

Factors influencing career decision among first year students in Gauteng.

22044010

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Abstract

South Africa is dedicated to fostering economic transformation to achieve sustainable economic growth. To this effect, National Treasury has identified key indicators for economic transformation in the South African context. This commitment seeks to ensure that there is an adequate supply of labour whose skills match the demands of the national economy and labour market.

However, South Africa has to contend with a high percentage of first-year dropouts and a declining graduation rate. This raises concern of whether students are choosing their careers wisely and effectively utilizing public funds, like NSFAS, to further the nation's objective of economic transformation.

Therefore, this study aimed to explore the factors that affected first-year university students' decisions about tertiary programs, specifically in South Africa. First-year University of Witwatersrand students served as the study's respondents. The researcher employed a quantitative approach and survey design.

The results demonstrate that contextual factors, at varying degrees, have an impact on career decisions. The study also emphasized the difficulty of choosing a career and the importance of taking a comprehensive approach. Stakeholders can use this study as a resource to find pertinent interventions that can help to increase the impact of factors that positively influence career choices.

Keywords:

Dropout, Career decision, First year students, Internal factor, External factor

Plagiarism declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

05 March 2024

Date

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1. Problem Definition and Purpose

1.1. Introduction

Education is one of the pillars in the factors that support a high quality of life (O'Hara, 2022). Education can be considered as key to developing human capital because of its impact on the process of improving the living conditions of a country's poor, which produces enhanced economic and social conditions for the population, known as economic development (Development Bank of Southern Africa, n.d.). The five pillars of the economic development model, which is underpinned by the economic development strategy promoted in the traditional economic development model approach, focuses on lead indicators such as health, education, environmental quality and recreation, social and cultural amenities and information and transportation. These indicators can be used as a measure of a community's probability of economic success (Mbah & Franz, 2021).

Students' potential for economic participation can be developed through education, particularly at the tertiary level, enabling better societal occupations (Sarkodie et al., 2020). The role of education, considering its ability to support the attainment of knowledge and skills used to secure gainful employment and in the realisation of economic development is a fundamental component to consider. Countries rely on the educated and trained population, supported by their economic participation as the basis for economic development (Powell & McGrath, 2019).

South Africa's efforts to promote economic transformation are focused on the intervention and reform of lead indicators which point toward the adoption of a traditional economic development approach (Mbah & Franz, 2021). The reforms outlined by National Treasury (2019) determine the indispensable components to develop South Africa's rate of economic growth.

Enhanced return on educational investment through an increased coherence between labour market demands and the learning outcomes produced by the current education systems is at the top of the priority list as a critical component to the accomplishment of economic development (National Treasury, 2019). Government's expenditure on tertiary education in 2019–2020, totalled R107 billion. South Africa's spending on tertiary education as a percentage of GDP increased considerably by

1.3 percentage points in 2019–2020, with projections for 2023–2024 showing an additional 1.2 percentage points increase to 7.1% (Post-School Education and Training Monitor, 2021).

To protect the nation's capacity to advance toward the fulfilment of its mandate as a developmental state and the development of an equitable and balanced society (Pienaar, 2020), the expansion of higher education participation through the National Student Financial Aid Scheme (NSFAS), a student loan and bursary program aimed at lower-end and working-class families with an annual household income of up to R350 000 (De Villiers, 2023), can thus be considered an effort to increase the nation's capability for fostering economic development through the democratisation of access to education and the freedom to benefit from education.

Despite extensive government support, the average cost of attending university in South Africa is still excessively high for most of the South African population. One could contend that the majority of NSFAS recipients will experience persistent challenges throughout their university tenure due to the consequences of low family income and may not fully leverage the benefit of access to tertiary education (Kehm et al., 2019). For students from low-income families, difficulties meeting basic needs such as food, housing, and transportation can be extremely stressful (Coakley et al., 2022). A duty to sacrifice academic devices, such a laptop, for food to save money to support their families can detract their attention away from higher education success resulting in contracted 'human potential' aspirations and degree of agency (Walkre et al., 2022).

This endangers the advancement of societal development, as an element that promotes economic growth (Goczek et al., 2021), for South Africa and warrants the question of whether tertiary expenditure through NSFAS, in the context of the socioeconomic background of its beneficiaries, is efficient.

There is an increasing number of studies exploring the factors that influence the career decision-making process (Alhomoud et al., 2019; Azhenov et al., 2023; Cao Bao, 2022; Eremie & Ibifari, 2018; Gu et al., 2020; Islam et al., 2021).

However, the relationship between these said factors and the accomplishment of economic development through enhanced return on educational investment and a positive contribution to the labour market demands, is not thoroughly examined, with most academics concentrating on the decision-making process and different

interventions to enhance it (Keele et al., 2020; Lent & Brown, 2020; Ramadhani et al., 2020).

The body of current research does not offer a comprehensive understanding of whether the outcome of a career decision contributes to economic development because of the influence of these factors on the decision.

As such, a study into the factors that students deliberate on when making career decisions with the goal of understanding how students select which academic program to enrol in, presuming that their career choice will be determined by their academic qualification, is a worthy study.

1.2. Background to Research Problem

1.2.1. High Dropout Rate

A school dropout typically refers to students who leave their university studies before completing their program and earning a degree (Kehm et al., 2019). Herţeliu et al. (2022) elaborates on this definition and proposes that a student is a dropout if they are absent for at least two months from curriculum activities without the faculty Dean's consent.

South Africa has an astounding 30% drop out rate in the first year of study and a graduation rate of only 15% (Mbuvha et al., 2021). These statistics raise questions about the efficiency of the tertiary education system. This efficiency, or throughput rate, is described as the rate at which first-time students apply to and enter a specific higher education program each year and successfully complete the qualification within the allotted time (Vital Stats, 2023).

Focusing on the throughput rates raises further important questions about the government's investment in the tertiary education system, its effectiveness in contributing to the developmental state mandate, and the extent to which it contributes to the reported R1.52 billion "fruitless and wasteful expenditure" raised by the Parliamentary Appropriations committee in the media statement in 2022 (Media Statement: Appropriations Committee Concerned by Levels of Fruitless and Wasteful Expenditure in Government Departments, 2022). "Fruitless and wasteful expenditure" is described as careless, avoidable investment without any value

derived from it (Mishi et al., 2022). Inefficiencies, as a symptom of poor accountability in public institutions, presents a barrier to the state's mandate for development (Pienaar, 2020).

There is insufficient evidence to support the notion that dropping out of school will have a negative effect on a student's ability to pursue future employment, career, potential income, or use of skills compared to graduates (Kehm et al., 2019).

However, numerous studies list the detrimental physical and psychological effects of student dropout on the individual such as inferiority complexes, economic exclusion, low self-esteem, and high dependence on others for basic needs (Bardach et al., 2019). Furthermore, student dropouts affect university institutions, society, and the higher education system as the rate at which student's 'dropout' from tertiary education institutions is a critical drawback in the educational process (Bäulke et al., 2021; Mtshweni, 2021; Quiles et al., 2023; Uleanya, 2020).

While the most obvious result for the individual may be psychological trauma, one could argue that student dropout rates, particularly among NSFAS recipients, are an inefficient use of tax resources (Sosu & Pheunpha, 2019). Additionally, negative effects pertaining to the state's development mandate are produced when individuals are excluded from actively participating in the labour market (Sosu & Pheunpha, 2019).

The primary factors influencing a student's choice to leave higher education include, but are not limited to, poor academic and social integration at university, underpinned by sociodemographic background and dispositions and motivations for studying, both extrinsic and intrinsic (Kehm et al., 2019). Social background forms the foundation of the internal influences that informs a student's choices (Walkre et al., 2022). Pervasive social inequalities create considerable limitation to a students' chances to benefit from the opportunity of access to education as compared to more privileged students as income inequality can curb agency for the individual to develop human capabilities (Van der Hoeven, 2021). Therefore, it could be alleged that making poor decisions may have contributed to low motivation to learn or finish programs, which in turn may have contributed to the high first-year dropout rate and low graduation rate.

1.3. Problem Definition

South Africa places a lot of emphasis on postsecondary education to fulfil its development state mandate. As a United Nations member states, equal access to tertiary education, including university education, is an SDG 4 goal aimed at supporting the creation of lifetime learning opportunities for all (Chankseliani & McCowan, 2020). As such, South Africa endeavoured to expand higher education participation through the NSFAS, leveraging the role of higher education in economic development.

South Africa's government funded NSFAS R22.9 billion in 2019/2020, with an increase per student NSFAS allocation of 7%, to R47 415 in 2020/2021 (Post-School Education and Training Monitor, 2021). More than 750 000 students benefited from NSFAS funding, with many students pursuing qualifications in the broad field of humanities (37%) and engineering and technology (26%). In addition, NSFAS funded students made up 25.5% of the total number of graduates in 2017 (National Student Financial Aid Scheme- Vital Statistics: 2019, 2019).

Yet, acute shortages in the fields of education, banking, insurance, energy and water utilities, public sector, financial services (finance and accounting), manufacturing using fibre processing, and ICT still exist (Khuluvhe, 2022). Even though NSFAS receives significant funding, concerns about South Africa's return on educational investment are growing as the gap between the demands of the labour market and the skilled workforce generated by the country's current educational systems widens.

It is possible to deduce that the negative returns on educational investment can be linked to the rising rate of skills mismatch, the high dropout rate, and the persistently high youth unemployment rates. The problem this study focused on is the need to recognise the importance of factors influencing students' career decision-making in South Africa, to acknowledge the various internal and external factors that impact students' perceptions of their career prospects and how they can contribute to the achievement of economic development when making career decisions.

1.4. Research Objective

The aim of this research was to explore the factors that influenced first year university students' choice of tertiary programmes, particularly in South Africa. Even though influences on career decisions, primarily those that have the capacity to affect how students think about careers, are widely studied, most of the research has come from the United States and Europe (Azhenov et al., 2023; Eremie & Ibifari, 2018; Gu et al., 2020; Islam et al., 2021; Lupas, 2021; Nawabi, 2019) with relatively few research projects conducted outside high income countries (Abe & Chikoko, 2020; Uleanya, 2020).

The research study aims to:

- Describe the factors that South African students, consider when choosing their tertiary programs.
- Determine the elements that influence and guide the tertiary program choices made by South African students.
- Analyse the factors that influence and inform South African students' choice of tertiary programs.

1.5. Significance Of Research

There is a growing number of studies that recognise the crucial transitional role of career education and development in motivating and preparing students with the skills of forethought, deliberation, and decision-making, especially pertaining to their career decisions (Gu et al., 2020; Siddiky & Akter, 2021). Depken et al. (2019) defines career education as the acquisition of knowledge, proficiencies, and mindset through a structured curriculum of instruction and training to support well-informed study decision-making. Considering the far reaching consequences related to decision-making difficulties on the individual student (Chuang et al. 2020), and subsequent outcomes of the decision-making process, such as economic participation, this research is important because it aims to help career counselling professionals, career centres in communities, and tertiary education institutions to better advise, educate, and influence students to make well-informed career choices once the

process of decision-making is understood. This guidance will be based on the key factors that have been identified, described, and analysed in the study thus forming a body of knowledge that can be used to better understand how to support students in the career decision-making process.

The following topics are relevant to this study and are covered in the academic discussion about the factors influencing students' career decisions: intrinsic and extrinsic factors, career readiness, and the decision-making process.

The Parsons's framework depends on having or not having access to accurate information about oneself and one's profession (Lent & Brown, 2020). As such, it is necessary to determine, explain, and evaluate the career decision-making factors that lead to better career decisions and outcomes (Preston & Salim, 2019; Rosantono et al., 2021; Sharif et al., 2019).

This study contributes to the conversation by exploring factors influencing career decisions to identify those factors and interventions that should be incorporated into well informed student decisions to drive improved economic development outcomes.

1.6. Conclusion

The researcher conducted this study to find out whether the factors mentioned in earlier studies have an impact on South African students' career decision-making processes, given the growing interest in the return on investment in tertiary education in this country.

By conducting this study, the researcher can confirm current theories and draw conclusions about how education and related student choices can increase the probability of economic participation and facilitate better societal occupations thus fulfilling the research objective of exploring the factors that influence first year university students' choice of tertiary programmes.

2. Literature Review

2.1. Introduction

The purpose of this chapter is to provide the researcher with an overview of the most recent research to serve as a foundation for a discussion of the factors influencing students' career decisions. The first section of this chapter discusses the career decision-making process and its underpinning theory. An explanation of the Social Cognitive Career Theory's concepts comes next followed by an overview of the contextual variables related to the influencing factors to career choices. Thereafter the literature related to the factors that influence the students' career decisions and outcomes is discussed.

The presentation of the literature reviewed related to the factors that influence career choices in students, and outcomes is structured accordingly, and is presented under the subsections titled Contextual Variables, Influencing Factors. A summary of the results from the literature review, which influenced the research hypothesis in Chapter 3, concludes the chapter.

2.2. Career Decision-Making Process

A career is the set of professional positions that a person holds throughout their working life (Nawabi, 2019). The concept of a career is that an individual obtains employment through the acquisition of requisite qualifications and experiences gained from their work (Varlik & Apaydin, 2020).

It is impractical to develop a career without first accurately ascertaining the prerequisite credentials required to obtain employment and take advantage of the chance to obtain experience through work. The difficulty may lie in deciding which career path to take and how to best prepare oneself with the necessary skills to find work. This challenge might lead to a conversation about whether a student can effectively plan for their career's development and participate in the decision-making process (Azhenov et al., 2023; Chinyamurindi et al., 2021). This begs the question of how individuals making career decisions arrived at their choices. This is especially relevant in South Africa where 33.2% of the workforce is employed in a profession

that is not in line with what they studied at their highest level of education (Post-School Education and Training Monitor, 2021).

Argyropoulou and Kaliris (2018) define career decision-making as a rational process that involves weighing the pros and cons of various career options. Career decisions have a significant long-term impact on people's lifestyles, emotional wellbeing, social and economic status. Based on the Parsonian framework, choosing a career should be based on considering one's interests and talents, gathering, and studying career information, and relating oneself to possible career pathways through the application of logic (Lent & Brown, 2020). Understanding the intricate process of selecting a profession, and the potential lifelong impact this decision has, is essential in making a good decision.

Exploring career options also involves significant cognitive demands in critically analysing occupational information and comparing one's reasonable options to arrive at and implementing a decision (Lent & Brown, 2020). Selecting a career path is a delicate process that requires substantial reflection and consideration of a variety of determining factors. A career decision-making process is comparing and searching for career options while carefully weighing one's aspirations and needs, personality, prospective and existing growth, and making a choice (Azhenov et al., 2023).

Four essential elements define proficient career decision-making. When a student has strong information analysis skills, a personal perspective on their experience and that of others, confidence and a thorough understanding of the career decision-making process, and all these things combined, they can consider themselves ready to make a career decision (Gu et al., 2020).

Although successful career decision-making is subject to the external realities and factors dependent of a student's perspective, the most detrimental factors affecting a student's ability to make career decisions is a student's aversion to choosing a vocation, and insufficient and disparate information (Gati & Kulcsár, 2021).

A wise career decision is informed by a sense of professional identity based on deep deliberation and alignment of self to a profession and distinct preferences (Tang, 2019). It can thus be said that the prerequisite to career decision-making is career readiness (Keele et al., 2020). With an appreciation of the student's state of readiness to make a career decision, the subsequent crucial step is to consider career a decision-making model as a clearly defined framework for decision-making

to elaborate on decision points along the developmental continuum that contribute to a comprehensive understanding of student behaviours and inclinations that support and undermine informed career decision-making.

2.2.1. Parsons Model

The Parsonian framework of career decision-making is a framework that promotes matching personal characteristics with occupational settings to determine a best fit of career path (Xu, 2021).

The Parsons model takes three major factors into account when choosing a career:

- A thorough awareness of one's personal traits and skills, interests, goals, and limitations, and the explanations and comprehensive reasoning of these limitations.
- 2. An understanding of the prerequisites and requirements for success, benefits, and drawbacks, pay, current and future opportunities in various fields of work.
- Good judgement of how self-awareness and an understanding of the career option interact.

