

**AN EMPIRICAL INVESTIGATION INTO THE KEY
FACTORS CAUSING SECOND-YEAR
ACCOUNTING STUDENTS TO DROP OUT AT
TSHWANE UNIVERSITY OF TECHNOLOGY –
SOSHANGUVE CAMPUS BETWEEN 2004 TO
2006**

by

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ABSTRACT

The accounting profession has been identified as one of the scarce skills in South Africa. This phenomenon has attracted many students aspiring to tertiary education to enrol for an accounting degree. Regrettably, most of these students drop out of the programmes in the second year of their studies due to many challenges that they were not prepared for and that the institutions are not making any extra efforts to address.

The objective of the study is to investigate the key factors that contribute to a high rate of second-year Accounting students drop-out in the Department of Accounting at Tshwane University of Technology in the academic years of 2004 to 2006.

The study comprises two phases: the theoretical phase and the empirical phase respectively. The theoretical phase encompasses an in-depth review of relevant literature on issues affecting students to drop out of institutions of higher learning. The empirical phase of the research entails testing the opinions of second-year Accounting students on the factors causing the high drop-out rate among them through the use of a questionnaire and followed by interviews with the relevant stakeholders.

The study will further report on the findings and recommendations made by the lecturing staff, academic development practitioners, support staff and students on how to improve on the factors identified as the cause of drop-out of students in institutions of higher learning. The findings and recommendations of the study will assist the institution in formulating appropriate strategies that will provide remedial services and that will lead to the reduction of the drop-out rate, and subsequently lead to high retention rates of students at Tshwane University of Technology. This research should also be extended to other similar institutions.

List of key terms: drop-out rate; accounting students, universities of technology, factors

OPSOMMING

Die rekeningkundige professie word beskou as een van die areas van skaars vaardighede in Suid-Afrika. Juis daarom is dit 'n gesogte loopbaankeuse vir aspirant studente. Ongelukkig voltooi studente wat rekeningkunde neem dikwels nie hul kursus nie. Veral gedurende die tweede jaar van studie word studie gestaak vanweë baie uitdagings waarvoor hulle nie opgewasse of voorbereid was nie en wat opvoedkundige instellings nie tans aandag aan skenk nie.

Die doel van hierdie studie is om vas te stel wat die hooforsake is wat bygedra het tot die hoë uitvalsyfer onder tweedejaar-rekeningkundestudente van die Departement Rekeningkunde by die Tshwane Universiteit van Tegnologie gedurende die jare 2004 tot 2006.

Die studie behels twee fases: 'n teoretiese fase en 'n empiriese fase. Die teoretiese fase behels 'n diepteondersoek van relevante literatuur oor aspekte wat lei tot die uitvalsyfer onder studente van instellings van hoër onderwys. Die empiriese fase van die navorsing behels die toetsing van opinies van tweedejaar-rekeningkundestudente rakende die faktore wat daartoe bydra dat die uitvalsyfer so hoog is. 'n Vraelys en onderhoud is ingespan om die data in te samel.

Voorts rapporteer die studie die bevindinge van die empiriese gedeelte en gee voorstelle van die dosente, akademiese ontwikkelingspraktisyns, ondersteuningspersoneel en studente rakende die faktore wat lei tot die hoë uitvalsyfer. Hierdie bevindinge en voorstelle sal die Tshwane Universiteit van Tegnologie help om toepaslike strategieë daar te stel om regstellende praktyke in te stel wat kan lei tot die vermindering van studente wat nie hul studies voltooi nie. Die studie kan uitgebrei word na ander opvoedkundige instellings.

Lys van sleutelbegrippe: uitvalsyfer; rekeningkunde studente; universiteite van tegnologie; faktore

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ACRONYMS

ABASA	Association of Black Accountants in South Africa
ASGISA	Accelerated Growth Initiative for South Africa
BCTA	Bridging Certificate in Theory of Accounting
CTA	Certificate in Theory of Accounting
CA (SA)	Chartered Accountants of South Africa
HEQF	Higher Education Qualification Framework
GDP	Gross Domestic Product
IPFASA	Institute of Public Finance Accountants of South Africa
JIPSA	Joint Initiative Priority Skills Acquisition
NSFAS	National Student Financial Aid Scheme
PQM	Programme Qualification Mix
RGDP	Real Gross Domestic Product
SAICA	South African Institute of Chartered Accountants
SAIPA	South African Institute of Professional Accountants
SETA	Sectoral Education and Training Authorities
TUT	Tshwane University of Technology

CHAPTER 1

NATURE AND SCOPE OF THE STUDY

1.1 INTRODUCTION

According to Baumgart and Johnstone (1977:553), in institutions of higher learning, the rate at which students drop out from their studies is unfortunately very high. The high drop-out rate is caused partly by the students themselves and partly by the institutions of higher learning. If administrators are to reduce the drop-out rate by changing teaching styles, giving more counselling, and improving support facilities, they must be guided by proper research of relevant data and factors. The present study reports such data, based on an investigation at the Soshanguve campus of the Tshwane University of Technology.

According to the Minister of Education in South Africa, Naledi Pandor, as cited by Macfarlene (2006:6), half of the country's undergraduate students drop out from institutions of higher learning before they complete their degrees or their diplomas. Thirty percent of students obtain their qualifications within five years of enrolling as first-year students. This trend not only affects historically black institutions of higher learning, but even at Wits University, for example, as much as 33 percent of students had dropped out and 31 percent of students dropped out from Rhodes University. Essentially, this scale of drop-out rates is ruining the academic reputation earned by the Tshwane University of Technology as well as costing the government through wastage of taxpayers' money an awful lot of resources.

Rossouw, editor of the *Chronicle on Higher Education* (2001:1), states that the Department of Education in South Africa spends approximately R1 735 million (rate of exchange, \$1 = R10 645) a year on the 25 percent of students who drop out of tertiary institutions. Rossouw furthers that most of the 125 000 students who drop out every year are black students at

predominantly black institutions. He also indicates that most of the drop-out students are pursuing accounting and other quantitative subjects, such as mathematics and science across tertiary institutions. This demonstrates the fact that the problem of the high rate of second-year Accounting students that drop out at Tshwane University of Technology is not limited to this institution, but presents itself as a national problem. Summarily, Rossouw states that institutions of higher learning are under pressure from the Department of Education to maintain enrolment numbers, and as a result administrators admit students for difficult courses who are unequal to the task.

Ultimately, failure to complete a qualification is associated with persistent future poverty among certain segments of the society. Students who drop out of institutions of higher learning are usually associated with chronically high unemployment levels, low earnings, and poor health outcomes (Sibanda, 2004:14).

Dropping out of university imposes serious constraints on national skills development by undermining current and future national human capital development efforts (Sibanda, 2004:14). There is a strong belief in the country that improving the educational attainment of the previously disadvantaged groups is essential. This will foster social mobility and economic growth, and reduce the inequitable distribution of societal resources.

1.2 PROBLEM STATEMENT

Students who are selected for programmes in the Faculty of Economics and Finance at Tshwane University of Technology experience great difficulty in coping with the academic work, because of a number of inhibiting factors they come across in this institution of higher learning.

This study investigates some of the key factors contributing to the high rate of second-year students that dropped out in the Department of Accounting at Tshwane University of Technology between the years 2004 and 2006. The underlying research question poses what kind of measures the Faculty of

Economics and Finance at Tshwane University of Technology could have employed to reduce the drop-out rate of second-year Accounting students between 2004 and 2006.

1.3 OBJECTIVES OF THE STUDY

1.3.1 Primary objective

The primary objective of this study is to investigate the key factors that contributed to the drop-out rate of second-year Accounting students registered at Tshwane University of Technology between 2004 and 2006.

1.3.2 Secondary objective

The secondary objective is to identify the appropriate interventions of reducing the drop-out rate and improving throughput rates and retention of students.

1.4 STUDY AREA DELINEATION

The study focuses on the second-year students registered for the National Higher Certificate in Accountancy at the Faculty of Economics and Finance at Tshwane University of Technology (Soshanguve campus) during the period 2004 to 2006. Table 1.1 presents the six campuses of the university.

TABLE 1.1: CAMPUSES OF TSHWANE UNIVERSITY OF TECHNOLOGY

Campus	Town	Province
1. Soshanguve	Pretoria	Gauteng
2. Pretoria	Pretoria	Gauteng
3. Ga-rankuwa	Pretoria	Gauteng
4. Nelspruit	Nelspruit	Mpumalanga
5. EMalahleni	Witbank	Mpumalanga
6. Polokwane	Pietersburg	Limpopo

The rationale for selecting Soshanguve campus is based on the fact that this campus is dominated by black students and that it is also a black institution. This is also the main campus of the university and all the other campuses are aligned with one another concerning their learning model and syllabus, programme content and more. Rossouw (2001:1) highlighted that students who drop out are black students at predominantly black institutions, so this campus is no different from other black institutions; therefore, similar problems of students who drop out can be experienced. The researcher is also directly involved at Soshanguve campus with the following activities:

- Lecturing in the Department of Accounting; and
- Coordinating the Department of Accounting at Soshanguve campus.

According to Rossouw and Wolmarans (2002:88), the further the student advances in the study process, the greater the value that is lost if that student drops out. An example of this relationship is that if a second-year National Higher Certificate in Accountancy student fails the final semester and then drops out, it represents much more value lost than a first-year student who drops out in the first semester. Therefore, institutions of higher learning should find ways and means to retain students in the second and third level of study, because the investment in their education is high.

Second-year Accounting students were chosen, because the drop-out rate of the National Higher Certificate in Accountancy students at Tshwane University of Technology, Soshanguve campus is as follows: 23 percent of second-year students, 20 percent of third year students and 16 percent of fourth year students in 2004. The National Higher Certificate in Accountancy was introduced for the first time at Tshwane University of Technology in the year 2004 (see Annexure B). Students registered for this qualification study the same modules for two years. After completion of the certificate, each student has to select from the following three diplomas: Diploma in Accounting, Diploma in Internal Auditing or Diploma in Cost and Management Accounting, which they have to study towards for one year. Therefore, for the students

who enrolled for the first time in 2004, their final year to acquire a diploma was 2006. The study thus focuses on a group of students from their first level to their final level of study with the institution. As a new programme at the time, the study evaluates the drop-out level of the students enrolled for the qualification, and the problems causing these students to drop out.

1.5 HYPOTHESIS

A hypothesis is a tentative statement that implies a proposed answer to a problem, setting accountability and responsibility of effective research procedure as a high priority (De Wet *et al.*, 1981:76). It should, however, be emphasised that in no way a hypothesis statement can claim to be the only solution to the problem. It serves only as a point of departure, a link between the theory and the research that leads to the broadening of knowledge (Smit, 1983:19).

The hypothesis of the study postulates that the high drop-out rate of second-year Accounting students of the Faculty of Economics and Finance at Tshwane University of Technology (Soshanguve campus) is caused by certain inhibiting factors students come across at the tertiary level of education.

1.6 RESEARCH METHODOLOGY

The research methodology of a study is defined as a plan that describes how, when and where data are to be collected and analysed. It also explains how the respondents are approached, informed and recruited. The methodology refers to the strategies, including method(s) used by the researcher to gather more data or to answer the research questions or test the hypothesis (Parahoo, 1997:143).

According to Henning *et al.* (2004:36), methodology refers to the coherent group of methods that complement one another and that have to deliver data and findings that will reflect the research question and suit the research

purpose. The study will use both qualitative and quantitative research methods to achieve the solution to the research question and to realise the research purpose.

1.6.1 Literature review

Parahoo (1997:89) states that the purpose of the literature review is the broad orientation of the prospective researcher with regard to the planned investigation and to alert the researcher of certain matters during the main investigation. The study employs the literature review to develop a good understanding and acquire more insight into the research problem. The study also uses the empirical research methods such as the questionnaire and the interviews to gather more data. The section will be sequenced in the following ways:

The literature section of the study will investigate topics such as skills development, the skills gap, brain drain, proficiency of language, the Accelerated and Shared Growth Initiative for South Africa (ASGISA) and environmental factors at tertiary institutions to ascertain whether it is conducive to a productive study environment.

The review will include books, journal articles, internet, newspapers, theses and official documents. The registry records at Tshwane University of Technology were used to identify those students who have dropped out between 2004 and 2006.

1.6.2 Empirical research methods

This study employs questionnaires and semi-structured interviews to investigate the research question and research purpose.

1.6.2.1 Questionnaire

The questionnaire is an instrument of set printed questions used to gather data from a potentially large group of people who might be beyond physical reach of the researcher (Soanes *et al.*, 2006:613). A self-administered questionnaire was used to collect data from second-year students registered for the National Higher Certificate in Accountancy at Tshwane University of Technology (Soshanguve campus). The questionnaire allowed the researcher to attend to problems that were experienced. The researcher was offered the chance to encourage the respondents to complete the questionnaire.

1.6.2.2 Telephonic interviews

A telephonic interview was conducted with students who dropped out of the institution. A telephonic interview is considered a type of semi-structured interview schedule, as the researcher asks questions telephonically through a person-to-person interview. The advantage of this method is that the researcher has an opportunity to clarify questions, and the response rate is high (De Vos *et al.*, 2005:296).

Semi-structured interviews were held with academic staff and administration personnel in the support services directly dealing with second-year students.

ADVANTAGES OF INTERVIEWS HELD:

- The respondents could speak to the researcher on a one-to-one basis.
- The interviewer controlled the pace of the interview by treating the questionnaire as if it were a theatrical script to be followed in a standardised manner.
- All respondents received the same set of questions, asked in the same order and sequence.
- In the structured form of the interviews the predetermined nature of such interviewing was aimed at minimizing errors.

DISADVANTAGES OF INTERVIEWS HELD:

- Interviews were time-consuming.
- Language differences were a moderately difficult hurdle to overcome.

1.6.3 Data collection

This section reports on the procedures followed to collect the data. A self-administered questionnaire was developed to measure each variable identified in the broad literature research. Each variable was measured using multi-item scales linked to a five-point Likert-type scale, ranging from strongly disagree to strongly agree (see Annexure A and Chapter 4). Questionnaires were distributed to second-year Accounting students of the Tshwane University of Technology (Soshanguve campus). Semi-structured interviews were conducted among lecturing staff, academic development practitioners, support members of the staff and students. In the case of measuring their language proficiency, a number of scripts were selected, and the way in which students presented their facts were also analysed in a test.

The data collected through questionnaires and interviews conducted were analysed. The procedure followed in analysing the data was as follows: To establish the factors causing students to drop out, 43 items (which were identified through the various research methodologies), were grouped into four constructs through factor analysis, namely financial support, student support, teaching, and learning styles and inadequate space. The elements relating to one category were grouped together to form each of the four constructs (see Annexure A for the questionnaire, elements investigated and the four constructs). The interview responses to each question were written down and a summary after each question was made.

1.7 LAYOUT OF THE STUDY

This study is divided into five chapters:

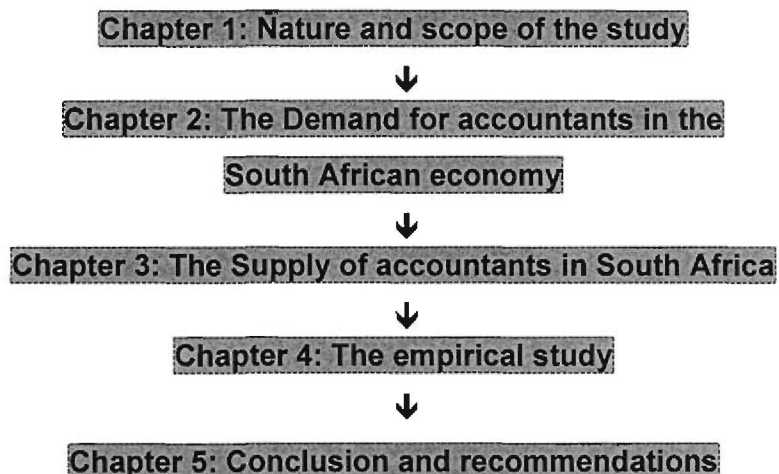
Chapter one comprises the nature and scope of the study, and the research method used in the study, problem statement, aims and objectives, delineation of the study, the outline of the research method and layout of the study.

Chapter two focuses on the literature review in relation to the demand side of the specified category of accountants in South Africa. In this chapter, the researcher consulted books, dissertations, journals, newspapers, internet and official documents that have a bearing on the demand for accountants.

Chapter three focuses on the literature review relating to the supply of accountants in South Africa.

Chapter four focuses on the factors causing students to drop out from institutions of higher learning, as well as the overall findings in response to the research questions. Through questionnaires distributed among students and through interviews with lecturers, students and support staff, a report on the results and findings was outlined.

Chapter five provides a conclusion of the main arguments as well as recommendations for further research possibilities.



1.8 CONCLUSION

Chapter one focused on the introduction of the research problem and the main objectives of the study. The chapter further indicated the different research methods used, that being the literature review, questionnaires and interviews. The different campuses of the Tshwane University of Technology were indicated to give an overall picture of the institution, but the study will focus mainly on the students from Soshanguve campus. The layout of all chapters of the study was also outlined. The reasons that prompted the study was the negative impact brought about by students dropping out of institutions of higher learning as outlined by other researchers such as Rossouw and Sibanda, as discussed in the introduction of the study. Chapter two focuses on the demand for accountants in South Africa and the factors contributing to the high demand for accountants.

CHAPTER 2

THE DEMAND FOR ACCOUNTANTS IN THE SOUTH AFRICAN ECONOMY

2.1 INTRODUCTION

In chapter one the different methods of gathering data were explained and one method was to use the literature review. This chapter will concentrate on the literature relating to the demand for accountants in South Africa. The South African economy is changing rapidly and it has also affected the roles and responsibilities of accountants, which are becoming more complex and diverse. The changes emanated from aspects such as economic growth, technological advances, globalisation and financial controls. These changes have impacted on the demand for accountants and on the skills required of them. The South African labour market for accountants has not only been influenced by globalisation, but locally, accountants are also under pressure to transform and to become more representative of the racial and gender composition of the country (Van Zyl, 2008:365). There are also a growing number of accountants needed in the country.

