative skills – Development minus Importance by Alumni / Employers

	[-4.0 to -2.4)	[-2.4 to -0.8)	[-0.8 to 0.8]	(0.8 to 2.4]	Total
Alumni	1 0%	101 44%	124 54%	5 2%	231 100%
Employers	0 0%	34 72%	12 26%	1 2%	47 100%
Total	1 0%	135 49%	136 49%	6 2%	278 100%

(Chi²(d.f. = 3, n = 278) = 19.77; p < .0005; V = 0.27 Small).

Interpersonal and Communication – Development minus Importance by Alumni / Employers

	[-4.0 to -2.4)		[-2.4 to -0.8)		[-0.8 to 0.8]		(0.8 to 2.4]		Total	
Alumni	1	0%	104	45%	124	54%	2	1%	231	100%
Employers	0	0%	35	74%	12	26%	0	0%	47	100%
Total	1	0%	139	50%	136	49%	2	1%	278	100%

(Chi²(d.f. = 3, n = 278) = 21.76; p < .0005; V = 0.28 Small).

Conceptual, diagnostic and critical thinking (decision making skills) – Development minus Importance by Alumni / Employers

	[-4.0 to -2.4)		[-2.4 to -0.8)		[-0.8 to 0.8]		(0.8 to 2.4]		Total	
Alumni	2	1%	106	46%	122	53%	1	0%	231	100%
Employers	0	0%	33	70%	14	30%	0	0%	47	100%
Total	2	1%	139	50%	136	49%	1	0%	278	100%

(Chi²(d.f. = 3, n = 278) = 18.95; p < .0005; V = 0.26 Small).

Cognitive Intelligence and mental ability – Development minus Importance by Alumni / Employers

	[-2.4 to -0.8)		[-0.8 to 0.8]		(0.8 to 2.4]		Total	
Alumni	110	48%	118	51%	3	1%	231	100%
Employers	34	72%	11	23%	2	4%	47	100%
Total	144	52%	129	46%	5	2%	278	100%

(Chi²(d.f. = 2, n = 278) = 13.60; p = .001; V = 0.22 Small).

Emotional Intelligence- Development minus importance by Alumni / Employers

	[-4.0 to -2.4)		[-2.4 to -0.8)		[-0.8 to 0.8]		(0.8 to 2.4]		Total	
Alumni	1	0%	118	51%	112	48%	0	0%	231	100%
Employers	0	0%	34	72%	12	26%	1	2%	47	100%
Total	1	0%	152	55%	124	45%	1	0%	278	100%

(Chi²(d.f. = 3, n = 278) = 21.73; p < .0005; V = 0.28 Small).

Knowledge and Wisdom – Development minus importance by Alumni / Employers

	[-2.4 to -0.8]		[-0.8 to 0.8]		(0.8 to 2.4]		Total	
Alumni	82	35%	145	63%	4	2%	231	100%
Employers	31	66%	15	32%	1	2%	47	100%
Total	113	41%	160	58%	5	2%	278	100%

(Chi²(d.f. = 2, n = 278) = 15.53; p < .0005; V = 0.24 Small).