The Parsons Model emphasises how crucial it is to approach the aforementioned factors in a guided manner. Thus, according to Parsons (1909), professional career counsellors are the most appropriate advisors who can positively influence students' career choices through comprehensive information sharing and experience to make well informed career decisions (Parsons, 1909, p.5).

Although models of career decision-making, such as Holland's model, mostly adhere to Parsons' model, current debates over career decision-making challenge this seminal framework (Xu, 2021).

It must be noted that traditional and anchoring theories operate under the premise that people have the agency to choose their careers, they present a pervasive middle-class bias. These theories, which build on Parsons's theory, centre on choosing a career and considering one's career as an extension of one's identity (Blustein et al., 2019).

This is of particular interest in the South African context as where most students are subjected to the application of this theory for decision-making purpose are below middle-class (Chinyamurindi et al., 2021). This implies that there may be a probable

scarcity in the existing literature on how appropriate the theories underpinned by Parsons model are in the South African context.

According to career construction theory, an individual's identity in terms of career development should be informed and influenced by their life events as well as their proactive determination of the conditions that are conducive to making a decision (Xu, 2021). The theory of career construction takes a constructivist stance in opposition to a linear approach to career decision-making with the view that non-linear career development processes may be adopted, thus impacting the career decision-making process due to unforeseen life events (Wen et al., 2022).

Yet, a perspective that complements the Parsons Model is provided by the Rational choice theory. Hinged on the premise that people weigh their options based on their preferences and beliefs to make logical decisions, the Rational choice theory defines a viable choice as one that is determined by calculating one's highest expected utility (Herfeld, 2018).

Seminal frameworks that advocate for aligning personal characteristics, such as behaviour and capabilities, to vocational environments are still fundamental contributors to understanding the factors that influence and lead to the determination of suitable career paths in the career decision-making process (Blustein et al., 2019).

2.3. Career Decision-Making Theory

2.3.1. Social Cognitive Career Theory

The Social Cognitive Career Theory (SCCT), based on Bandura's Social Cognitive Theory, is a career-focused theory designed to expand on and explore the connections between individual behaviour, contextual influences, and personal factors to analyse and explain career decisions (Kwee, 2020). Wang et al. (2022) corroborates this definition; the SCCT submits that career decisions and related decision-making behaviours may be influenced by personal, social, and behavioural factors, to affect students' self-efficacy, personal interests, and expected career results.

Additionally, a study by Roberts and Grant (2021) suggests that SCCT, explains the reciprocal relationship between a student's behaviour, external factors, and individual characteristics that affect their career decisions.

SCCT, which originated in the field of vocational psychology, explains how a person's career decisions are influenced by both cognitive and experiential processes while highlighting human capability and personal agency (Adebusuyi et al., 2022). SCCT forms a crucial theoretical pillar of this study because it focuses on career choice and considers factors, contextual, cognitive, and environmental, found in the literature on career decision-making.

A study of the SCCT constructs facilitates the understanding of how contextual, cognitive, and social factors affect career decisions (Kwee, 2020). Wang et al. (2022) identify the contextual variables of SCCT, such as family, as a mechanism through which both external and internal factors influence vocational outcomes, through the development of personal beliefs and interests, and the extent to which environmental factors impact decision-making, which consequently affects behaviour associated with choosing a career. Two cognitive variables are found in SCCT—self-efficacy and outcome expectation (Rasdi & Ahrari, 2020).

The SCCT is thus characterised by the following constructs: Self-Efficacy, Outcome Expectation and Contextual Variables.

2.3.1.1. Self-Efficacy.

"Self-efficacy is the belief in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1999 p.5). Self-efficacy is the extent to which a person feels confident in their ability to carry out actions according to realistic plans (Schunk & DiBenedetto, 2021). Graham (2022) draws on this definition to contend that self-efficacy is centred around personal agency and therefore it addresses people's capacity to adopt behaviours that promote perseverance in the face of adversity.

A fundamental idea of SCCT is the desire for agency (Schunk & DiBenedetto, 2021). Individuals want to feel confident in their ability to significantly control things that have happened in their lives. People therefore make plans on how to best achieve their goals.

As such, the degree of belief that a student has in their career-related decision-making capability is directly attributed to self-efficacy, described as career decision-making self-efficacy (Wang et al., 2022). Self-efficacy in making career decisions affects choice goal behaviour. The sense of self-efficacy that students possess enables them to take the lead in directing the decision-making process and making decisions whenever they see fit arising from a profound understanding of oneself, the capacity for self-evaluation, and a purposeful mindset (Schunk & DiBenedetto, 2021). Physiological and emotional indices that are directly related to a student's behaviour influence self-efficacy. Self-efficacy can be considered one of the vital contributors to student's career development process (Wang et al., 2022).

A substantial body of research indicates that individuals with a higher level of career decision-making self-efficacy will have less challenges in making career-related decisions (Wang et al., 2022). Conversely, increased anxiety associated with decreased self-efficacy may suggest incompetence, which may be read as a predisposition toward making career decision difficulty (Bellair et al., 2019).

Considering the pillars of self-efficacy, such as a students' capacity to evaluate and consider personal experiences shaped by successes and failures, the ability to form personal perspectives by drawing from the experiences of others, thorough interactions for the collection and processing of information and a deep knowledge of self, self-efficacy and outcome expectations have a significant influence on student interests, which consequently affect career decisions and choices (Wang et al., 2022). Every element of SCCT affects and is affected equally by the others (Schunk & DiBenedetto, 2021).

Self-efficacy and outcome expectation, two cognitive variables found in SCCT, work together to influence motivation because self-efficacy predicts the kinds of goals students will pursue and outcome expectation is the positive outcome anticipated from actions students feel confident taking (Rasdi & Ahrari, 2020).

It is reasonable to conclude that self-efficacy influences career decision-making because it influences learners' persistence, effort, and self-alignment, which contribute to more positive career decision-making outcomes (Graham, 2022).

2.3.1.2. Outcome Expectation.

While self-efficacy strongly influences motivation, outcome expectations is an additional motivational process that leads to motivation outcomes of persistence, effort, and goal attainment (Schunk & DiBenedetto, 2021).

Outcome expectation are the thoughts and anticipated effects of their behaviours which are shaped by past experiences and informed by their contextual environment (Rasdi & Ahrari, 2020). This demonstrates the influence that the social environment, such as parental guidance, and peer counselling, has on students' realistic expectations for their career choice. The results that one awaits from their actions motivates them to persist in pursuit of the outcomes they desire (Schunk & DiBenedetto, 2021). This often sustains motivation, especially in long-term goals such as a choice of career.

The personalities of students have a profound impact on their interest in careers which is highly informed by their career learning experiences and self-efficacy (Wang et al., 2022). The main sources of self-efficacy are learning experiences, which also function as a link between the cognitive and contextual components of SCCT (Adebusuyi et al., 2022).

The function of outcome expectations in influencing career choice and decision-making is similar to that of career decision-making efficacy, which is a pathway of motivation that raises one's degree of resolve during the process of making decisions, hence raising one's level of self-efficacy (Jiang et al., 2022).

However, failure can reduce one's self-efficacy in making career decisions, which can lower motivation and alter the expected result, hence acting contrary to motivation and sustenance. Fluctuations in learning experiences lead to changes in expectations for the results. This is heavily impacted by a student's personality and warrants the consideration of the individual factors that affect a person's expected career decision outcome (Wang et al., 2022).

2.3.1.3. Contextual Variables.

Contextual variables are either factors that enable or pose difficulties to an individual (Jiang et al., 2022). Yet, individual effort and active learning in development activities can ease barriers and lead to goal attainment.

Contextual variables are those that exist in a student's life and provide a means of vicarious learning. By observing the variable or how it relates to the student, social support has irrefutable effects on the ideas and perceptions of the students in an applicable context. These variables are considered as the factors of this study (Jiang et al., 2022). Particular focus on parental advice, as the variable with the most anticipated influence, Abe and Chikoko (2020), is used to illustrate the impact of contextual variables, in the context of career decision-making in students.

Students feel that social support through their family's presence resulted in well informed career decisions, noting a positive perception of their families' influence on their career decision-making process and increased career decision-making efficacy (Abe & Chikoko, 2020). Social cognitions, such as self-efficacy and outcome expectations, are shaped by an individual's interaction with their environment and play a crucial role in determining their interests and career choices (Blustein et al., 2019).

The current economic climate, as a contextual factor, contributes to heightened uncertainty and has further complicated the decision-making process. Students should think carefully about how to plan their future careers to prevent unemployment and a mismatch in skills.

It is reasonable to believe that Parsons' fundamental three-step approach to career choice emphasises the importance of contextual variables and their influence on students' decision-making processes, thus emphasising how crucial it is to have a conversation about these variables to understand the factors taken into account when choosing a career (Blustein et al., 2019).

2.4. Extrinsic and Intrinsic Factors

To circumvent the complex engagement of the Parsons approach, students apply biases and employ alternative methods that inform and enable them to make career decisions. These extra-rational decision-making processes are often less time consuming and require significantly less mental strain (Lent & Brown, 2020).

There are two main factors that affect career decisions: Intrinsic and Extrinsic actors (Cao Bao, 2022). Internal factors are individual characteristics of an individual that

are not influenced by their surroundings, such as passion, ambitions, aptitude, and learning capacity (Maheshwari, 2021).

External factors are factors that have an impact on an individual due to peripheral circumstances, such as family advice, socioeconomic background, and career guidance (Maheshwari, 2021). Further to the personal attributes that shape a student's decision, such as aptitude, personality and interest, several external factors have a bearing on a student's decision to pursue a career path. Availability of realistically accessible opportunities to choose from would also constitute external factors (Cao Bao, 2022).

2.4.1. External factors

With a sizable tertiary student body studying courses unrelated to the needs of the economy, businesses face an overwhelming challenge in recruiting appropriately qualified graduates. Business skills such as critical thinking, sound judgment and decision-making, and cognitive flexibility are not developed in the tertiary programmes that students enrol in, further contributing to a skill's 'mismatch' (Post-School Education and Training Monitor, 2021).

A 'skills mismatch' is the disparity concerning the supply and demand for skills resulting in a sub-optimal match, on qualification, between available workers and the required level of skill for available jobs (Brunello & Wruuck, 2021). A poor match between students' field degree and the job requirements, is known as a horizontal mismatch (Somers et al., 2018). A perspective on the resolution of a horizontal mismatch is relevant to this research since it examines the influences of variables that students consider when choosing a career based on the requisite qualifications they pursue.

The six most prevalent elements that shape students' career decisions are: career counselling, peer influence, affordability, parental advice, personality, and employability (Cao Bao, 2022; Eremie & Ibifari, 2018).

When faced with the daunting task of choosing a career to pursue, students struggle with making the most suited decision because of inadequate preparation and insufficient and unreliable information (Gu et al., 2020).

The capacity to actively engage in the process of making career decisions and make logical career choices by carefully considering elements of career readiness such as planning, exploring career options, exercising decision-making skills, and the capacity to learn about professions and career opportunities is known as career readiness (Azhenov et al., 2023).

Poor career preparedness can be disadvantageous in securing employment (Keele et al., 2020). By compensating for the insufficient and unreliable information, often attributed to a lack of exposure and family members' inadequate knowledge, career readiness can help students make a seamless integration into the labour market and lead to less constrained career conceptualisations.

Information about the ideas and plans students have for their future careers is a critical part to making a decision. Reasonable access to information sources is crucial because it establishes whether a student's information needs are satisfied. As a result, the goal of satisfying students' need for information is dependent on both the student's inclination to find the information and the availability of the necessary information (Keele et al., 2020). For this study, the information needs were characterised by the factors related to information gathering and access to the required information.

2.4.1.1. Parental Advice.

Numerous studies reveal that parents influence has a significant effect on a person's career choice (Koçak et al., 2021; Sarkodie et al., 2020). The most significant influence on a student's decision about a career has been found to be parental advice (Lupas, 2021).

In a study by Cao Bao (2022), 11 factors had a significant impact on a student's decisions. One of the strongest influences was "Advice from family members". A parents' desire for their children has a direct or indirect bearing on the career choice through advice related to a preferred career, the kind of information shared, and the level of support given (Islam et al., 2021). Parents in Asian nations have a significant impact on their children's career decisions, through the exertion of substantial persuasive pressure to pursue a particular career (Goh & Jamaluddin, 2021).

Even though guidance from parents is important and can inspire students to follow their passions, parents who push their children to pursue careers that are not aligned with their interests, skills, or personalities can have negative consequences. While parents strongly advised their children to pursue a university degree, the parents' advice, based on their personal desire, negatively influenced the career choice, causing them to enrol in a program in which they had no interest with a low consideration for future employability (Yunusa et al., 2022).

Another counter argument regarding the beneficial impact of parents on a student's choice presented by Lupas (2021) found that when it came to parental influence, respondents in the Philippines were only influenced by their father's guidance—not by their mother's.

2.4.1.2. Peer Advice.

Peer influence is important because it has been shown to affect career decisions (Mtemeri, 2020; Purohit et al., 2020).

Peers have an influence on various aspects of a student's life. Many students find the mentorship of their peers valuable in the career decision-making process, helping them form professional opinions established in the development of a professional identity (Islam et al., 2021). Students influence each other through the sharing of information and common peer interaction. The academic preferences of a student's peers may influence their program of study (Sarkodie et al., 2020).

One of the main focuses of this study is the impact of peer interactions on students' self-perceptions, which is related to another study factor: personality and aptitude in relation to self-efficacy. Peer relationships have an impact on students' interest diversification, development of new perspectives, and spark interest in potential long-term career paths (Mtemeri, 2020).

Despite receiving thorough advice from their peers, respondents' replies in a study by Lupas (2021) showed a moderate influence of peer advice on their individual career choice and an improbable effect of choosing careers similar to those of their peers. Findings by Cao Bao (2022) failed to prove the influence that peers have on a career decision as responses rated the factor as irrelevant. This can be attributed to the impact of students' awareness of personal interest and preferences, and confidence in their information gathering and analysis capabilities, which are key considerations and competencies that ensure that their career decisions are sound

and well informed, thus minimising the probability that their peers will have a significant influence on their decision-making process.

Perhaps the most substantial contribution of peer influence and advice on students is the positive impact in stimulating the inclination to explore career options in the decision-making process, thus inspiring career aspirations (Schellenberg et al., 2022).

2.4.1.3. Career Counselling.

As argued in the introduction, career guidance aimed at providing support that prepares students for the transition from secondary school to tertiary institutions, tertiary to the workplace and that informs students of the appropriate fields to enter to avoid a skills mismatch is of vital importance. Career guidance contributes to good career decision-making, which forms the foundation to the developmental stages for good economic participation by the future workforce of any country. Utilising a career counsellor's advice allows students to become more aware of the variety of their individual strengths and weaknesses and the variety of opportunities available to them that can qualify them for productive participation in economic activities that support the expansion and development of the economy. Career counsellors therefore have an important role in encouraging cognisance of personal interests, values, abilities, and personality, while connecting students to pragmatic information about careers to ensure that students are well informed to make decisions about a career path that is well suited to them (Kapur, 2018).

Career development interventions such as career guidance have an instrumental outcome for the student which is the collaborative creation of a personalised career development plan that shapes the perceptions, opinions, and impressions of the students and that may impact the career decision process (Kapur, 2018). Career guidance, where available, can play an important role in directing students' university program selection. This direction is based on the councillor's ability to identify students' capabilities and talents and develop and execute on a personalised career-oriented program to support students through the process of making the correct career decision (Cao Bao, 2022).

Career planning is one of the crucial activities that inform the career decisions of students, especially in the rapid economic and technological transformation of society (Islam et al., 2021). As an intervention to encourage making wise career decisions, the Bangladeshi government has started offering career education programs at all levels of education in the nation.