The chapter starts by analysing the economic growth of the country and factors contributing to the growth of the economy. Economic growth has led to the creation of more job opportunities, especially for highly skilled workers such as accountants. The chapter further addresses the demand for accountants and some of the reasons why there is a high demand for accountants in the country.

2.2 A GROWING ECONOMY

The economic growth of a country is measured in terms of changes in the real gross domestic product. Gross domestic product is the total market value of

all goods and services a nation produce (Schiller, 2003:26). The real gross domestic product is the value of the final output measured in constant prices (Schiller, 2003:98). The gross domestic product of South Africa increased at the rate of four percent in 2006. This growth rate was the same as the one recorded for 2005. The sustained increase in real gross domestic product (real GDP) can mainly be attributed to growth in the real value added by the secondary and tertiary sectors of the economy (SARB, 2006:6). The economic growth of South Africa is illustrated by the table 2.1 below.

TABLE 2.1: ECONOMIC GROWTH IN SOUTH AFRICA BETWEEN 2000 AND 2006

Annual percentage change in GDP

Year	Real Gross Domestic Product GDP	Real gross national income GNI	Real Gross Domestic Product per Capita
2000	4.2	3.7	2.1
2001	2.7	2.5	0.8
2002	3.7	5.1	1.9
2003	3.1	3.5	1.5
2004	4.8	5.8	3.4
2005	5.1	5.3	3.7
2006	5.0	6.3	3.6

Source: (Mohr *et al.*, 2008:512)

The real gross domestic values are values adjusted according to the inflation rate. The real values in the form of Real Gross Domestic Product (RGDP) are used in measuring the economic growth, because if nominal values could be used, the increase could sometimes be brought by the increase in prices during that particular year. Therefore, it will not reflect the real economic growth of the country. The first column of Table 2.1 (RGDP) shows that the economy has expanded with 1,7 percent from 2003 to 2004 and a further increase of 0,3 percent in 2005, and that lead to an increase in production (income) per head and a better standard of living (Mohr *et al.*, 2008:512).

There are a number of factors contributing to the economic growth of South Africa.

2.2.1 Some of the factors

- The positive performance of the economy was enhanced by the growth in the global economy and favourable prices of key export commodities (SARB, 2006:30).
- The economy of South Africa is also strengthened by the inflows of foreign capital in the country. Some of the activities that lead to the inflow of capital were the Industrial and Commercial Bank of China that made an investment of R37 billion in South Africa's Standard Bank (Benton, 2007:1). In 2006, a British company acquired a substantial interest in a South African cellular telephone company. In 2005, portfolio capital flowed into South Africa in the form of equity investment (SARB, 2006:35).
- The South African government is also encouraging economic growth of the country: an additional investment of R2,5 billion went to industrial development and small, medium and micro enterprises respectively (Benton, 2008:1).
- In terms of budget allocations, tax relief of R10,5 billion is envisaged for the 2008/2009 financial year. The business sector is receiving a reduction of one percent, bringing the corporate tax to 28 percent. The reduction in tax will encourage businesses to increase their productivity and the economy will benefit from increased productivity (Benton, 2008:1). The individual's tax burden has been reduced by R7,76 billion; this will lead to an increase in the demand for goods and services, which will encourage businesses to produce more to meet the demand. That will also encourage economic growth of the country.

- The South African government through the Accelerated and Shared Growth Initiative for SA (ASGISA) is aiming at achieving two main social objectives. These two main objectives are unemployment and poverty. Its main objective is to halve unemployment and poverty by the year 2014. The government commits to the realization of these objectives and sets a target of boosting the economy by six percent, if not more (ASGISA, 2006:1).

The economic growth has had a positive impact strengthening the country's job creation opportunities (Benton, 2007:1). The demand for accountants is a function of the level of sophistication of the economy. As business transactions become more complex, and as the financial regulatory environment becomes more complicated, the need for highly skilled professionals increase (Van Zyl, 2008:372).

Table 2.2 illustrates the shortage of those individuals who are training to become chartered accountants. According to Leaf (2007:18), the estimated supply and demand for Certificate in Theory of Accounting (CTA) trainees increases every year. The estimated shortfall of CTA qualified trainees were 664 in 2004 and increased to 1 109 in 2007, and the estimated shortfall for 2008 is 1 655. In all the years, the supply and demand for CTA qualified trainees are increasing, but the increase is not sufficient to fill the gap for the skills shortage. This is a challenge facing institutions of higher learning such as Tshwane University of Technology, who should strive towards the increase of supply of other qualifications such as professional accountants and bookkeepers to fill the gaps created by the shortage of chartered accountants.

TABLE 2.2: ESTIMATED SUPPLY AND DEMAND OF QUALIFIED CTA TRAINEES

Year	Estimated Supply of CTA	Estimated demand of CTA	Shortfall (Demand – Supply)
2004	1 379	2 044	664
2005	1 560	2 425	865
2006	1 614	2 877	1 264
2007	1 752	2 861	1 109
2008	1 869	3 524	1 655

(Leaf, 2007:18)

2.3 ACCOUNTANTS AS PART OF THE LABOUR FORCE

Labour refers to the skills and abilities of people to produce goods and services (Schiller, 2003:4). Accountants form part of the labour force where skills and abilities are used to provide services. The labour force is composed of workers with different types of skills acquired from their qualifications and level of workplace training.

Household survey (StatsSA, 1995:2) classifies skills as follows:

- **Unskilled labour** – That is the labour carried out without specific training and with a limited amount of school education. The workers use more physical effort than mental effort.
- **Semi-skilled** – The semi-skilled workers have no specific training, but most of them have passed the matriculation examination. They are usually employed as clerks (including office clerks, and customer service clerks) and also employed as salespersons.
- **Skilled labour** – The skilled workers are trained to do relatively sophisticated tasks; for example, bricklayers trained to build a house.
- **Highly skilled** – These professionals are highly qualified with more workplace training. Most of the time, they work independently and take

decisions on their own, such as architects who design houses and accountants who interpret complex information analysing financial statements of businesses, and give opinions.

2.4 THE DEMAND FOR ACCOUNTANTS

South Africa is currently faced with a serious challenge of shortage of a skilled and qualified workforce, especially within the accounting profession (Leaf, 2007:1). Table 2.2 illustrates the estimated demand and supply of accountants in the country. From 2004 up to 2008, there has been an increase in the demand for accountants, as compared to the supply of accountants, which resulted in a shortfall. For the purpose of this section, the responsibilities for accountants are outlined as an indication of who should be considered as an accountant, and the qualifications that one needs to obtain in order to be an accountant are mentioned. The main emphasis in this section is the reasons why South Africa is experiencing a high demand of qualified chartered accountants.

2.4.1 How to qualify as a chartered accountant

Van Zyl (2008:369) states that a person is regarded as an accountant if he/she has a bachelor's degree or postgraduate qualification in the fields of accounting, auditing and cost and management accounting, or taxation.

2.4.1.1 Chartered accountants

According to Leaf (2007:1), for one to qualify and obtain the designation of a chartered accountant in South Africa, the following requirements should be met:

1. Obtain a Bachelor of Accounting, B Com Accounting or B Compt degree
2. Obtain an Honours degree in Accounting
3. Obtain a Certificate of Theory in Accounting (CTA)

4. Register and write Part I of the Qualifying Examination (this exam can only be written after a student has passed CTA, not only an honours degree).
5. Register and write Part II of the Qualifying Examination. This exam can only be written after :
 - (i) Passing Part 1 of the Qualifying examination
 - (ii) Completing a specialization course
 - (iii) Completing at least 18 months of articles

The following is a process that a student registered for a B Com degree should follow in order to qualify as a chartered accountant. The student should study for a B Com degree for three years, and then only register for a one-year honours degree in Accounting, or the Certificate in Theory of Accounting (CTA). After completion of the honours degree or CTA, the student will be placed with an Approved Training Organisation for three years to do on-the-job training. During the time that the student will be busy with on-the-job training, the student will be writing two board exams which will qualify the student as a chartered accountant. The qualification of being a chartered accountant can also be obtained by students coming from Universities of technology.

The students registered for the National Higher Certificate in Accountancy at Tshwane University of Technology in the Faculty of Economics and Finance are pursuing their studies towards a diploma in Accounting, Cost and Management Accounting and Auditing, which leads them to a career path for accountants. The students can also become chartered accountants if they can pursue their studies even further. The following process can be followed: The student completes a Diploma in Accounting and register for a Bachelor of Technology for a year. The following year they register for a Bridging Certificate in the Theory of Accounting then register for a Certificate in the Theory of Accounting. The student will be a full-time student for six years and register with an Approved Training Organisation to do on-the-job training for three years. The student will be compelled to write two board examinations to

qualify as a chartered accountant. The student who enrolled for a Higher Certificate in Accounting needs a minimum of nine years.

TABLE 2.3: THE DIFFERENT WAYS OF OBTAINING A CTA

B Com degree from accredited university		National Diploma in Accounting	
Course	Duration	Course	Duration
1. B Com	3 years	1.National Diploma	3 years
2. Honours/ CTA	1 year	2.BTech	1 year
3. Serve Articles	3 years	3.BCTA	1 year
		4. CTA	1 year
		5.Serve articles	3 years
TOTAL YEARS	7 years	TOTAL YEARS	9 years

(Own compilation)

A student pursuing studies towards chartered accounting needs to invest a lot of time and financial resources into these studies. Most of the students join the labour market immediately after completing a diploma/degree. That is the reason why there is a shortage of chartered accountants, because most of the students do not pursue their studies to the level of becoming chartered accountants.

2.5 THE DIFFERENT OCCUPATIONS AND DUTIES FOR ACCOUNTANTS

According to Smith (2003:1), in a small firm, an accountant is a person responsible for the financial records of the business such as payroll information, accounts payable, accounts receivable, retail sales and information regarding investments held by the company. In larger firms, accountants also perform the internal audit, to ensure that the financial records of the company are accurate. The following main types of accountants can be distinguished (Van Zyl, 2008: 369):

2.5.1 Public accountants and auditors

Most people who work as public accountants and auditors have their own businesses or work for public accountants and auditors' firms. Their responsibilities include a broad range of accounting, auditing, tax and consulting activities for their clients (Van Zyl, 2008:369).

2.5.2 Management accountants or corporate accountants

Management accountants are usually employed by different organisations as part of the executive team. As part of the executive team they are involved in strategic planning and product development. Their duties include recording and analysing the financial information of the organisation (Van Zyl, 2008:369).

2.5.3 Government accountants and auditors

Government accountants and auditors work in the public sector and their responsibilities involve maintaining and examining the records of government agencies. They also ensure that government agencies adhere to the legislations pertaining to them (Van Zyl, 2008:369).

2.5.4 Internal auditors

In practice, internal auditors are often accountants or auditors. Their responsibilities include verifying the accuracy of their organisation's internal records and checking for mismanagement, waste or fraud. They also examine and evaluate their organisation's financial and information systems, management procedures and the organisation's internal control (Van Zyl, 2008: 369).

Accountants are part of the highly skilled employees where a high qualification and a lengthy period of training are required. Most individuals come across a number of challenges when pursuing their career in the field of

accounting such as failure to pass board exams and they end up dropping out from the qualification. The factors contributing to the demand for accountants will now be discussed.

2.6 FACTORS CONTRIBUTING TO A HIGH DEMAND FOR ACCOUNTANTS

Mohr *et al.* (2008:85) state that there is a positive outlook for people with higher education qualifications like accountants. Their rate of unemployment is low as compared to the overall national unemployment rate; if they might be unemployed, it is usually for a short time. This gives a clear indication that there is a high demand for skilled (especially highly skilled) workers in most formal sectors of the economy like the accounting profession (Barker, 2007:25).

Leaf (2007:1) states that South African auditing, tax and advisory firms could experience a shortfall of approximately 500 qualified students with a Certificate in Theory of Accounting (CTA) in 2008. Dingle (2006:1) also emphasized the same by indicating that the accounting sector is currently suffering a huge shortage of skills, especially in the fields of chartered accountancy. Carrison (2007:1) also stated that a recent survey from the recent business sectors highlighted a shortage of skilled and qualified financial personnel such as bookkeepers, accounting technicians and financial accountants; various accounting bodies are addressing this problem through the provision of learnerships and internships. The other factor contributing to the demand for accountants is the growth in the business sector.

2.6.1 Business sector

Leaf (2007:1) indicates that the continued growth in the economy and number of businesses force the demand for accountants to increase. The demand for more graduates in the sector is driven by the number and size of enterprises

in the country. The business sector is rapidly changing and is becoming a strongly competitive environment (Visser *et al.*, 2001:1).

The changes in the business sector create a need for a change in management perspective if they need to be successful, and also demand changes in the skills required from new accountants entering the workplace (Visser *et al.*, 2001:1). The new, established firms require accountants to set up accounting systems, to assist them in complying with tax legislation and regulation, and even to be provided with financial advice (Van Zyl, 2008:372). The development of trade such as merchandise exports has led South Africa to trade and even to compete with foreign markets. Where goods are to be traded globally, accounting transactions become more complex and require people with expertise like accountants (SARB, 2006:15).

2.6.2 Globalisation

Globalisation has led the accounting sector into great change and transformation such as the use of internet banking. Business transactions have become more complex, and it has also brought into play international laws and regulations. These changes stimulate the demand for highly skilled accountants who can provide managers with the technical assistance and advice needed to operate in the global economy (Shafer, 1998:1).

The reintegration of South Africa into the global economy has increased the demand for accountants and heightened the need for accounting expertise and advice in the fields of international trade, accounting practices and international mergers and acquisitions (Van Zyl, 2008:373). Dingle (2006:1) emphasized that the demand for accountants is fuelled by more than just a skills shortage, but is increased by the economy which is knowledge-based, competitive and globally-focused.

2.6.3 Technological changes

The financial sector where accounting expertise is highly required has experienced huge changes in technology in the past decade. The technological changes were driven by advances in communication technology such as computer technology and internet. The following are some of the examples of these changes: internet banking and the introduction of integrated computerized risk assessment systems in the insurance sector and voice recording of client interactions (Van Zyl, 2008:368). Boswell *et al.* (2004:12) state that the new technologies provide infrastructure for far more complex, rapid management of production and transactions.

The demand for accountants has increased as a result of advances in technology, which requires technological expertise among accountants. The increasingly sophisticated nature of banking, a wider range of financial products and the increased availability of information have led to increased demand for information users, which has created new opportunities for professional accountants (Shafer, 1998:1).

2.6.4 Investment in human capital

South Africa, like the rest of the world is focused on a knowledge-based economy. Skilled and specialised human capital has become the most valuable factor of production in the economy (Boswell *et al.*, 2004:12).

The situation is experienced in the field of accounting where people with high skills and a high level of education are required. There is a high demand for accountants, because there is a shortage of people with accounting skills. The shortage of skills is brought about by the large investment in human capital required before a person can qualify for an occupation as an accountant. Investment in human capital is the same, as firms are investing in their non-current assets such as machinery and equipment in order to increase their productivity and profit earnings capacities (Mohr *et al.*, 2008:299). In section 2.3, the processes of becoming a chartered accountant were outlined and

emphasis was placed on the time required to complete a qualification. This section will estimate the costs incurred in becoming an accountant.

Individuals need to invest in their education and acquire more skills to be ready for the field of accounting. Investment in human capital can be experienced in a case where individuals invest in a university education or special training courses, which improve their qualifications and skills (Mohr *et al.*, 2008:299). In furthering their studies for the level of a CTA qualification, a student can register at Tshwane University of Technology for a National Higher Certificate in Accountancy for two years and in the third year, register for the Diploma. The following example was used to give an estimated amount that could be invested into education in order for a student to qualify for a CTA level. In section 2.3, the different stages that a student should undergo in order to qualify for CTA were discussed. Table 2.4 explains each level in monetary values. The estimation is based on a student registered for a National Higher Certificate in Accountancy from 2004 to 2009 when the student will be registering for CTA. The other indirect costs include only formal direct costs such as tuition, textbooks, levies and accommodation. Other indirect costs such as meals are not included.

TABLE 2.4: ESTIMATED COSTS FOR AN ACCOUNTING QUALIFICATION

Year	Qualification registered	Costs
2004	National Higher Certificate 1 st level	18 140
2005	National Higher Certificate 2 nd level	19 520
2006	National Diploma in Accounting	20 780
2007	Bachelor of Technology	18 500
2008	Bridging Certificate in the theory of Accounting	25 000
2009	Certificate in the Theory of Accounting	26 200
	Total costs	128 140

(Own compilation)

According to Sadler (2003:18), students are not attracted to study for a post-graduate qualification in the field of accounting, because added years of study and low remuneration during the traineeship (where one has to serve articles) delay them to take responsibility of helping their parents to support their families, or simply recouping their initial investment in the marketplace.

Table 2.4 clearly indicates that a student registered for a B Com degree needs six years to qualify as a chartered accountant, and a student registered for a National Diploma needs nine years to qualify as a chartered accountant, as long as they pass all subjects each year. Dingle (2006:2) emphasised that there is a shortage of accountants, because studying accounting as a career requires hard work and involves long hours of work. This career path needs people who are willing to embark on lifelong learning. In today's economy, human capital is largely a product of education, training and experience (Schiller, 2003:34). The impact of low investment in human capital does affect individuals and the economy of the country, because it will lead to low income earned and poor economic growth.

Countries such as Pakistan and Senegal, with large numbers of primary-school age children already out of school and facing low levels of human capital accumulation, and also lacking other key assets necessary for economic growth, have lead to technological stagnation and a slow-growing economy (World Development Indicators, 2006:89). Where a country is facing a slow-growing economy, it usually experiences less demand for higher level skills like accountants and accumulates insufficient revenue to expand education opportunities (Kagja, 2006:191). The other factor contributing to a high demand of accountants is the availability of information.