Students further corroborate the findings of this study, indicating that career guidance conducted in their school assisted them in selecting their study programmes (Lupas, 2021). Additionally, this study discovered that without guidance, students make ill-suited choices of career, contributing to students enrolling for studies they have limited interest or knowledge of.

2.4.1.4. Affordability.

A study conducted in Nigeria highlights the influence of socio-economic factors in a student's career choice (Yunusa et al., 2022). Based on the cost of the program, a student's career decision will be influenced by their established understanding and awareness of the family's economic context (Cao Bao, 2022).

The most significant impact of a low-income background can be seen on the student's intrinsic motivation. Difficulties related to basic human needs can severely alter a student's self-perception and further affect their internal motivational processes (Anderman, 2020). Due to their inability to pay for more expensive courses of study, students from low-income families are less likely to choose careers that suit their capabilities or that are aligned to their interests (Yunusa et al., 2022). The financial strain placed on a family because of not having the means to buy food, shelter, and medical needs decreases self-efficacy and negatively influences the degree of social integration one may experience which also affects their degree of motivation to succeed at university (Bellair et al., 2019). While the economic status of a family influenced the career decision, it was outweighed by a stronger influence of the role family played in the career decision of students (Abe & Chikoko, 2020).

2.4.1.5. Employability.

Workforce demand and the future availability of work is the foremost influence on student's choice of career (Lupas, 2021). The availability of jobs is a dominant factor influencing the decision on a career path choice. Students consider potential job security as one of the most important factors behind making a career decision (Goh & Jamaluddin, 2021).

In Nigeria, where there is a high rate of youth unemployment, students' decision-making regarding their careers is largely unaffected by the likelihood of finding employment (Eremie & Ibifari, 2018). However, students gave much more serious thought to the consequences of having the wrong skills and being unable to meet business competency requirements because of skills mismatch (Lupas, 2021).

The shift toward a skills-based approach is highlighted in a study conducted in Malaysia by Bakry et al. (2020), which contends that a country's economic development can be improved by making a deliberate effort to guarantee that there is a workforce that is both skilled and semi-skilled enough to meet market demands. This ensures that students are employable instead of concentrating on academic programs that keep creating a workforce that lacks the necessary skills due to misguided beliefs that a prerequisite degree will secure employment.

The foundation of the career-decision process, which entails weighing alternative career options and carefully considering the student's goals, character, and potential for growth, may be significantly influenced by the employability factor.

2.4.2. Internal factors

Efforts with a human-centricity can leverage the full potential of human capital and meet the demands of the future economy (Puckett et al., 2021). This human-centric approach places more emphasis on training for roles that do not exist yet, continuous reskilling and upskilling to prevent skills from being obsolete. Intrinsic interventions, especially those that pertain to improving the student's preparedness for the career decision-making process is a critical issue to be well understood and considered too. Abe and Chikoko (2020) found that career interest is a positive influence on the decision to enrol in a field. Students who show interests in a particular profession, due to the association of peers and family members to a particular profession, often decide to pursue prerequisite qualifications for that profession. Individual characteristics which contribute to the development of self-efficacy and interests influence career decisions too. For this study, the influence factors were characterised by the factors related to self-efficacy.

2.4.2.1. Personality And Aptitude.

The influence of personality on career decision-making is widely recognised as a significant factor (Islam et al., 2021; M'manga et al., 2019; Preston & Salim, 2019). An effective use of Holland's career theory can determine suitable career planning programs to follow thus providing students the benefit of discovering their individual personality types that make it easier for students to make career plans (Ramadhani et al., 2020).

A student's behaviour in making choices is influenced by their personality, since extroverted students have an easier time deciding on a career (Wang et al., 2022). A student's natural behaviour during the decision-making process is a personality trait related to the process of choosing a career (Chuang et al., 2020).

While the consideration of personality in career decision-making can guide the process towards what best fits the student's innate behaviour, the use of student's aptitude as a factor can skew the student's career choice more towards ability and skills, resulting in a misfit in course interest (Lupas, 2021).

Low course interest may have a negative impact on a student's ability and motivation to gather information about the academic program as the desire to devote time and attention to the course may be low (Islam et al., 2021).

Students' diminished interest in learning about the course impairs their professional alignment, which restricts their ability to make informed career decisions because they are omitting a crucial component of the career decision-making process, information analysis.

2.5. Less Common Factors

Peer counselling and social media influence were found to have the least bearing of all the factors influencing career decisions (Sarkodie et al., 2020). Other less common factors identified include the following:

Extrinsic factors are those that comprise the money earning potential, job security, potential earnings, and employment opportunities (Goh & Jamaluddin, 2021). While extrinsic factors have significant influence on career decision, one may argue that financial gain is the major motivator to joining the professional workforce. Additionally, it was discovered that career decisions were significantly influenced by the possibility of career advancement.

Numerous studies have shown that gender has an impact on decision-making regarding careers. However, amongst high school learners, gender was not widely mentioned as a key influence. When posed to respondents, most responses disagreed, indicating a low influence on career choices among high school students (Lupas, 2021).

In a study of Saudi pharmacy students, 85.6% of the respondents indicated that personal interest was the fundamental influence on career choice (Alhomoud et al., 2019). Academic grades and interest as an intrinsic factor considerably affect one's career choice (Goh & Jamaluddin, 2021).

It is logical to surmise that students who make well considered career decisions, thus being adequately prepared for the career decision-making process, encompassing a holistic consideration of their personal beliefs, attitudes, motivation, feelings, abilities, behaviours, are less prone to have a skills mismatch than those who make poorer choices, thus becoming part of the 63,9% youth unemployment rate in South Africa (South Africa's Youth Continues to Bear the Burden of Unemployment., 2022).

2.6. Conclusion

A dynamic modern society poses many challenges to students needing to make career decisions. The study's background is influenced by views placing an increased scrutiny on Government's expenditure on tertiary education, especially amongst NSFAS beneficiaries (De Villiers, 2023).

The difficulty in making a career can be attributed to the many pressures affecting students. These pressures could originate from outside factors that students need to deliberate when choosing a career in their current environment (Goh & Jamaluddin, 2021). Although students can gain a lot from guidance, the opposite can also occur when external pressure is applied, which can lead to internal conflict and negative consequences (Yunusa et al., 2022). Additional to external factors at play, intrinsic actors such as a personal belief in one's ability and personal interests add a layer of complexity to the considerations a student must make when choosing a career (Lent & Brown, 2020).

As a result, it's important to identify and understand the factors that influence students' career decisions as a prerequisite to contributing to interventions that may assist students make career choices that equip them with qualifications relevant to the labour market, in the context of South Africa.

3. Propositions

3.1. Introduction

These research hypotheses were formulated in accordance with the goals of the study and the literature that was accessible for the literature review. The literature review and the research objectives led to the development a specific hypothesis, which served as the focus of the research. An exploratory approach to examining the variables influencing career decisions was taken by this study regarding the influence of the factors considered on their ultimate career choice. This approach led to the development of survey questions that allow participants to self-report the extent of each factor's influence, aiding in the study's objective of improving comprehension of this phenomenon.

3.2. Research Hypothesis

3.2.1. Research Hypothesis One

Students who have a positive self-image choose careers more wisely (Rosantono et al., 2021). Furthermore, Graham (2022) suggests that career decision-making is influenced by self-efficacy, which acts as a catalyst for effort and self-alignment towards goal realisation. The basis for a student's self-perception and the accompanying aspirations they form is their comprehension of their own potential (Rosantono et al., 2021).

The findings from a study by Rosantono et al. (2021) demonstrated that when students were making career decisions, inform factors—such as the information they sought and analysed and internal factors—such as their perception of self and personal interests—had a positive and significant relationship.

On the other hand, having a negative self-perception can make selecting a career difficult (Graham, 2022). Therefore, it is important to understand how internal factors affect the inform factors considered by students when making career decisions (Lent & Brown, 2020).

It follows that relationships between internal and external factors are hypothesized to exist in career decision-making.

The next hypothesis is formulated for the research study: H0: There is no relationship between internal and external factors, and career decision making.

H1: There is a positive relationship between internal factors and career decision-making.

Based upon H1, the following sub-hypotheses are formulated:

H1a: Personality and Aptitude positively influences career decision-making.

H1b: Personal values positively influences career decision-making.

H1c: Career prestige positively influences career decision-making.

3.2.2. Research Hypothesis Two

H2: There is a positive relationship between external factors and career decision making.

Based upon H2, the following sub-hypotheses are formulated:

H2a: Parental Advice positively influences career decision-making.

H2b: Peer influence positively influences career decision-making.

H2c: Social Media positively influences career decision-making.

H2d: Career counselling positively influences career decision-making.

H2e: Earning potential positively influences career decision-making.

H2f: Chances of securing work upon qualification positively influences career decision-making.

H2g: Course affordability positively influences career decision-making.

H2h: Career of a close relative positively influences career decision-making.

3.2.3. Research Model

The proposed research model and hypothesised relationships are shown in Figure 1. This model illustrates the independent impact of Internal and External factors on the career decision-making process.

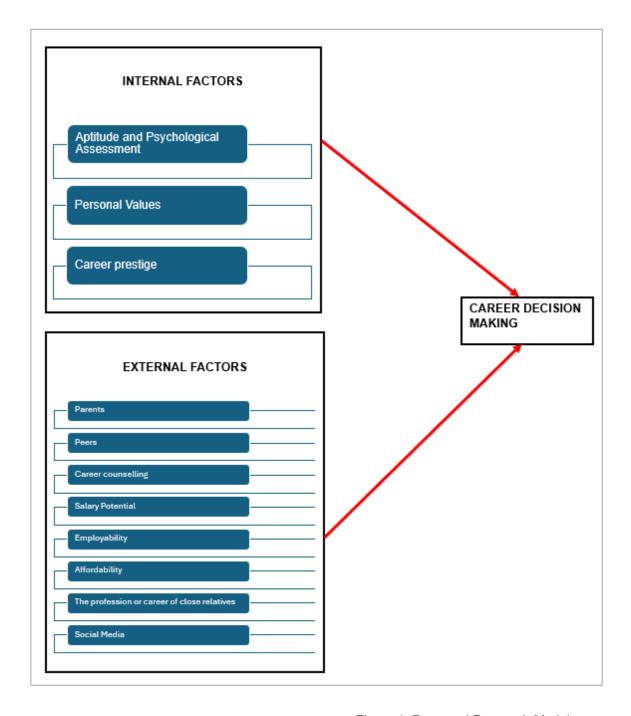


Figure 1. Proposed Research Model

4. Research Methodology

4.1. Introduction

The first section of this chapter offers an introduction to the research methodology. The research methodology employed in this study is examined, and the rationale behind the specific research method selection is provided. An overview of the research methods used in the study is provided in this chapter, along with details on the participants, including the characteristics that made them eligible for participation in this study.

This chapter describes the research instrument, how it was developed, how to determine its validity and reliability, how to collect data, and how to properly analyse the data statistically. Finally, the ethical considerations for this study are also covered.

4.2. Philosophy

4.2.1. Choice Of Research Design

A descriptive research design was used. Positivism is the scientific paradigm related to the study of the natural world underpinned by the relatively constant and quantifiable view of reality (Tshabangu et al., 2020). As such, a quantitative approach is often used to support the description and relationship of phenomena in relation to the natural and social worlds (Coleman, 2018). Most writers of articles about career decision-making have embraced a quantitative research methodology (Bakry et al., 2020; Rosantono et al., 2021; Siddiky & Akter, 2021; Yunusa et al., 2022). A deductive strategy was used as a research strategy to gather data for the examination of theoretical claims related to current explanations (Saunders & Lewis, 2011).

Saunders and Lewis (2011) define a mono method, quantitative choice as using only one research strategy. As such, the data was collected through a quantitative theory-structured survey strategy only. Considering the sequential layers in the research onion, Saunders and Lewis (2011), it followed that this was a descriptive study, aiming to provide clarity to what factors influence tertiary course options among first year students in Gauteng Province.

Data was analysed from a homogenous sample of 129 respondents purposefully selected.

4.2.2. Population

1.03 million students were enrolled in higher education in 2021. Black Africans accounted for 76.4% of this population, while white and Indian/Asian students accounted for 11.4% and 5.7% respectively. Coloured students constituted 6.5% of the total student population (Statista, 2023). At the beginning of the first year of tertiary education, the average age of an undergraduate student attending a tertiary institution for the first time in South Africa is 20 years old (Stats SA, 2022). In this research, the age range of the targeted sample is 18-24. The population for this study was students who had made tertiary study choices and career decisions thus facilitating the generalisation to first year students who made the transition from secondary education to higher education in the last three years.

4.2.3. Unit Of Analysis

The Unit of Analysis of this study was the individual student, more particularly their decision-making process as it pertains to the factors that influenced tertiary study decisions and career choices.

4.2.4. Sampling Method and Size

The researcher did not have convenient access to a complete list of first year students in South African tertiary institutions from which to draw a random sample suitable for probability sampling. Non-probability sampling of Gauteng first year tertiary students was used (Saunders & Lewis, 2011). Due to time constrains of the study, data was collected from 129 respondents, thus offering a small data set from which inferences and generalisations can be drawn. Considering the small sample used in gathering quantitative data (Adeoye-Olatunde & Olenik, 2021), convenience sampling followed to select the sample size of 129 respondents (Sarkodie et al., 2020). In addition to the fact that the researcher resides in Gauteng Province, the

choice of the study location was supported by the fact that Gauteng is South Africa's most populous, has the most economic activity and attracts the most internal migration than any other province (Stats SA, 2023). Purposive sampling was employed in the selection of students who have completed their high school education in the last three years (between 2019 and 2022) (Chinyamurindi et al., 2021; Siddiky & Akter, 2021). The students selected for the study were full-time registered, first-year students at their university.

4.2.5. Measurement Instrument

The measurement instrument for this study was a survey questionnaire. The questionnaire had two sections. The first section of the questionnaire was designed to gather quantifiable facts, such as demographics, about the sample population. As such, the data needed for this study was gathered through the representation of each question as an independent variable to be considered, through a straightforward approach. The second section of the questionnaire was composed of 11 five - point Likert scale questions and one open-ended question.

The content of the instrument was developed and employed to analyse the level of influence of factors on the career decision of students, from students' point of view. A Likert scale is suitable with social studies centred around gathering data related to perceptions, opinions, and descriptions of people's environment (Adeniran, 2019; Chinyamurindi et al., 2021; Sarkodie et al., 2020). A five-point Likert scale was used to allow the respondents to self-report on the extent of influence of each statement, selecting the most applicable level of influence from a variety of rating options 1 - No Influence, to 5 - High Influence (Taherdoost, 2019). Summated ratings are useful in quantifying the factors that influence the career decisions and choices of students. The use of a Likert scale is advantageous in providing fixed responses, which allowed the researcher to gather specific feedback with higher response rates (Taherdoost, 2019).

Survey questions were mapped to the research hypothesis outlined in Chapter Three.

4.2.6. Data Gathering Process

A preliminary literature review was conducted to acquaint the researcher with the area of study and inform the type of data to be collected by the questionnaire. A literature review thus enabled the researcher to compile questions that gathered information relevant to the research objective. To ensure that the questionnaire collected data from considered responses, the average time taken to thoroughly complete the questionnaire was 3-5 minutes. This average time was recorded, stored, and compared against respondent completion time to determine whether the respondent took reasonable time in providing responses. Questionnaire data from questionnaires with short completion times was excluded from the data to be analysed.

A questionnaire was selected for this research because it is a reliable method to collect data efficiently from a large number of respondents (Saunders & Lewis, 2011). Researchers in similar studies also used questionnaires as their preferred data collection method (Bakry et al., 2020; Chuang et al., 2020; Sarkodie et al., 2020; Yunusa et al., 2022). Using survey strategy through a questionnaire centred on the factors that influence the career decisions of first year tertiary students, the following types of questionnaire questions were included to identify, describe, and analyse 129 respondents' perceptions of the process and associated influences (Saunders & Lewis, 2011):

- a) List, Closed-ended questions allowing respondents to select the most appliable answer from all considered options.
- b) Rating on a five-point Likert scale.

A questionnaire is a type of research tool wherein a list of questions is asked in the same order (Yaddanapudi & Yaddanapudi, 2019). Participants who have completed high school in South Africa, preferably in Gauteng Province, voluntarily agreed to fill in their responses to questions posed in English, the online questionnaire. The researcher used Microsoft Forms to create and host the questionnaire.

Survey distribution methods.

Two methods of survey distribution were implemented, in person and via email.

University of Witwatersrand – in person

The researcher was on the Braamfontein campus to physically request that participants complete the online questionnaire. Students were approached and requested to complete a three-minute questionnaire to ascertain the respondents' considerations in their career decision-making and characterise their perceptions of the process and related influences and influencing factors. The questionnaire was completed on an iPad owned by the researcher. All data from the questionnaire is securely stored in a data repository on the cloud for 10 years.

University of Witwatersrand - email

Circulation of the questionnaire was electronic. The questionnaire link was disseminated by the University of Witwatersrand registrars' office to first year students, across all university faculties and across all undergraduate degrees. The researcher therefore reached the research participants through the electronic delivery of the questionnaire link and collected data from the participants who open the link, accessed the questionnaire form, completed the questionnaire, and submitted the completed questionnaire responses. The link to the questionnaire reached over 6 263 students who comprise the first-year population at the university.

The researcher included a proforma consent statement on all questionnaires distributed. Written permission and consent from the University of Witwatersrand registrars' office for distribution of the questionnaire link has been approved. Additionally, full approval from GIBS Ethics committee and the submission of a valid ethics certificate for the study has been concluded.

4.2.7. Data Analysis Approach

This study used quantitative guided analysis to produce generalisable results. Collected data was analysed in the Statistical Package for the Social Sciences (SPSS Statistics software) designed by the IBM Corporation. A data matrix was used to organise and appropriately arrange the data into two types (Saunders & Lewis, 2011).

In part A of the study, which consists of Demographical variables, descriptive analysis was used to describe the study's demographic variables, question one to seven, through the use of frequency statistics. Demographic data was then presented in frequency tables to establish the participants responses to the questions. An effective

counting summary of a sample of data points is provided by frequency tabulation, which also makes interpretation easier (Cooksey, 2020). This method is therefore chosen as a data analysis method for its simplicity. On the same subject, descriptive analysis with frequency statistics was noted in other bodies of work (Bakry et al., 2020; Sarkodie et al., 2020; Siddiky & Akter, 2021).

Part B of the study, which consists of Likert scale factors, were analysed through the use of Pearson's correlation coefficient to examine relationships between the decision-making process of career choices and the influences that affect their outcome (Bakry et al., 2020; Samuels, 2020). To determine whether there is a significant difference between the sample and population means and the relationship between them, a t-test was employed (Mishra et al., 2019). The relationship assists in the confirmation or contradiction of the hypotheses related to the factors of the study. All questions asked were framed by two main factors, namely internal and external factors (Cao Bao, 2022). The findings of this study are of an exploratory nature.

4.2.8. Quality Controls

Variables for the issue that this study investigates have been included in the conceptual model that has been developed. To assess the conceptual model, data was gathered via a questionnaire and analysed. To boost the confidence in the findings and conclusions derived from the data collected in this study, validity and reliability are essential elements of the research design that are included to ensure high-quality research is conducted.

4.2.8.1. Reliability.

Reliability seeks to ascertain how stable the measured values are in repeated measurements while maintaining study conditions and employing the same measuring instrument (Saunders & Lewis, 2011). The researcher determined the Cronbach Alpha coefficient of 0,675 for internal consistency and reliability for all summated scales of the study to find the relationship between variables and trends in the process of determining the level of influence of the sited factors. The Cronbach's alpha test was utilised to gauge the degree to which the information

gathered via the questionnaire yields consistent outcomes (Adeniran, 2019). The questionnaire can thus be considered acceptable, with a Cronbach score of 0,675.

4.2.8.2. Validity.

A comprehensive assessment of the Likert scale's suitability and value in measuring a construct is known as validity (Mellinger & Hanson, 2021). Validity contributes to the maintenance of credibility and reliability of the study's outcomes through appropriate interpretation of the data obtained from the research hypothesis (Mellinger & Hanson, 2021).

Two types of validity have been applied in this study. Construct Validity ensures that the measuring instrument measures what it is intended to measure and is in alignment with the research objectives which reflect the phenomenon being investigated (Saunders & Lewis, 2011). The goal of the study was to analyse the career decision-making construct. The internal and external factors are the two subconstructs that make up this construct. The study used a Likert scale to measure this construct by asking questions about the variables that affect decision-making.

Another objective for evaluating validity is content validity, which measures how well the tool functions in gathering enough data to meet the research goal of identifying the factors that influence career decision making (Saunders & Lewis, 2011). In order to support the achievement of the research objectives and validate the study's content, 129 questionnaire responses were gathered.

4.2.9. Limitations

A limitation of research is the availability of data. Surveys present a disadvantage of sweeping data as compared to other research strategies. All data depends on the responses given by respondents to the survey. An anticipated limiting factor to credible quantitative inferences arises from receiving low response rates that could contribute to biased results.

While survey participation was voluntary and anonymous, the researcher endeavoured to keep the questionnaire concise, only asking questions relevant to the study. Internet access was an additional limitation in securing the required

number of participants. Although it is expected that all respondents will understand basic English, there is a possibility that a minority of respondents might not. To counter this issue, where this was possible for the researcher, respondents were excused from the survey participation.

4.2.10. Ethical Reflections

A high priority on ethics was considered in the proposed research. As such, the researcher sought an ethical clearance by the Research Ethics Committee of GIBS before any all data was collected. Participation in this study was voluntarily. The process of data collection observed and adhered to the guidelines contained in the Protection of Personal information Act, wherein the protection, sensitivity and integrity of personal information was carefully considered to assure confidentiality.

In preserving the respondents' rights to privacy, data collection and the related research was conducted with the permission of the respondent. Data gathered was be limited to what is necessary and appropriate for the purpose of the study and only aggregated data was reported. All data was reported anonymously, ensuring that respondent participation or abstention cannot be determined and reported on. The personal information of questionnaire respondents, limited to information relating to age, race and gender, was captured, and stored in a secure cloud facility, with access limited to the researcher.

4.3. Conclusion

To verify the research hypotheses, this chapter described the research design and methodology. Participants served as the sources of data for this study thus facilitating the analysis of the factors influencing the career decision-making process.

5. Research Results

5.1. Introduction

Following the examination of the information gathered via the survey, the main findings are presented in this chapter. To contextualize the results, this chapter starts with a description of the sample. It then goes on to discuss sample suitability, which verifies that the sample fits the criteria. Next, the main themes pertaining to the research hypotheses put forth in Chapter 3 that emerged during the qualitative analysis process are presented.

5.2. Sample Description

129 respondents that made up the sample size were chosen by convenience sampling. The interviewees were chosen using non-probability sampling in accordance with the sample criteria which was those between the ages of 18 and 24 who, during the previous three years, had chosen their postsecondary courses of study and made the initial move from secondary to higher education. Despite being the majority of the study's students, Black Africans participation rate, at 5.5%, is lower than that of the Indian/Asian population group (19.6%) and the White population (17.7%) (Statista, 2023). Based on their status as enrolled first-year students, qualified and willing potential respondents from the target population make up the final survey sample.

The quantitative theory structured questionnaire served as the basis for the survey questions, which correspond to the hypotheses for the research derived from the literature review in Chapter Two. The goal of the hypothesis is to understand how internal factors influence the external factors that students consider when choosing a career. A deductive method was used to analyse the study's findings to look at theoretical assertions that conflicted or corroborate with the findings.

Respondents that provided alternative factors not specified in the questionnaire were noted as emerging themes and documented. A consideration of the emerging factors in the study allows a wholistic view of the influence on the decision-making process, rather than examining the phenomenon from the perspective related to hypotheses only. Appendix 1 presents the data related to the 129 interview participants presented

in the study. To maintain confidentiality, participant identities have been hidden by giving each respondent a participant code.

5.3. Data Analysis Approach

The data obtained will be analysed using SPSS. A programming tool used for statistical data analysis will yield precise calculations (Maydiantoro et al., 2021). Descriptive and inferential statistics were the two methods used to analyse the study's data.

5.3.1. Screening and Cleaning

Data screening is the process of looking for incorrect data to improve the quality of the data ingested into the analysis tool (Pallant, 2020). Therefore, prior to analysis, the data was checked for errors in data coding and missing data points. Before the data was entered into IBM SPSS Statistics, it was additionally screened to ensure that it was accurate in terms of data type, format, and unwanted information.

33 incomplete responses were eliminated from the data set after it was cleaned from a total of 162 surveys. A total of 129 responses remained, making them suitable for analysis using SPSS. Incomplete data was eliminated from the dataset that was analysed to keep erroneous data from sabotaging the investigation. The influence factors in the Linkert scale section were closely examined to ensure 100% completion as they form the basis of the study and could distort the data, if corrupt.

5.3.2. Data Preparation

These steps were taken to prepare the data.

First, the responses were coded into variables to convert the data from word to numeric. Second, to make the data file compatible with SPSS import, the variables were defined and categorized. In the third step, an excel sheet was imported into SPSS to enter the values for each variable that were collected from each respondent.

5.4. Sample Suitability

The focus of data suitability is on data features that can assist to summarize the data requirements of researcher's study. This is accomplished by highlighting how the data supports the research objectives by mapping the needs of the study to the available data. Thus, data suitability checks to see if the sample meets the data requirements. The sample is representative of the population and the findings of this study support this through the results in the Ethnicity frequency statistics. The sample findings closely resemble the ethnicity distribution of the population. Appendix 2 shows the Pearson Correlation Analysis pertaining to each variable's suitability for the research.

5.5. Study Findings

The findings regarding the level of influence on career decision-making based on internal and external factors are discussed according to the data analysis which are descriptive and inferential analysis. This section discusses the results of the demographic profiles (Part A) of the respondents which forms the background information on the study sample.

The average age of respondents was between 18-24 years old, with a standard deviation of 0,391 This is consistent with the sample criteria of the study and contributes to the sample's suitability for the study. Based on the total sample – 81.4% of the respondents aged between 18-24 years, 18.6% aged between 25-34. More than half of the respondents are from the female population (60.5%), and 34.9% from the male population. 4.7% preferred not to specify their sex. With regards to Ethnicity, 70.5% of respondents are black, 11.6% were coloured, and 4.7% were from Indian. Non-Indian Asian made up 4.7% of the respondents and white respondents were 7.8%. The lowest ethnicity represented in the sample was 0.8% Asian.

Table 1. Demographic statistics

Demographic	Variable	Percentage
Age	18 - 24 years	81.4%
	25 - 34 years	18.6%
Gender	Female	60.5%

	Male	34.9%
	Prefer not to say	4.7%
Ethnicity	Black	70.5%
	Coloured	11.6%
	White	7.8%
	Indian	4.7%
	Non-Indian Asian	4.7%
	Asian	0.8%

Most of the respondents attended Public Urban School with 42.6% and Private School with 21.7%, followed by Public Township School with 18.6%. Lastly, Public Rural School with 17.1% response.

Table 2 shows that most of the sample population attended High School in Gauteng with 32.6%. Eastern Cape and KwaZulu Natal had an equal attendance at 17.1%. Respondents who attended High School in Free State were 8.5%, Limpopo were 9.3%, Mpumalanga were 9.3%, Northwest were 3.1% and Western Cape were 2.3%. The province with the least sample population in this variable was Northern Cape with 0.8%. More than half of the respondents did not have a career guidance councillor (62.8%), and 37.2% did. Most participants made their career decision in Grade 12 with 35.7%. 28.7% made the decision in Grade 10, 12.4% in Grade 9 and 13% made their decision earlier than Grade 9. 4.7% or respondents made their career decision at a time not captured by the study.

Table 2. Descriptive Statistics

Demographic	Variable	Percentage
High School Attended	Public urban School	42.6%
	Private School	21.7%
	Public Township School	18.6%
	Public Rural School	17.1%
Province of High	Gauteng	32.6%
School	Eastern Cape	17.1%
	KwaZulu Natal	17.1%
	Free State	8.5%
	Limpopo	9.3%

_	Mpumalanga	9.3%
	Northwest	3.1%
	Western Cape	2.3%
	Northern Cape	0.8%
Guidance Counsellor	Yes	37.2%
	No	62.8%

5.6. Results of Research Hypotheses

Part B comprises eleven items that use a question-formatted response system with five Likert scale scores to measure factors that influence career choices. The mean score interpretation is used to compare the influence level among the factors considered by students, by analysing descriptive statistics and inferential statistics.

Table 3. Mean Score Interpretation of Influencing Factors

Mean score	Interpretation
4.30 to 5.00	Very High
3.50 to 4.29	High
2.70 to 3.49	Moderate
1.90 to 2.69	Low
1.00 to 1.89	Very low

Table 4 displays the mean of eleven influencing factors. The variables Chances of securing work upon qualification and Personal Values had the highest mean at 3.82 and 3.50 respectively. Earning Potential has the third highest mean at 3.36. Parental advice has a mean of 2.82 followed by Career's prestige at 2.90. Course affordability 2.50 and Career of a close relative scored a mean of 2.44. Assessment results recommendations scored a mean of 2.28 while Career guidance has a mean of 1.98. The lowest mean scores were for Peer advice and Social Media at 2.04 and 1.96 respectively. Overall, the data shows that factors that influence career decision most are Chances of securing work upon qualification and Personal Values while Social Media had the least influence.

Table 4. Influencing Factor Descriptive Statistics

Variable	Mean	Standard
		Deviation
Parental advice	2,82	1,44
Peer advice	2,04	1,25
Social media	1,96	1,34
Career guidance councilor	1,98	1,16
Earning potential	3,36	1,54
Chances of securing work upon qualification	3,82	1,45
Course affordability	2,50	1,57
Career prestige	2,90	1,51
Assessment result recommendations	2,28	1,45
Career of a close relative	2,44	1,46
Personal values	3,50	1,45

The Figure 2. shows that students have a moderate mean score for Parental Advice. This can be seen (M=2.82, SD=1,444) demonstrating that the likelihood of parental advice being viewed as a highly influential factor is low.

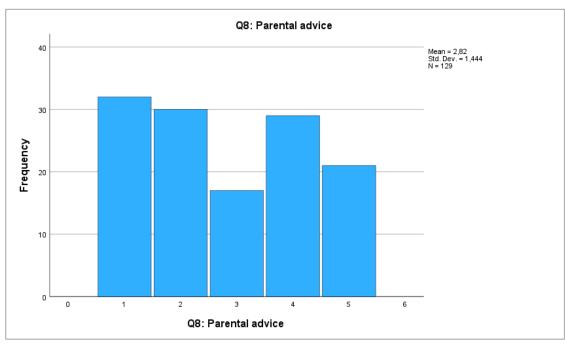


Figure 2. Parental Advice frequency

The below graph show that students have a Low mean score for Peer Advice. This can be seen from the (M=1.99, SD=1,246) demonstrating that "no-influence" is the most representative value of influence in the sample population".

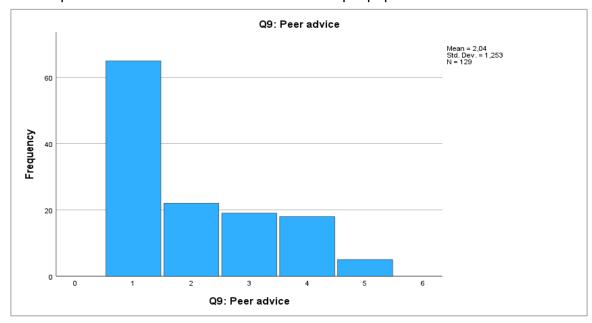


Figure 3. Peer Advice frequency

The findings show that students have a Low mean score for Social Media. This can be seen from the (*M*=1.96, *SD*=1,343). Given that most respondents in the sample said Social Media had "no influence," it appears that Social Media has no bearing on student's decisions about their careers.