2.6.5 Availability of information

The advancement of technology made it possible for business information to be easily accessible (Shafer, 1998:4). The expanded volume of information available will create more opportunities for accountants to develop, maintain and monitor sophisticated reporting systems, especially because of the

increase in demand for external reporting (Van Zyl, 2008:374). The volume of information has increased to an extent that more accountants will be required to assist in determining the information relevant for decision making and how the information should be used by the capital suppliers (Shafer, 1998:2).

2.6.6 Policy and legislation

The policy and legislation environments in which businesses throughout the world and South Africa work, have become increasingly complex and demanding, and the need for high level financial expertise has increased accordingly (Van Zyl, 2008:374). The volume of accounting standards, including the introduction of International Financial Reporting standards, changes in regulatory framework and growing compliance work is expanding and requires accountants to take note of them (Shafer, 1998:3).

Some of the policy and legislative developments that have increased the demand for accountants in South Africa include the Public Finance Management Act (No. 1 of 1999), the Municipal Finance Management Act (No. 56 of 2003) and the Financial Advisory and Intermediary Services Act (No. 37 of 2002) (Van Zyl, 2008:368).

2.6.7 The need to fight economic crimes

Business information systems have increasingly become more complex and have resulted in the creation of white collar crimes; for example, with the development of technology, nowadays, one can create a document that looks the same as the original document. A website that looks exactly like the website of the company can be created and transactions can be concluded. In South Africa, as in other countries, the occurrence of financial crimes has increased the demand for fraud auditing and forensic accounting services (Shafer, 1998:2).

Van Zyl (2008:372) also states that although accountants were providing investigation services into fraudulent financial records and litigation support to

corporations, government and law enforcement agencies, white collar crime is increasing, partly because advancement in technology has made these crimes easier to commit with a corresponding increase in the demand for services from accountants.

2.6.8 Lecturers' competencies

The rapid changes in the technological and competitive environments pose a serious challenge to accounting education in particular (Johnson, 2005:57). Accounting education has come under increased scrutiny and criticism for not providing the type of entrants needed for the accounting profession of the future. Lecturers are failing to cope with a wider and more general knowledge base.

There is also a failure to promote students' skills in the teaching of accountancy, such as communication, problem solving and interpersonal skills. Most of the lecturers are still locked up in their old ways and traditional methods of teaching accounting. This results in stagnation of learning among students (Adler & Milne, 1997:191).

Lecturers need to broaden their skills in order to equip their students with skills required by the labour market. Lecturers need to develop ways and means of assisting students in learning the skills required and the manner in which they should be applied in the real world (Fouché, 2006:55). This could be a major obstacle as many lecturers at institutions of higher learning may have either a professional accounting background, not a formal education in the form of a teaching related background. Some may have the teaching related background, but with a low professional accounting background, which is the professional accounting background to the level of a B Com degree.

Lecturers with professional accounting background have an integrated knowledge of the accounting disciplines, but imparting this knowledge to others may not be easy, especially where the skills were not taught (Fouché, 2006:55).

West (2006:124) states that the accounting profession in South Africa is maintaining high standards internationally, but the same might not be true of accounting lecturers' achievements. Most of the accounting lecturers are significantly under-qualified, and retards the supply of skilled accountants in the country.

Table 2.5 shows the number of higher degrees held by lecturers at a number of universities including Tshwane University of Technology in the Faculty of Economics and Finance in South Africa, and several overseas universities as reflected by the institutions' websites (West, 2006:124).

The lecturers selected for Tshwane University of Technology are those lecturing at the campuses situated in the Gauteng province – those who are closely linked to the Soshanguve campus. Among the selected universities of South Africa, the University of Pretoria is the only university coming closer to overseas universities in terms of lecturing staff holding higher degrees (West, 2006:124). At Tshwane University of Technology in the Faculty of Economics and Finance, only 8,8 percent of the lecturers have doctoral degrees and 23,5 percent have masters' degree. When compared to the University of Pretoria, 40 percent have doctoral degrees and 32 percent have masters' degree. This gives an indication that lecturers need to further their studies, equip themselves with skills in order to respond to the country's social and economic needs. Lecturers should produce accountants who are sufficiently flexible and agile to respond to fast-evolving labour market demands in an increasingly globalised world (Kagia, 2006:199).

TABLE 2:5: HIGHER DEGREES HELD BY FACULTY MEMBERS AT SELECTED INSTITUTIONS

Institution	Total	Masters	Doctorates
<i>South Africa</i>			
Unisa (Financial Accounting)	33	12	5
University of Witwatersrand	33	16	3
Unisa (Management Accounting)	31	19	2
University of Pretoria	25	8	10
Rhodes University	16	3	1
University of Port Elizabeth (now part of Nelson Mandela Metropolitan University)	15	3	0
University of the Western Cape	9	3	0
Total	162	64	21
TUT (Department of Accounting)	17	2	0
TUT (Department of Managerial Accounting)	10	5	1
TUT (Department of Auditing)	7	1	2
Total	34	8	3
<i>Overseas</i>			
University of New South Wales (Australia)	36	29	16
Leeds University (UK)	17	14	11
Waterloo University (Canada)	35	25	20

Source: West (2006:124)

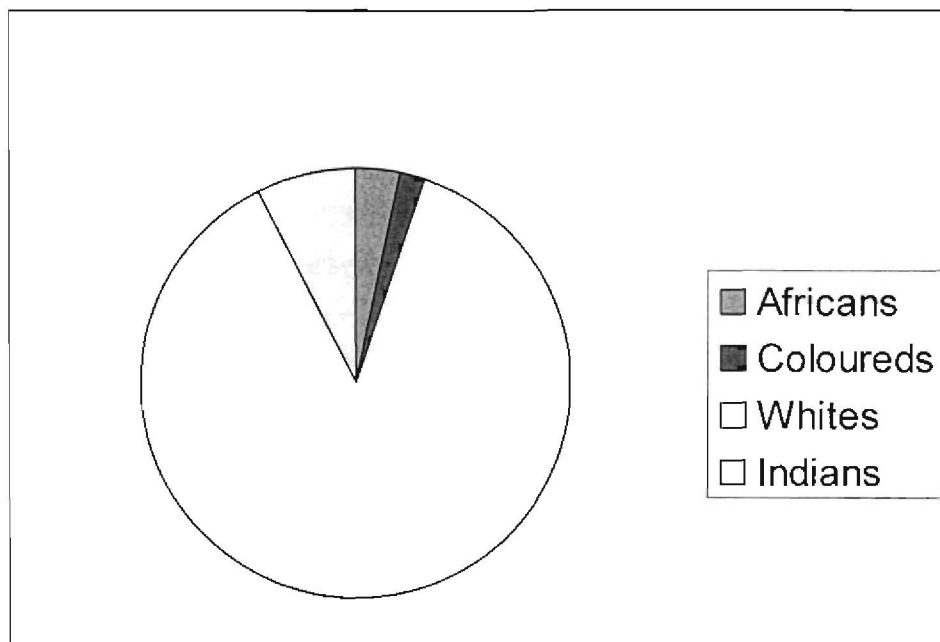
2.6.9 Transformation and the demand for accountants

According to Van Zyl (2008:374), the demand for accountants is greatly influenced by the need for transformation in the South African economy in general. The accountancy profession is under pressure to transform itself and

to become representative of the racial and gender composition (Anon., 2007b:1).

The number of accountants registered does not represent the country's demographics in terms of race and gender. According to the statistics presented by SAICA, in 2007, there were 26 905 chartered accountants (CAs' SA): only 916 are Africans, 510 are coloureds, 23 471 are whites and 2008 are Indians (Anon., 2007b:1). Figure 2.1 shows the representation of accountants per race: there are 3,4 percent of Africans, 1,9 percent of coloureds, 87 percent of whites and 7,5 percent of Indians. There is a definite shortfall of accountants in the country.

FIGURE 2.1: ACCOUNTANTS ACCORDING TO RACE



(Source: Own compilation)

According to the Western Cape Education MEC, Cameron Dugmore, as cited by Sakoana (2007:1), he emphasised that there is low black female representation in the field of accounting and that has to do with perceptions at school level, where female students are not encouraged to study mathematics, science, accountancy and technology related subjects. This perception impacts negatively on the number of students enrolling for

chartered accountancy, because students need to pass mathematics and accounting to qualify for the registration of a B Com degree. A shortage of black people (African, Coloured and Indian) in the accounting profession in South Africa is a major cause of concern (Sadler, 2003:18).

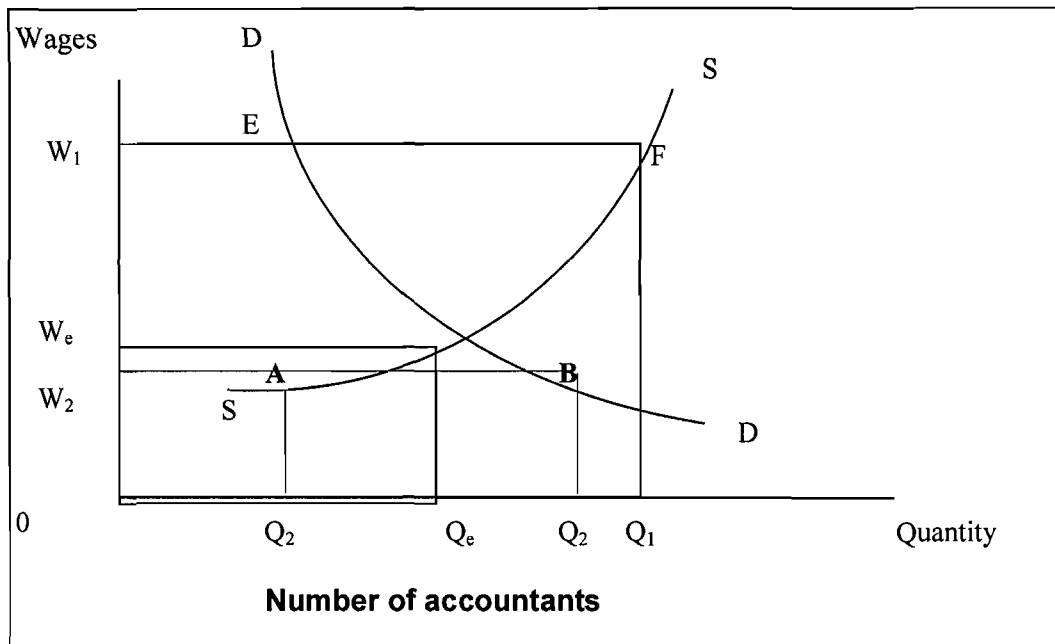
2.7 SKILLS SHORTAGE

Skills shortage occurs where the demand for workers in a particular occupation exceeds the supply of workers who are qualified, available and willing to do that job (Boswell *et al.*, 2004:13).

Historically, South Africa, for example, had a very poor productivity record as a result of a skills shortage. There is a growing realisation that to compete effectively in world markets, improvements in the capability of the labour force and management must be promoted (Swartz & Foley, 1996:35).

Figure 2.2 below illustrates a hypothetical market for accountants. The graph shows the demand for accountants represented by the demand curve DD and the supply of accountants represented by the supply curve SS. At the wages W_e the quantities demanded and supplied of chartered accountants are equal at Q_e , therefore W_e is the equilibrium wages. At the wages W_2 the demand for accountants is at point B while the supply is at point A. There is less supply of accountants as compared to demand. Therefore, there is a shortage of supply because of a lack of skills required. Boswell *et al.* (2004:13) consider this situation a qualitative mismatch, where the qualifications of workers and the qualification profile of vacancies are not matched. Most of the employees in South Africa are not qualified for the field of accounting; therefore, they cannot match the accounting positions available.

FIGURE 2.2: HYPOTHETICAL MARKET GAP OF THE ACCOUNTING PROFESSION



(Source: Barker, 2007:81)

There is a shortage of professional skills such as accountants and this is the drawback for both public infrastructure and the private investment programmes (ASGISA, 2006:81). Leaf (2007:1) stated that serious challenges facing the local economy are the shortages of a skilled, qualified workforce, particularly within the accounting profession. Sadler (2003:1) further emphasized that a shortage of black people in the accounting profession in South Africa is a major cause of concern.

According to Weil and Wegner (1997:308), there is a shortage of black chartered accountants in South Africa, because most students experience a problem with writing skills and interpretation of numerical data. The shortfall is also attributable to the policies of the apartheid era and the slowness of education and skills development institutions to catch up with the current acceleration of economic growth (ASGISA, 2007:7).

The shortage of skills is also brought about by a lesser number of students graduating within the minimum period of study; in the case of a diploma a minimum period of study is three years. The following example illustrates the throughput rate of students enrolled for the National Higher Certificate in Accountancy at the Tshwane University of Technology for 2004. This Certificate was introduced for the first time at Tshwane University of Technology in 2004. The Certificate is registered for by students who pursue their studies towards the Diploma in Accounting, in Cost and Management Accounting and the Diploma in Internal Auditing. The students enrol for similar modules in the first two years of the Certificate and select a Diploma of their choice in the third level. The students enrolled for 2004 at Soshanguve campus were tracked down till their year of graduation.

Table 2.6 indicates the progress of students enrolled and those who managed to complete their qualification within the minimum required period. The total number of students enrolled in 2004 for the National Higher Certificate was 364; only 101 students managed to pass their National Higher Certificate in the period of two years. Only ten students registered for the National Diploma in Accounting. The rest of the students registered for the other diplomas such as Auditing and Cost and Management Accounting. According to statistics provided by the Department of Strategic Management Support, the number of students who graduated in 2007 were 43. This shows that out of 364 students who registered in 2004 only 43 students managed to complete their qualification within the minimum period required and only ten of those students qualified for a Diploma in Accounting. The number of the students who graduated represent 11,8 percent of students registered for the National Higher Certificate in 2004 and only 3,57 percent graduated for a Diploma in Accounting. Institutions of higher learning should come up with procedures and processes to increase throughput rates as a way of reducing the skills gap in South Africa.

TABLE: 2.6: NATIONAL HIGHER CERTIFICATE IN ACCOUNTANCY (NHC) 2004 TO 2006 AT TSHWANE UNIVERSITY OF TECHNOLOGY

Year	Qualification	No. of enrolments	No. passed	No. failed	Qualification awarded
2004	National Higher Certificate in Accountancy 1 st level	364	261	103	0
2005	National Higher Certificate in Accountancy 1 st level	261	101	160	0
2006		10	10	0	NHC 101
2007					National Diploma Accounting 10

(Source: Strategic Management Support, 2008:1)

The shortage of skilled accountants emerges as the nation's most critical business issue (Eisen *et al.*, 2005:1). The skills gap threatens the nation's ability to compete in the global economy (Eisen *et al.*, 2005: 8). The skills gap also impacts negatively on the economy of the country; for example, employers cannot maintain production consistently with customer demand and find it difficult to achieve or maintain target levels of customer service and satisfaction.

The situation of the skills gap calls for urgent action by both the public and private sector in the economy. This is the reason the government, through the Skills Development Act, encourages partnership between the public and private sectors of the economy, to provide education and training in and for

the workforce. South Africa, through the Skills Development Act, is trying to address the problem of the skills gap, but is considered as one of the poorest human resource development indices in the world, in terms of both the skill levels of the workforce and the resources spent on training (May *et al.*, 1998).

The government went further to address the skills shortage in the country, and introduced the Accelerated and Shared Growth Initiative for South Africa (ASGISA) in early 2006, with one of its interventions to address the skills shortage. The following intervention measures were adopted by ASGISA:

- To focus on areas of greater priority in tertiary education and training, such as increasing the number of black graduates and expanding facilities that produce specialist skills such as in the accounting profession; and
- Initiate and improve work-based training programmes and scarce skills initiatives. This includes developing an employment service system to close the gap between employers and employees (ASGISA, 2006:6).

The main aim of the Joint initiative on Priority Skills Acquisition (JIPSA) is to bring together social partners to act on immediate and medium-term skills needs, particularly high-level and artisan skills. This initiative will also try to attract much needed expertise back to the country and work towards the speedier issuance of work permits to non-residents with priority skills (SARB, 2006:1).

2.7.1 How to address the problem of skills shortage

2.7.1.1 Short run

In the short run it will be difficult to increase the number of accountants, because the period required for an accountant to be qualified and ready for an occupation is long. Therefore, the lack of accountants can be alleviated through immigration (Mohr *et al.*, 2008:299). The Joint Initiative on Priority Skills Acquisition (JIPSA) policy is encouraging the fast-tracking of closing the

skills gap. Its emphasis is to bring back retirees and expatriate South Africans and drawing in new immigrants.

The step of recruiting retired employees is adopted by SAICA, which approached its retired members with the request that they offer their expertise to towns and villages throughout the country. Many of these retired employees responded positively, because their wish was to make a difference to the economy of the country. They also benefited from the exercise in that their pensions were supplemented and they were provided with extra intellectual stimulation. The employment of retired employees by SAICA has improved service delivery (SAICA, 2008:1).

2.7.1.2 Long run

In the long run the quality of the South African labour force must be improved (Mohr *et. al.*, 2008:298). The employment of retired employees by SAICA has brought about long-term beneficial transfer of skills across a broad front and the spectra of qualified audit reports showing distinct signs of dwindling (SAICA, 2008:1).

The number of chartered accountants can increase if more financial assistance in the form of bursaries can be made available to students, especially those from the disadvantaged background. Projects such as Thuthuka, which is providing education support to black students, should be increased in number so as to accelerate the number of students qualifying as accountants (Anon., 2007c:1).

The Pastel Thuthuka Accountancy Olympiad project is another project initiated by Softline Pastel and SAICA. This project focuses on students from the previously disadvantaged backgrounds in the Free State province. The project aims at assisting identified students with numeracy and literacy skills (Anon., 2007b:1). Softline Pastel has embarked on a broad based education initiative of assisting Grade 10, 11 and 12 learners to improve the quality of their accounting skills. The company is providing computerized educational

accounting software and teacher training in over 5 000 South African high schools (Anon., 2007c: 2).