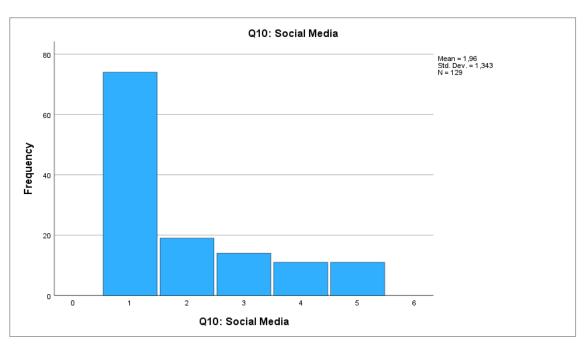


Figure 4. Social Media frequency

The figure 5 show that students have a Low mean score for Career guidance. This can be seen from the (M=1.98, SD=1,159) demonstrating the rightward bias of most responses, which leans toward more lower influence ratings.

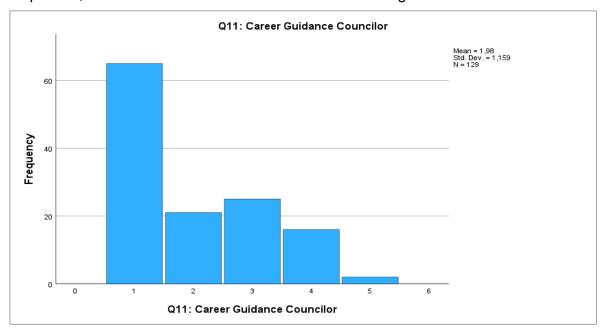


Figure 5. Career Guidance Councilor frequency

The below graph show that students have a Moderate mean score for Earning Potential. This can be seen from the (M=3.36, SD=1,536) suggesting a higher proportion of high influence responses.

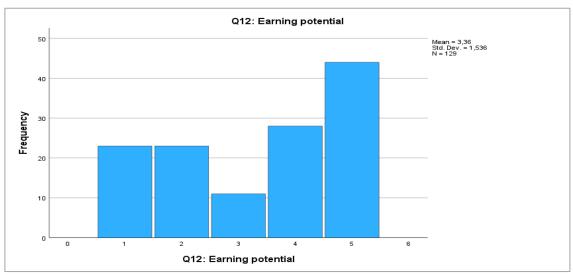


Figure 6. Earning potential frequency

The findings show that students have a high mean score for Chances of securing work upon qualification. This can be seen from the (M=3.82, SD=1,449) suggesting a leftward bias in the results indicating high influence of this factor.

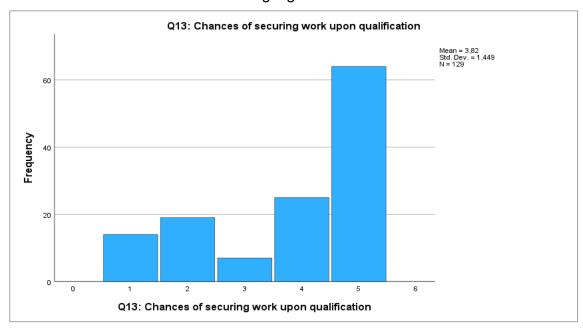


Figure 7. Chances of securing work upon qualification frequency

The figure 8 show that students have a Low mean score for Course affordability. This can be seen from the (M=2.5, SD=1,567) therefore, the frequencies of observations of lower influence are higher than the frequencies of observations of high influence.



The findings show that students have a moderate mean score for Career's prestige. This can be seen from the (M=2.9, SD=1.51).

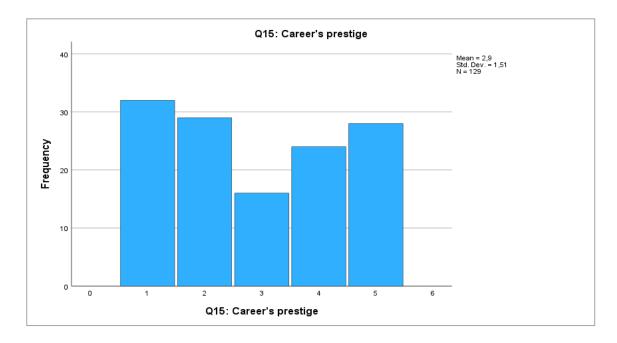


Figure 9. Careers prestige frequency

The graph below show that students have a low mean score for Assessment results recommendations. This can be seen from the (M=2.28, SD=1,447) where most of the data is oriented toward low influence.

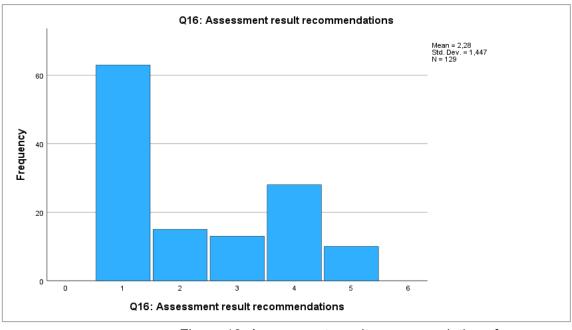


Figure 10. Assessment result recommendations frequency

The findings show that students have a low mean score for Career of a close relative. This can be seen from the (M=2.44, SD=1,457) illustrating most responses' rightward bias and suggesting that there is little agreement among students regarding the factor's influence.

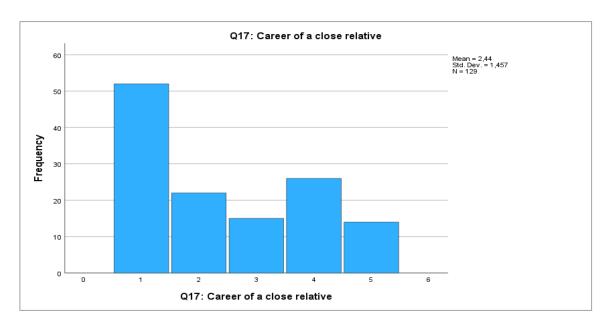


Figure 11. Career of close relative frequency

The figure 12 show that students have a moderate mean score for Personal Values. This can be seen from the (M=3.5, sd=1.448). The frequencies of observations of high influence are higher than the frequencies of observations of low influence indicating larger percentage of responses for high Influence.

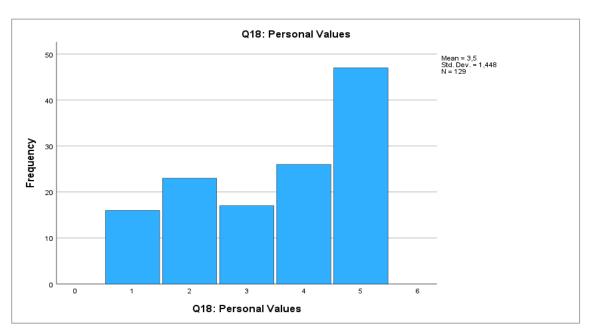


Figure 12. Personal Values frequency

A one sample t-test was used to test the mean of a single group against a known mean. Figure 13 shows the mean of the group of Influencing factors against which the known individual mean of the factor is tested.

Scale Statistics								
Mean Variance Std. Deviation N of Items								
29,62	57,769	7,601	11					

Figure 13. Influencing Factors mean

A t-test was used to determine whether there was a significant difference between the mean and the standard value of 0 (no effect). The researcher was able to conclude that the results' high t-values meant that the factors considered when making career decisions were significant, which suggested that there was a relationship between the internal and external influencing factors and career decision making. Therefore, evidence of this relationship refutes the study's null hypothesis. The observed difference is unlikely to be the result of chance, as indicated by the p(probability) value of <0.001, which is less than 0.05, supporting the H1. The results indicate that the likelihood that there is no relationship between internal and external influencing factors and career decision making as suggested by H0 is less than 1%.

Table 5. One sample test

			One-Sam	ple Test									
	Test Value = 0												
	,	-16	_	cance Two-Sided p	Mean	95% Confidence Differer Lower	nce						
		df	One-Sided p		Difference		Upper						
Q8: Parental advice	22,194	128	<,001	<,001	2,822	2,57	3,07						
Q9: Peer advice	18,487	128	<,001	<,001	2,039	1,82	2,26						
Q10: Social Media	16,588	128	<,001	<,001	1,961	1,73	2,20						
Q11: Career Guidance Councilor	19,446	128	<,001	<,001	1,984	1,78	2,19						
Q12: Earning potential	24,882	128	<,001	<,001	3,364	3,10	3,63						
Q13: Chances of securing work upon qualification	29,948	128	<,001	<,001	3,822	3,57	4,07						
Q14: Course affordability	18,150	128	<,001	<,001	2,504	2,23	2,78						
Q15: Career's prestige	21,813	128	<,001	<,001	2,899	2,64	3,16						
Q16: Assessment result recommendations	17,891	128	<,001	<,001	2,279	2,03	2,53						
Q17: Career of a close relative	19,032	128	<,001	<,001	2,442	2,19	2,70						
Q18: Personal Values	27,490	128	<.001	<.001	3,504	3,25	3.76						

5.6.1. Result To Research Hypothesis One

H1: There is a positive relationship between Internal factors and career decision-making.

The significance level of each internal factor—namely, assessment results recommendations, careers' prestige, and personal values—was evaluated to analyse the relationship between internal factors and career decision-making.

A one sample chi-squared test was done which produced the results presented in Table 6. A significance level of less than 0.01 for the internal factors; Assessment result recommendations and Personal Values suggests that a relationship exists between these independent factors and career decision making. This provides evidence to support H1a and H1c.

Results for H1b support H0 by refuting H1 due to evidence of a significance level greater than 0.05 (0.205), which shows insufficient data to support the proposition that career prestige influences career decision-making.

Table 6. Internal Factor Hypothesis Test Summary

	Null I lynathania	Test	Sig. ^{a,b}	Decision
	Null Hypothesis	Test	Sig.	Decision
1	The categories of Q15: Career's prestige occur with equal probabilities.	One-Sample Chi-Square Test	,205	Retain the null hypothesis.
2	The categories of Q16: Assessment result recommendations occur with equal probabilities.	One-Sample Chi-Square Test	<,001	Reject the null hypothesis.
3	The categories of Q18: Personal Values occur with equal probabilities.	One-Sample Chi-Square Test	<,001	Reject the null hypothesis.
a. The	e significance level is ,050.			

The results observed for Career prestige defy the hypothesis (H1), as seen in Figure 14, which displays the rightward bias data and shows that most respondents did not rate career prestige as having an influence on their career decision.

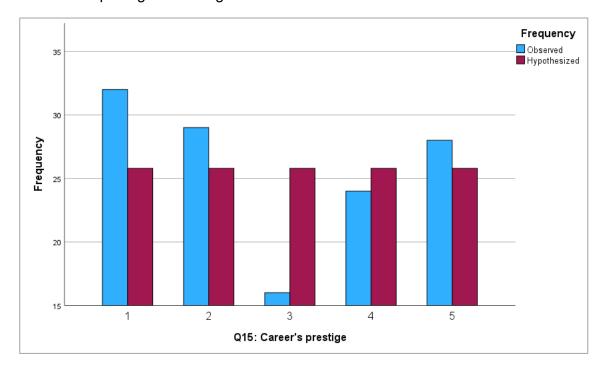


Figure 14. Frequency vs Career Prestige

Thus, evidence pertaining to H1a and H1c, which together make up 66.66% of the data supporting H1, partially prove Hypothesis one, while 33.33% of the data that contradict H1 are related to H1b.

5.6.2. Result To Research Hypothesis Two

H2: There is a positive relationship between external factors and career decision making.

The external factor considered in H2 are parental advice, peer advice, Social Media, career guidance, earning potential, chances of securing work upon qualification, course affordability and career of close relative.

The significance level of each factor was assessed to examine the connection between external factor influences and career decision-making. After performing a one sample chi-squared test, the findings shown in table 7 were obtained.

Apart from parental advice, all the external factors have a significance level <0.001 suggesting a strong relationship between these independent external factors and career decision making. This provides evidence to support H2b, H2c, H2d, H2e, H2f, H2g, and H2h. Results for H2a provide a higher significance level of 0.167 thus validation of H0 by disproving H2. The result decreases the overall validation of H2 by 12.5% from 100% thus partially proving H2.

Table 7. External Factor Hypothesis Test Summary

	Null Hypothesis	Test	Sig. ^{a,b}	Decision
1	The categories of Q8: Parental advice occur with equal probabilities.	One-Sample Chi-Square Test	,167	Retain the null hypothesis.
2	The categories of Q9: Peer advice occur with equal probabilities.	One-Sample Chi-Square Test	<,001	Reject the null hypothesis.
3	The categories of Q10: Social Media occur with equal probabilities.	One-Sample Chi-Square Test	<,001	Reject the null hypothesis.
4	The categories of Q11: Career Guidance Councilor occur with equal probabilities.	One-Sample Chi-Square Test	<,001	Reject the null hypothesis.
5	The categories of Q12: Earning potential occur with equal probabilities.	One-Sample Chi-Square Test	<,001	Reject the null hypothesis.
6	The categories of Q13: Chances of securing work upon qualification occur with equal probabilities.	One-Sample Chi-Square Test	<,001	Reject the null hypothesis.
7	The categories of Q14: Course affordability occur with equal probabilities.	One-Sample Chi-Square Test	<,001	Reject the null hypothesis.
8	The categories of Q17: Career of a close relative occur with equal probabilities.	One-Sample Chi-Square Test	<,001	Reject the null hypothesis.

5.7. **Data Validation**

The correlation values, which indicate the strength of the linear relationship between each internal factor, are displayed in Table 8. According to the Pearson correlation coefficients for these pairs, there is a small positive linear relationship between the Assessment results recommendations and the prestige of careers, as well as between the Assessment results recommendations and personal values.

- Careers prestige and Assessment results recommendations, 0.260.
- Careers prestige and Personal Values, 0.395

Assessment results recommendations and Personal Values, 0.361.

Table 8. Internal Factors Correlation Analysis

	Corre	lations		
		Q15: Career's prestige	Q16: Assessment result recommendati ons	Q18: Personal Values
Q15: Career's prestige	Pearson Correlation	1	,260**	,395**
	Sig. (2-tailed)		,003	<,001
	N	129	129	129
Q16: Assessment result	Pearson Correlation	,260**	1	,361**
recommendations	Sig. (2-tailed)	,003		<,001
	N	129	129	129
Q18: Personal Values	Pearson Correlation	,395**	,361**	1
	Sig. (2-tailed)	<,001	<,001	
	N	129	129	129

The following pairs of external factors have positive linear relationships based on their Pearson correlation coefficients.

- Parental advice and Peer advice, 0.233.
- Parental advice and Career guidance, 0.339.
- Parental advice and Earning Potential, 0.216.
- Parental advice and Chances of securing work upon qualification, 0.276.
- Parental advice and Course affordability, 0.230.
- Parental advice and Career of a close relative, 0.364
- Peer advice and Social Media, 0.131.
- Peer advice and Career Guidance Councilor, 0.135
- Peer advice and Earning Potential, 0.179.
- Peer advice and Chances of securing work upon qualification, 0.111.
- Peer advice and Course affordability, 0.133.
- Peer advice and Career of a close relative, 0.119.

- Social Media and Earning Potential, 0.166.
- Social Media and Chances of securing work upon qualification, 0.029
- Career guidance and Earning Potential, 0.78.
- Career guidance and Chances of securing work upon qualification, 0.119.
- Career guidance and Course affordability, 0.077.
- Career guidance and Career of a close relative, 0.101.
- Earning Potential and Chances of securing work upon qualification, 0.517.
- Earning Potential and Course affordability, 0.248
- Earning Potential and Career of a close relative, 0.175.
- Chances of securing work upon qualification and Course affordability, 0.374.
- Chances of securing work upon qualification and Career of a close relative, 0.271.
- Course affordability and Career of a close relative, 0.073.

However, negative Pearson correlation coefficient suggests that there are negative linear relationships between the following external factors:

- Parental advice and Social Media, -0.112.
- Social Media and Course affordability, -0.009.
- Social Media and Career of a close relative, -0.011.
- Social Media and Career guidance councilor, -0.036.

Table 9. External Factor Correlation Analysis

	Correlations									
		Q8: Parental advice	Q9: Peer advice	Q10: Social Media	Q11: Career Guidance Councilor	Q12: Earning potential	Q13: Chances of securing work upon qualification	Q14: Course affordability	Q17: Career of a close relative	
Q8: Parental advice	Pearson Correlation	1	,233**	-,112	,339**	,216*	,276**	,230**	,364	
	Sig. (2-tailed)		,008	,205	<,001	,014	,002	,009	<,00	
	N	129	129	129	129	129	129	129	12	
Q9: Peer advice	Pearson Correlation	,233**	1	,131	,135	,179	,111	,133	,11	
	Sig. (2-tailed)	,008		,139	,127	,042	,209	,132	,17	
	N	129	129	129	129	129	129	129	12	
Q10: Social Media	Pearson Correlation	-,112	,131	1	-,036	,166	,029	-,009	-,01	
	Sig. (2-tailed)	,205	,139		,689	,060	,748	,917	,90	
	N	129	129	129	129	129	129	129	12	
Q11: Career Guidance	Pearson Correlation	,339**	,135	-,036	1	,078	,119	,077	,10	
Councilor	Sig. (2-tailed)	<,001	,127	,689		,381	,178	,383	,25	
	N	129	129	129	129	129	129	129	12	
Q12: Earning potential	Pearson Correlation	,216"	,179	,166	,078	1	,517**	,248	,175	
	Sig. (2-tailed)	,014	,042	,060	,381		<,001	,005	,04	
	N	129	129	129	129	129	129	129	12	
Q13: Chances of securing	Pearson Correlation	,276**	,111	,029	,119	,517**	1	,374**	,271	
work upon qualification	Sig. (2-tailed)	,002	,209	,748	,178	<,001		<,001	,00	
	N	129	129	129	129	129	129	129	12	
Q14: Course affordability	Pearson Correlation	,230**	,133	-,009	,077	,248**	,374**	1	,07	
	Sig. (2-tailed)	,009	,132	,917	,383	,005	<,001		,41	
	N	129	129	129	129	129	129	129	12	
Q17: Career of a close	Pearson Correlation	,364**	,119	-,011	,101	,175*	,271**	,073		
relative	Sig. (2-tailed)	<,001	,179	,900	,254	,047	,002	,412		
	N	129	129	129	129	129	129	129	12	

5.8. Conclusion

This chapter included the results of the two research hypotheses that were put forth in Chapter 3. The study's findings showed that both internal and external factors can influence a student's decision about a career. All internal factors showed positive correlation values, and the research demonstrated a strong correlation between internal factors and their positive influence on career decision making. The results closely matched published findings when it came to the expected outcomes of internal factors' influence on career decision making (Wang et al., 2022). The frequency results for Assessment results recommendations, demonstrating a student's aptitude and suitability to a career path, were not expected.

All the external factors considered in this study were found to be significant and strengthened the proposition of H2. Unexpected outcomes were also generated by the frequency of course affordability as an external factor. The cost of the program is anticipated to have an impact on a student's career decision, considering the socioeconomic background of a South African student (Cao Bao, 2022). For the same reason, it was anticipated that employability and the likelihood of finding employment after graduation would emerge as the key elements influencing students' decisions and shaping their career choices.

6. Discussion of Results

6.1. Introduction

This chapter presents the insights formed from the statistical interpretation of the relationships found in the data, through data analysis, in order to derive inferred findings to the research hypotheses. The objective of the results in this chapter is to shed light on the variables that first-year university students consider when making a career decision. This was accomplished by identifying the variables that shape the study's context, supported by a theory that aims to clarify how the various elements interact when making a career decision.

The results presented in Chapter 5 are thus discussed in this chapter. To facilitate this discussion, data relevant to the study's goal was gathered, as detailed in the research methodology - in Chapter 4. In order to assess the study's hypotheses, the results were compared to the literature that was discussed in Chapter 2. For every research hypothesis, a set of data addressing the problem identified in Chapter 1 is presented as a discussion.

Students who had finished their high school education within the last three years (2019–2022) met the sample criteria and were seemed suitable participants in the survey conducted. The participant responses thus provided reliable and valid data for the study.

6.1.1. Result Discussion for Research Hypothesis One

H1: There is a positive relationship between Internal factors and career decision-making.

H1a: Personality and Aptitude positively influences career decision-making.

Research Hypothesis 1a sought to establish whether a relationship between Personality and Aptitude and career decision-making exists.

The literature review revealed that psychometric tests are the main tool used to identify personality types to identify and recommend appropriate career paths (Ramadhani et al., 2020). Therefore, the researcher posits that outcomes and suggestions of such an evaluation can serve as the foundation for a well-informed

career decision, based on an assessment of a student's intrinsic ability, motivations, interests, values, and beliefs, as well as their usual modes of thought (Islam et al., 2021). This proposition would align to the underpinning theory to career decision making – The Parsons model, that suggests that awareness and consideration of personal traits is key to making career choices (Xu, 2021). As such, the impact of interest on career motivation can be linked to personality which should be considered as a critical component to making a career decision (Islam et al., 2021).

Conversely, the study's descriptive for the recommendations of psychometric tests suggests that there is no significant influence on students' career decisions. The frequency analysis (Figure.11) was more conclusive wherein the low mean of this internal variable indicated that most people rated it as having little influence. This supports the claim made by another author that taking a student's aptitude into account could lead to a misalignment in course interests (Lupas, 2021).

Findings that indicate a low influence are an unanticipated result and thus contradict the proposition that behaviour, as a component of personality, affects career choices because personality can significantly influence career intertest (Wang et al., 2022).

H1b: Personal values positively influences career decision-making.

The purpose of Research Hypothesis 1b was to determine whether Personal values and career decision-making are related.

The review of the literature showed that a student's interest is positively influenced when their career choice closely aligns with their personal values (Abe & Chikoko, 2020). This has a significant impact on the type of career decisions the student makes which lends itself to the possible solution to the problem identified in this study.

The statistical analysis of this internal factor reveals a moderate mean score of 3,5 for Personal Values (Figure.13), which suggests that there is a higher frequency of high influence ratings from the sample population. Across most of the demographics, personal values have a significantly influence on respondent's career decision. However, 33% of coloured respondents do not feel personal values influence their career decisions. Assessment results do not have a significant influence in career decision making amongst most demographic variables, except amongst 67% of Western cape respondents, 50% of Northwest and 30% of white respondents who

deem it to have moderate influence. This finding corroborates the notion that career decision-making involves considering a variety of internal factors, including personal ethos, values, and the belief-driven behaviour (Alhomoud et al., 2019). Thus, the results are not surprising and indicate that the best way to get the most out of someone is to approach career decisions with a human-centricity that appeals to and aligns with their personal values (Puckett et al., 2021).

H1c: Career prestige positively influences career decision-making.

Research Hypothesis 1c sought to ascertain whether there was a relationship between Career Prestige and career decision-making.

The literature reviewed considers the students' self-efficacy as a component of the theory underpinning the explanation of factors that affect career decision making. What career path a student thinks would be best for them is greatly influenced by how they see themselves (Mtemeri, 2020).

As such, it is important to recognise that how a student interacts with their environment is dependent on their gauge of self-efficacy and influences a student's decision to align themselves to a career that fits their perception of self (Blustein et al., 2019). Career prestige is thus evaluated when a student aligns their perception of a career path to that of self and influences their decision on whether to pursue a particular career path (Graham, 2022). 70% of white and 36% of black respondents reported that career prestige moderately to highly influences their career decisions. This pattern is also evident amongst 67% of Western Cape and 58% of Gauteng respondents.

The career prestige results show that the hypothesis is false (H1c), presenting data that suggests that most respondents did not rate career prestige as having an influence on their career decision. This opposes the literatures proposition and is an unanticipated finding of the study.

Concluding Remarks for discussion of Research Hypothesis one.

Research Hypothesis one's combined findings are shown in Table 10. There is no statistically significant impact of internal factors on students' career decision-making.

Table 10 demonstrates that when making career decisions, personal values have a greater influence. The literature is contradicted by the findings and suggestions of psychometric tests and career prestige, which demonstrate no influence.

The results presented here appear to corroborate the Parsonian framework for career decision-making proposed (Parsons, 1909, p.5). which gives individual personalities and behaviours top priority when deciding on the best career path. The results lend support to the idea that a student's intrinsic motivation to succeed in a career is increased if the career choice is strongly in line with their personal values (Puckett et al., 2021).

It provides more evidence supports the view that career motivation is mostly determined by interest in the field, which is attributed to a student's alignment of their career choice with their personal values (Abe & Chikoko, 2020).

It is important to ensure an alignment with personal values, however students should not be limited to this consideration as cognitive abilities highlighted in Psychometric assessments and recommendations have valuable insights on careers suitable for each student.

Table. 10 Concluding Remarks for discussion of Research Hypothesis

Research Hypothesis	Description	Conclusion
H1	There is a positive	Contradicted
	relationship between	
	Internal factors and career	
	decision-making.	
H1a	Personality and Aptitude	Contradicted
	positively influence in	
	career decision-making	
H1b	Personal values positively	Confirmed
	influence in career	
	decision-making	
H1c	Career prestige positively	Contradicted
	influence in career	
	decision-making	

6.1.2. Result Discussion for Research Hypothesis Two

H2: There is a positive relationship between external factors and career decision making.

H2a: Parental Advice positively influences career decision-making.

Research Hypothesis 2a aimed to demonstrate the positive relationship between Parental Advice and Career decision making.

Various viewpoints regarding the impact of parental advice on career decisionmaking were identified through a review of the literature. The proposed extension of this hypothesis would determine whether students were more influenced by a male or female parents' advice when contemplating a career choice.

Results in this study (Figure 3.) have shown that students do not consider for Parental Advice as a highly influential factor on their career decisions thus challenge H2a. These findings contradict scholars such as Sarkodie et al. (2020) and Koçak et al. (2021) who contend that parental guidance plays a major role in a student's choice of career. Although Lupas (2021) and Cao Bao (2022), further support this assertion that the factor that influences career decisions the most is parental advice, a significance level of 0.167 is insufficient to support this body of literature.

Conversely, the literature corroborates the study's findings wherein students don't always benefit from parental advice because parents can pressure their children to pursue careers of their own choosing (Goh & Jamaluddin, 2021). Parents' pressure to choose a career may not match students' interests, abilities, or personalities. This can lead to unfavourable outcomes like low motivation and disregard for future employability (Yunusa et al., 2022).

25% of individuals who received career guidance felt that parental advise strongly influenced career decision making whereas 28% that did not receive career guidance felt that parental advice had no influence. 29% of respondents who went to private school felt parental advice influenced career decision making. 67% of Western Cape respondents felt very influenced by parental advice.

H2b: Peer influence positively influences career decision-making.

Research Hypothesis 2b undertook to confirm the positive relationship between Peer Influence and Career decision making.

A significant amount of research supports the idea that peers have an impact on one another. Peers specifically share information and influence their friends' opinions and considerations when it comes to making career decisions (Islam et al., 2021; Sarkodie et al., 2020).

Nonetheless, the descriptive statistics analysis reveals that students indicated "no-influence" regarding the influence of their peers on their career decision. The findings appear to refute the idea that peers' opinions matter when it comes to the career choices made by individual students (Mtemeri, 2020; Purohit et al., 2020). Lupas (2021) adds more weight to these findings by arguing that peer advice is superficial and does not have enough of an impact to motivate a decision. Across the demographics, peer advice had a very low influence on career decision making. As a result, this evidence disproves H2b and provides stronger evidence in favour of H0's rationality.

H2c: Social Media positively influences career decision-making.

The purpose of Research Hypothesis 2c was to determine if social media could positively impact career decisions. An extension of this hypothesis could be to determine the type of Social media that are effective in informing students career choices.

There are gaps in the understanding of this phenomenon due to the paucity of research on social media as an external factor and source of information for career decision making. However, the literature review for this study turned up little evidence to support the claim that social media has little bearing on people's decisions about their careers (Sarkodie et al., 2020). Social media has no influence on career choices across all the demographics assessed. Interestingly, 67% of WC respondents report that social media has a moderate influence on their career choices.

The study's conclusions suggest that social media does not, in fact, influence career decisions, as shown by the frequency analysis's graphical representation in Figure

4. These findings challenge the hypothesis related to Social media and retain the null hypothesis (H0).

H2d: Career counselling positively influences career decision-making.

In order to better understand the idea of career guidance, Hypothesis 2d set out to determine whether career counselling influences career decision-making.

Literature provides supports the notion that career counselling as an intervention to guide career decisions can produce wise career choices (Kapur, 2018). Career councillors' skills are trusted to present information to students that will contribute to shaping and forming career idea and perceptions towards well informed resolves (Cao Bao, 2022). This is the basis of the influence expected by career guidance on career decisions. 39% of respondents who went to private school found career guidance to moderately influence their career choices. All other demographics stated there was little to no influence. This conclusion is supported by the frequency analysis, which shows that most respondents said they had no influence over their career decisions.

Despite the literature ascertains, the results of this study provide evidence that disproves H2d and supports H0's proposition.

H2e: Earning potential positively influences career decision-making.

The aim of this research hypothesis was to determine whether earning potential has an effect on career decision making.

The descriptive results (Figure.7) show that a noteworthy percentage of sample respondents generally agreed that earning potential has a substantial impact on choosing a career. These findings are not unanticipated in the current economic climate (Powell & McGrath, 2019). Many South African students should carefully consider whether their chosen career path will secure their livelihood. Earning potential has a significant influence on career decision making across all demographics. Interestingly, this is not the case for Eastern Cape and white respondents who deemed earning potential to have little to no influence.

Thus, the results imply that H2e is a plausible claim that is pertinent to South Africa and other developing nations (National Treasury, 2019).

H2f: Chances of securing work upon qualification positively influence in career decision-making.

This study hypothesis sought to discover whether the ability of students to obtain employment upon qualification was a factor in their decision to pursue their current career path.

Numerous studies suggest that the availability of employment forms the basis of a student's choice of career (Goh & Jamaluddin, 202; Lupas, 2021). Additional research suggests that students' decisions about their careers are influenced by their job security, which encourages alternative employment approaches that emphasize skills-based employment (Bakry et al., 2020).

While the global employment landscape evolves, it poses a high unemployment risk for students who make career decisions that do not fit the demands of the market (Lupas, 2021). For these reasons, it is reasonable to anticipate that the vast majority of students making career decisions make their best effort to gain relevant skills that they can use to secure gainful and meaningful employment. The potential to secure work has a significant influence on career decision making across all demographics. Interestingly, this is not the case for Limpopo respondents who deemed securing work to have little influence.

Figure. 8 shows the alignment of the research findings to the Literature through the presentation of significantly leftward skewed data. This indicates that most responses confirmed the influence of a chance to secure work upon qualification as having a high influence on their decision-making process. Results therefore confirm H2f and reject the null hypothesis.

It is interesting to note that despite the high youth unemployment in Nigeria, a social and economic context similar to that of South Africa (Developing African state), students were not influenced by the probability to employment post qualification (Eremie & Ibifari, 2018).

H2g: Course affordability positively influences career decision-making.

The purpose of Research Hypothesis 2g was to determine whether a student could afford the fees of their chosen career path influenced their decision to pursue it. This hypothesis could be further extended to determine whether NSFAS funding desensitised students from debt, particularly student debt, contributing to the low motivation to secure a return on the investment made in higher education.

Authors of studies in career decision making cite course affordability as a major determinant of whether a student will pursue a said career or not (Cao Bao, 2022; Yunusa et al., 2022). When it comes to choosing a career based on cognitive ability, poor students face many obstacles and are more likely to enrol in less expensive courses (Yunusa et al., 2022).