2.8 SKILLS DEVELOPMENT

The overall aim of the Skills Development Act (Act 97 of 1998) is to improve the skills and to reduce the skills gap of the people in South Africa. South Africa requires a better educated and trained workforce to enable the country to become more self sufficient and simultaneously to enable it to trade competitively with the rest of the world. Unfortunately, the development of skills is moving at a very slow pace, because students in institutions of higher learning where more skills are to be attained are dropping out before a qualification is attained.

According to Pandor (2008:1), a 2005 Department of Education(DoE) report showed that 36 000 (30 percent) of the 120 000 students who enrolled in higher education in 2000 dropped out in their first year of study, and 24 000 more (20 percent) dropped out during the second and third years. Roberts *et al.* (2006:228) confirmed the statistics as the latest released by the Department of Education. The statistics of students who dropped out relate to the years before the merger of Technikon Northern Gauteng, Technikon North West and Pretoria Technikon. In Table 2.7, the statistics for the three campuses was drawn and an average drop-out rate for the three campuses was calculated. The average percentage of students who dropped out is 56,3 percent and it is higher with 26 percent than the percentage of students graduating, which is 30,3 percent (Macfarlene, 2006:6). Drop-out of students at institutions of higher learning retards the development of scarce skills.

TABLE 2.7: DROP-OUT RATE AT INSTITUTIONS OF HIGHER LEARNING

Technikon	1st time undergra- duate in 2000	Percentage dropped out by 2004	Percentage graduated by 2004	Percentage not completed by 2004
Northern Gauteng	2 958	49	38	13
North West	1 484	58	28	13
Pretoria	10 209	62	25	13
TOTAL	14 651	169	91	39
AVERAGE	99.6 %	56.3	30.3	13

(Source: Macfarlane, 2006:6)

According to Swartz and Foley (1996:34), the previous colonial and apartheid regimes have bequeathed to South Africa as a country, a legacy of under-development and poverty. One of the areas that this legacy has manifested itself in is skills development. It is an indisputable fact that the majority of South Africans were denied access to formal education and training opportunities. The result is that many South Africans were excluded from the mainstream of the economy and consigned to eternal suffering and grinding poverty (Von Stapelberg, 2006:3).

Those who had to bear the brunt of this legacy are mainly Africans, especially women and people from the rural areas. The demand for skilled and especially highly skilled workers in most formal sectors of the economy is rapidly increasing (Barker, 2007:43). There is also a growing pressure to ensure that graduates entering the organisations anywhere in the world possess the skills that will enable them to better utilise the knowledge which they have acquired during their years of study at universities (Swartz & Foley, 1996:35).

The skills in South Africa are not meeting the demand for the skilled labour force, because most institutions of higher learning are producing graduates

who are ill-equipped for the labour market. Employers often have to re-train newly appointed staff, which is a time-consuming and expensive exercise (Mutula, 2001:2). Institutions of higher learning are facing challenges, particularly in the 21st century, arising from the impacts of globalisation, the increasing importance of knowledge as a key driver of growth, and the information and communication revolution (Kusi, 2007:2).

Mutula (2001:2) points out that most of these institutions have not evolved to address the challenges of the current job markets. The institutions are failing to provide contemporary quality programmes to take advantage of emerging technology opportunities. Students' competencies, knowledge and skills that are key factors in a rapidly changing technological working environment are not being addressed.

It is therefore appropriate to consider the issue of undergraduate education and development of undergraduate skills at a time when the South African government is confronting very difficult questions about how best to reform the education system (Swartz & Foley, 1996:36). Education reform offers the opportunity to consider issues of educational quality and skills so that the qualitative aspects of higher education can be addressed.

According to Swartz and Foley (1996:36), appropriate development of skills can help to achieve academic benefits as well as making students better able to meet the needs of industry. The development of skills can also enhance the learning of students, and the drop-out rates in an expanding mass educational system can then be reduced.

The former president of South Africa, Nelson Mandela, realized the need for skills development and introduced the Nelson Mandela Scholarships supported by Unilever and Deloitte, and The Mandela Rhodes Foundation. The aim of these scholarships was to offer exceptional educational and leadership training opportunities in South Africa at post graduate level in all disciplines (Duys, 2007:1).

The Minister of Education, Naledi Pandor (2006:2), stated that students from institutions of higher education obtain degrees that are not meeting the demand of the labour market. The institutions are not delivering the skills the country needs.

The government, through the Department of Labour and the National Skills Authority embarked on a research project on formulation of a legislation that could address this thorny issue of skills development in the country. The Skills Development Act (Act 97 of 1998) and the Skills Development Levies Act, 1999 were formulated. The two legislations aim to address the following priorities:

- The first priority is to improve and increase the supply of skills. The aim of improving skills is to increase productivity and to encourage competitiveness of industry, business, commerce and services in the global economy.
- The second priority is to address the challenges of social development and the eradication of poverty (Skills Development Strategy, 2001:4). The Skills Development Act is implemented through the Skills Development Strategy. Also, the Skills Development Act aims at benefiting the people through the Skills Development Strategy in the following ways:
 - To enable and empower individuals through the acquisition of competencies that is in demand. People should be equipped with skills needed by the industries.
 - Skills must be linked to quality provision and qualifications that hold currency throughout the country (Skills Development Strategy, 2001:5).
- Skills development is as much about building the capacity of people to engage in decision making. In the workplace, individuals should decide

on how to be productive, and in small enterprises, they should take decisions on how to become quality entrepreneurs, how to maintain their enterprises so that they become sustainable and even grow, and in the community they are about the focus, pace and trade-offs linked to local economic development (Skills Development Strategy, 2001:5).

- To create opportunities for the employed and the unemployed; for new entrants to the world of work as well as for older people; for women as well as men, and for people with disabilities who for too long have not been valued for their capabilities (Skills Development Strategy, 2001:5).

2.10 SUMMARY

Chapter 2 addressed the demand for accountants on the country. The economic growth of the country and factors contributing to the growth of the economy were outlined. The positive impact of the economic growth has led to an increase in job creation, even those of accountants. Different careers that could be pursued by students who completed a degree or diploma in accounting were discussed. There are various sectors of employment where accountants can be employed; therefore, accountants are highly demanded in the labour market. The factors contributing to a high demand of accountants were also outlined. The main factors discussed were skills shortages and skills development. Chapter 3 investigates the supply of accountants in the country.

CHAPTER 3

THE SUPPLY OF ACCOUNTANTS IN SOUTH AFRICA

3.1 INTRODUCTION

The supply of accountants refers to all those people who are working as accountants for themselves or for someone else, such as auditing and accounting firms, the government sector, banking sector and insurance companies as well as those who are willing to work but cannot find employment. However, it is unusual to find accountants seeking for employment, because there is a shortage within the labour force of accounting skills (Barker, 2007:23). The supply of accountants in South Africa starts from the high school level where a student has to choose subjects relevant to the field of accounting such as mathematics and accounting. The student should enrol for a degree with a university and undergo workplace training and, lastly, sit for the first qualifying examination and second qualifying examination. This chapter gives a clear outline of different institutions and organisations involved in equipping a student to a level of chartered accountant.

3.2 INSTITUTIONS OF HIGHER LEARNING

Institutions of higher learning prepare students towards chartered accountancy according to the highest qualification the student might have obtained. Each student who needs to pursue his/her studies towards chartered accountancy needs theoretical accounting background before he/she could go for on-the-job training. The theoretical part of the accounting profession is obtained from different institutions of higher learning.

Most of the institutions of higher learning require a student to obtain a Bachelor of Commerce (B Com) or Bachelor of Accounting (B Acc) degree

and an honours degree or the Certificate in the Theory of Accounting (CTA) and serve articles with Approved Training Organisations. The student must write Part One and Part Two of the qualifying examination for him or her to become a chartered accountant. Some institutions of higher learning, like the University of Johannesburg, require a student to pass a B Com degree which allows him/her to register for a Bridging Certificate in the Theory of Accounting (BCTA). The qualification for a Bridging Certificate in the Theory of Accounting (BCTA) gives the student access to register for the Certificate in the Theory of Accounting (CTA), and serve articles with an Approved Training Organisation. The student must then write Part One and Part Two of the qualifying examination to become a chartered accountant.

When Tshwane University of Technology (TUT) is put onto the same level with other institutions of higher learning and measures how their students can pursue their studies towards becoming chartered accountants, the following hierarchy is discovered: The students from TUT have to complete a Diploma in Accounting, further their studies with a Bachelor of Technology (B Tech), or Advanced Diploma, according to the Higher Education Qualification Framework (HEQF). The student with a Bachelor of Technology (B Tech) or Advanced Diploma can be allowed to register for a two-year BCTA programme and further his/her studies towards CTA, and serve articles with an Approved Training Organisation. The student must write Part One and Part Two of the qualifying examination for him or her to become a chartered accountant.

In conclusion, it means students studying towards a diploma can also become a chartered accountant as long as they are prepared to be a lifelong student.

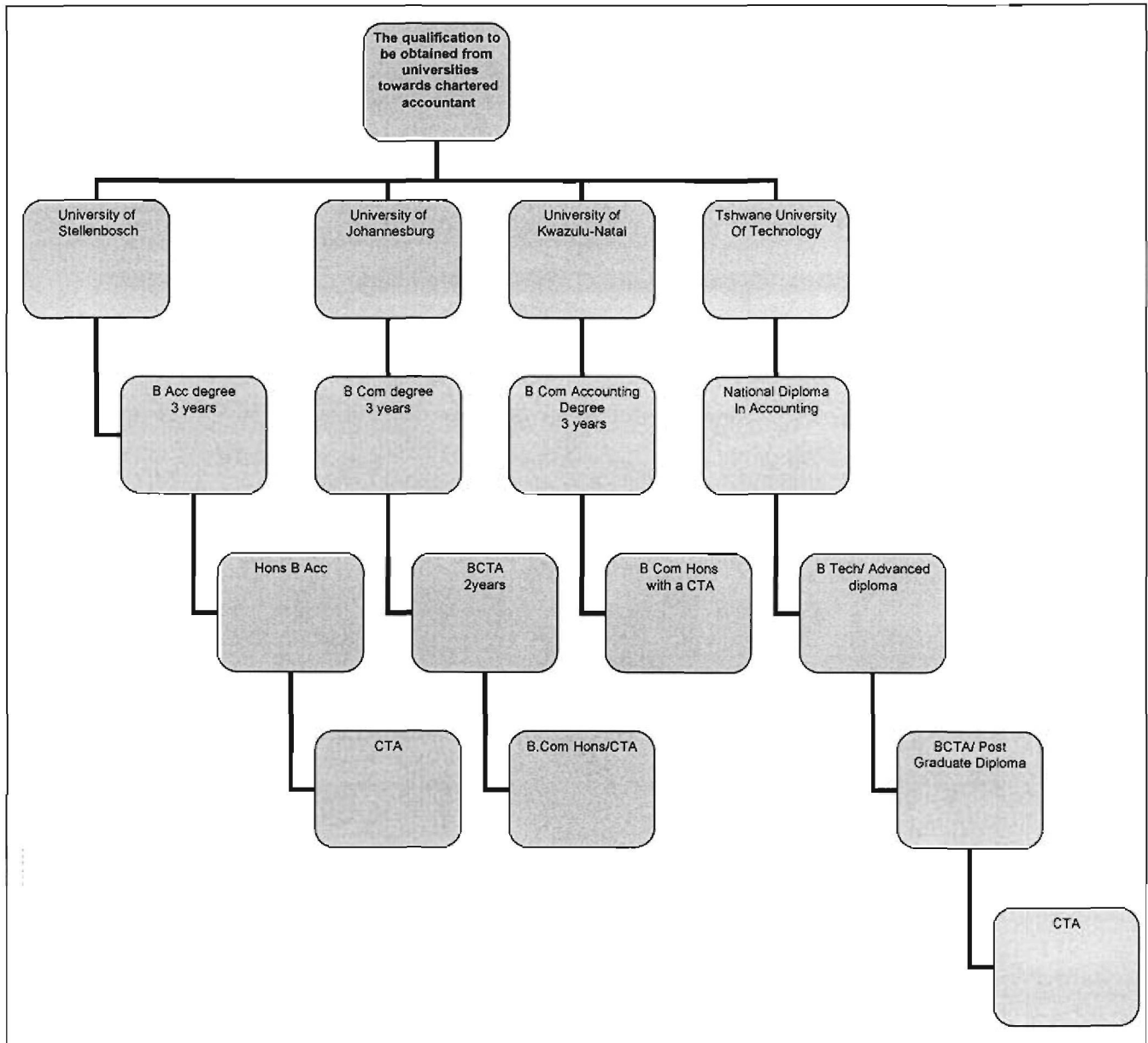
3.3 THE PROCESS OF QUALIFYING AS A CHARTERED AND PROFESSIONAL ACCOUNTANT

In this study, the process of qualifying as a chartered accountant and professional accountant is outlined.

3.3.1 The process of qualifying as a chartered accountant

The figure 3.1 below highlights the processes a student should go through in order to qualify for chartered accounting from different institutions of higher learning in South Africa.

FIGURE: 3.1: THE PROCESS OF QUALIFYING AS A CHARTERED ACCOUNTANT

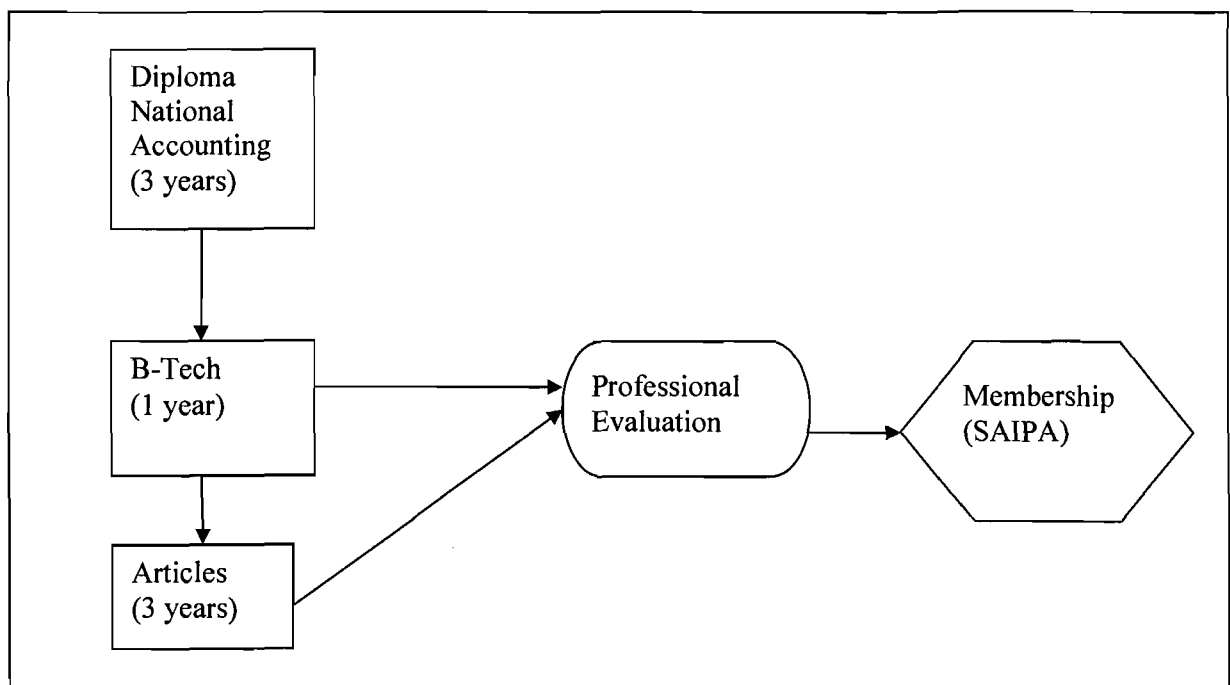


(Source: Own compilation)

3.3.2 The process of qualifying as a professional accountant

The students enrolled for the National Higher Certificate in Accounting can also further their studies towards being professional accountants. The qualification is accredited by the South African Institute of Professional Accountants (SAIPA). The student has to register for the National Higher Certificate in Accountancy for two years, and study one year towards a diploma in Accounting. After completion of a diploma, the student has to enrol for a Bachelor of Technology for one year. The student can register for professional accountant with SAIPA and undergo supervised training for three years at an Approved Training Centre. The student will then sit for a professional evaluation examination and then qualify as a professional accountant. The minimum number of years required for a student to become a professional accountant is seven years. Figure 3.2 shows the different steps to be followed by a student in order to qualify as a professional accountant.

FIGURE 3.2: THE PROCESS OF QUALIFYING AS A PROFESSIONAL ACCOUNTANT



(Source: Own compilation)

3.4 PROFESSIONAL BODIES

Most of the positions offered in the field of accountancy do not require only a university qualification but also a professional qualification in the form of workplace training and membership with a professional body. Professional bodies are therefore central role players in the supply of chartered accountants (Van Zyl, 2008:377).

The main functions of the professional bodies include the following:

- the setting of educational standards
- the development of curricula for qualifications awarded
- the provision of continuous professional education and training
- the accreditation of training institutions to offer their courses, qualifications and workplace training
- the setting and administration of professional admission examinations
- the awarding of qualifications
- the enforcement of professional behaviour in terms of a code of conduct (SAICA, 2008:1)

Some of the professional bodies contributing to the supply of accountants in South Africa are SAICA (South African Institute of Chartered Accountants), SAIPA (South African Institute of Professional Accountants) and CIMA (The Chartered Institute of Management Accountants).