In contrast to what the literature claims, figure 9 show that students are not influenced in their career choice by the price of the course. These results are unexpected and oppose the hypothesis that considers the South African context and economic conditions as its foundation. Amongst most respondents, course affordability does not influence career decision making. However, there is a discrepancy amongst those who state that it has a low influence and those who state it is a high influence. Notably amongst ethnicities.

Findings of the study this challenge the hypothesis and retain H0.

H2h: Career of a close relative positively influences career decision-making.

The aim of this research hypothesis was to determine whether Career of a close relative has any influence on career decision making.

Through the observation of people who have pursued career paths, students are able to form their own opinions and are influenced in their career decisions. Vicarious learning can provide a useful experiential viewpoint for making career decisions (Jiang et al., 2022). Career of a relative is seen as having high influence on career decision making amongst Asian respondents. Across the various demographics, there is little to no influence.

The findings in this study illustrate that most responses rated the careers of relatives to have no influence on their career choices. These findings thus support H0 and refute H2h.

Concluding Remarks for discussion of Research Hypothesis two.

The combined results of Research Hypothesis two are displayed in Table 11.

Study findings suggested students' actions as they pertain to career decisions and their related outcomes were influenced by contextual factors (Jiang et al., 2022). This demonstrates the interdependence of all factors, internal and external, that were taken into consideration during the decision-making process. Career decision evidently demands a thorough approach and an awareness that elements do not influence and or inform the career decision in isolation.

Table. 11 Concluding Remarks for discussion of Research Hypothesis two

Research Hypothesis	Description	Conclusion
H2a:	Parental Advice positively influence in career decision-making	Contradicted
H2b:	Peer influence positively influences in career decision-making	Contradicted
H2c:	Social Media positively influence in career decisionmaking.	Contradicted
H2d:	Career counselling positively influence in career decision-making.	Contradicted
H2e:	Earning potential positively influence in career decision-making	Confirmed
H2f:	Chances of securing work upon qualification positively influence in career decision-making	Confirmed
H2g:	Course affordability positively influence in career decision-making	Contradicted
H2h:	Career of a close relative positively influence in career decision-making	Contradicted

6.2. Conclusion

The study's overall findings appeared to be at odds with the Parsons's framework, Parsons (1909), which heavily emphasizes self-awareness and determinants of a successful career. The Parsons' framework depends on qualified career counsellors giving students access to and exchanging information about their career interests, as well as on the beneficial impact career counsellors can have on students' career decisions (Parsons, 1909, p.5).

The results challenge the notion that personality, aptitude, interests, and personal viewpoints—intrinsic factors—have a significant impact on career decisions and should not be the only consideration when making wise career choices.

The study has produced results that are consistent with the notion that contextual factors, such as the economic environment and personal socioeconomic background, have a much greater influence on career decisions (Abe & Chikoko, 2020; Anderman, 2020; Yunusa et al., 2022). The idea that students are more likely to prioritize employability when making career decisions and to do so in a way that reflects their awareness of social injustices like youth unemployment is further supported by these findings (Lupas, 2021). This is evident by the overall confirmation of H2e and H2f and the contradiction of the remaining external factors.

The researcher goes however recognises that additional career-influencing factors that were not examined in this study should be looked into as they might be relevant to the context of career choices and may be influencing the respondents' experiences of the career decision making process.

7. Conclusions and Recommendations

7.1. Introduction

This chapter servers to consolidate the findings of the study and to contextualise the results in terms of the aim of the study. This chapter further makes recommendations to the problem introduced in Chapter 1 as well as future considerations related to the extension of this research.

7.2. Relevance of the Study

This research endeavoured to determine the variables that influence students' decisions regarding the professions they elected to pursue, ultimately enhancing the comprehension of these variables.

The importance of these factors is aligned to the high Government expenditure on tertiary education and the continuous effort towards achieving development state mandate for South Africa. Employability through the attainment of skills, both through academic qualification and vocational training are key components of the capacity South Africa aims to build to progress economic development and transformation as job related opportunities hinge, to a large extent, on what it is a student has chosen to study.

This warranted the study of the construct of intrinsic and extrinsic influences on career choices as a precursor to understanding how poorly informed career choices perpetuate skills mismatch, and the persistently high youth unemployment rates in South Africa.

An additional relevance of the study was in relation to evaluating whether Government's efforts to expand higher education participation through the National Student Financial Aid Scheme (NSFAS) if effective (De Villiers, 2023). It was of particular interest to investigate whether career choices funded through NSFAS perpetuate the negative returns on education in South Africa because of the possibly negative, unexplored influences these decisions are made under.

An understanding of these factors and their influence was thus important and further relates to one of the pillars that support a high quality of life and the enhancement of economic and social conditions in South Africa.

7.3. Establishing Research Context

As a developing state, South Africa's economic development is supported by a traditional economic development model approach that focuses on education as one of the lead indicators of economic success (Mbah & Franz, 2021).

Therefore, the acquisition of knowledge and skills through education is prioritized as a means of achieving gainful employment and in the realization of economic development (Powell & McGrath, 2019). The ability of a student to participate in the economy will determine how much of an impact they can have on South Africa's economic growth. Even though NSFAS gives students access to postsecondary education, the expected results of graduates from these institutions do not match the needs and expectations of the job market because of the careers that students choose to pursue. A skills mismatch arises when there is a growing disparity between the market's supply and what is needed to achieve economic development (Brunello & Wruuck, 2021).

One of the main signs of the rising need for interventions to better influence career decision-making, so that better decisions can be made, is this skills mismatch. To better understand what the causes for the growing disparity in South Africa are, this study focused on the factors that influence South African students' career decisions.

7.4. Existing Knowledge and Research Gaps

Research has been carried out in Africa and Asia to investigate the factors that influence students' career choices in order to develop strategies for enhancing those choices. Although the economic and social issues facing Nigeria and Malaysia are comparable to those facing South Africa, the recommendations made, and their applicability may vary depending on the context and distinctive environment of each nation.

Previous studies on the factors influencing students' decisions about their careers did not specifically address South African students. It is only until recently that scholars have realised the significant impact that poorly informed career decisions have on economic participation and studied it. Studies exploring Career decision making in the South African context have since emerged and contributed to holistic insights on the factors most considered (Chinyamurindi et al., 2021).

Historic influences such as apartheid and racial inequality still surface as factors that have influenced career decisions in South Africa (Chinyamurindi et al., 2021), however factors relevant to the generation of South Africans who have lived all of their lives in a democratic, racially integrated country is sparce.

7.5. Key Research Hypotheses and Objectives

Table. 12 Key research hypotheses and objectives

	HYPOTHESIS	OBJECTIVE
H1:	There is a positive relationship	between Internal factors and career
	decision-making.	
H1a:	Personality and Aptitude	Determine the impact of aptitude on
	positively influence career	career decisions.
	decision-making.	
H1b:	Personal values positively	Reveal the influence of personal
	influence career decision-making.	values on career decisions.
H1c:	Career prestige positively influence in career decision-	Identify the impact of career prestige on career decisions.
	making	on career decisions.
H2:	There is a positive relationship	between external factors and career
	decision making.	
H2a:	Parental Advice positively	Determine the influence of parental
	influences career decision-	advice on career decisions.
	making.	
H2b:	Peer influence positively	Determine the influence of peer advice
	influences career decision-	on career decisions.
	making.	
H2c:	Social media positively influence	Identify the impact of social media on
	career decision-making.	career decisions.
H2d:	Career counselling positively	Reveal the influence of career
	influence in career decision-	counselling on career decisions.
	making.	

H2e:	Earning potential positively	Identify the influence of earning
	influence in career decision-	potential on career decisions.
	making.	
H2f:	Chances of securing work upon	Determine the impact of employability
	qualification positively influence in	on career decisions.
	career decision-making.	
H2g:	Course affordability positively	Determine the impact of affordability
	influence in career decision-	on career decisions.
	making.	
H2h:	Career of a close relative	Reveal the impact of career of a close
	positively influence in career	relative on career decisions.
	decision-making.	

7.6. Research Methodology Overview

This study took a descriptive research design (Chinyamurindi et al., 2021). A quantitative research methodology was applied on this study, in line with the methodology relevant to the study subject (Bakry et al., 2020; Rosantono et al., 2021; Siddiky & Akter, 2021; Yunusa et al., 2022).

A mono method, using only one research strategy, quantitative theory-structured survey, was considered (Saunders & Lewis, 2011). This strategy aided the clarity to the phenomenon of factors influencing tertiary course options among first year students in Gauteng Province.

7.7. Study Findings and Interpretations

This study has shed light on the factors influencing first-year Gauteng students' career decisions. The study's main conclusions also emphasized the kinds of factors that have the greatest influence on the decision-making process for careers. Particular attention was paid to the intrinsic and extrinsic factors that served as the foundation for each study hypothesis.

7.7.1. There is a positive relationship between internal factors and career decision-making.

The foundation of this study was the relationship between internal factors and decision-making, which also informed hypothesis one. This study made an effort to pinpoint these variables because a substantial amount of research suggested that they affected career choices (Islam et al., 2021; M'manga et al., 2019; Preston & Salim, 2019; Puckett et al., 2021). The theoretical claims gave the literature review legitimacy and supported the motivation for pursuing validation of these relationships (Parsons, 1909, p.5). Personality was strongly recommended, with many academics arguing that it had a significant influence on career decisions and the results that followed (Wang et al., 2022). Career interest was also found to be an underlying factor of personality, that positively influenced the career decision (Abe & Chikoko, 2020).

Aptitude and career prestige, as a function of self-efficacy was found to inspire behaviours beneficial to the accomplishment of goals and thus positively influenced career outcomes. This was further supported by SCCT which corroborated claims by multiple authors (Graham, 2022; Schunk & DiBenedetto, 2021; Wang et al., 2022).

Nevertheless, the study's results only contributed one third to the overall hypothesis's confirmation, failing to provide definitive evidence for the claims made in the literature.

7.7.2. There is a positive relationship between external factors and career decision making.

Numerous studies corroborated the effects of various external factors on career decision making. Parents influence emerged as the factor perceived to have the most influence and that was highly considered in the career decision making process (Koçak et al., 2021; Lupas, 2021; Sarkodie et al., 2020). However, study's results opposed these finding and indicated a general low regard and consideration of this factor. Parental advice was the only factor that retained the null hypothesis.

The relevant H2 sub hypotheses were supported by all remaining external factors, some of which reported stark differences between empirical findings and literature recommendations. Peer influence had contradicting literary views. It was reported

that peer advice was valuable in informing career decisions (Islam et al., 2021; Sarkodie et al., 2020). Conversely, findings by Cao Bao (2022) opposed the influence of peers and implied low significant.

The most important external factors taken into consideration were employability and earning potential. These findings were not surprising, even though they represented an opposing viewpoint to some of the reviewed literature (Eremie & Ibifari, 2018). The effects of a student's financial situation were brought to light as influencing choices, thereby corroborating hypothesis two (Anderman, 2020).

7.8. Contribution to Scholarly Debate

Scholars who study career decision making have primarily concentrated on examining the effects of career counselling (Eremie & Ibifari, 2018; Islam et al., 202; Kapur, 2018). This research study enriched the scholarly debate on career decision making by contrasting comprehensive insights into the factors influencing career decisions with the assertions made by literature. New insights from a previously sparsely explored perspectives such as social media and careers prestige are verified by empirical findings that corroborate these reasonable hypotheses and assumptions to offer new considerations for conversations that facilitate an improved understanding of this phenomenon.

7.9. Practical and Business Justification

Perhaps different stakeholders will come away from this study with a different perspective on how to approach career decision making once their understanding of the factors that influence it has been improved.

For a student, a career choice may not be justified by passion and interest alone. Contextual analysis has come to be recognized as an important consideration and a legitimate foundation for choosing a career. This is directly tied to the goals of pursuing a career and could be a reasonable criterion to include in the process of weighing career options. It may be more accurate to measure the success of a career decision by comparing it to the likelihood of employment, particularly in the South

African context, rather than just ensuring that one meets the requirements for admission to the field of study.

Psychometric tests and their recommendations can bias career counsellors' advice to students based on their cognitive abilities, disregarding their interests. This may result in low motivation which could affect the completion of the course pursued. Because of this, it's critical that career counsellors look into options that balance a student's abilities with potential interests while also making sure the career choice has employment prospects.

Through the internal and external influences on career decisions, this study highlights the problem of skill mismatch and its likely causes. Students who consider the impact of their influences on their career choice may make better career decisions overall, and employers' benefit from having graduates who are suitably qualified for positions.

7.10. Limitations and Future Recommendations

Chapter 4 gave an elaborate explanation of the chosen approach for this study. A self-administered questionnaire was used in a quantitative research design. The respondent could choose from a predetermined list of answers to the questions on the questionnaire. A limitation of self-administered questionnaires is response bias. It's possible that respondents answered questions dishonestly, giving an opinion that wasn't always reflective of their actual sentiment and experience (Goldammer et al., 2020).

The broad literature review on the topic of career decision making produced the constructs that were assessed in the questionnaire. Given that the factors assessed for their impact on career decisions were not all-inclusive, potential limitations to this study are to be expected. Only the factors proposed by the literature were considered in the questionnaire. This study focused on first year students in Gauteng. The field of research is however relevant to students enrolled at tertiary institutions in different provinces and at different years of their study. This adds to limitations of the study since the results might not apply to students in other parts of the country or to those pursuing more advanced higher education.

Another limitation to the study's sampling strategy was that it was only possible to access respondents from one university, which meant that the sample was insufficiently representative of first-year students at postsecondary institutions. Furthermore, because not all first-year University of Witwatersrand students are included in the sample due to the non-probability sampling method, data collected is presumed to be representative of the population. As such there may have been an error in the sample selection process (Stratton, 2021). Bias and mistakes in the study's execution may have resulted from the research's inexperience and lack of specialization in the field.

Finally, understanding these factors can motivate the re-evaluation of the theories underpinning career guidance, to test for contextual relevance and applicability of the theories today.

7.11. Conclusion

This study contributed significantly to the body of knowledge already available on the factors influencing career decisions. With a specific focus on the sustainability of the economic goals set by South Africa, the study took a keen interest on how the youth of this country can contribute to efforts that, primarily benefit themselves, and benefit economic transformation through the increase in economic participation. The study showed that learners' career decisions were influenced by a heightened awareness of the socioeconomic challenges that South Africans face on a daily basis, more than they were influenced by contextual factors such as parental and peer advice.

This further emphasises the need to lean on education as a crucial component to developing human capital that can improve the living conditions thus achieving the positive results associated with economic development.

Thus, it is a social imperative to look into the factors that shape career decisions and facilitate critical thinking towards the agency education needs to progress the development mandate and defend the Governments investment.

Variance in the study's findings and the literature illustrate the dynamic environment that these decisions are made in, demanding a fresh perspective relevant to the current economic and social climate.

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Appendix 1

Sample description

	∅ ID	Whatisyoura ge	& Whatisyours ex	Whichraceor ethnicitybest describesyo	TypeofHighS choolAttend ed	WhichProvin ceisyourHig	Didyouhave acareerguid ancecouncil	o euluyouillak	Parentaladvi ce	Peeradvice	SocialMedia	Careerguida nce	Earningpote ntial
1	1	1	2	describesyo	eu 3	1	ancecounci	eyourcareer	1	1	1	1	4
2		1	2	2	3	1	2	5	1	1	1	1	2
2	2		2	2	3		4	4		'		'	4
3	3	1	2	2	3	1	1	4	4	4	2	3	4
4	4	2	1	3	3	1	2	6	5	1	1	1	1
5	6	1	1	2	3	1	1	5	1	1	2	1	3
6	7	2	. 1	2	1	5	2	5	4	2	1	1	4
7	8	1	1 1	2	3	3	2	3	4	2	1	4	5
8	9	1	1 1	2	4	4	2	6	1	1	3	3	2
9	10	1	1 1	3	3	3	2	1	4	3	3	3	4
10	11	2	2 1	2	3	3	2	5	1	1	1	1	1
11	12	2	1 1	2	3	4	2	4	4	1	1	1	4
12	14	1 2	2 1	2	1	7	2	5	1	1	1	1	2
13	15	5	2 1	6	4	3	2	5	4	3	3	3	2
14	16	3	2 2	2	3	1	2	3	3	3	1	2	4
15	17	2	2 2	2	1	4	2	4	1	1	1	1	5
16	18	3	2 1	2	3	2	1	5	2	3	1	2	5
17	19	2	2 1	6	4	3	2	5	5	4	1	1	1
18	20		1 2	2	2	2	1	3	1	1	1	1	1
19	21		2 2	2	3	3	1	1	1	1	1	2	2
20	22		2 2	2	1	5	2	5	2	2	1	1	2
21	23		1 1	2	1	7	1	5	2	1	1	1	5
22	24		1 2	4	3	3	1	3	5	2	1	4	4
23	26		1 1	2	2	5	2	5	5	3	1	2	5
24	27		1	6	4	4	2	5	1	1	5	1	1
25	29		2	2	3	3	2	1	2	2	2	2	1
26	30		2 2	2	3	5	2	3	1	1	1	1	1
27	31	1	1 1	2	3	1	2	1	4	3	2	1	

	₽ ID	& Whatisyoura ge	Whatisyours ex	Whichraceor ethnicitybest describesyo	TypeofHighS & choolAttend ed	WhichProvin ceisyourHig hSchoolin	Didyouhave acareerguid ancecouncil	Inwhichgrad edidyoumak eyourcareer	Parentaladvi ce	Peeradvice	SocialMedia	Careerguida nce	Earningpote ntial
28	32	2	1	2	3	3	1	4	3	1	1	2	1
29	33	2	2	2	1	5	1	5	2	4	5	4	5
30	34	1	1	2	3	3	1	6	4	1	1	2	4
31	35	1	1	2	1	6	2	6	2	1	2	3	3
32	36	1	1	2	2	5	2	3	1	3	5	1	2
33	37	1	1	2	3	3	1	3	1	1	2	2	1
34	38	1	1	2	1	7	1	3	5	3	1	2	1
35	39	1	1	2	4	3	1	3	4	1	1	2	2
36	40	1	3	2	4	5	2	2	1	2	5	1	2
37	41	1	1	2	2	2	2	4	1	1	1	1	5
38	42	1	1	2	3	3	2	5	4	5	2	1	5
39	44	1	1	2	2	1	2	4	1	1	2	1	1
40	45	1	1	4	3	3	2	5	2	1	1	1	3
41	46	1	1	2	1	6	2	5	1	5	1	4	1
42	47	2	1	2	3	6	2	5	5	5	5	3	5
43	50	2	2	2	1	4	2	1	1	5	1	1	3
44	51	1	1	2	4	5	2	5	4	1	1	1	5
45	52	1	2	2	1	5	2	5	1	1	3	1	5
46	53	1	2	2	3	3	1	3	4	1	1	4	3
47	54	1	1	3	4	3	2	5	4	2	1	4	4
48	55	2	1	2	2	3	2	6	4	3	4	1	5

	∅ ID	Whatisyoura ge	Whatisyours ex	Whichraceor ethnicitybest describesyo	TypeofHighS & choolAttend ed	WhichProvin ceisyourHig hSchoolin	Didyouhave acareerguid ancecouncil	Inwhichgrad didyoumak eyourcareer	Parentaladvi ce	Peeradvice	SocialMedia	Careerguida nce	Earningpote ntial
49	56	1	2	2	2	4	2	4	3	1	4	1	4
50	57	1	1	2	4	2	1	2	2	3	2	4	4
51	58	1	1	2	4	3	2	3	4	2	3	4	5
52	59	1	2	2	3	3	1	2	5	4	4	5	3
53	61	1	1	2	3	4	2	6	3	1	1	1	1
54	62	1	1	2	4	3	2	5	2	2	2	1	2
55	63	1	1	2	2	2	2	4	1	1	5	1	4
56	64	1	1	2	3	4	1	5	2	1	1	1	1
57	65	1	1	2	4	3	2	5	3	1	4	1	5
58	66	1	1	2	3	2	2	5	3	1	1	1	4
59	67	2	2	2	3	2	2	1	1	5	5	1	5
60	68	1	3	2	3	5	2	2	4	2	1	1	1
61	69	2	2	2	3	1	2	5	3	1	1	3	4
62	70	1	1	6	4	3	2	5	4	2	1	4	5
63	71	1	1	2	2	6	2	3	1	1	1	1	2
64	72	1	2	2	2	5	2	5	2	3	1	1	2
65	73	1	1	2	2	3	2	3	2	1	1	2	1
66	75	1	2	2	4	3	2	4	1	1	2	1	2
67	76	1	1	2	4	3	1	5	5	1	3	4	5
68	79	1	3	3	3	3	1	3	1	4	1	2	5
69	80	1	2	4	4	3	1	4	4	2	1	3	4

	∳ ID	& Whatisyoura ge	Whatisyours ex	Whichraceor ethnicitybest describesyo	TypeofHighS choolAttend ed	WhichProvin ceisyourHig hSchoolin	Didyouhave acareerguid ancecouncil	Inwhichgrad edidyoumak eyourcareer	Parentaladvi ce	Peeradvice	SocialMedia	Careerguida nce	Earningpote ntial
70	81	1	2	3	3	3	2	5	2	3	3	1	5
71	82	1	1	2	4	1	1	2	5	1	1	3	3
72	83	1	1	3	4	1	1	3	2	1	1	3	4
73	84	1	2	2	4	1	1	4	5	4	1	3	2
74	85	1	1	6	4	1	1	3	1	1	1	3	1
75	86	1	3	4	4	1	1	3	5	1	1	3	5
76	87	2	2	2	1	4	2	5	1	1	1	1	5
77	88	2	2	2	2	3	2	5	2	3	1	1	5
78	89	1	1	6	3	3	1	2	4	1	1	3	4
79	90	1	1	6	3	3	1	2	3	3	1	3	3
80	92	2	1	5	3	4	2	5	1	4	4	1	4
81	93	1	1	4	4	4	1	2	5	1	3	3	5
82	97	1	2	2	4	3	1	5	5	4	1	3	5
83	98	1	1	2	3	3	1	3	2	2	2	3	2
84	101	1	2	2	3	3	1	2	5	4	1	3	1
85	103	1	1	2	3	4	2	4	4	2	2	4	5
86	104	1	2	2	2	9	2	3	4	1	4	1	3
87	106	1	1	2	3	6	2	1	2	1	4	3	5
88	107	1	2	2	1	4	2	5	1	1	2	1	2
89	109	1	2	2	1	4	1	5	2	2	1	1	4
90	110	1	1	2	2	9	2	1	5	2	4	1	1

	∳ ID	& Whatisyoura ge	Whatisyours ex	Whichraceor ethnicitybest describesyo	choolAttend	WhichProvin ceisyourHig hSchoolin	Didyouhave acareerguid ancecouncil	Inwhichgrad edidyoumak eyourcareer	Parentaladvi ce	Peeradvice	SocialMedia	Careerguida nce	Earningpote ntial
91	113	1	1	2	1	1	1	5	1	1	1	1	2
92	114	1	2	2	2	9	2	5	5	4	1	2	5
93	116	1	2	2	2	3	2	4	3	2	1	1	4
94	117	1	2	2	2	3	2	3	2	1	4	5	5
95	118	1	1	2	1	4	2	5	2	2	4	1	2
96	123	1	2	2	2	1	1	3	1	1	2	2	1
97	124	1	2	2	2	6	2	5	3	1	3	1	1
98	125	1	2	2	2	4	2	1	2	4	1	1	5
99	126	1	2	2	2	2	2	2	4	4	1	2	5
100	129	1	2	2	1	6	1	3	4	4	5	1	5
101	130	1	2	2	3	1	2	5	5	2	1	2	5
102	131	1	2	2	1	6	2	4	1	4	5	1	5
103	132	1	2	2	3	3	1	2	5	4	3	3	5
104	133	1	2	2	1	6	2	5	2	3	1	2	5
105	134	1	1	3	3	6	2	4	3	1	1	1	5
106	135	1	1	2	1	1	2	3	3	2	3	1	4
107	136	2	1	2	1	4	2	5	5	1	1	1	4
108	137	1	1	5	4	4	1	2	3	3	1	4	2
109	139	1	1	3	3	8	1	3	3	2	2	2	5
110	140	1	1	5	3	3	1	3	4	1	1	3	4
111	141	1	3	6	3	3	1	3	5	4	1	3	2

	∳ ID	Whatisyoura ge	Whatisyours ex	Whichraceor ethnicitybest describesyo	achoolAttend	WhichProvin ceisyourHig		Inwhichgrad edidyoumak eyourcareer	Parentaladvi ce	Peeradvice	SocialMedia	Careerguida nce	Earningpote ntial
112	142	1	3	6	4	3	1	2	2	1	5	2	5
113	143	1	1	2	4	1	1	2	2	1	2	4	2
114	145	1	1	3	3	6	2	3	2	1	3	3	2
115	146	1	1	3	3	1	1	3	2	1	3	2	4
116	147	1	1	5	3	4	2	3	4	1	1	4	5
117	148	1	1	3	3	2	2	5	4	4	1	2	5
118	149	1	1	5	4	4	1	3	3	1	3	3	4
119	150	2	2	4	3	4	2	5	2	2	2	1	2
120	151	1	1	2	1	1	2	2	5	1	1	1	4
121	152	1	1	3	3	2	1	3	4	4	1	4	1
122	153	1	2	2	2	3	2	3	2	3	1	1	5
123	156	1	1	1	4	3	1	3	4	1	4	1	5
124	157	1	1	3	3	2	1	2	1	1	1	1	5
125	158	1	1	5	3	4	2	5	2	1	2	1	4
126	159	1	1	3	3	1	1	3	2	1	1	4	1
127	160	1	1	2	3	5	2	3	3	3	1	1	3
128	161	1	1	3	2	7	2	3	3	3	5	1	5
129	162	1	1	2	2	6	2	3	4	1	1	1	3

Appendix 2

Sample suitability

			Cor	relations								
		Q8: Parental advice	Q9: Peer advice	Q10: Social Media	Q11: Career Guidance Councilor	Q12: Earning potential	Q13: Chances of securing work upon qualification	Q14: Course affordability	Q17: Career of a close relative	Q15: Career's prestige	Q16: Assessment result recommendati ons	Q18: Persona Values
Q8: Parental advice	Pearson Correlation	1	,233**	-,112	,339**	,216*	,276**	,230**	,364**	,128	,353**	,12
	Sig. (2-tailed)		,008	,205	<,001	,014	,002	,009	<,001	,149	<,001	,144
	N	129	129	129	129	129	129	129	129	129	129	12
Q9: Peer advice	Pearson Correlation	,233**	1	,131	,135	,179	,111	,133	,119	,233**	,089	,230
	Sig. (2-tailed)	,008		,139	,127	,042	,209	,132	,179	,008	,317	,00
	N	129	129	129	129	129	129	129	129	129	129	12
Q10: Social Media	Pearson Correlation	-,112	,131	1	-,036	,166	,029	-,009	-,011	,249**	,086	,08
	Sig. (2-tailed)	,205	,139		,689	,060	,748	,917	,900	,005	,332	,35
	N	129	129	129	129	129	129	129	129	129	129	129
Q11: Career Guidance	Pearson Correlation	,339**	,135	-,036	1	,078	,119	,077	,101	,106	,273**	,13
Councilor	Sig. (2-tailed)	<,001	,127	,689		,381	,178	,383	,254	,231	,002	,12
	N	129	129	129	129	129	129	129	129	129	129	12
Q12: Earning potential	Pearson Correlation	,216*	,179*	,166	,078	1	,517**	,248**	,175*	,269**	,024	-,01
	Sig. (2-tailed)	.014	.042	.060	,381		<,001	.005	.047	.002	.785	,88,
	N	129	129	129	129	129	129	129	129	129	129	12
Q13: Chances of securing	Pearson Correlation	,276**	,111	,029	,119	,517**	1	,374**	,271**	,117	,050	,06
work upon qualification	Sig. (2-tailed)	.002	.209	.748	.178	<.001		<.001	.002	.188	.574	,48
	N	129	129	129	129	129	129	129	129	129	129	12
Q14: Course affordability	Pearson Correlation	,230**	,133	-,009	,077	,248**	,374**	1	,073	,170	,182*	,16
	Sig. (2-tailed)	.009	.132	.917	,383	.005	<.001		.412	,054	.039	.06
	N	129	129	129	129	129	129	129	129	129	129	12
Q17: Career of a close	Pearson Correlation	,364**	,119	-,011	,101	,175	,271**	,073	1	-,001	,052	-,06
relative	Sig. (2-tailed)	<.001	.179	.900	.254	.047	.002	.412		.992	.557	.46
	N	129	129	129	129	129	129	129	129	129	129	12
Q15: Career's prestige	Pearson Correlation	,128	,233**	,249**	,106	,269**	,117	,170	-,001	1	,260**	,395
	Sig. (2-tailed)	,149	,008	,005	,231	,002	,188	,054	,992		,003	<,00
	N	129	129	129	129	129	129	129	129	129	129	12
Q16: Assessment result	Pearson Correlation	,353**	,089	,086	,273**	,024	,050	,182*	,052	,260**	1	,361
recommendations	Sig. (2-tailed)	<.001	,317	,332	.002	.785	,574	.039	,557	,003		<.00
	N	129	129	129	129	129	129	129	129	129	129	12
Q18: Personal Values	Pearson Correlation	.129	.230**	.082	.135	-,013	.062	.166	066	,395**	.361**	
	Sig. (2-tailed)	.144	.009	,353	,127	.884	.487	,060	.460	<.001	<.001	
	N	129	129	129	129	129	129	129	129	129	129	129

^{**.} Correlation is significant at the 0.01 level (2-tailed).

^{*.} Correlation is significant at the 0.05 level (2-tailed).

Appendix 3

Consistency matrix

Philosophy	Research hypothesises	Sections in literature review	Approach	Strategies	Methods	Data	Analysis
						Collecting	Techniques
						Techniques	
Positivism	H1: There is a positive	2.2. CAREER DECISION-MAKING	Deductive	Survey	Mono	Questionnaire	SPSS
	relationship between	PROCESS			method		statistical
	Internal factors and career	2.2.1. Parsons Model					software
	decision-making.	2.3. CAREER DECISION-MAKING					
	H1a: Personality and	THEORY					
	Aptitude positively	2.3.1. Social Cognitive Career Theory					
	influences career	2.3.1.1. Self-Efficacy					
	decision-making.	2.3.1.2. Outcome Expectation					
	H1b: Personal values	2.3.1.3. Contextual Variables					
	positively influences	2.4. EXTRINSIC AND INTRINSIC					
	career decision-making.	FACTORS					
	H1c: Career prestige	2.4.1. EXTERNAL FACTORS					
	positively influences	2.4.1.1. Parental Advice					
	career decision-making.	2.4.1.2. Peer Advice					
		2.4.1.3. Career Counselling					
		2.4.1.4. Affordability					

H2: There is a positive	e 2.4.1.5. Employability
relationship between	2.4.2. INTERNAL FACTORS
external factors and	2.4.2.1. Personality and Aptitude
career decision making.	2.5. LESS COMMON FACTORS2.6.
H2a: Parental Advice	CONCLUSION
positively influences	3
career decision-making.	
H2b: Peer influence	;
positively influences	3
career decision-making.	
H2c: social media	a
positively influences	3
career decision-making.	
H2d: Career counselling	3
positively influences	3
career decision-making.	
H2e: Earning potential	1
positively influences	3
career decision-making.	
H2f: Chances of securing	j
work upon qualification	1

positively influences			
career decision-making.			
H2g: Course affordability			
positively influences			
career decision-making.			
H2h: Career of a close			
relative positively			
influences career			
decision-making.			