3.4.1 SAICA (South African Institute of Chartered Accountants)

The South African institute of Chartered Accountants (SAICA) is a professional body that represents the interest of the accounting profession. It provides a wide range of support services to its members enabling them to play a key role in developing the rapidly changing South African economy. It is the only body responsible for conferring the designation CA (SA) (SAICA, 2008:1)

3.4.2 SAIPA (South African Institute of Professional Accountants)

FASSET is the Sector Education and Training Authority (SETA) for Finance, Accounting, Management, Consulting and other Financial Services. One of the main objectives of FASSET is to encourage employers and employees to adopt a culture of lifelong learning through the use of the workplace as an active learning environment. This is also to provide employees with opportunities to acquire new skills. SAIPA, through learnerships provided by FASSET, provides opportunities to their learners to acquire the skills required by the labour market (FASSET, 2008:1).

According to SAIPA (South African Institute of Professional Accountants), students can attain membership from this professional body. The student must have an academic degree in the form of B Com, B Compt or B Tech. The student should go for three years supervised training at an Approved Training Centre registered for a learnership with FASSET. The student should sit for a professional evaluation examination which is written twice in a year and after passing the exam he/she could be registered as a member of SAIPA (SAIPA, 2008).

3.4.3 CIMA (Chartered Institute of Management Accountants)

The Chartered Institute of Management Accountants is a professional body working with the world's leading employers and course providers. The main aim is to educate, qualify and support first class financial managers. It is also to provide skills to its students that will enable them to succeed at the most senior levels. Skills acquired through CIMA study enable the students to work in a wide range of industries and sectors and offer them a chance of choice in their career opportunities such as business analysts, management consultants, operations managers and project managers (CIMA, 2008:1).

3.4.4 ICB (The Institute of Certified Bookkeepers)

The Institute of Certified Bookkeepers (ICB) is a professional body which focuses on the growing need for qualified bookkeepers in Southern Africa. The ICB is the largest bookkeeping body in South Africa with more than 3 000 members. The following are the main responsibilities of the ICB:

- To coordinate various training programmes and learnerships
- To set assessments for the ICB's registered qualifications and other qualifications of certain training providers
- To provide services to its members and learners to keep them in touch with the latest developments in the field of accounting (ICB, 2008:1)

3.5 LEARNERSHIPS

Education is not always sufficient on its own. Students need to acquire skills in order to be ready for positions offered by different organisations. Students should develop their skills, and experience is often central; this is being addressed in South Africa with “on-the-job” training in the form of learnerships and internships.

A learnership is a work-based approach to learning and gaining qualifications and includes both structured work experience (practical) and structured institutional learning (theory). A learnership should include the following criteria according to the Skills Development Act:

- Include structured learning component
- Include practical work experience
- Lead to qualification
- Relate to an occupation (FASSET, 2008:1)

Learnerships are important to a country like South Africa, which is characterised as a country with a large supply of unskilled workers. Learnerships assist the students with the following:

- The programme is outcomes-based.

- The learner interacts within the working environment, which involves practical work.
- The learner interacts with clients and obtains an understanding of workplace dynamics.
- Assessment occurs at various stages and is based on the learner's competence.
- The qualification is recognised nationally and is benchmarked against international standards (FASSET, 2008:1).

For students to become chartered accountants, they may enter into a training contract as exposure to relevant workplace experience. The workplace experience is offered to students in the form of learnerships. The learnerships and internships are offered by numerous entities, both government and private enterprise-based. The Department of Labour through the Department's SETA (Sectoral Education and Training Authorities) is responsible for placing students with employers willing to offer studentship programmes (Anon., 2007a:1).

3.5.1 ATO (Approved Training Organisation)

Students studying towards chartered accounting need to undergo on-the-job training for three years at an Approved Training Organisation. The training organisations are linked with SAICA, which manages the training contracts of all students. There are approximately 35 ATOs that have been approved by SAICA (SAICA, 2008:4).

3.5.2 PriceWaterhouse Coopers and Gobodo Incorporation

PriceWaterhouse Coopers merged with Gobodo Incorporation; the main reason was the need to accelerate the entrance of black chartered accountants in the field. More black students are recruited and gain access to the company's international resources and expertise.

PriceWaterhouse Coopers is a large multi-national enterprise desperate to reflect the demographics of South Africa where accounting is still a white dominated profession. There are more than 25 545 chartered accountants in South Africa and less than 759 of them are black (SABC 3, 2001).

3.5.3 Letsema programme

The Letsema programme is a project initiated by the Banking Sector as part of its commitment to the Financial Services Charter and in support of the Growth and Development Summit agreements. A studentship with the duration of one year was introduced to students with a 3-year tertiary qualification (such as B Com Accounting) where a Certificate in Business Management (CIBM) can be acquired (Anon., 2007a:1).

3.5.4 Association of Chartered Certified Accountants (ACCA) Learnership programme

The ACCA learnership programme is a government-backed initiative designed to encourage employers to implement professional skills, education and training within their organisation. The scheme is driven by FASSET which requires employers to incorporate learnership programmes within their Work Skills Plan. Employers incorporating this programme receive financial benefit for each employee who is enrolled for their ACCA studies with the company. Employers do not only receive financial benefit but also invest in the skills and development of its workforce, increasing employees' loyalty and satisfaction (FASSET, 2008:1).

3.5.5 The Institute of Certified Bookkeepers Learnership

The Institute of Certified Bookkeepers as a professional body co-ordinates the number of learnerships such as the Certificate for Registered Accounting Clerks, Certificate for Registered Bookkeepers, National Diploma in Technical Financial Accounting and National Certificate in Small Business Financial

Management. All these learnerships are registered with the Department of Labour through FASSET (ICB, 2008:1).

3.6 FACTORS INFLUENCING THE SUPPLY OF ACCOUNTANTS IN SOUTH AFRICA

South Africa, like other neighbouring countries, through institutions of higher learning, companies, accounting and auditors' firms, and professional bodies is focusing on the training of workers in order to increase the supply of scarce skills like chartered accounting. The training can either be formal, where examinations are written, or informal where there are no examinations written. Considering all the efforts exerted to increase the supply of scarce skills, the supply is still not increasing at the required pace where supply can meet the demand. Some of the contributory factors to the delay are discussed below.

3.6.1 Brain drain

The supply of accountants in South Africa is affected by the problem of the brain drain. According to Barker (2007:23), brain drain refers to the loss of skilled workers due to migration to foreign countries.

The loss of skilled accountants through migration to other countries creates a serious capacity constraint to both public and private sector (Elbakri, n.d.:17). The effect of the brain drain to the country of origin is the loss of its earlier investment in the education and training of the persons who emigrate and the future contributions that those persons would have made to the economic development of the home country (Barker, 2007:24).

Goldin (2006:107) supports the brain drain idea and views it as a factor primarily increasing the economic backwardness of drained countries, because highly qualified employees like accountants are leaving the country. South Africa is also affected in this regard, because the highly qualified accountants supposed to accelerate the processing of complex business information are migrating to well-developed countries where they feel their

skills can be highly utilised. The brain drain creates a reduction in the availability of skilled human resources that South Africa needs so badly for self-reliant and sustainable development (Elbakri, n.d.:7).

Table 3.1 below shows that the number of accountants and persons in the related fields immigrating to other countries has been increasing from 2001 to 2003.

TABLE 3.1: IMMIGRATION AND EMIGRATION: NET GAIN/LOSS

Occupation	2001	2002	2003
Engineers and technologists	-412	-430	-639
Accountant and related	-475	-488	-703
Total professional and semi-professional	-2 405	-2 113	3 817
Management	-696	-764	-1 313
Clerical	-1 217	-1 093	-1 870
Artisans and apprentices	-293	-239	-356
All economically active persons	-6 638	-6 280	-9 529

(Source: Barker, 2007:25)

According to Barker (2007:25), the official data available on net immigration is only up to 2003. About 30 percent of South African qualified accountants are overseas and the South African Institute of Chartered Accountants (SAICA) has no formal programme to get them back to South Africa. Makola, as cited by Anon (2007c:1), further indicates that of the 26 905 chartered accountants in South Africa, 6 080 are based overseas, bringing the total number of accountants available in the country to 20 825. The pressure for international migration will continue, driven by differences in demographics and real income differences (Bhargava, 2006:7).

Ndlovu (SABC 3, 2006), in his speech, urged "employers and managers to develop more skills in the field of accounting so that when the country loses

those skills through migration, there are those remaining to fill the gaps. The skills available should be fully utilised and those that the country does not have should be developed; for example, qualified bookkeepers and trained accountants should be developed”.

There is already evidence that companies are anxious to recruit well-qualified, competent graduates, especially black chartered accountants. There are very few accountants, owing to the past policy of separate development to educate for inequality and inferiority (Swartz & Foley, 1996:38).

According to Mutula (2001:2), the universities are producing graduates who are ill-equipped for the labour market. Employers have to re-train staff which is time-consuming and an expensive exercise. Most of the students, after completion of their qualifications, prefer to be absorbed by companies under their studentship programmes, because they believe in the acquisition of skills. This is one of the mechanisms in place to equip graduates with skills.

The Minister of Education, Naledi Pandor (2006:3), acknowledged the shortage of skills and raised the question on what the causes of these inadequacies are. The other factor contributing to the shortage supply of accountants in South Africa is racial and gender equity.

3.6.2 Racial and gender equity

Leaf (2007:18) states that, according to the statistics, there is a total of 25 655 qualified accountants and 10 012 trainee accountants currently registered with SAICA. When these numbers are broken down into racial groups, they reveal a great shortage of CAs among blacks and coloureds in particular. Anon (2007c:1) indicated that in 2007, 26 905 chartered accountants were registered with SAICA and only 916 were blacks, 510 were coloured, 2008 were Indians and 23 741 were whites.

Sadler (2003:11) also states that the shortage of black people in the accounting profession in South Africa is a major cause of concern. Van Zyl

(2008:379) indicates that the pace of transformation in the accounting profession is very slow, and it is not only experienced at the top level of the profession but the problem is evident even at the undergraduate and post graduate level.

Numerous reasons can be advanced for the slow change in the racial profile of the chartered accounting profession. The following are some of the reasons advanced by Sadler (2003:11):

- Lack of role models for black accounting students
- Lack of career guidance
- Lack of exposure to business
- Lack of funding and bursaries

3.6.3 Drop-out of students at institutions of higher learning

Institutions of higher learning are some of the primary suppliers of accountants in the country. The institutions are increasingly failing to supply the expected number of accountants, because some students drop out of the institutions before they complete a qualification. In the first chapter in the introduction, the Minister of Education, Naledi Pandor (mentioned in chapter 1 page 1), commented that half of the country's undergraduate students drop out before they complete their degrees and their diplomas. Drop-out in institutions of higher learning is a cause for concern and needs to be addressed.

The student may be required to hold a part-time job while attending school. According to McMillen *et al.* (1994:5), most of the time they feel alienated, because they cannot meet the standard required by their peer group. Most of these students find it difficult to cope with the challenges of tertiary education and usually drop out of the institution.

Good education and work habits must be taught in the home if the students in the current educational system are to be successful (Kunisawa, 1988:63). According to Sibanda (2004:1), failure to complete a qualification is

associated with persistent poverty among certain segments of society. Education plays an important role in reducing poverty; it reduces fertility and improves health and equips people with skills needed for full participation in the economy and in society (De Villiers & Nieuwoudt, 2003:4).

3.7 SUMMARY

Chapter three identified different professional bodies in the field of accounting. It also included the different qualifications accredited under each body, such as chartered accountants that are accredited by the South African Institute of Chartered Accountants and professional accountants that are accredited under the South African Institute of Professional Accountants. The different learnerships and internships were looked into, because these programmes were introduced to reduce the skills shortages in the country. These programmes were also implemented to improve skills required in the field of accounting.

The SETA for Finance, Accounting, management consulting and other financial services (FASSET), as the main providers of learnerships was discussed. The factors contributing to the supply of accountants were also discussed. The impact of students dropping out on the supply of accountants in the country was also investigated.

Chapter four, through the empirical study in the form of questionnaires and semi-structured interviews, identifies the different factors causing students to drop out from Tshwane University of Technology.

CHAPTER 4

EMPIRICAL INVESTIGATION

4.1 INTRODUCTION

In chapter two, the literature on demand for accountants in the economy of South Africa was reviewed. A number of factors indicated why there is a high demand for accountants in South Africa. Chapter three discussed the supply of accountants and the factors influencing the supply of accountants in the country. Among the factors, drop-out of students at institutions of higher learning was discussed. This chapter, through the literature review, gathered information from questionnaires and interviews conducted to investigate the factors causing the second-year accounting students to drop out from Tshwane University of Technology.

Tshwane University of Technology, as one of the institutions of higher learning recruiting and training the majority of black students from a disadvantaged background, focuses on alleviating the problem of skills shortages and also working towards the increase in the supply of accountants, especially important because of the designated groupings. The pace at which students complete their qualification and pursuing their studies towards chartered accountancy is moving very slowly, because a number of students drop out of the institution before obtaining a qualification. Annexure A indicates the drop-out rate of students enrolled for the National Higher Certificate at Tshwane University of Technology from 2004 to 2006. The highest percentage of drop-outs was experienced with second-level students ranging from 23 percent in 2004, 20 percent in 2005 and 18 percent in 2006, as compared to third-level students with drop-out rates of 20 percent in 2004 and 15 percent in 2005. In all these years, the drop-out rate of second-level students was higher than that of first- and third-level students.

According to Stoltz (2004:13), Tshwane University of Technology enrolls students from South Africa's nine provinces and most of them are from disadvantaged areas. Most of these students are from impoverished, unemployed or single-parent families. Their parents have to make ends meet, let alone to send their children to institutions of higher learning to study. All of these groups of students have problems outside of the institution of higher learning that challenge their will and desire to stay in tertiary institutions (Mutula, 2001:5). Despite the challenges they are faced with, most of them still do not cope with the demands of the tertiary institution, because of the various factors discussed below.

4.2 FACTORS CAUSING STUDENTS TO DROP OUT

4.2.1 Language barrier

Vecchio and Guerrero (1995:4) consider a student to be proficient in English if the student is able to use English to ask questions, understand lecturers, read materials written in English and at the same time, is able to challenge what is being asked in class. They mention the following language skills as contributing to proficiency:

- **Reading** – The ability to capture, comprehend and interpret text at the age and grade appropriate level.
- **Listening** – The ability to understand the language of the lecturer, follow the instruction of the lecturer, comprehend and extract information from what the lecturer has said.
- **Writing** – The ability to produce written text with content and format satisfying the age and grade level.
- **Speaking** – The ability to communicate appropriately and effectively in learning activities where students can contribute in a class discussion, peer tutoring, question and answer sessions within the classroom.

The language of teaching and learning is a barrier to students who have to learn in a second and sometimes a third language (Engelbrecht & Green, 2001:191). At present, low levels of education, literacy and limited use of English are crippling the ability of students. Bohlmann and Pretorius (2002:200) and Eiselen and Geysers (2003:120) have supported the theory that, although overall institution aggregate is the best predictor of academic performance, a certain threshold of English proficiency is essential to be successful at university.

According to Van Wyk and Crawford (1984:8), while matriculation performance is probably the best generally available predictor of success at tertiary level, students with poor English proficiency, who are most likely to be second language speakers, can be expected to encounter additional difficulties in coping with the academic demands placed upon them at university, especially during the first two years of study.

Foley (2004:62) confirms that academic literacy development is an area of urgent need in order to prevent language from acting as a barrier to success in the institutions of higher learning. The Department of Accounting at Tshwane University uses an admission criterion where each student must have passed English Second Language with a symbol E Higher Grade or above to be considered for admission. Despite the fact that these students have satisfied the admission criteria, most of them find it difficult to cope with the demands of the institution.

Nkosana (1993:29) also supports this by arguing that one of the reasons for not coping with academic demands is language. Most of the students enrolling at institutions of higher learning, especially in situations where second language is used as a medium of instruction, do not have adequate linguistic and study skills to cope with the demands of the institution, especially second-level Accounting students. Some of these students find it

difficult to analyse and interpret accounting statements because of the language barrier.

Pellino (2007:1) further emphasises that students with English as a second language have a higher drop-out rate. These students are also among the lowest ranking in academic achievements. They are usually embedded with a number of new concepts and also find it difficult to participate in classes, because they cannot express themselves.

The second factor contributing to the drop-out of students is a lack of support among the students in the form of financial, academic and non-academic support, which will now be discussed.

4.2.2 Financial support

Rossouw and Wolmarans (2002:90) state that the cost of operating institutions of higher learning is rising faster than the consumer price index. Institutions of higher learning have begun to search for new sources of revenue; the failure will result in an increase in fees to cover the costs. When fees increase, the financial burden fall on parents of the students registered at institutions like Tshwane University of Technology.

The socio-economic status of most of the students registered at Tshwane University of Technology was outlined in section 2.1 of chapter two. Most of them come from the low income group and their parents cannot afford to pay for their tuition fees. Tshwane University of Technology realises that students need financial support, especially those from poor communities.

In South Africa, institutions of higher learning engage large numbers of students who do not have the financial means to access higher education (Roberts *et al.*, 2006:228). The past few years have been characterised by continuous pressure from the poorer students for more financial support in order for them to gain access to higher education (Roberts *et al.*, 2006:228). In the 2004 Budget, an additional R776 million was allocated to the National

Student Financial Aid Scheme (NSFAS), which assisted 100 000 students (Roberts *et. al.*, 2006:228).

According to Mandla Seopela, the president of the South African Student Congress, as cited by Macfarlene (2006:6), most drop-outs occurred because of financial reasons. Even those with funding from the state's NSFAS sometimes battled to make ends meet. Students who cannot afford food will clearly not cope with the academic environment. Motsetse (2007:1) also confirmed that students at Tshwane University of Technology receive funding from the government in the form of a loan from NSFAS, but the amount is not sufficient because it only covers tuition fees, books, and accommodation, but not meals. Therefore, students have to fend for themselves.

The financial burden of coping with tuition fees is too much for most families (Nyondo, 1998:4). In view of a lack of financial resources, Johnson (2002:2) stated that debts resulting from an outstanding balance of tuition fees deter students from continuing with their education and some are forced to drop out. The situation prevails at this university among second-year Accounting students. Crewe (2005:1) further indicated that the future increase in tuition fees will impact negatively on students who come from low income households, because it will be difficult for them to access higher education institutions. Those who cannot afford the tuition fees cannot even consider applying to universities.

4.2.3 Academic support

De Villiers and Nieuwoudt (2003:17) stated that working with large numbers of students from a diversity of backgrounds in a lecture room situation creates a variety of challenges and pitfalls. Despite the challenges lecturers come across in the lecture room some of the students are still not prepared for the minimum academic standards required by the institutions of higher learning

(Hovdhaugen & Aamodt, 2005:5). In order to address some of these issues, a few of the academic support measures will be looked into.

4.2.3.1 Academic development classes

In order to give a more informed account of the Academic Development classes at Tshwane University of Technology, it is appropriate that other models be discussed so that one is able to do a comparative study. De Villiers and Nieuwoudt (2003:18) indicated that one measure of assisting students from different backgrounds was to offer academic development programmes. An academic development programme was developed at the University of Stellenbosch to assist students with academic problems. The programme was mainly designed for first-year students. Students were selected after writing their first formal test. The selected students were invited on a weekly basis to the support class. The main aim of these support classes was to empower students in order for them to reach a position where they could successfully learn independently. At the former Technikon Northern Gauteng, the functioning of the Department of Teaching and Learning was centralized. The academic development practitioners were allocated to the various faculties to provide services such as the different study methods, time management, preparing of a CV and how to conduct oneself during interviews (Maimane, 2007).

Tshwane University of Technology defines student academic development and support as the activities focused on the wellbeing and academic success of the student. The focus areas include the following:

- Reading skills development and remedial interventions
- Improvement of English proficiency
- Comprehensive academic skills assessment (identifying at-risk students/risk profiling) (Directorate of Quality Promotion, 2008:1).

The importance of language proficiency is emphasized by focusing on the improvement of reading skills and language proficiency. The other academic support to be provided is tutorial classes.

4.2.3.2 Tutorial classes

The University of Stellenbosch used tutorial classes for students registered for *Economics 1* as a way of supporting their students academically. Students had three formal lessons of fifty minutes each week; in addition, all students were also encouraged to participate actively in the tutorial classes conducted in three week cycles. In the first week, students received tutorial problems to solve, in the second week, the solutions to the problems were made available and optional discussion classes were scheduled with students. During the third week a compulsory multiple choice test was written.

At Tshwane University of Technology in the Department of Accounting with a large number of students registered for Financial Accounting 1 and 2, tutorial classes are conducted. Firstly, senior students who serve as tutors are chosen by each Accounting lecturer who needs a tutor and undergo some training. Senior students are trained for two weeks. The tutorial classes run for four hours per week. The Accounting lecturer and the tutor arrange the days on which the tutor will be assisting the students. The allocated periods of each lecturer are not affected by extra time provided for each class. The tutorial classes are used to assist all the students with problems such as tackling accounting exercises and to address problems encountered during classes with lecturers such as clarifying accounting principles that were discussed in class. There are no compulsory tests written during tutorial classes.

4.2.3.3 Discussion classes

At Tshwane University of Technology students arrange discussion groups on their own. Sometimes they are grouped per assignment; therefore, they are compelled to work together. At the University of Stellenbosch, tutorial classes are facilitated by tutors. The importance of discussion classes is that students

can share their knowledge and various skills as they try to solve problems and figure out new concepts (De Villiers & Nieuwoudt, 2003:19).

4.2.4 Non-academic support

According to Prebble *et al.* (2005:4), students' throughput rate can be enhanced if institutions of higher learning can reach out beyond formal academic contact, and if they have commitment to the total wellbeing of students. Students are less likely to drop out from a welcoming environment which provides students with a sense of community and belonging, where they feel safe, where there is absence of prejudice or harassment and which offers a range of campus activities. Tshwane University of Technology provides non-academic support in the form of counselling to the students. The service is free and students can consult helpers in their own time.

According to Ngidi (2005:1), the government must not only increase funding, but allocate the existing money efficiently. More resources should be directed at providing support structures for students most likely to drop out of the institution. There should be measures in place to identify those students who are likely to drop out, such as absenteeism, poor performance and difficulty identifying with others (McCann & Austin, 1988:3). Some evidence suggests students are more likely to consult family and friends than counsellors, especially if they are thinking of withdrawing from the institution. Students tend to perform better where there is regular and meaningful contact with lecturers both inside and outside the classroom (Prebble *et al.*, 2005:10).

According to Mashita, as quoted by De Ruyter (2007:1), the lack of support systems is one of the key reasons for the high drop-out rate. Students usually encounter problems such as family break-up, some students are HIV-positive, or a member of the family is HIV-positive; some students lost parents while at the institution and cannot receive support in the form of counselling. These students drop out thinking that there is no life beyond that tragedy. Higher education students experience grief like any other person, but it becomes

more challenging in their case because of reasons that will be discussed below.

It may well be argued that the provision of extensive student support programmes would increase costs. At the same time, by improving student support, throughput rates should increase; the drop-out and the cost per successful student/graduate would decrease (Roberts *et al.*, 2006:228). Institutions seem to view increased support as a hampering factor that drains limited resources. However, holding back on student support, the element that could most increase the effectiveness of the institution and the completion rates, is detrimental to any institution (Baumgart & Johnstone, 1977:560).

4.2.5 Inadequate accommodation available

Tshwane University of Technology is situated in four of South Africa's provinces, being the campuses in Gauteng, Mpumalanga, Limpopo and the North West Province. The majority of students registered at Soshanguve campus mainly come from Limpopo and KwaZulu-Natal. A large number of students are recruited from provinces far from Soshanguve, which means the institution faces a problem of accommodating the large number of students who are far from their homes.

The challenge the university faces is that the majority of the students come from very poor backgrounds and depend solely on NSFAS loans offered by the government for the payment of fees and accommodation. Most of these students manage to obtain a financial grant where fees and accommodation can be paid for by the financial aid department, but the student fails to secure a space in the hostel because of too few rooms available.

The student has to find rented accommodation outside, which the student has to pay, because the financial aid department finances only accommodation provided by the institution. As a consequence, most of the students from impoverished backgrounds find it difficult to pay the rent. Those who can

afford it, find the place not conducive for learning, because one room is allocated to two students who come from different social backgrounds. The same room serves as a kitchen, bathroom and even a bedroom. The students might be studying while another one is cooking. Students staying outside the campus fail to use the institution's facilities at night, because it is not safe. Most students find it difficult to adjust to the environment outside the campus and end up dropping out of the institution because of unpleasant environmental factors such as a high crime rate.

According to Burnett (1995:6) and Kuh (1994:4), the living and learning conditions in the institutions of higher learning affect the critical thinking, intellectual development and aesthetic appreciation of the students. Mchombu (1998:90) further stated that the facilities such as hostel accommodation available in institutions of higher learning contribute to shaping learning experiences of students.

A study was conducted in four institutions of higher learning in Namibia. The institutions provided boarding facilities although this may not have been enough to take all the students who needed them (Njoku 2002:1). Mutula (2001:3) stated that the reduction in subsidies from governments to universities and increased numbers of students have led to inadequate study and accommodation facilities in Kenya, Uganda, Zimbabwe, Botswana and Zambia. This is also experienced by institutions of higher learning in South Africa such as at the Tshwane University of Technology. According to students' perceptions, a living and learning environment is of high quality if the environment is quiet and security is guaranteed. There is availability of good reading and writing desks, quality and quantity of food, clean water and a clean environment (Njoku, 2002:2). Fifty percent of students in the Namibian institutions of higher learning stated that the sharing of rooms have adverse effect on students' academic work. Students find it difficult to work after classes (Njoku, 2002:25). Most students experience a high failure rate because of a lack of space to study in the house and the neighbourhood or homes that are usually busy with relatives throughout the day (Nyondo, 1998:3).

4.2.5.1 Classroom space

According to Gombachika and Kanjo (2005:23), the demand for higher education institutions in Malawi is greater than the supply, which is normally determined by bed and/or classroom space. For example, of the 4 300 students who qualified for higher education institutions in 2005, only 20 percent were admitted to the institutions.

4.2.6 Teaching and learning style

A learning style refers to a person's preferred approach to learning. Students learn in different ways and the approach preferred may be an important determinant in their academic performance (Allison & Hayes 1988:273). Levenson (2004:539) provides the following categories of approaches to teaching of accounting:

- Educator-centred approach: The approach that can be used by the lecturer when introducing new information to the students with the intention of transmitting information in order to develop competence in basic accounting procedures.
- Educator-initiated, learner-activity strategy: The approach used by a lecturer through class work or exercises to see as to whether the student has grasped the principles taught. The intention of this approach is to assist the student with acquiring basic accounting concepts.
- Educator-initiated, learner-centred strategy: The lecturer may use the approach through topics assigned to students to find more information on their own, the intention being to develop basic disciplinary concepts.
- Learner-centred approach: The lecturer may assign work to the students without any assistance with the intention of encouraging growth, a deeper understanding of the discipline and bring about change to how they interpret information.

The rapid changes in the technological and competitive business environment pose serious challenges to accounting education (Johnson, 2005:5). Accounting educators have been warned many times that accounting education must change if it is to be relevant and add value to students and the community (Albrecht & Sack, 2000:52). A growing gap exists between what accountants do and what accounting education offers (Fouché, 2006:3).

Most second-year accounting students find it difficult to cope with the pace at which lessons are offered and the load of work allocated to them at institutions of higher learning. According to Visser *et al.* (2006:98), individuals learn in different ways, using several learning styles, but lecturers may not always present information and learning experiences that match students' learning preferences. Mismatches between learning and teaching styles can lead to disappointment with the course of study, personal discouragement, underperformance and dropping out of the institution.

Educators need to adopt approaches to teaching and assessment that will enable students with different learning styles to learn effectively (Visser *et al.*, 2006:97). Identifying individual students' learning characteristics may help educators to improve their course design and choose helpful and appropriate learning outcomes (Butler, 1988:36), modes of delivery and assessment (Sangster, 1996:135).

According to Felder and Silverman (1988:19), a lack of "matching" between preferred learning styles and the nature of the subject matter and teaching methods would result in lower motivation, poorer performance and perhaps dropping out. It is of the utmost importance that second-level accounting lecturers match their teaching styles with the subject matter, also considering the diversity of the students at this institution. On the other hand, some researchers, for example, Rush and More (1991:312) argue that mismatching can help students to overcome weaknesses in their cognitive styles to

develop a more integrated approach to their learning. Also, Kowoser and Berman (1996:215) argue that providing mismatches in teaching and learning styles can also stimulate learning and flexibility in learning.

According to Prebble *et al.* (2005:6), teaching methods are a contributing factor towards student outcomes, but most students find it difficult to adjust to the independent learning required at institutions of higher learning. Students can be disconcerted by the impersonal style of lectures, at being left to manage their own learning, and at the lack of help available to make the transition.

Pearce (1996:3) advocates collaborative teaching methods that engage students actively in learning and with each other, while others call for flexibility in methods to cater for the needs of increasingly diverse students and to improve completion rates. According to Fouché (2006:29), the most important thing about teaching is not what the lecturer/educator does, but what he/she causes the student to do. Flexibility can be in programme delivery and assessment procedures as well as teaching style (Prebble *et al.*, 2005:6).

4.2.7 Other contributory factors

It is also evident in this study that high school performance plays a pivotal role in drop-out in institutions of higher learning. The University of the Free State Vice-Rector, Magda Fourie, as cited by Macfarlane (2006:6), mentioned that some of the high school learners are increasingly under-prepared for higher education and their school results are sometimes inflated. Donnelly (2003:1) also indicated that students admitted for higher education institutions are not properly equipped for tertiary study. They find it difficult to adjust to the style of teaching and even to cope with the work load. Even after six years of high school, the reality is that increasing numbers of students cannot write properly structured and grammatically correct essays. Many educationists are concerned that quality has been sacrificed for quantity. Year marks now count

significantly more towards the final mark, raising fears that marks are being artificially inflated to boost individual school matriculation results.

Umalusi, the Council of Quality Assurance in General and Further Education and Training discovered that from every 100 matriculation certificates verified, there are four found to be false. The council, the only body authorized to print and issue matric certificates, has already identified 515 forged certificates this year alone (De Ruyter, 2007:1).

If higher education institutions inherit a weak product from schools, problems such as lowering of standards to increase throughput occur, or have to invest heavily in academic support and development of those students as a way of bridging the gap between high school and institutions of higher learning (Anon., 2003). An organisation named Higher Education SA (HESA) also indicated that the quality of education at secondary school level is one of the reasons for the poor pass rate at tertiary level (Blaine, 2006). The poor results of the school system have a negative impact on the resources of the institutions of higher learning (Roberts *et al.*, 2006:227).

The Minister of Education, Naledi Pandor, as cited by Bloch (2006:2), identified many key points of weaknesses. The spotlight is turned on the stabilisation and focus on core areas of intervention that may make a difference that will bring about long-term gains and movement towards quality education (Bloch, 2006:2). The poor and inflated matriculation results emanate from problems experienced in high schools. The analysis of matriculation results indicated an increase in the failure rate of matric students from 2003 to 2007. Table 4.1 shows that the failure rate has increased from 26,8 percent in 2003 to 34 percent, and by 8 percent in 2007. Even if the students pass, those passing with endorsement are few, which indicate that less students qualify for admission at universities and a large percentage pass matric without endorsement and are compelled to register with universities of technology. The large numbers of students who pass matric without

endorsement show the standards of education that exist in the country. The above are some of the problems contributing to this pass rate.

TABLE 4.1: MATRICULATION RESULTS: 2003 TO 2007

Year	Total numbers of students who wrote	Pass – exemption percentage	Pass without Exemption Percentage	Percentage of those who failed
2003	440 096	18,6	54,6	26,8
2004	469 056	18,2	52,5	29,3
2005	729 878	17,0	51,3	31,7
2006	742 289	16,7	49,8	33,5
2007	564 750	15,1	50,1	34,8

(Roberts *et al.*, 2006:228)

The following are the problems that really need to be attended to and which, if not considered, create blockages of students in higher education institutions.

4.2.7.1 Required standards of the education system

The required standard of the education system is measured in terms of outcomes of basic reading scores, mathematics and science literacy, which are consistently among the world's worst outcomes (Bloch, 2006:3). Most of the students find it difficult to cope with the accounting curriculum, because most subjects need mathematics principles and background. Also, institutions of higher learning should stick to academic admission criteria so as to avoid admission of students who will fail to cope with tertiary standards of education. The standards of education are not improving at such a fast pace to an extent that the private sector, through initiatives and efforts, contribute towards the upliftment of education.

The Shell Company, through the project called CASME (Centre for the Advancement of Science and Mathematics Education) supported initiatives to contribute to the advancement of Science, Mathematics and Technology Education and the development of teachers (Kusi, 2007:2). Shell came up with this project because South Africa, in the most recent Trends in International Mathematics and Science study, scored the lowest of the 50 countries surveyed. The project aims at improving mathematics and science scores for the students, and also to develop teachers, particularly in the rural areas of KwaZulu-Natal as a way of addressing the skills gap (Kusi, 2007:2).

4.2.7.2 Disparities among schools in South Africa

Only some five percent of the students in grade 12 are registered for mathematics and science in the higher grade. The matriculation exemption is static, or falling, at 17 percent (Bloch, 2006:4). This reflects the reality that education is failing some 80 percent of school-age children, who find themselves trapped in a situation of poverty and unemployment rather than on tracks of autonomy and possibilities. Many township and rural schools have been described as sinkholes, where children are warehoused rather than educated (Bloch, 2006:4).

Education is contributing to marginalization and inequity rather than social advancement and cohesion for many, especially the poor in the rural areas (Bloch, 2006:4). The highly uneven education and training systems are one of the barriers to growth. The uneven quality of schooling, weaknesses in education administration, differentiated qualifications, salaries of teachers, and inadequacies in skills development have to be addressed as part of South Africa's strategy for sustained growth and poverty reduction (Bloch, 2006:4).

4.3 RESULTS FROM THE EMIPRICAL RESEARCH

4.3.1 Introduction

In section 4.1, the key factors affecting the second-year students to drop out were researched. The literature described the causes of dropping out of students at institutions of higher learning and its impact on skills development and the skills gap. The purpose of this section is to reveal the dominant factors contributing to the drop-out rate of students at Tshwane University of Technology.

4.3.2 Research methodology

A questionnaire based on the issues identified was used to discover the factors causing the drop-out of students at Tshwane University of Technology. Semi-structured interviews were conducted with Tshwane University of Technology personnel such as academic staff, academic development practitioners, financial bureau personnel and hostel managers. Students who dropped-out were interviewed telephonically.

4.3.3 Research population targeted

A questionnaire was distributed to 300 second-year students and 63.67 percent of the students responded to the questionnaires. Furthermore, interviews were held with the academic faculty: ten academic lecturers and two members of the other departments were interviewed at the academic development department, finance, and hostels. This section describes the actual empirical investigation of students, lecturers, support staff and academic development practitioners' views on factors causing the second-year Accounting students to drop out of Tshwane University of Technology.

4.3.4 Results

The findings from the use of these three methods were then analysed and the results are provided in this chapter.

Question 1. Gender

The questionnaire was distributed to second-year Accounting students; 48 percent represented male students and 52 percent represented female students.

Question 2. Which programme were you registered for in 2007?

The students were registered for the National Higher Certificate in Accountancy.

Question 3. What is your level of study?

The students were in their second level of study.

Question 4. Who assisted you in choosing the Accounting programme as a choice of study?

A total of 13 percent of the students were assisted by their parents, eight percent were assisted by student assistants from the institution, three percent were assisted by friends and 75 percent made their own choice of the study.

Question 5. How do you rate the residential accommodation?

As much as 72 percent of the students strongly disagree that the conditions of the hostel are conducive to studying; also, nine percent disagree that the environment is healthy for studying, eight percent agree and six percent strongly agree that the hostels are good for studying. The greater percentage of the students (81 percent) state that the living conditions of the hostels are not healthy. This is illustrated in figure 4.4.

Question 6: How well were you orientated towards your accounting field?

The students responded in the following way: 49 percent of the students indicated that they did not attend any orientation programme, while 14 percent confirm that they had to discover things on their own. There was no guidance given. Only 14 percent agree that they were guided on issues such as the use of the library and on how to tackle accounting problems, and five percent strongly agree that they were assisted on a number of academic issues such as how to study at institutions of higher learning. Nearly a third, 63 percent, of the students confirmed that more needs to be done in order for students to understand how institutions of higher learning operate.

Question 7: How do you rate the presentation of the lesson in your second year Accounting class?

Altogether, 17 percent of the students are strongly dissatisfied and 30 percent are also not satisfied with the teaching styles of lecturers; 14 percent are neutral, which means they are not satisfied with all elements mentioned. Only 18 percent of the students are satisfied, while 19 percent are strongly satisfied that lecturers do their work. Therefore, lecturers should devise means and ways of improving their methods of teaching. Figure 4.3 illustrates the responses of students to lecturers' style of teaching.

Question 8: How do you rate the classrooms used for Accounting lessons?

The students responded in the following manner: 32 percent strongly disagree that the lecture rooms are suitable for classes, while 16 percent also disagree that the lecture rooms are conducive for learning. Another 14 percent and 17 percent agree that the lecture rooms are in a good condition for classes, and 20 percent of the students are neutral. A total of 48 percent, as compared to 32 percent, say classrooms need to be improved.

Question 9: How do you rate your tests and examinations?

Students answered the question in the following way: 24 percent of the students strongly disagree that scripts are returned on time and 17 percent also confirmed that no feedback in the form of remedial work is done by lecturers. Another 26 percent are neutral and 16 percent agree that proper assessment is done by lecturers; 17 percent strongly agree that lecturers mark scripts fairly and return scripts on time.

Question 10: Academic support

Students responded in the following ways to academic support provided to them: 34 percent of the students strongly disagree that there is no academic support provided, 28 percent disagree that there is support provided and 16 percent of the students are neutral; 12 percent and 10 percent respectively agree that academic support is provided.

Students were requested to indicate who is providing funding for them. Figure 4.1 indicates how students are financed. A total of 40 percent are financed from NSFAS, 30 percent through EDU-loan, ten percent are financed by their parents, 12 percent are financed by bursaries and eight percent are financing themselves.

Students were asked to indicate factors that are contributing to students drop-out at Tshwane University of Technology. Table 4.2 indicates the factors outlined by the students; the most predominant factors are poor performance and financial problems.

TABLE 4.2: FACTORS CAUSING STUDENTS TO DROP OUT AT TSHWANE UNIVERSITY OF TECHNOLOGY

Factor	Score	Percentage
Academic exclusion/Poor performance	50	25
Financial problems	49	25
Pregnancy	17	9
Lack of support from lecturers	12	7
Got a job	10	5
Accounting curriculum too difficult	10	5
Incompetent lecturing staff	10	5
Blocking of subjects with prerequisites	9	5
Wrong choice of course	6	3
Lack of support from other service Departments	5	3
Freedom at tertiary institution	5	3
Lack of support from family	5	3
Lack of information about the course	3	2
Total	191	100

This table outlines the views of students with regard to what contributes to second-year Accounting students that drop out at the Tshwane University of Technology.

4.3.4.1 Language barrier

The curriculum for the National Higher Certificate in Accountancy includes Taxation as one of the subjects to be studied. Students' language proficiency was measured by the number of tests written for Taxation. Three scripts were selected to indicate how English is used by students at the Tshwane University of Technology.

The following were the findings from the selected scripts:

1. FIRST SCRIPT

Question 2: On this question, students were required to indicate the amounts to be included in the gross income of the taxpayer and to give reasons why those amounts will be included.

The student on questions 2.3, 2.4, 2.5, 2.9 and 2.10 indicated that the amounts will be deductible from the gross income instead of showing the amounts to be included in the gross income.

2. SECOND SCRIPT

Question1: On this question, the students were asked as to whether Mr. Prado is a resident of South Africa according to the physical test.

The student said in his conclusion, "Therefore, Mr. Prado will not be regarded as an ordinary resident of the Republic because **he does not be the three clauses** of the physical presence test but he meets only one clause".

The student should have said in his/her conclusion: Therefore, Mr. Prado will not be regarded as an ordinary resident of the Republic because **he did not meet the three clauses** of the physical present test, but he meets only one clause.

3. THIRD SCRIPT

Question 1: The student was asked as to whether an amount stolen by the taxpayer will be included in his/her gross income.

The student responded in the following way:

Amount that was **stole** by the **tax** it **will include** in his or her gross income because the definition of **gross** includes the amount received in cash or otherwise.

The student should have said: The amount that was stolen by the

taxpayer will be included in his or her gross income, because the definition of gross income includes the amount received in cash or otherwise.

4.3.4.1.1 *The findings from scripts analysed*

There are a number of factors that could contribute to the manner in which the students might have presented their facts, such as a lack of subject content. For the purpose of this study, presentation of facts was analysed according to the language skills as discussed by Vecchio and Guerrero (1995:48).

1. On the first script:

The student misinterpreted the question. The student failed to distinguish between inclusion and deduction and that impacted negatively on his/her results. Misinterpretation of questions can result from a number of factors: one of those factors could be a lack of information about the topic asked because the student did not study thoroughly for the test. In this study, misinterpretation of a question was more related to a lack of reading skills, which according to Vecchio and Guerrero (1995:48), refers to the inability of a student to comprehend and interpret text at the level of his/her grade.

2. On the second and third scripts:

Students have a problem of constructing sentences, and this result in poor presentation of facts. Some words are omitted and the sentences lose meaning. The lecturer finds it difficult to understand what the student wants to say. The students lack the writing skills. According to Vecchio and Guerrero (1995:48), the students lack the ability to produce written text with content and format satisfying his/her level of study.

4.3.4.1.2 *Lecturers' response to the question of language proficiency*

As much as 70 percent of the lecturers interviewed argued that students have a problem with English as a medium of instruction, and that is revealed in the following instances:

- Some students answer questions in their mother tongue.
- Students abstain from classes where they have to make presentations, because they cannot express themselves.
- Students prefer to ask questions after the lesson, because they can talk to the lecturer alone without other students hearing what they are saying.
- Most subjects use their own terminology, while students are still struggling to grasp English, subjects such as Accounting uses its own terminology; for example, the word owing can be used interchangeably with 'in arrears', 'accrued' and 'still due'. Consequently, students find it difficult to comprehend all the terms.
- Students prefer to address lecturers in their mother tongue during consultation times.

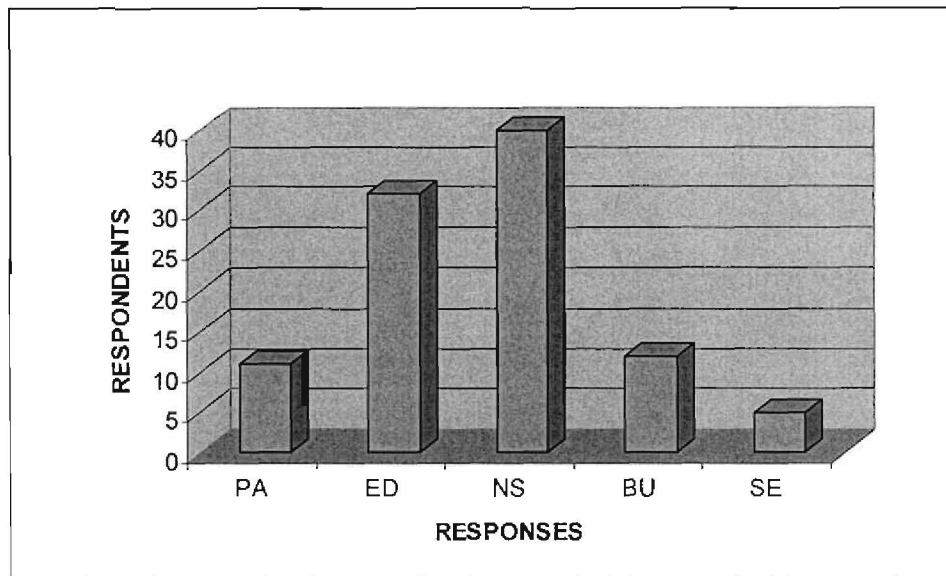
4.3.4.2 Financial support

Financial problems are some of the contributing factors to drop-out. The response from the questionnaire found that 25 percent of the students consider financial problems as a barrier for accessing education at institutions of higher learning. Most of the students come from poverty-stricken families. Figure 4.1 indicates the different ways in which student fees are financed at Tshwane University of Technology. The student fees at Tshwane University of Technology are financed through NSFAS, while others pay for themselves, because some of the parents cannot afford tuition fees. Other parents can afford to pay the fees, but they are not willing to pay the fees for their children.

Motsetse (2007) indicated that the amount given to students cover only their tuition fees, accommodation and books. The costs for meals are not covered.

This implies that parents should provide money for meals. Those students who come from very impoverished families find it difficult to cope with life at institutions of higher learning, because the cost of living is very high. Five of the ten students who dropped out indicated that there was no one to pay the outstanding balance of their fees, due to the fact that NSFAS did not pay all the fees, thus they were unable to receive their results and even to register for 2008.

Twenty percent of the students interviewed did not have money for meals, because their guardians were retrenched from work. They had to beg for food all the time; it affected them emotionally and they failed most of their subjects. They dropped out because of poor performance. Figure 4.1 indicates the different ways in which student fees are financed at Tshwane University of Technology. The student fees are financed either by parents, EDU-loan, NSFAS, bursaries, or a student pays for his/her own fees. Figure 4.1 clearly shows that 40 percent of the students depend on financial assistance from the government through NSFAS for the payment of fees, 11 percent are financed by their parents whilst 12 percent receive bursaries, and only five percent of students pay on their own. According to the figure below, the main source of funding for student fees is the government.

FIGURE 4.1: FINANCIAL SUPPORT

Financial assistance by: Parents (PA), EDU-loan (ED), NSFAS (NS), Bursary (BU) and Self (SE). In the next section, student support will be investigated.

4.3.4.3 Student support

As discussed previously, students also drop out of institutions of higher learning because of a lack of support from academic and support staff and also academic development practitioners. Furthermore, where academic development practitioners are not considered as part of the lecturing staff, most important topics such as motivation, study methods and time management are left out and that contributes negatively to the pass rate of students.

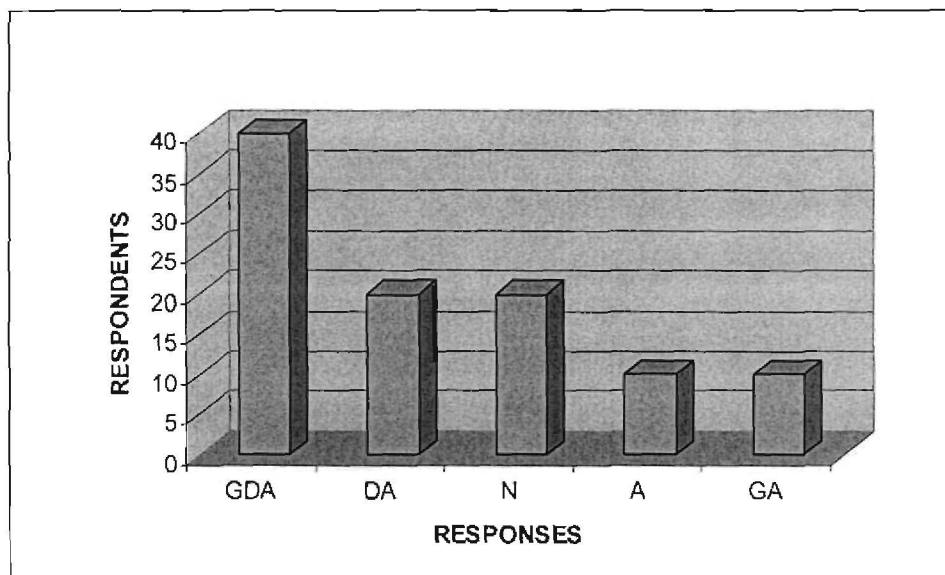
According to the findings of this study, seven percent of the students responded that students drop out because of a lack of support from the staff. Another three percent of the students are of the opinion that there is a lack of support from other departments such as the academic development department. In the findings from interviews with lecturers' six out of ten lecturers indicated that they do not usually invite academic development practitioners to their classes. Two out of ten lecturers mentioned that they

usually invite them once in a year. One out of ten lecturers said they were not aware that academic development practitioners should be invited to classes.

The academic development practitioners responded as follows on a question as to when they assist the students with problems: The two academic development practitioners allocated to the faculty of economics and finance indicated that they assist students on lecturers' requests. According to figure 4.2, students greatly disagree that they receive support from both lecturers and heads of department. Some of the students who dropped out indicated the following reasons as the cause for dropping out:

- Physically abused as a teenager; she has never received counselling
- Raised by her mother, who is now suffering from heart failure
- Staying with relatives who do not allow him time to attend classes or to study
- Suffering from HIV Aids, therefore cannot concentrate in class
- Committed an abortion and she is now suffering a guilty conscience

FIGURE 4.2: STUDENT SUPPORT



Responses: Greatly disagree (GDA), Disagree (DA), Neutral (N), Agree (A) and Greatly Agree (GA)

4.3.4.4 Teaching and learning style

Lecturers need to create a suitable mix of different learning opportunities to ensure that the largest possible number of students can learn effectively (Butler, 1988:34).

The first construct of teaching and learning refers to question 7 of the questionnaire and consisted of ten elements: presentation of lesson by the lecturer, use of terminology, class discussions allowed in class, class work given, lecturer is clear and audible, classroom management, the use of textbooks in class, completion of syllabus on time, always punctual and full use of lecturing time.

Figure 4.3 indicates that 29 percent of the students are not satisfied with the teaching styles of lecturers and 14 percent are neutral, which means they are not satisfied with all elements mentioned. Only 42 percent of the students are satisfied. Therefore, lecturers should devise means and ways of improving their methods of teaching.

The findings as indicated in figure 4.3 reveal that five percent of the students are not satisfied with their lecturers. They consider them to be incompetent. The following reasons were advanced:

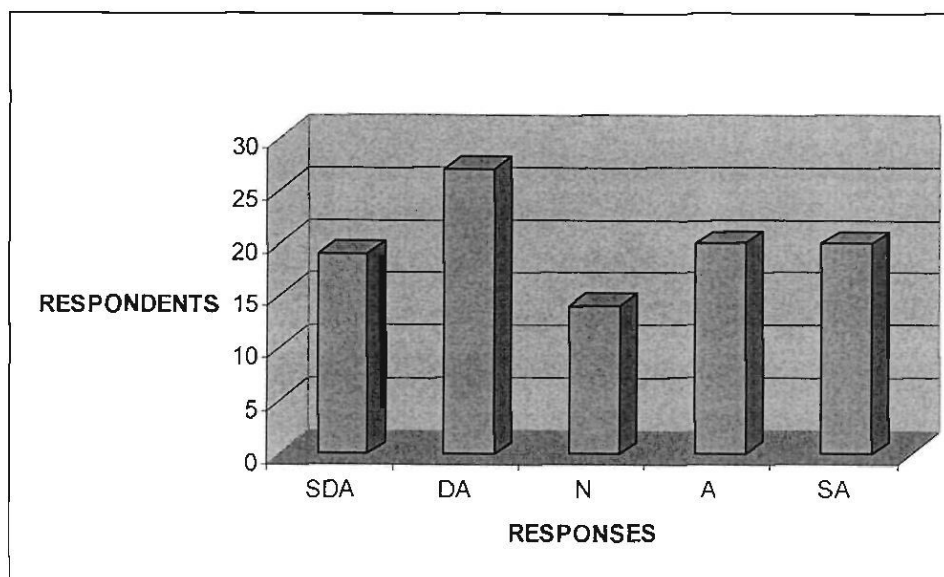
- Some of them come to class unprepared, and they fail to solve queries raised by the students; instead, they postpone the answering of the questions for the next class.
- Some of the lecturers read out the solution as given in the manual without explaining how it was calculated. Some of the solutions have errors and some lecturers fail to detect those errors.

On the other hand, five of the ten lecturers interviewed feel that students are not prepared to study, especially at the second year of their studies. The reasons advanced were:

- Some of the students are always late for their classes and they lose most of the information delivered in the first period.
- Some of the students do not attend classes on those days they are writing tests.
- Some students usually stay at home for an extra two or three days after a school holiday, so they miss lessons for those days they are absent from university.

Two of the ten lecturers indicated that students only come to the office to ask for the scope of the test, they do not come for assistance. Those who come for assistance, consult them only when they are going to write a test. The consultation time allocated for students is not fully utilised. Three of the ten lecturers stated that students do not do their homework and these tendencies affect their performance. Most of the students fail to study their work and they find it difficult to follow what the lecturer is doing in class, even to ask questions.

FIGURE 4.3: TEACHING AND LEARNING STYLE



Responses: Strongly Disagree (SDA), Disagree (DA), Neutral (N), Agree (A), Strongly Agree (SA)

The next issue to be discussed relates to inadequate space.

4.3.4.5 Inadequate infrastructure

Another contributory factor towards the drop-out of students at institutions of higher learning is a shortage of classrooms, computer laboratories and hostel accommodation. This factor consists of elements such as freedom at the tertiary institution, pregnancy, and poor academic performance. According to the findings of table 4.1, 25 percent of the students stated that poor academic performance caused by overcrowding in classes lead to students dropping out of the institution. Another nine percent indicated that girls are dropping out of the university because of pregnancy.

According to Sibanda (2007), his response to the question of how many students are accommodated in the hostels, mentioned that the hostel facilities available can only accommodate 30 percent of the student body. The 70 percent of the remaining students should find accommodation outside the campus on their own. The problem faced by the institution is the problem of squatting. Squatting refers to buildings occupied unlawfully (Soanes *et al.*, 2006:736). More than the allocated number of students stay in one room; for instance, in a single room one finds two people staying in that room. According to figure 4.4, the findings reveal that 30 percent of students strongly disagree and 20 percent disagree that the facilities provided by the university are sufficient. Another 20 percent strongly agree that the facilities are sufficient and 10 percent agree that enough accommodation is provided by the institution. Half, 50 percent, disagree that the facilities are enough for the entire student body and only 30 percent agree that the facilities can accommodate all students. Students with accommodation on the campus were interviewed and the following aspects were revealed:

4.3.4.5.1 *Students on campus*

Advantages of staying in the hostel

- Can join discussion groups
 - Access to library resources
-

- Access to computer laboratories
- Ample time for studying
- Receive latest information on time

Disadvantages of staying in the hostel

- Overcrowding due to students squatting
- Too much noise – other students play their music loud
- Peer pressure
- Cultural differences

Some of the students who stay outside the campus were interviewed. The following facts were revealed:

Advantages of staying outside the campus

- Students staying outside the campus register with an amount of R1 500 while those staying in the hostel register with an amount of R2 700. Students who come from low income groups can also afford entry at Tshwane University of Technology, because the registration fees are low when staying outside the campus.

Disadvantages of staying outside the campus

- Students are usually late for the first periods, because they have to travel to university daily.
 - They have to carry a lot of books daily, because it is difficult to go home during periods.
 - It becomes difficult to join study groups on the campus, because they usually study till late, because it is not safe to travel in the evening.
 - In those houses where only students reside, they usually encounter a problem of being attacked, or their belongings being stolen.
 - Sometimes two to three students are allocated one room, so it becomes difficult for them to study in that room, because the space is too small.
 - Some landlords switch off lights after a certain time, so students cannot
-

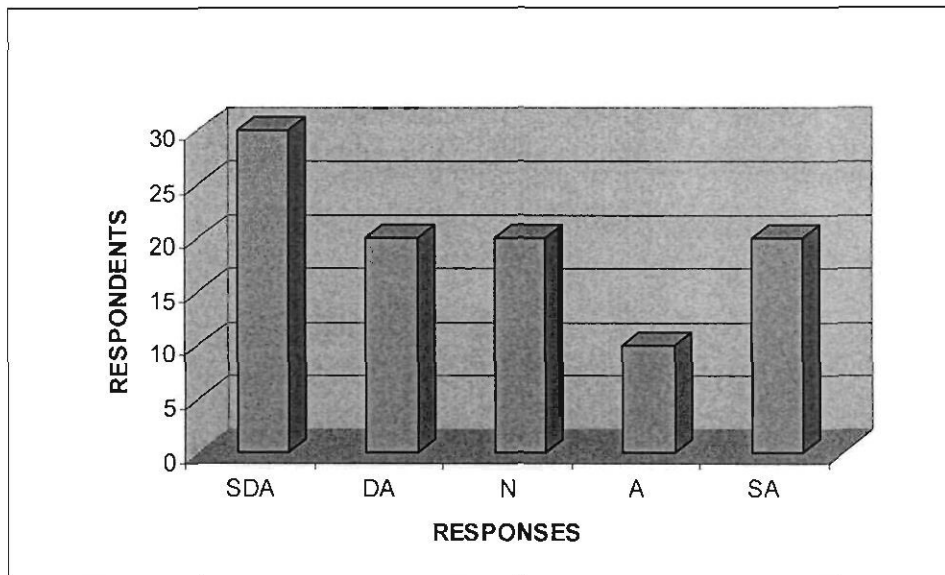
study in their own time.

- Those who come from their homes usually have to travel long distances and more time is wasted on travelling than studying.

Sixty percent of the students who were interviewed on the question regarding the adequacy of the hostel facilities and conduciveness to their studies, had a negative response to the question that the facilities were conducive to their studies, because of overcrowding and lot of noise in the hostels. Eighty five percent of the students who were interviewed on the question regarding adequacy of rooms outside the campus and conduciveness to the studies, indicated that accommodation outside the campus is not conducive. The rooms are small and the place is usually noisy and security is not guaranteed.

The fourth construct of adequate space looked mainly at the lecture rooms' environment and it consisted of the following elements: conduciveness of the lecture room, size of the lecture room, sound systems installed, overhead projectors and white boards installed as well as the cleanliness of the lecture room. According to the findings revealed by figure 4.4, 54 percent of the students responded negatively to adequacy of space in the lecture rooms. Sound systems and overhead projectors are not installed. Some lecture rooms are too big, to such an extent that the students cannot hear what the lecturer is saying, or see what the lecturer is writing on the board. Some lecture rooms are small and cannot cater for the large classes.

The lecturers responded in the following way to the question of adequate space for lecture rooms: The lecture rooms are without overhead projectors and lecturers must carry them to class everyday. In some lecture rooms, the plugs do not work and overhead projectors cannot be used. In some classes, plugs are working, but there are no white boards so overhead projectors can also not be used. There is adequate space for lecture rooms, but sometimes lecturers with big classes are allocated small venues, which causes overcrowding.

FIGURE 4.4: ADEQUATE SPACE

[Strongly disagree (SDA), Disagree (DA), Neutral (N), Agree (A) strongly agree (SA)]

This chapter concludes in the next section with a summary of the main aspects of the chapter.

4.4 SUMMARY

Research was conducted on the main issues that cause students to drop out from institutions of higher learning. The factors were tested empirically by means of a questionnaire and interviews. The findings revealed that students drop out of institutions of higher learning mainly because of financial constraints. The other factors included lack of feedback from the institution on issues affecting the students, poor performance that emanate from factors such as poor academic support, inadequate infrastructure, poor teaching and learning styles and even the language barrier. The recommendations to these findings will follow in the last chapter. In the next chapter this research will be concluded.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

5.1 SUMMARY

This study investigated the key factors contributing to the drop-out of second-year Accounting students at Tshwane University of Technology. The problem statement, objectives of the study and research method were formulated in chapter one.

The second chapter provided a literature review covering aspects relating to the demand side of the market for accountants in South Africa, how to qualify as an accountant, different job opportunities of accountants as well as reasons for the high demand of accountants were also outlined. The skills gap and skills development aspects were also covered.

The third chapter provided a literature review on the supply side of the market of accountants in South Africa. The different organisations contributing towards the increase in the supply of accountants were discussed as well as the different factors affecting the supply of accountants.

The South African labour market is characterised by an over-supply of unskilled workers. The situation of developing and improving skills is moving at a very slow pace, because many students who are supposed to complete their studies at institutions of higher learning are dropping out before completion of a qualification.

Chapter four, through the literature review, investigated the identified factors contributing to student drop-outs. The following factors were revealed as contributing to the drop out of students: financial problems, academic exclusion due to poor performance, inadequate space in classrooms and hostels, the language barrier, student support, and teaching and learning

styles. This chapter included the empirical study, which was conducted by means of a questionnaire and interviews held. It highlighted some important aspects regarding factors contributing to the drop-out of students at Tshwane University of Technology. Questionnaires were distributed to students to find out what they consider to be the factors contributing to the drop-out of students at the university. Interviews were held with academic and support staff of the university.

5.2 FINDINGS

5.2.1 Financial support

The students enrolled at the Tshwane University of Technology are mainly from disadvantaged areas, as discussed in the introduction of the study. Usually, their parents cannot afford to pay the tuition fees because of low income earned. These students depend on bursaries from the private sector or government loans in the form of NSFAS, which does not cover all costs incurred by each student such as costs for meals.

5.2.2 Inadequate accommodation

Table 1.1 has clearly indicated the location of campuses of the Tshwane University of Technology. Although the university is located in the four provinces of South Africa, students still enrol at the campus of their choice. Soshanguve campus enrolled students from the nine provinces of South Africa. Accommodation problems are experienced. Soshanguve accommodates more students than any of the other campuses because of its two sites being North campus and South campus, but the problem of accommodation is still experienced. The hostels can only accommodate 30 percent of the student body. Most students rely on accommodation offered outside the campus. This type of accommodation is sometimes not safe and even not conducive for studying because of the noise within the area.

5.2.3 Lack of feedback by the institution

The problem of drop-outs is not a new issue within different institutions, but institutions of higher learning are not addressing it with the relevant parties. This study has indicated that this trend is being monitored, but this type of information is kept within the institution and not populated unless individuals request it. The institution does not give first-level students a list of challenges which they will be experiencing in order to avoid being part of the statistics.

5.3 RECOMMENDATIONS

- **Language proficiency**

A student is considered to be language proficient if he/she obtains language skills as discussed in the study. Among the language skills discussed, the student must be able to read materials written in English. A recommendation of this study is to improve the students' language proficiency and to create a culture of reading among students. The reading programmes should start from primary schools where pupils should be encouraged to visit the library. The responsibility lies with teachers, industry and government to ensure that our nation has a strong reading foundation. This will result in a strong pool of readers from which accountants can be drawn. Institutions of higher learning should work closely with high schools so as to indicate clearly the kind of students required at tertiary institutions.

- **Teaching and learning styles**

The South African government through the Skills Development Act and Accelerated and Shared Growth-South Africa (ASGISA) is preaching the developing and improving of skills. It is recommended that institutions of higher learning should develop curricula together with private and public companies and also professional bodies, so as to serve the needs of the industries. Institutions of higher learning should be relevant to the labour market.

- **Advisory committees**

Institutions of higher learning should formulate advisory committees comprising of representatives from different professional bodies, such as SAICA and SAIPA and different companies relevant to their field of study, for example, KPMG, PriceWaterhouse Coopers, accounting and auditing firms, and the government sector through SETA. The advisory committee consisting of different sectors of the economy will benefit the institution, because new ideas will flow from different sectors present and that will serve as guidance to what could be expected of the institution.

- **Career orientated education**

Institutions of higher learning should focus, where relevant, more on career orientated education than academically orientated education. Therefore, Tshwane University of Technology through the Cooperative Education Department should come into contact with companies to find out what kind of skills or programmes the institution should develop.

- **In-service training**

Tshwane University of Technology should negotiate with industry for in-service training of the students that will enable the students to link their theory to practice; it will encourage and motivate students to work towards completion of their studies.

- **Innovative teaching methods**

Lecturers should introduce innovative teaching methods; for example, making use of new technology, or student-centred learning. This approach may create a more committed student body.

- **Tutorial programmes**

Tutorial programmes should be made available to students to enable them to have a platform where questions and problems can be discussed on an informal basis. Academic staff and academic development practitioners should formulate strategies of jointly assisting the students either with academic issues or personal problems.

- **Mentorship**

Senior students should be selected as mentors for the second-level students. This will serve as a motivation for the senior students and will improve communication channels between lecturers and students, because the senior students will report all issues to the lecturers. The senior students will coach and encourage students to study.

- **Improvement of staff qualifications**

Table 2.3 of the study outlined the highest qualifications achieved by lecturers at different universities including Tshwane University of Technology in the Faculty of Economics and Finance. Out of 34 lecturing staff only eight members have masters' degrees and three have doctoral degrees. This shows that most lecturers are still relatively under-qualified; therefore, it is recommended that the institution should invest more funds towards improvement of staff qualification and staff development.

- **Peer support**

Peer support in classroom and extracurricular activities is important in

helping the students to form bonds that will keep them in the institution. Counselling services should be provided and lessons offered in classes, especially to the first-year students.

- **Financial support**

Since the amount offered by government and other companies in the form of loans and bursaries is not sufficient, students need to be informed about other companies they could ask for financial assistance from. It is further recommended that the fund raising committee of the institution should try to raise more funds that could also be offered in the form of a loan and be used to finance costs for meals for the poor students. The institution should devise a means of identifying students genuinely in need of financial assistance, so as to curb the provision of funds to those students who can afford it.

- **Inadequate infrastructure**

Students should be divided into smaller groups; that implies more classes to reduce overcrowding in classes. This will help lecturers to afford each student individual attention. Where big classes are used, support infrastructure equipment such as loudspeakers and overhead projectors should be installed so that students can hear and see what the lecturer is doing.

- **Accommodation**

More hostels should be built, because students staying outside the campus are vulnerable to danger. The rooms rented are not conducive to studying and they have no one to take care of them. Students drop out of institutions of higher learning, because of a lack of space to study. Those staying outside the campus lack basic learning support facilities such as peers with whom they can discuss their learning experiences.

- **Drop-out students**

It is advisable that institutions of higher learning should, on an annual basis, contact those students who dropped out to find out the reasons why they dropped out. That will assist the institution to discover those areas that need improvement and the institution can also develop mechanisms of encouraging those students to continue with their studies.

- **Skills gap**

The skills gap is a national problem, but it is recommended that broader investigations are to be done by authorities.

- **Programmes offered by Universities of Technology**

According to the Higher Education Qualification Framework (HEQF), as illustrated in Annexure C, when a student completes a diploma, it is possible to register for an advanced diploma or bachelor's degree. In order for universities of technology to afford them an opportunity of furthering their studies, an advanced diploma should be introduced as part of the institution's Programme Qualification Mix (PQM).

- **Student life**

It is recommended that further studies be conducted on the environment at the campus, especially organised student activities such as interaction of students with professional bodies. A further recommendation is that a study should be conducted about the environment at the campus, especially on the provision, maintenance and supervision of the hostels.

5.4 MEETING OF OBJECTIVES

The **primary objective** of the study was to investigate the key factors that contribute to the drop-out of second-year Accounting students registered at Tshwane University of Technology. A questionnaire, semi-structured interviews and telephonic interviews were methods used to assist in identifying these key factors. Some of the key factors identified were a lack of financial support, inadequate infrastructure, lack of academic support, and the language barrier.

The **secondary objective** was to identify the appropriate interventions of reducing drop-out and improving throughput rates and retention of students. There are mechanisms put in place such as tutoring and academic development programmes for students and staff, but they are not integrated into the academic programmes. They are being disregarded and not utilised; therefore not assisting adequately as tools for interventions of reducing drop-outs. The study was able to meet its objectives and ways of addressing them are given within the recommendations.

5.5 CONCLUSION

Drop-out of students at institutions of higher learning is a serious problem, because it retards the development of skills. It contributes to poverty and decreases the supply of scarce skills such the accounting profession. Institutions, government through SETA, professional bodies and companies should join hands to work towards the solution of this problem. The study was conducted on a very small scale; therefore, a broader investigation could still be conducted on this topic. In the interim, the results of this study should be brought to the attention of the management committee of the University, for serious consideration.

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APPENDIX A: STUDENTS' QUESTIONNAIRE

SECTION A

1. PERSONAL DETAILS

GENDER

Male	Female

The programme registered for in 2007

Programme	
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Your level of study

First year	Second year	Third year

2. ACADEMIC BACKGROUND

	1	2	3	4	5
Students are assisted in choice of programme					

3. THE LECTURER

	1	2	3	4	5
3.1 Uses understandable terminology and concepts when explaining the learning content					
3.2 Ask questions in class					
3.3 Give opportunity for discussions / exercises in class					
3.4 Is available for consultation					
3.5 Speaks clearly and audibly in class					

4. LECTURE ROOMS ENVIRONMENT

	1	2	3	4	5
4.1 The lecture room environment is conducive for learning					
4.2 Learners are overcrowded in class					
4.3 Sound system and air conditioners are installed and in a working condition					
4.4 Overhead projectors and white boards are installed					
4.5 Lecture rooms are always clean					

5.ASSESSMENT

	1	2	3	4	5
5.1 Tests are set based on the work covered					
5.2 Scripts marked are returned within two weeks					
5.3 Scripts marked clearly indicate how marks are allocated					
5.4 Feedback and remedial work are done on tests and assignments written					
5.5 Students are provided with memorandums of tests written					

6. STUDENT SUPPORT

	1	2	3	4	5
6.1 Each subject is allocated tutors for students' assistance					
6.2 Students tour the library and are introduced to the librarians					
6.3 Students are introduced to education development coordinators for study methods and life skills					
6.4 Students are introduced to the department of counselling for emotional problems					
6.5 Handicapped children are identified and supported					

APPENDIX B: TUT STATISTICS

Retention Per Qualification Type

NATIONAL HIGHER CERTIFICATE

Entering term	1st yr	2nd yr	3rd yr	4th yr
2004 Baseline Enrolment	1,230	1,230	1,230	1,230
# Enrolment	1,230	935	768	589
% Enrolment	100%	76%	62%	48%
# Drop-outs per year	0	285	183	124
% Drop-outs per year	0	23%	20%	16%
Accumulated Drop-outs	0	263	436	560
% Accumulated Drop-outs		21%	35%	46%
# Cancellations	12	2	2	5
# Accumulated Graduations	0	0	169	529
% Accumulated Graduations	0 %	0%	14%	43%

Entering term	1st yr	2nd yr	3rd yr
2005 Baseline Enrolment	916	916	916
# Enrolment	916	722	626
% Enrolment	100%	79%	68%
# Drop-outs per year	0	180	105
% Drop-outs per year	0	20%	15%
Accumulated Drop-outs	0	169	274
% Accumulated Drop-outs		18%	30%
# Cancellations	16	1	1
# Accumulated Graduations	0	1	124
% Accumulated Graduations	0 %	0%	14%

Entering term	1st yr	2nd yr
2006 Baseline Enrolment	950	950
# Enrolment	950	768
% Enrolment	100%	81%
# Drop-outs per year	0	175
% Drop-outs per year	0	18%
Accumulated Drop-outs	0	175
% Accumulated Drop-outs		18%
# Cancellations	7	3
# Accumulated Graduations	0	0
% Accumulated Graduations	0 %	0%